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"Local Healthcare Services & Global Perspectives"

# **INTERNATIONAL HEALTHCARE MANAGEMENT CONFERENCE (IHMC)**

"15-17 JUNE 2015"

## **PROCEEDINGS**

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## MESSAGE HOST

Welcome to the International Healthcare Management Conference

Dear Colleagues ,

Welcome to the First International Healthcare Management Conference. Gümüşhane University is proud to serve as the 2015 host for this esteemed and important academic meeting.

We trust you will find Gümüşhane and Gümüşhane University full of warm and welcoming traditional Turkish hospitality.

Conference participants will be arriving from literally all around the world, including the United States, Denmark, Morocco, Australia, Persian, among others. You will have excellent opportunities to hear about global health care issues that affect all of us, and to share ideas, new knowledge, and solutions, in hopes of creating strategies to transform and improve the health of populations.

We are confident that the lectures, seminar presentations, and large and small group sessions will benefit you in your field of work. We also expect that you will have many opportunities to visit with your colleagues, meet new friends, and take in all that Gümüşhane has to offer.

On behalf of the conference planning committee, Kings College, and Gümüşhane University, we are pleased and honored that you have joined us, and thank you for visiting our part of the world.

Sincerely,

Prof. Dr. İhsan GÜNAYDIN  
Rector  
Gümüşhane University

## MESSAGE FROM THE CONFERENCE PROGRAM CHAIRS

Dear Conference Participants,

Many developed countries recognize health as a basic human right and assume collective responsibility for providing access to health care to all of their citizens. However, extension of the human life span, rapid development of new technology and advanced treatment methods, and significant increase of health care expenditure as a share of national and family incomes necessitate efficient and effective provision of health services as well as their professional management in all countries.

Like other sectors, globalization in the health care sector brings innovation, advantages, as well as challenges to health care consumers; it requires close communication between countries, increased patient mobility, and easy access to health information. Clearly, there is a need to assume a global perspective in managing and developing the health care sector. Indeed, global trends and developments in health care affect national health care systems, presenting several opportunities and significant threats. Health policy makers and managers cannot afford to manage their systems and institutions without taking into account these global opportunities and threats. In addition to these global dynamics, many developed and developing countries are currently initiating reforms to meet the increasing demand for health care services while improving quality and ensuring financial sustainability. We have much to learn from the experiences of countries working on reform efforts.

This conference is organized under the leadership of two universities with strong health care management departments: Gümüşhane University and King's College. Gümüşhane University is located in Turkey, the intersection of Europe, Asia, and Africa, where the World Health Organization recently recognized successful implementation of health reforms. King's College is located in the USA, a country recognized as leader of health technology and research, but like many other developed countries, still faces significant health care access, cost, and quality challenges.

The main aim of this conference is to serve as a professional platform and network to exchange knowledge, information, and experiences about current health care management trends and health reforms between national and international health care management academicians, policy makers, practitioners, managers, and students. We also hope that the conference will further contribute to the global recognition of health care management as an important and growing profession.

We look forward to welcoming you to our conference.

Sincerely,

**Asst. Prof. Dr. Sedat BOSTAN**  
Co-Conference Chair  
Gümüşhane University, Turkey

**Prof. Dr. Fevzi AKINCI**  
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# CONTENTS

Hospital Management .....	17
Organization Behavior Of Health Institute .....	19
Patient Right And Safety .....	20
Satisfaction Of Patient.....	21
Quality Of Life .....	22
Student Proceedings.....	23
Posters .....	24
Honoured Guest Biographical Sketch .....	25
Honoured Guest Biographical Sketch .....	26
<b>HOSPITAL MANAGEMENT</b>	
Importance Of Radiation Safety And Awareness Of Radiology Technicians In Terms Of Hospital Management .....	29
Health Inequalities Between Countries .....	31
Factors Having Influence Upon Patients Hospital Preference: Nevşehir Province Public Hospital Sample .....	33
Visits Abroad In Terms Of Health Management .....	39
The Technical Efficiency Of Outpatient Services In Turkish Public Hospitals: A Stochastic Frontier Estimation .....	45
Assessment Of Physicians About Community Health Centres According To The Urban And Rural; Turkey Sample .....	51
Effect Of Intellectual Capital On Company Innovation A Research For Health Administration.....	55
Management Of Risks By The Fmea Method In Moroccan Health Institutions: Case Of Pathological Anatomy And Cytology Laboratory In Rabat .....	67
Institution Of Quality Management In Moroccan Hospitals: “Case Of Ibn Sina University Hospital Centre Of Rabat” .....	69
Measuring Process Performance Within Healthcare Logistics A Decision Tool For Selecting Measuring Technologies .....	51
What Are The Islamic Discussions About Surrogacy Matherhood That Connected To The Several Advanced Medical Technology? .....	79
The Analysis Of Private Hospitals’ Mission Statements In Terms Of Stakeholders.....	81
Health Effects Of Energy Part Of Employees To The Thermal Insulation In Hospitals About Saving Ideas .....	87
Activity-Based Costing And Management In A Hospital-Based Endoscopic Surgery Unit..	93
Effects Of Performance Based Payment System On Hospital Productivity .....	97
Comparison Of Female And Male Nurse Managers’ leadership Style .....	105

A New Approach To The Organizational Management:Using Coso Model In Human Resource Management In Health Care .....	111
Effects Of Enviromental Trust On Identification In A University Hospital.....	117
A Current Situation Analysis About Disaster Management Of Public Hospitals Of Gümüşhane And Its Districts .....	121
Development Of “Medical Device Calibration General Evaluation Form” For Medical Device Users .....	127
Segment Differences In Social Marketing Health Interventions.....	143
Assessing The Return Of Investment On Heart Disease Prevention/Management Programs At The Workplace.....	149
Perception Of Leadership And Organizational Commitment Hospital Workers.....	161
Effect Of Per Capita Income On The Regional Distribution Of Physicians: Growth Curve Model.....	165
Balanced Scorecard Applications In Health Care .....	175
Evaluation Of Shift Work In Oral And Dental Healt Centers From Employees’ Point Of View .....	183
Historical Development Of Health Management Training In Turkey .....	191
Medical Technology And The Impact Of Health Care Expenditure .....	199

## **ORGANIZATIOn BEHAVIOR OF HEAlTH INSTITuTE**

Factors Affecting The Decision Making Process In Healthcare Institutions.....	203
The Management Of Corporate Reputation In Health Care Institutions: A Research Study For Measuring The Perception About Corporate Reputation Of Employees Working In Public And Private Hospitals .....	213
Medical Personnel’s Duty To Notify Known Crimes .....	225
The Effect Of The Organizational Cynicism And Psychological Contract On Turnover Intention: A Research For Health Care Workers.....	231
What Are The Motivation Factors For Physicians Who Candidate For Managerial Positions? The Relationship Between The Need For Power, The Need For Achievement And Professional Performance .....	241
Stakeholders’ Views On Training Personal Care Givers A Transnational Study.....	247
Evaluation Of Leadership Styles, And Health Worker Performance In Hospitals .....	255
Mushroom Management Theory In Health Sector.....	259
An Evalauation Of Health Care Personnel Employed In The Public Health Agency Of Turkey In Terms Of Business-Family Life Conflict.....	263
Effect Of Laborers’ Overqualification Perception On Job Satisfaction: An Empirical Study On Health Sector.....	273
The Relationship Between Clinical Competence And Job Satisfaction In Shahid Montazery Hospital Nurses, Najafabad City, Iran .....	283
Workaholism In Healthcare Professionals.....	289



Relationship Organizational Culture And Organizational Commitment In Health Institutions .....	297
The Levels Of Burnout Of Health Employees: An Example Of Society Healty Foundation.....	305
Psychological Violence (Bullying): Research On Employee Health Professionals In The Emergency Department In Muş State Hospital .....	311
Utilization Of Health Services In Turkey: Analysis Of Turkstat Surveys Between 2010-2012 .....	319
Investigation Of Sociotropic And Autonomic Personality Traits Of Healthcare Management Students In Terms Of Some Socio-Demographic Variables.....	325
Attitudes Toward Physician-Nurse Collaboration In Pediatric Oncology Hospital.....	331
Analyzing Self-Efficacy-Competence Levels Of Nursing Students And Variables That Effects These Levels.....	337
Risk Management In Employee Safety.....	343

## **PATIENT RIGHT AND SAFETY**

A Study On Patient-Physician Relations With The Framework Of Agency Theory: The Sample Of Isparta Province Center Hospitals .....	353
Malpractice Among Nurses: Trend To Error And Its Causes .....	359
Determine The Attitudes Of Nurses Who Are Working On Patient Safety In The Emergency Room.....	365
Occupational Risks In Health Care Workers And Employee Safety Concept.....	377
Tendency Of The Nurses Working In Erzurum Towards Medical Error.....	383
Examining The Employee Satisfaction And Quality Assessment Scores Of Public Hospitals .....	389
The Evaluation Of The Awareness In Occupational Health And Safety: A Field Study For Healthcare Professionals .....	395
The Attitude Survey Of Nurses And Technicians For Work Safety.....	403
Evaluation Of Physical Risk Factors Biochemistry Laboratory Staff Suffer With Fmea Analyse.....	411
The Needlestick And Sharps Injury Encountering Situations Of Nurses And The Methods They Followed After Encounter.....	423
Psychological, Social And Economic Effects Of Medical Malpractice On Patients And Their Relatives.....	433

## **SATISFACTION OF PATIENT**

Seasonal And Migrant Farmworkers' Satisfaction Level Of Health Care Services In Semi- Rural Areas Of Eskisehir .....	443
Comparision Between The Queuing System And Appointment System In Hospitals With Patient Satisfaction: Gumushane State Hospital.....	451
Elderly And Their Attitudes, Satisfaction And Usage About Health Services In Turkey..	463

Patient Safety Concept And Its Importance.....	467
Satisfaction Of Hospital Inpatient And Their Companion From Hotel Services .....	471
Adolescents And Dental Health: Examining Rising Costs And Financial Barriers .....	479
Determining The Satisfaction Levels Of Patients Using The 112 Emergency Health Services: Sample Of Konya.....	485
End User Satisfaction In Hospital Information Systems: A Research In Aegean Region ...	491
Patient Satisfaction In Health Services: A Comparative Study In University And State Hospital.....	497
Patient Satisfaction In Family Medicine Practice.....	503
Services In Semi-Rural Areas Of Eskisehir.....	509

## **QuAITY OF IIFE**

Using Social Media For Health Issues: A Study On The Students Of Vocational High School Of Health Services .....	519
Kidney Transplant Outreach Network (In The Eastern Province): A Step Towards Integrated Transplant Care In Saudi Arabia .....	521
Comparative Investigation Of Management Of Elderly Care Services In The World And Turkey.....	523
The Evaluation Of Quality Of Life Of Families Who Get Social And Economic Support: Konya Sample .....	525
Autonomy In Adolescence With Diabetes I: A Psychosocial Nursing Approach (Oral Preentation).....	533
The Existing Definitions Of Quality Of Life In Cancer Patients.....	535
Dental Malpractice: Dealing With A Rising Problem In Turkey.....	537
Babies Are First: They Need Their Own Parent Especially For First Years.....	541
Direction Of Health Expenditures In Turkish Social Security System Of 2000s .....	547
The Importance Of Ergonomics In Terms Of Employee Health: A Field Of Research ...	553
Social Marketing Approach In Increasing The Organ Donations: An Attitude Study Aimed At Organ Donations .....	563
Social Media Perception Of Undergraduates .....	571
Aging And Aging Policies In Turkey.....	579
Hip Replacement In Austria - Modelling The Economic Burden Due To Obesity .....	585
Poverty Of Elderly Population And Social Policy Practises In Turkey .....	593
Establishing Disability Database Of Gümüşhane Province.....	601
The Effect Of Social Support On The Life Quality Of The Patients Hospitalized In The Meram Medical Faculty Of The Necmettin Erbakan University .....	607
Organizational Identification And Organizational Trust: A Research On Employees Working In A State Hospital Through Outsourcing.....	619

## **POSTERS**

The Influence Of Death To Nurses Working In Intensive Care Units.....	629
The Influence Of The Economic Crisis In Cardiovascular System.....	630
Risk Factors Of Senile Dementia .....	631
Genetic Factors And Mental Disorders .....	632
Mental Health In Hemodialysis .....	633
Aids And Mental Health.....	634
Arterial Hypertension In Children And Adolescents .....	635
Psychological Characteristics Sexual Exploited Children.....	636
The Psychological Impact Of Abortion.....	637
Acupuncture As An Alternative Method Of Treatment In Patients With Rheumatoid Arthritis (Poster).....	639



# HOSPITAL MANAGEMENT

Medical Technology And The Impact Of Health Care Expenditure :MortadhaAlhasemalssed

Factors Having Influence Upon Patients Hospital Preferences: Nevşehir Province Public Hospital Sample: Mehtap Aracı, Nuriye Kırsay

Visits Abroad In Terms Of Health Management, Vedat Argın,Turgut Şahinöz,Saime Şahinöz

The Technical Efficiency Of Outpatient Services In Turkish Public Hospitals: A Stochastic Frontier Estimation: Emre Atılğan

Assessment Of Physicians About Community Health Centres According To The Urban And Rural; Turkey Sample: Reşat Aydın,Egemen Ünal, Mehmet Enes Gökler, Selma Metintaş, Burhanettin Işıklı, Fatih Önsüz

Effect Of Intellectual Capital On Company Innovation A Research For Health Administration:Esra Çiğdem Cezlan

Management Of Risks By The Fmea Method In Moroccan Health Institutions: Case Of Pathological Anatomy And Cytology Laboratory In Rabat: Youssef El Hami, Najat Mahassini, Abdelkarim Filali-Maltouf

Measuring Process Performance Within Healthcare Logistics - A Decision Tool For Selecting Measuring Technologies: Diana Cordes Feibert, Peter Jacobsen

What Are The Islamic Discussions About Surrogacy Matherhood That Connected To The Several Advanced Medical Technology: Yılmaz Fidan.

The Analysis Of Private Hospitals Mission Statements In Terms Of Stakeholders: Ersin Irk, M.Fatih Karaca, Mesut Ardıç.

Health Effects Of Energy Part Of Employees To The Thermal Insulation In Hospitals About Saving Ideas: Halil İbrahim İçoğlu.

Activity-Based Costing And Management In A Hospitabased Endoscopic Surgery Unit: Ayşegül Yıldırım Kaptanoğlu, Fevzi Akıncı.

Effects Of Performance Based Payment System On Hospital Productivity: Şahin Kavuncubaşı, Salih Mollahaliloğlu, Selami Yıldırım, Hakan Kacak.

ComparisonOf Female AndMale Nurse ManagersLeadership Style:Sayedali Najji. Isfahan ( Khorasgan) , Maryam Karimi. Isfahan Reza Mannan

A New Approach To The Organizational Management:Using Coso Model In Human Resource Management In Health Care: Aslı Kaya, Ramazan Erdem.

Effects Of Enviromental Trust On Identification In A University Hospital: Ş. Didem Kaya, Y.Yalçın İleri, Aydan Yüceler.

A Current Situation Analysis About Disaster Management Of Public Hospitals Of Gümüşhane And Its Districts: Afşin Ahmet Kaya, Ceren Kaya.

Development Of “Medical Device Calibration General Evaluation Form” For Medical Device Users: Ramazan Kırsaç, Ömer R. Önder.

Perception Of Leadership And Organizational Commitment Hospital Workers: Arzu Türkmen, Gülnur Üçpınar Mert.

Segment Differences In Social Marketing Health Interventions: Tufan Özsoy

Assessing The Return Of Investment On Heart Disease Prevention Management Programs At The Workplace: Lauren Pote, Fevzi Akıncı

Effect Of Per Capita Income On The Regional Distribution Of Physicians: Growth Curve Model: Erdinç Ünal, Akın Dayan

Balanced Scorecard Applicationsin Health Care: Necla Yılmaz.

Evaluation Of Shift Work In Oral And Dental Healt Centers From Employees Point Of View: Mehmet Yorulmaz, Mustafa Demirkıran, Mehmet Gençtürk, Serap Taşkaya.

Historical Development Of Health Management Training In Turkey: Mehmet Yorulmaz, Mehmet Gençtürk, Mustafa Demirkıran.

# ORGANIZATION BEHAVIOR OF HEALTH INSTITUTE

Factors Affecting The Decision Making Process In Healthcare Institutions: Çağdaş Erkan Akyürek, Raya Sawalha, Sina Ide.

The Management Of Corporate Reputation In Health Care Institutions: A Research Study For Measuring The Perception About Corporate Reputation Of Employees Working In Public And Private Hospitals: Mehtap Aracı, Emine Genç.

Medical Personnel's Duty To Notify Crimes: Gökhan Avcı, Kübra Avcı.

The Effect Of The Organizational Cynicism And Psychological Contract On Turnover Intention: A Research For Health Care Workers: Ferda Alper Ay, Özgün Ünal.

What Are The Motivation Factors For The Doctors In Managerial Positions? The Relationship Between The Need For Power With The Need For And Achievement Performance: Halis Demir, Tarhan Okan, Sedat Bostan.

Stakeholders Views On Training Personal Care Givers A Transnational Study: Alper Güzel, A. Alper Ertem, Bülent Elbasan, Deran Oskay, Seyhan Fırat.

Evaluation Of Leadership Styles, And Health Worker Performance In Hospitals: Sait Söyler, Emre İşçi.

Mushroom Management In Health Sector: Taşkın Kılıç, Çiğdem Gülce.

An Evaluation Of Health Care Personnel Employed In The Public Health Agency Of Turkey In Terms Of Business-Family Life Conflict: Ramazan Kırac, Adem Bilgin .

Effect Of Laborers Overqualification Perception On Job Satisfaction: An Empirical Study On Health Sector: Bülent Kuzu, Uğur Berk, Mehmet Kahya, Hakan Bayramlık.

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Workaholism In Healthcare Professionals: Musa Özata, Çetin Bebe, Hilal Akman

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The Levels Of Burnout Of Health Employees: An Example Of Society Healty Foundation: Abdullah Soysal, Güler Sezgin Fedayi Yağar.

Psychological Violence (Bullying): Research On Employee Health Professionals In The Emergency Department In Muş State Hospital: Abdullah Soysal, Rabia Fırtına, Fedayi Yağar.

Utilization Of Health Services In Turkey: Analysis Of Turkstat Surveys Between 2010-2012: Arif Şahin, Rojan Gümüş.

Investigation Of Sociotropic And Autonomic Personality Traits Of Healthcare Management Students In Terms Of Some Socio-Demographic Variables: Hatice Ulusoy, Didem Gültekin, Sinem Sarıçoban

Attitudes Toward Physician-Nurse Collaboration In Pediatric Oncology Hospital: Kubilay Yalçınkaya, Yasemin Akbulut, Gamze Kutlu.

Analyzing Self-Efficacy-Competence Levels Of Nursing Students And Variables That Effects These Levels: Aysun Yeşiltaş., Orhan Adıgüzel

Risk Management Employee Safety: Aydan Yüceler, Ş. Didem Kaya, Serap Kılınç.

## PATIENT RIGHT AND SAFETY

A Study On Patient-Physician Relations With The Framework Of Agency Theory: The Sample Of Isparta Province Center Hospitals: Elif Akkaş , Ramazan Erdem.

Malpractice Among Nurses: Trend To Error And Its Causes: Fatma Er, Serap Altuntaş.

Determine The Attitudes Of Nurses Who Are Working On Patient Safety In The Emergency Room: Rasim Babahanoğlu, Şura Alan.

Occupational Risks In Health Care Workers And Employee Safety Concept: Sinem Somunoğlu İkinci.

Tendency Of The Nurses Working In Erzurum Towards Medical Error: Necmettin İşçi.

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Psychological, Social And Economic Effects Of Medical Malpractice On Patients And Their Relatives : Merve Tekinarslan, Ramazan Erdem .



## SATISFACTION OF PATIENT

Seasonal and Migrant Farmworkers Satisfaction Level Of Health Services In Semi-rural

Areas Of Eskisehir: Egemen Ünal, Reşat Aydın, Mehmet Enes Gökler, Selma Metintaş, Emine Ayhan, Tuğçe Koyuncu, Burcu Atalay, Fatih Öz, Burhanettin Işıklı.

Comparision Between The Queuing System And Appointment System In Hospitals With Patient Satisfaction: Gumushane State Hospital: Sedat Bostan, Fatma Çiftçi, Yıldırım Aydoğan

An Evaluation Of Calls Made To Sabim (Ministry Of Health Communication Center) Line Between The Years 2004 And 2009: Sedat Bostan, Fatma Çiftçi Taşkın Kılıç, Salih Gürhan.

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Patient Safety Concept And Its Importance: Sinem Somunoğlu İkinci.

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## QUALITY OF LIFE

Using Social Media For Health Issues: A Study On The Students Of Vocational High School Of Health Services : Aysu Kurtuldu, A. Alper Ertem.

Kidney Transplant Outreach Network (In The Eastern Province): A Step Towards Integrated Transplant Care In Saudi Arabia: Abdulrahman Housawi, Mohammed A. Alghonaim, Mohammed Saad Al Qahtani, Mohammad Akhtar Hossain, Mohammed Ibraheem Al Saghier

Comparative Investigation Of Management Of Elderly Care Services In The World and Turkey: Ebru Ezmek, Metin Ateş.

Health Effects Of Energy Part Of Employees To The Thermal Insulation In Hospitals About Saving Ideas: Halil İbrahim İçoğlu.

The Evaluation Of Quality Of Life Of Families Who Get Social And Economic Support: Konya Sample: Mehmet Kıriloğlu, Musa Özata.

Autonomy In Adolescence With Diabetes A Psychosocial Nursing Approach (Oral Presentation): Maria Lavdaniti, Sofia Zyga, Kerasina Papastergiou, Lambrini Kourkouta.

The Existing Definitions Of Quality Of Life In Cancer Patients: Maria Lavdaniti, Kerasina Papastergiou, Evanthia Manousaridou, Lambrini Kourkouta.

Dental Malpractice: Dealing With A Rising Problem In Turkey : Onur Nacakgedigi, Yusuf Poyraz, Esma Nacakgedigi.

Babies Are First: They Need Their Own Parent Especially For First Years: Latife Özaydin, Mehmet M. Özaydin.

Direction Of Health Expenditures In Turkish Social Security System Of 2000s: Mehmet M. Özaydin, Ömer Can Çevik, Necla İrem Ölmezoğlu.

The Importance Of Ergonomics In Terms Of Employee Health A Field Of Research: Mehmet Merve Özaydin, Elif Çelenk Kaya, Necla İrem Ölmezoğlu.

Social Marketing Approach In Increasing The Organ Donations: An Attitude Study Aimed At Organ Donations: Yunus Emre Öztürk, Hilal Akman, Ramazan Kırış.

Social Media Perception Of Undergraduates : Yunus Emre Öztürk, Fatma Çiftçi.

Aging And Aging Policies In Turkey: Esra Azime Parlak, Ramazan Erdem.

Hip Replacement In Austria - Modelling The Economic Burden Due To Obesity: Werner Siegl, Alexander Lassnig, Jörg Schröttner.

Powerty Status Of The Elderly Population Applications In Turkey And Social Services :Ceylan Sülü

EstablishingDisabilityDatabaseOfGümüşhane Province: Turgut Şahinöz, Saime Şahinöz, Aydın Kıvanç, Muhammed Ali Köroğlu.

The Evaluation Of Perceived Social Support And Life Quality Level Of Cancer Patients Who Cure In A University Hospital : Satı Yılmaz

Organizational Identification And Organizational Trust: A Research On Employees Working In A State Hospital Through Outsourcing : Saffet Ocak, Ömer Gider

## STUDENT PROCEEDINGS

An Approach To Health Management; Utilization Of Two-way Symmetry Model In Public Relations Department Of Health Care Services : Şengül Boşkut, Bahar Seven Fırat, Abdulaziz Ali Peksoy.

The Evaluation Of Turkey's European Union Process In Terms Of Health Politics By Health Managers: Onur Elataş, Sedat Bostan.

Evolution Of Patient Rights In World, Ethics And Legislative Regulations: Çiğdem Koçak, Sedat Bostan.

Lean Management In Hospitals: İzzet Demir

Social Signifiers Of Health And The Effects Of Local Governments: Hakkı İpek, Mehmet Hanif Kurul, Müjdat Yeşildal.

Disaster Risks Management In Health Institutions: Sample Of Turkey: Sıdkı Küçükkaya

The Evaluation Of Public Service Announcement Studies About Obesity In terms Of Health Communication: Selami Seven, Sümeyye Arslan, Şeyma Yıldız.

Health Care Services Financing And Payback Methods: Payment Based On DRG: Bünyamin Temiz, Emre Sütüoğlu, İbrahim Kızıldağ, Merve Şahin, Nazmiye Ekinci, Saliha Salih, Tuğçe Nur Dursun.

Health Care Managers Aspects About Time Management: Süleyman Uysal, Sedat Bostan

The Awareness Of Medical Tourism From The Viewpoint Of Healthcare Staff: Servet Uysal, Sedat Bostan

Perception Of Risk Assessment Of 112 Employees And Employees Under The Patient Safety: Aslı Köse Ünal, Hülya Bölük, Ayşegül Demirel.

Primary Healthcare Role On Health Promotion And Encouragement: Merve Yurdakul

The Evaluation Of Physical Risk Factors Threatening Biochemistry Laboratory Staff By FMEA Analysis : Mustafa Kemal Uslu

## POSTERS

Risk Factors Of Senile Dementia: Iliadis C, Ouzounakis P, Koukourikos K Papastergiou K, Tsaloglidou A, Kourkouta L.

The Influence Of Death To Nurses Working In Intensive Care Units: Tsaloglidou A, Koukourikos K, Georgoudi K, Lazaridou I, Kazakos K, Kourkouta L.

Acupuncture As An Alternative Method Of Treatment In Patients With Rheumatoid Arthritis : Kerasina Papastergiou, Maria Lavdaniti, Lambrini Kourkouta.

Genetic Factors And Mental Disorders: Monios A, Tsaloglidou A, Ouzounakis P, Iliadis C, Tsiliggiri M, Kourkouta L.

Mental Health In Hemodialysis: Ouzounakis P, Papathanassiou I, Iliadis C, Fradelos E, Monios A, Kourkouta L.

Aids And Mental Health: Iliadis C, Barelis G, Michalache A, Katsoulogiannakis D, Koukourikos K, Kourkouta L

Arterial Hypertension In Children And Adolescents: Kourkouta L, Bareli G, Papadopoulou L, Papoulia F, Iliadis C, Kleisiaris C

Psychological Characteristics Sexual Exploited Children: Kourkouta L, Bakalopoulou V, Kazakos K., Plati P., Iliadis C, Lavdaniti M.

The Psychological Impact Of Abortion: Kourkouta L, Lavdaniti M, Michalache A, Iliadis C, Tastsoglou K, Dimitriadou A.

The Influence Of The Economic Crisis In Cardiovascular System: Tsaloglidou A., Koukourikos K, Pantelidou P., Laskari K, Dimitriadou A, Kourkouta L.

# HONoured GUEST BIOGRAPHICAL SKETCH

YASAR A OZCAN, PH.D.

CHARLES P.CARDWELL, JR. PROFESSOR, VICE CHAIR AND DIRECTOR  
MSHA PROGRAM

Dr. Ozcan's specialties include mathematical modeling applications in health care, health care information systems, and general statistical applications. His scholarly work is in the areas of health systems productivity, technical efficiency, financial efficiency, and effectiveness for health care providers. More specifically, his specialty is focused on creating benchmarks for hospitals, physicians and other health care providers using Data Envelopment Analysis (DEA). Dr. Ozcan has been with Virginia Commonwealth University over 35 years. He is founding Editor-in-Chief of Journal of Health Care Management Science, a globally distributed and recognized research journal, currently on its 18th volume. Dr. Ozcan is active member of Health Care Applications Society of Institute for Operations Research and Management Science (INFORMS), and twice served this organization as president.

Dr. Ozcan is participant of various National Science Foundation panels, published over 80 refereed manuscripts in his core area of research-- health care provider performance. His publications are frequently cited in the field. He has two sole author books both in second edition. 1) Yasar A. Ozcan, Quantitative Methods in Health Care Management: Techniques and Applications, 2<sup>nd</sup> Edition. Jossey-Bass/Wiley, San Francisco, CA. 2009; 2) Yasar A. Ozcan, Health Care Benchmarking and Performance Evaluation, An Assessment using Data Envelopment Analysis (DEA) 2<sup>nd</sup> Edition., Springer, Newton, MA, 2014. These books are adapted as text books across the globe, including USA, The Netherlands, Austria, Canada, Taiwan, and Turkey. His quantitative analysis book has been translated into two foreign languages. During his academic career, he brought over \$2 million through grant & contracts to Virginia Commonwealth University.

Dr. Ozcan has been frequently invited as keynote speaker or expert trainer across the globe. Furthermore, he conducts collaborative research projects with international colleagues. He teaches Decision Support Systems in Health Care Management course for two masters programs with strong applications in the field through team projects. **This course covers the realm of "the health analytics" which became very popular in recent years.** He also teaches a methodology course for doctoral program where emphasis is on benchmarking health care providers.

Dr. Ozcan is a world traveler, so far he has visited over 650 cities in 95 countries in all seven continents. In his free time, he loves watching soccer games, and play backgammon with friends, most importantly spend time with Skyler, his 3-year old grandson.

# HONoured GUEST BIOGRAPHICAL SKETCH

MICHAEL A. COUNTe, PH.D.

Dr. Counte is currently a Professor, Director of the Executive MHA Program and Co-Director of the International Center for Advances in Health Systems Management in the Department of Health Management and Policy, School of Public Health, Saint Louis University. He has been on the faculty of the Department of Health Management and Policy since August 1994. Previously (1975-1994) he served as the Assistant Chairman of the Department of Health Systems Management and Associate Director of the Center for Health Management Studies within Rush-Presbyterian-St. Luke's Medical Center in Chicago, Illinois. He was also a co-founder of the Rush Center for Research on Health and Aging.

Since completing his graduate work in organizational behavior and health services research at the University of Illinois in Urbana-Champaign, Dr. Counte has been extensively involved in the design of multi-disciplinary programs within public health, medical and health services management programs. His primary research interests focus upon multidimensional assessment of hospital performance, evaluating the diffusion and impacts of large-scale organizational change (especially the implementation of comprehensive management information systems and quality management initiatives) and the effects of changes in health care policy such as managed care programs upon affected populations, especially older adults. He has co-authored several professional texts and over fifty refereed research articles and chapters.

Dr. Counte serves as a research and health care management development consultant to numerous organizations and agencies in the United States including various health care delivery organizations, the National Institute for Nursing Research, National Institute on Aging, National Institute on Drug Abuse, Agency for Health Care Policy and Research, Agency for International Development, Department of Veterans Affairs, Centers for Disease Control and the National Cancer Institute. He has also contributed to health care management improvement initiatives in Europe, China and Taiwan.

Thanks again.

INTERNATIONAL HEALTHCARE MANAGEMENT CONFERENCE (IHMC)

# HOSPITAL MANAGEMENT

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# IMPORTANCE OF RADIATION SAFETY AND AWARENESS OF RADIOLOGY TECHNICIANS IN TERMS OF HOSPITAL MANAGEMENT

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Şirin ÖZKAN<sup>1</sup>

Gökhan ABA<sup>2</sup>

## EXTENDED ABSTRACT

**The Problem of the Study:** Hospitals are health care institutions in which they are hosting many risks. Ionized radiation caused by medical applications is one of the most important risks that patients and workers are exposed. It is known that insufficient knowledge of radiation safety of health personnel can cause exposure high doses of radiation, powerless to take precautions to protect themselves and their patients. Therefore, evaluating the awareness of health staff at regular intervals and training in radiation safety is critically important. Hospital administration has large responsibilities on radiation safety, determination of hazards that can occur, planning required measures and protecting patients and staff from hazardous impacts of radiation. Evaluation of radiation safety in scope of patient and staff safety and continuous improvement view point is very important in increasing quality of services.

**The Purpose of the Study:** In that research it was aimed to assess awareness level, training needs and expectations of radiology technicians from hospital management working in all public hospitals in province of Kocaeli in order to improve patient and staff safety. In our research, having primary liabilities, being exposed most ionized radiation sources and having significant roles at providing radiation safety are the reasons that knowledge and expectations of radiation technicians from hospital management were evaluated.

**Method:** In this study the sample is not selected. All radiology technicians, working in all public hospitals in Kocaeli province (N = 182), are included in the study. The required permissions for the application the questionnaire was taken from hospital administrators. Surveys were applied in all public hospitals (N=10) in Kocaeli between 01.12.2014 -01.01.2015. 36 radiology technicians were on leave in the period of applying questionnaires. So questionnaires were sent online to 146 radiology technicians working actively. 96 of the questionnaires were answered and the sample of the study consists 96 radiology technician. The sample ratio representing the universe is 65,7%. Questionnaire is prepared by utilizing the literature from similar studies and related governmental regulations. The questionnaire consists of 23 questions and three sections. In the first part of questionnaire, there are 5 questions about demographic characteristics, the second part contains 17 general statements on radiation safety and the last section includes asking suggestions of radiology technicians to improve the working conditions. Data is analyzed using SPSS package. In analyzing data, frequency, pearson chi-square and exact tests were used. The significance was tested in  $p < 0.01$  and  $p < 0.05$  level.

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**Findings and Results:** According to the survey, 96.9% of radiology technicians are using personal dosimeters regularly, though only 70.8% of radiology technicians follows regularly the results of the dosimeters that they use. 65.6% of radiology technicians think that they are trained enough on radiation safety and only 57.3% of them received training on radiation protection or radiation safety. Only 45.8% of radiology technicians express that radiation measurement is performed in their working unit, 54.2% of them indicate that there is no Radiation Safety Committee in their hospitals, 52.1 % of them do not know who is responsible for radiation protection in their hospital, 54.3% of them think the responsible of radiation protection in their hospital is not acting to protect them. Only 26% of them are using lead vest during radiological shots and 26% of them make use of lead vest to their patients. There is similarity between radiology technicians using lead vest themselves and technicians using lead vest on their patients. Radiology technicians, using lead vest during shooting, care about their patients in using lead vest on their patients. 89.5% of technicians stated that doctors should be more careful on demands. According to research results, it is proposed to improve public hospitals managements' works on regular repeating training of radiology technicians on radiation safety, evaluation of radiation measurement regularly, activating radiation safety committees and increasing awareness of patients.

**Key Words:** Radiographers, hospitals radiation safety, radiation awareness

# HEALTH INEQUALITIES BETWEEN COUNTRIES

Gökhan ABA<sup>1</sup>

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## EXTENDED ABSTRACT

**The Problem of the Study:** Health rights, one of the most significant major human rights, which congenitally acquired. Also, human rights can be expressed as to reach the highest health standard possible right. It was guaranteed firstly by the United Nations Human Right Universal Declaration, as well as it was also guaranteed by International and National agreements as well. Despite these health coverages, unfortunately, most of the people cannot benefit from this right. These issues emerged by social reasons not vital (age, gender, genetics etc.) reasons, which has an ethical dimension, unnecessary (useless), preventable. Nevertheless it can be described as the meaning of unfair Health inequalities. Inequalities concept in health firstly emphasized in Alma-Ata declaration. From now on, inequalities of the health issues have still maintained its' importance. These inequalities are in central of major problems, which have been experienced globally and these issues also result in a big threat for Health. Moreover, the issues are adopted as in behind of the fundamental reason of factors, which affect the health in the negative way.

**The Purpose of the Study:** The main purpose of this study that find out the global dimension of the health inequalities. As for sub-objective of this study, to sort the inequalities of health of countries through variables that can be used for the measurements of health inequalities. Also ascertain the inequalities of the health according to the counties development levels and their fields.

**Methods:** In this retroactive descriptive research, all countries of the world generate the universe of the research. Initially, 194 countries, which are member of World health organization was required to include the research thought some of these countries could not provide enough current information. In consequence, totally 175 countries was included in this research. Therefore, 175 countries constitute sampling of the research. The sampling number represents 90.2% of universe. In order to identify the inequalities, 29 fundamental health indicators have been used. In the research, first of all, each information (variable) has been sorted according to the sequence number of the country's score (1-175). These scores have been assessed from the lowest rate to the highest rate. The country rankings are obtained by these scores, and they have been shown on a table and the world map. Beside this, distribution of health indicators has been shown in the charts form as reported by WHO's region and income groups.

**Findings and Results:** Germany has taken the first place in the ranking while Chad has taken the average of the lowest score according to this ranking system, which was obtained by these scores. It was identified that there is a powerful relationship between incomes level of countries and health inequalities. The countries those which have low incomes health indicators has been seen quite low especially in sub-Saharan African countries. The relationship between the

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development level of countries and health indicators is directly proportional, and this condition shows parallelism with the ranking system according to countries' health indicators scores.

Consequently, the big gap was founded among health indicators of between the countries. Regardless of the countries' development level and their regions, aiming of remove/reduce global health inequalities and also to provide happier and healthier life to people, it is thought that firstly UN, WHO and all related institutions are necessary to take more active role and take more concrete steps.

# FACTORS HAVING INFLUENCE UPON PATIENTS HOSPITAL PREFERENCE: NEVŞEHİR PROVINCE PUBLIC HOSPITAL SAMPLE

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Mehtap ARACI<sup>1</sup>

Nuriye KIRSAY<sup>2</sup>

## ABSTRACT

**The Problem of the Study:** In the current frame of global rivalry perceptive, new marketing policies and developing communication technologies have been added to personal, corporate and social factors that has affected patients' preferences since past. One of the most important factors of preferring a hospital may be the factor that depends on the patients' personality features. In fact, even if the service quality of a health organizations and the nature of whom serving or the way of communication carry some main criterias, the perception towards these criterias may show differences according to patient's educational and income status or age and gender. Thus, patients' satisfaction levels are affected by these differences. It is seen that hospital preferability that is affected by many variables having different levels of importance has become an important subject not only for profit-oriented health care organization but also for public health care ones.

**The Purpose of the Study:** The purpose of this study is to explain the customer satisfaction in the health care sector, the patients loyalty and offering an introductory infrastructure about the factors affect it. Moreover, it is aimed to analyze which traits/factors at which level related to whom serving patients and the organization affect the hospital preferences of patients who are taking health care service and whether the factors having a great impact on patients hospital preferences differentiate according to their demographical traits (educational and income status, age and gender).

**Method :** It was benefited from the information of the literature in the theoretical part of the study. A questionnaire was used as a data collection method for achieving the results of the field research. During the period in which the study was conducted, all of the 200 patients who were taking health care service in the polyclinic and service were included in the study through the questionnaire and face to face method was used. For statistical analysis it is benefited from SPSS (Statistical Package For Social Sciences) for SPSS 21.

**Findings and Results:** According to the findings of the study, on the hospital preference of the patients who appealed to Nevşehir Public Hospital, the 17 expressions in Likert type partaking in the questionnaire are highly effective. Accordingly, it is found that these expressions have a great influence in the patients hospital preference and the agree levels to these expressions do not statistically differ according to gender and age and statically differ according to income status.

**Key Words:** Hospital Preference, Marketing of Health Services, Health Services Utilization

## 1. INTRODUCTION

In order to become a preferred hospital by the consumer in the increasing competitive environment, health services managers have to analyze the purchasing behavior of patients,

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those who are decision-makers in hospital preference and have an effect on the decision and the factors affect their decision. (Tengilimoğlu, Işık and Akbolat, 2009:10). Being satisfied with the hospital leads the patient to choose this hospital again. Whereas preferences are affected from the service quality of hospitals and the efforts to increase customers satisfaction and create loyalty, they are also influenced by patients' social, cultural, economic conditions and some demographical traits such as age, gender, educational and income state. In this study, firstly being dwelled on the terms of client satisfaction and patient loyalty that have highly influence upon hospital preferences and considered to differ according to mentioned demographical traits.

## 2. THE CONCEPTUAL FRAMEWORK

**21. Customers Satisfaction in Health Care Sector and the Factors That Affect It:** In the past, while the customers of health organizations were mentioned, only patients were coming to mind but today “all individuals and organizations that take part in the process of health services production” are accepted as “a client” (Kavuncubaşı, 2000: 292-293). Patients as consumers evaluate hospitals in terms of their various properties. Whereas these features primarily include services, quality and cost of hospitals; the hospital staff doctors, the tools used in the treatment, health care planning, treatment methods and problem solving methods are available among these features as well (Stephens, 2010:16; Akdoğan, 2011:13).

In the study made by Cronin and Taylor (1994) besides the performance and physical features of the offered product, customer expectations and perceived quality performance are also in the factors that affect and create customer satisfaction (Cronin and Taylor, 1994:8). While the perceived performance may have a relationship with the customer's social, economic and cultural features, it may also have a relationship with his demographical features such as age and gender. While all of the features may create a positive impact on the patients and their relatives' satisfaction levels of the health care service they are taking, it may also affect their loyalties.

**22. The Concept of loyalty and Customer loyalty in Health Care Sector:** Unsatisfied customers show fewer tendencies to buy the same product or brand than the satisfied customers (Nakıboğlu, 2008:74; Kim, etc., 2008:1311). The concept of loyalty is described by Lee and Lee's cooperators (2001:55) as while recommending the products of the company to others, costumers continue to buy the same brand and products when needed. Accepted to have influence upon loyalty while “satisfaction is related to what people say, loyalty is related to what people do and for this reason, if the patient is satisfied, it can be referred that there is a strong cause effect relationship between each other” (Boulding etc., 1993:7).

As it is seen; some other former studies done related to loyalty and satisfaction have accepted that these two concepts associated with each other, in a sense, have been emerged as a result of patients' perceptions. In other words, some features sourced by patient and organization that can affect the perception, may influence the satisfaction and loyalty levels and accordingly they may affect the hospital preference.

## 3. RESEARCH

**3.1. Research Model:** It is seen that some studies of the same nature deal with the factors affecting the patients' hospital preferences but they do not search the situation that the agreement situation on these factors show differences according to some demographical features that are expected to influence the patients' preferences. In addition, it is seen that they do not reveal finding about this issue. 2 study questions and 4 hypotheses were identified in

order to simplify the research of the subjects that are the roof of the study method and in order to regard the gap in the literature.

**3.2.The Type of the Research, Main Population and Sample:** As of its nature the research is a descriptive one and results to be achieved is to demonstrate the current situation. 200 patients taking health services in the polyclinic and service in the public hospital in Nevşehir province were included in the study through a questionnaire. As the patients participating in the study composed % 100 of the universe, the integral sampling has been made.

**3.3. Data Collection Method and the Statistical Analysis of the Collected Data:** The questionnaire consists of 9 descriptive questions and 17 expressions in 5-point Likert-type. The descriptive questions were prepared by a researcher according to relevance and based on expert opinion. The 17 expressions in 5-point Likert-type were prepared by benefiting from the study Locating Services in the Health Care Sector: Public Hospitals Sample Application in Ankara Province by Cantürk (2012:157). The questions of the questionnaire with the participants were carried out through a face to face method and within the working hours.

While evaluating the obtained finding from the study, for statistical analysis it was benefited from SPSS (Statistical Package For Social Sciences) for SPSS 21, descriptive statistical methods such as number, percentage, mean, standard deviation, for Independent Groups t-test and Anova Test were used. The results were evaluated between % 95 confidence interval, at  $p < 0,05$  significance level.

**3.4. Reliability Analysis:** Reliability of the 17 expressions in the second section of the questionnaires were tested and the reliability coefficient was found to be 0,865.

The coefficient of skewness of the data set related to the factors having impact on patients hospital preferences is -1,451 and its kurtosis coefficient is 3,325. For a normal distribution the coefficients was accepted to be between -2 and +2. According to some sources, if the required sample number is enough, after (-, +) 3.26 the skewness and kurtosis is reached, the data set shows a normal distribution (Tütüncü, 2012; Kalaycı, etc., 2008:13). For the analysis of the answers given to the scale questions, for the obtained average values the results between 1.0-2,5 (including 2,5) as low level, the results between 2,5-3,5 (including 3,5) as average and the results between 3,5-5,0 were evaluated as high level. In this evaluation expert opinions were used.

## **4.CONCluSIONS AND FuTuRE PROJECTIONS**

**4.1. Findings Related to the Impact levels of the Factors that Affect the Hospital Preferences of the Participants in the Sample Group:** Table 1 includes information about the sample group descriptive features. Through the research question and Simple Frequency Analysis the obtained statistical finding in relation to the mean are as follows:

**Question 1:** Which factors at which level are influenced upon patients hospital preferences?

The mean values of the answers for each expression of the scale are shown in Table 2 According to the table the agreement level of all patients participated in the questionnaire on each expression is high. All of the expressions were used to test the hypothesis developed because the agreement level to the expressions is high.



**Table 1: The Descriptive Features of the Participants in the Sample Group**

Gender	Frequency	%	Educational Status	Frequency	%
Woman	84	42	Primary Education	92	46,0
Man	116	58	High Schools and Their Equivalents	60	30,0
<b>Total</b>	<b>200</b>	<b>100</b>	Associate Degree, Undergraduate and Above	48	24,0
Age	Frequency	%	Income Status	Frequency	%
20 and Below	26	13	No Income	77	38,5
21-40	101	50,5	Minimum Wage and Below	35	17,5
41-60	57	28,5	Minimum Wage and 1500 TL	34	17
61 ve Üzeri	16	8	1501 TL and Above	54	27

**Table 2: Findings Related to Factors Affecting the Hospital Preferences of the Participants and Their Impact level**

EXPRESSIONS	F	CHANGE LEVEL	
Staff's sincerity and interest would be important	4,69	Making the payments easy would be important	4,45
Getting information easily would be important	4,64	During the diagnosis and treatment processes, all transactions being done in the hospital would be important	4,68
Transaction would be important	4,63	Accessing to the doctor easily when needed would be important	4,56
Offered service quality would be important	4,63	Being close to my workplace, home would be important	4,35
The interest of the patient acceptance would be important	4,60	The promotions that the health care organization do would be important	4,29
Sufficiency of physical opportunities would be important	4,55	The doctors going to the health programs would be important	4,18
Existence of high-tech tools would be important	4,56	Kith and kin recommendation would be important	4,43
The organization having a reliable image would be important	4,57	The doctor's recommendation would be important	4,56

The second research question prepared for the purpose of the study and obtained data by testing the 4 hypothesis are respectively given below.

**Question 2:** Do the agreement levels to the factors that have a great impact on the hospital preference show any difference according to some of patients demographical features?

**H<sub>1</sub>:** The agreement level to the factors that have a great impact on the hospital preferences of the patients differ according to gender.

When double-sided t-test results were analyzed between 0.95 (1- $\alpha$ ) confidence interval, for 17 expressions separately tested this hypothesis, each of the Sigma (2-tailed) values was found to be higher than the  $\alpha$  value (0.05 = significance level). Therefore, Hypothesis 1 (H<sub>A</sub>) was REJECTED for 17 expressions. In other words, the agreement levels to the factors/expressions that determined to have a great impact on patients hospital preferences, statically do not differ according to gender.



**H<sub>2</sub>:** The agreement level to the factors that have a great impact on the hospital preferences of the patients differ according to age.

When ANOVA test results were analyzed between 0.95 (1- $\alpha$ ) confidence interval, Sigma (2-tailed) value (0,118) was found to be higher than the  $\alpha$  value (0.05 = significance level) and Hypothesis 2 (H<sub>A</sub>) was REJECTED for 17 expressions. Therefore, One Way ANOVA test could not have been done. According to this result, the agreement level to the factors that have a great impact on the hospital preferences of the patients statically do not differ according to age.

**H<sub>3</sub>:** The agreement level to the factors that have a great impact on the hospital preferences of the patients differ according to educational status.

In order to simplify the analysis, participants in the study were divided into two main groups (Group 1: high school or equivalent graduates and those at lower educational levels, Group 2: undergraduate, graduate and postgraduates), the perceptual level differences between those with lower level and higher level of education were tried to be identified.

Hypothesis 3 was separately tested for each 17 expressions that it includes between 0.95 (1- $\alpha$ ) confidence interval by two-tailed independent t-test. According to these results, for the expression “existence of high-tech tools would be important” the Sigma(2-tailed) value (0.003), for the expression “the organization having a reliable image would be important” the Sigma(2-tailed) value (0.031), for the expression “during the diagnosis and treatment processes, all transactions being done in the hospital would be important” the Sigma(2-tailed) value (0.009) and for the expression “accessing to the doctor when needed would be important” the Sigma(2-tailed) value (0.000) is less than  $\alpha$  value (0.05= significance level). For this reason, Hypothesis 3 was ACCEPTED for all of these 4 expressions. Therefore, the agreement levels to this expressions statically show differences in terms of educational status. For 4 sub-expressions for which the hypothesis has been accepted, the means of the agreement level (respectively; avg: 4,7708, avg: 4,7292, avg: 4,8333, avg: 4,8333) of those who have “undergraduate, graduate and postgraduate” educational status to these 4 expressions are higher than the means of the agreement level of those who have “high school and below” educational levels

**H<sub>4</sub>:** The agreement level to the factors that have a great impact on the hospital preferences of the patients differ according to income status.

In the study, in order to simplify the explanatoriness of the hypothesis test, the participants were divided into two groups as those with minimum wage and below income status represented one group and those with minimum wage and above represented the other group and Independent groups t-test was used for testing the hypothesis. Hypothesis 4, for 17 expressions it includes, was tested separately between 0.95 (1- $\alpha$ ) confidence interval through two- tailed t-test.

According to these results, for the expression “transaction would be important” the Sigma(2-tailed) value (0.008), for the expression “Offered service quality would be important” the Sigma(2-tailed) value (0.022), for the expression “Existence of high-tech tools would be important” the Sigma(2-tailed) value (0.030) and for the expression “accessing to the doctor when needed would be important” the Sigma(2-tailed) value (0.010) is less than  $\alpha$  value (0.05= significance level). For this reason, Hypothesis 4 was ACCEPTED for all of these 4 expressions. Therefore, the agreement levels to this expressions statically show differences in terms of educational status. For four sub-expressions, for which the hypothesis has been accepted, the means of the agreement level averages (respectively; avg: 4,7500, avg: 4,7386, avg: 4,6818, avg:4,6932) of those who have “minimum wage and below” income status to

these 4 expressions are higher than those who have “ minimum wage and over” income status.

The scope of the research was limited to Nevşehir public hospital. Although the reasons as limited duration and concerns about the deviation from the main aim of the study have effect on this limitation, it is believed that through other studies examining that whether the factors such as marital status, duration of taking health care service that having impact on the hospital preferences of the patients differ according to other features would be useful for increasing the explanatoriness of the subject concerned. Mentioned matters are suggestions for further studies.

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# VISITS ABROAD IN TERMS OF HEALTH MANAGEMENT

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## ABSTRACT

**Introduction and Aim:** Globalization sees all of the nations as a whole on economic, policy and communication aspects. At the global world the importance of international cooperation and information exchange is increasing steadily. There is an opportunity to send public officers to abroad in order to increase their quality, make them gain new qualifications; to educate them, to improve their knowledge, for training, for vocational training or for specialization. The Ministry of Health has comprehensive and intensive cooperation with many countries, especially countries having cultural ties with us. The Ministry of Health sends its staff and specialists to abroad, makes knowledge and experience exchange, and provides direct contacts between scientific institutions.

This study has been conducted in order to investigate the epidemiologic features of the staff of The Ministry of Health who has went abroad during a one year period in terms of international cooperation and exchange of information.

**Materials and Methods:** This research is a descriptive study. The data of the study has been obtained by the investigation of the reports of the staff of The Ministry of Health who has been abroad in 2007. The necessary permissions were taken from the Ministry of Health. The parameters obtained were from staff reports going abroad; The number of staff who has been abroad, their positions, the participated programs, the difficulties, the subject of the program, the documents they have brought Turkey and the certificates they have taken. The obtained data were analyzed by SSPS program on the computer. Percentage, arithmetic mean and standard deviation were used for the statistical analysis.

**Results and Discussion:** In 2007 a total of 627 staff working in Ministry of Health has gone abroad on duty. This staff has remained abroad on an average of 2.17 days (standard deviation:  $\pm 2.6$ , max: 180, min: 1 day). Among the Ministry of Health staff that has gone abroad on duty technical staff was the first with 30.1%, administrative staff was the second with 28%, health staff was the third with 21.8%, senior managers was the fourth with 18%, academic staff was the fifth with 2.1% and chief inspector was the least with 0.3%.

When we look at the distribution of abroad programs we have found out that international meetings were the first with 51.2%, and then come respectively educational meetings with 23.7%, on-site surveys with 10.4%, conferences with 7.3%, study visits with 4.8%, cooperation meetings with 1.7% and supervisions with 1%.

When we investigate the subjects of the abroad programs the first subject was medicine and pharmacy with 21.5%, and then come communicable diseases with 12.8%, administrative jobs with 8.0%, public health with 5.9%, laboratory infrastructure systems with 5.5%, laboratory applications with 3.8%, medical devices with 3.8%, substance

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addiction with 3.5% and other subjects with 35.3% respectively. The countries mostly visited by the Ministry of Health staff was found to be respectively United Kingdom (UK) with 15.9%, France with 10.4%, Belgium with 7.6%, Germany with 6.6%, Slovakia with 4.8%, Netherlands with 3.8%, Swiss, Austria and Spain the with both % 3.5, and other with 40.4%. 15.6% of the staff who has went abroad has returned Turkey with a certificate of attendance, 7.9% with a certificate, while 76.5% did not have any certificate.

88.9% of the staff who has gone abroad had stated that they had no difficulty at all, 3.5% declared that they had transportation problems, 3.1% had foreign language problems, 2.4% had lack of organization problems, 1% had welcome problem, 0.7% had sheltering problem, 0.3% had financial problems.

According to the reports examined 64% of the staff who has been abroad declared that they have brought written documents, 1% has brought video recordings and the remaining 34.9% has returned Turkey without any document.

**Conclusion and Recommendations:** Among the Ministry of Health staff who has gone abroad on duty technical staff was the first with 30.1%, administrative staff was the second with 28%, and health staff was the third with 21.8%. When we look at the distribution of abroad programs we have found out that international meetings were the first with 51.2%, and then come respectively educational meetings with 23.7%, on-site surveys with 10.4%. The first 3 countries mostly gone were found to be respectively UK with 15.9%, France with 10.7%, and Belgium with 7.6%. When we investigate the subjects of the abroad programs the first subject was medicine and pharmacy with 21.5%, communicable diseases second with 12.8%, administrative jobs third with 8%. 15.6% of the staff who has went abroad has returned Turkey with a certificate of attendance, 7.9% with a certificate, while 76.5% did not have any certificate. According to the reports examined 64% of the staff who has been abroad declared that they have brought written documents, 1% has brought video recordings and the remaining 34.9% has returned Turkey without any document. The staff that has gone abroad has transportation, foreign language and lack of organization problems.

In the line of these results it is suggested that the precious documents brought to Turkey from abroad should be put to the website of the Ministry of Health to the benefit of the people and institutions. Also, it is considered to be useful if these precious documents can be reviewed according to their topics and books can be written. Also, staff that has get very important training and who has participated meetings should give seminars on the return to Turkey in order to share their experiences to share with other employees would be very beneficial is considered. The problems faced abroad can be removed by taking the necessary measures. We also believe that it will be useful to evaluate and analyze the reports for all years and to present them to senior management.

**Keywords:** Ministry of Health, Visits Abroad, Health Management

## INTRODUCTION

It is of great importance to send public officers to abroad in order to increase their quality, make them gain new qualifications; to educate them, to improve their knowledge, for training, for vocational training or for specialization (1, 2, 3).

The Ministry of Health has comprehensive and intensive cooperation with many countries, especially countries having cultural ties with us. The Ministry of Health sends its staff and specialists to abroad, makes knowledge and experience exchange, and provides direct contacts between scientific institutions. At the global world the

importance of international cooperation and information exchange is increasing steadily. This study has been conducted in order to investigate the epidemiologic features of the staff of The Ministry of Health who has went abroad during a one year period in terms of international cooperation and exchange of information.

## MATERIALS AND METHODS

This research is a descriptive study. The data of the study has been obtained by the investigation of the reports of the staff of The Ministry of Health who has been abroad in 2007. The necessary permissions were taken from the Ministry of Health. The parameters obtained were from staff reports going abroad; The number of staff who has been abroad, their positions, the participated programs, the difficulties, the subject of the program, the documents they have brought Turkey and the certificates they have taken. The obtained data were analyzed by SSPS program on the computer. Percentage, arithmetic mean and standard deviation were used for the statistical analysis.

## RESULTS AND DISCUSSION

In 2007 a total of 627 staff working in Ministry of Health has gone abroad on duty. This staff has remained abroad on an average of 2.17 days (standard deviation:  $\pm 2.6$ , max: 180, min: 1 day).

Among programs of the totally 289 visits of Ministry of Health staff that has gone abroad on duty in 2007, international meetings was the first with a rate of 51.3%. This was followed by educational meetings with 23.7%, on-site surveys with % 10.4, conferences with 7.3%, study visits with 4.8%, and other with 3.0% respectively (Table 1).

**Table 1.** The Distribution of the Number of Visit, and the Number of Staff Attending These Visits According to the Program

Program	Visit		Staff	
	Number	%	Number	%
International Meetings	148	51.3	250	39.9
Educational Meetings	67	23.2	143	22.9
On-site Surveys	30	10.4	101	16.1
Conferences	21	7.3	40	6.3
Study Visits	14	4.8	34	5.4
Other	9	3.0	59	9.4
Total	289	100.0	627	100.0

When we investigate the number of staff who has gone abroad on duty in 2007, it has been found out that most of the staff has attended international meetings (39.9%), educational meetings (22.9%) and on-site surveys (16.1%) respectively (Table 1).

**Table 2.** The Distribution of the Number of Visit, and the Number of Staff Attending These Visits According to the Subject

Subject	Visit		Staff	
	Number	%	Number	%
Medicine and Pharmacy	62	21.5	112	17.9
Communicable Diseases	37	12.8	44	7.0

Laboratory Infrastructure Systems	16	5.5	27	4.3
Administrative Jobs	23	8.0	64	10.2
Laboratory Applications	11	3.8	26	4.1
Public Health	17	5.9	61	9.7
Substance Addiction	10	3.5	11	1.8
Medical Devices	11	3.8	21	3.3
Other	102	35.3	261	41.7
Total	289	100.0	627	100.0

When we investigate the subjects of the abroad programs the first 10 subject was respectively medicine and pharmacy with 21.5%, communicable diseases with 12.8%, administrative jobs with 8%, public health with 5.9%, laboratory infrastructure systems with 5.5%, laboratory applications with 3.8%, medical devices with 3.8%, substance addiction with 3.5%, legislation alignment with 2.8%, and mental health issues with 2.8% (Table 2).

When we investigate the number of staff attending these visits among the total 627 staff according to the subject it has been found out that the first subject was medicine and pharmacy with 17.9%, and then come administrative jobs with 10.2%, public health with 9.7%, communicable diseases with 7.0%, laboratory infrastructure systems with 4.3%, laboratory applications with 4.1%, medical devices with 3.3%, substance addiction with 1.8%, and other with 41.7% (Table 2).

**Table 3.** The Distribution of the Number of Visit, and the Number of Staff Attending These Visits According to the Professional Title

Professional Title	Visit		Staff	
	Number	%	Number	%
Technical Staff	87	30.1	161	25.7
Administrative Staff	81	28.0	133	21.2
Health Personnel	63	21.8	180	28.7
Senior Managers	51	17.6	145	23.1
Academic Staff	6	2.1	7	1.1
Chief Inspector	1	0.3	1	0.1
Total	289	100.0	627	100.0

Among the Ministry of Health staff that has gone abroad on duty technical staff was the first with 30.1%, administrative staff was the second with 28.0%, health staff was the third with 21.8%, senior managers was the fourth with 17.6%, academic staff was the fifth with 2.1%, and chief inspector was the least with 0.3% (Table 3). When we investigate the number of staff attending these visits according to the professional title it has been found out that the first was health personnel with 28.7%, and then come technical staff with 25.7%, senior managers with 23.1%, administrative staff with 21.2%, academic staff with 1.1% and chief inspector with 0.1% (Table 3).



**Table 4.** The Distribution of the Number of Visit, and the Number of Staff Attending These Visits According to the Destination Countries

Destination Countries	Visit		Staff	
	Number	%	Number	%
UK	46	15.9	73	11.6
France	30	10.4	52	8.2
Belgium	22	7.6	30	4.8
Swiss	10	3.5	24	3.8
Austria	10	3.5	18	2.9
Slovakia	14	4.8	32	5.1
Netherlands	11	3.8	25	4.0
Germany	19	6.6	56	9.0
Spain	10	3.5	23	3.7
Other	117	40.4	294	46.9
Total	289	100.0	627	100.0

The countries mostly visited by the Ministry of Health staff was found to be respectively the United Kingdom (UK) with 15.9%, France with 10.4%, Belgium with 7.6%, Germany with 6.6%, Slovakia with 4.8%, Netherlands with 3.8%, Swiss, Austria and Spain the with both % 3.5, and other with 40.4 (Table 4). When the number of staff visiting by destination countries was studied it has been found out that the first three countries were the UK (11.6%), Germany (9.0%) and France (8.2%) respectively (Table 4).

88.9% of the staff who has gone abroad had stated that they had no difficulty at all, 3.5% declared that they had transportation problems, 3.1% had foreign language problems, 2.4% had lack of organization problems, 1.0% had welcome problem, 0.7% had sheltering problem, 0.3% had financial problems. When the difficulties encountered by countries were investigated it has been found out that at total the most common problem was transport problems (3.5%) and this problem was encountered mostly in Switzerland (20%). The second common problem was foreign language problems (3.1%) and this problem was encountered mostly in Germany (10.5%). 2.4% the staff who has gone abroad had lack of organization problems. This problem was encountered mostly in Germany with 10.5%.

15.6% of the staff who has went abroad has returned Turkey with a certificate of attendance, 7.9% with a certificate, while 76.5% did not have any certificate.

According to the reports examined 64% of the staff who has been abroad declared that they have brought written documents, 1.0% has brought video recordings and the remaining 34.9% has returned Turkey without any document.

## CONCLUSION AND RECOMMENDATIONS

Among the Ministry of Health staff who has gone abroad on duty technical staff was the first with 30.1%, administrative staff was the second with 28%, and health staff was the third with 21.8%. When we look at the distribution of abroad programs we have found out that international meetings were the first with 51.2%, and then come respectively educational meetings with 23.7%, on-site surveys with 10.4%. The first 3 countries mostly gone were found to be respectively UK with 15.9%, France with 10.7%, and Belgium with 7.6%. When we investigate the subjects of the abroad programs the first subject was medicine and pharmacy

with 21.5%, communicable diseases second with 12.8%, administrative jobs third with 8.0%. 15.6% of the staff who has went abroad has returned Turkey with a certificate of attendance, 7.9% with a certificate, while 76.5% did not have any certificate. According to the reports examined 64% of the staff who has been abroad declared that they have brought written documents, 1% has brought video recordings and the remaining 34.9% has returned Turkey without any document. The staff that has gone abroad has transportation, foreign language and lack of organization problems.

According to the 6. th article gclause of “Regulations onCivil Servantstobe SentAbroad inOrder tobe Trained” when the determinedlevel ofknowledge of foreign languageshaveto benecessarilyapplied the languageproblemsinthe destination country(3.2%) would disappear (2, 3).

In the line of these results it is suggested that the precious documents brought to Turkey from abroad should be put to the website of the Ministry of Health to the benefit of the people and institutions. Also, it is considered to be useful if these precious documents can be reviewed according to their topics and books can be written. Also, staff that has get very important training and who has participated meetings should give seminars on the return to Turkey in order to share their experiences to share with other employees would be very beneficial is considered. The problems faced abroad can be removed by taking the necessary measures. We also believe that it will be useful to evaluate and analyze the reports for all years and to present them to senior management.

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# THE TECHNICAL EFFICIENCY OF OUTPATIENT SERVICES IN TURKISH PUBLIC HOSPITALS: A STOCHASTIC FRONTIER ESTIMATION

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Emre Atılğan<sup>1</sup>

## Abstract

In this study, a model, which is similar to the one that is being used by the Turkish Public Hospitals Institution (PHI) to evaluate the efficiency scores of the Turkish public hospitals, is constructed to estimate technical efficiency of outpatient care production of hospitals. Stochastic Frontier Analysis (SFA) is used to estimate the technical efficiency of outpatient services of hospitals, with a translog production technology and efficiency effects model definition. The main purpose of the study is assessing the distribution of efficiency scores within hospitals with respect to regional differences and the hospital roles. In this regard, this study aims to find a clue to discuss the efficiency and equity of outpatient care on the basis of this new hospital management policy.

**Key Words:** Efficiency, Stochastic Frontier Analysis, Health Transformation Program, Public Hospital Associations

## Introduction

Health Transformation Program (HTP) was launched in 2003 with the aim of preparing a structural, planned and sustainable model for Turkey. HTP was introduced with the primary aim of achieving effectiveness, efficiency, and equity in organization, delivery, and financing of health care services. The two main implementations of HTP is intended to eliminate the fragmented structure of health care delivery system in Turkey. In the third leg of the basic program, the enactments of the Public Hospital Associations (PHA), which are basically the regional hospital unions, were announced in 2011 and have been in operation since fall 2012. Establishment of the PHAs introduced a new management model for Turkish public hospitals.

This new management model introduced a new performance assessment policy for the PHAs and affiliated hospitals. The Turkish Public Hospitals Institution (PHI), which is the highest institution that rules all the public hospitals, has begun to use a Balanced Score Card approach to assess the managerial performance of the PHAs. In this assessment model, production efficiency scores of hospitals became a key factor. The efficiency scores are being estimated in four dimensions; that is hospital's outpatient, inpatient, surgery and emergency service productions. With respect to efficiency scores taken from those four different service production, hospital administrators are reviewing contracts or in case of poor performance scores, their contracts are terminated.

In this study, a model, which is similar to the one that is being used by PHI to evaluate the efficiency scores of the Turkish public hospitals, is constructed to estimate technical efficiency of outpatient service production of hospitals. The main purpose of the study is assessing the distribution of efficiency scores within hospitals with respect to regional differences and the hospital roles. In this regard, this study aims to find a clue to discuss the efficiency and equity of outpatient care on the basis of this new hospital management policy.

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# 1. Method

## 1.1. The Stochastic Production Frontier Model

Inefficiency of a firm is determined by the deviations from the firm's production and/or cost frontiers. Econometric measurement of the inefficiency is then related with the estimation of that deviation. The parametric methods developed prior to SFA, like the deterministic model of Aigner and Chu (1968), Winsten's (1957) Adjusted Ordinary Least Squares method, Afriat's (1972) and Richmond's (1974) Adapted Ordinary Least Squares method, associated the inefficiency with all the deviations from the specified production limits. The main shortcoming of these approaches is they assume that the frontier is not affected by random cases. Stochastic Frontier Analysis was developed independently by Aigner et al. (1977) by defining the disturbance term as the sum of symmetric normal and (negative and Meeusen and Broeck (1977) in order to overcome the main shortcoming of previous efficiency estimation methods. The purpose of SFA is to decompose variations from the best practice production/cost frontier into a random or classical error and a deterministic error, which is assumed to represent production/cost inefficiency. In this study a cross sectional version of Battese and Coelli (1995) SFA specification is used to estimate outpatient service production. This specification allows to estimate the correlates of in efficiency, namely inefficiency effects, in one step process. The model specification is as:

$$Y_i = f(x_i, E_i) + \varepsilon_i \quad (1)$$

where  $Y_i$  represents production,  $x$  is a vector of inputs,  $e$  is a vector of control variables and  $\varepsilon$  is the composite error term which can be decomposed as  $\varepsilon_i = v_i - u_i$ , where  $v$  is statistical noise which assumed to be distributed  $N(0, \sigma^2)$ , and  $u$  is the positive deviation from the cost frontier which represents production (technical) inefficiency and assumed to be independently distributed as truncations at zero of the  $NN(\mu_i, \sigma^2)$  distribution. Thus the model defined as inefficiency effects model where  $\mu_i = z_i\delta + e_i$  and  $z_i$  is a  $1 \times p$  vector of variables which may influence the efficiency of a hospital, and  $\delta$  is a  $1 \times p$  vector of parameters to be estimated (Battese & Coelli 1995).

In the model, translog production technology is assumed. Translog production function, which characterizes a flexible functional form, is commonly used by the researchers to avoid modeling errors or/and to get flexibility in the specification of input and output relations without having a-priori assumptions (Rosko & Mutter 2008). The brief model used in the estimation is as following:

$$\ln Y_i = \alpha + \sum_{j=1}^J \alpha_j \ln x_{ji} + \frac{1}{2} \sum_{j=1}^J \sum_{k=1}^J \beta_{jk} \ln x_{ji} \ln x_{ki} + \psi E_i + v_i - u_i \quad (4)$$

In equation (3),  $\alpha$ ,  $\beta$  ve  $\psi$  are the parameters to be estimated, and  $h=1, \dots, n$  represents the hospitals where;  $Y_h$  : The output of hospital  $h$ ,  $x_{hj}$  : Inputs of hospital  $h$ ,  $E_{hj}$  : Control variables,  
 $v_i$  : as described before.



## 1.2. variables and Data

The cross sectional estimation is made by using the data of year 2014, for a sample of 589 Ministry of Health Hospitals. The sample contains only the general purpose hospitals. The definition of the variables used in the model is given in table 1.

**Table 1. Variables and Definitions**

OUTPUT VARIABLE	INPUT VARIABLES	CONTROL VARIABLES	INEFFICIENCY EFFECTS
OUTPAT	PHSY	SPEC	RESEARCH
(Total number of outpatient visits)	(Total number of physicians)	(The ratio of specialists in total physicians)	(Dummy for research hospital)
	AUX	TECH	ROLE
	(Total number of auxiliary healthcare staff)	(High Technology index)	(Hospital Role index)
	OTHER		DEVINX
	(Total number of administrative and technical staff)		(Development index)
			POP1
			(ratio of 0-15 year old population)
			POP2
			(ratio of 15-49 year old woman population)
			POP3
			(ratio of +65 year old population)
			EMERG
			(ratio of emergency visits in outpatient visits)

## 2. Model Estimation and Results

The stochastic production model that previously described is estimated using the computer program FRONTIER 4.1. The estimated production function is given in table 2.

Variables used in the model are estimated as deviations from their sample means. Following the formulation of Coelli et al. (2003) and Coelli et al. (2005) we calculated the returns to scale (total elasticity of scale), which is basically the sum of input elasticities. Thus, the sum of the first order coefficients in the model, which is 0.76, means that the production function exhibits increasing returns to scale.

**Table 2. Model Estimation Results**

Variable	Coefficient	t-ratio
Constant	0.56	4.39
PHSY	0.46	10.60
AUX	0.28	5.24
OTHER	0.02	0.96
PHSY* PHSY	0.26	3.50
PHSY* AUX	-0.15	-2.32
PHSY* OTHER	-0.01	-0.36
AUX* AUX	-0.09	-1.44
AUX* OTHER	0.06	1.32
OTHER*OTHER	-0.04	-1.51
SPEC	0.16	1.36
TECH	-0.04	-1.52
<i>Inefficiency Effects</i>		
$\delta_{it}$	1.78	5.24
$\delta_{it}''\#\$\! \% \&$	0.72	5.30
$\delta_{it}''\#\$\!$	-0.20	-5.74
$\delta_{it}''\#\$\! \% \&$	-0.04	-3.22
$\delta_{it}''\!\!\!$	-0.75	-2.06
$\delta_{it}''\!\!\!\!$	1.44	2.11
$\delta_{it}''\!\!\!\!$	-2.86	-3.35
$\delta_{it}''\!\!\!\! \#\$\!$	-0.05	-0.30
$\sigma_{\eta}^2$	0.08	11.64
$\gamma\gamma = \sigma_{\eta}^2 / (\sigma_{\eta}^2 + \sigma_{\epsilon}^2)$	0.77	8.19
Log-likelihood	-50.42	

The estimated coefficients of the inefficiency effect variables shows whether the variable increase or decrease the efficiency level of hospitals (i.e. if the parameter is positive, this means that hospitals that is related to this the variable are, ceteris-paribus, less-efficient/ inefficient than the others. Accordingly, research hospitals are said to be less efficient, higher role level hospitals tend to be more efficient. The development level of the region where the hospital is located is positively correlated with hospital efficiency, but this effect seems to be small. Research hospitals are less efficient than the others. The level of role group of hospitals increases the efficiency scores. This result is consistent with the mean efficiency scores of hospital roles given in the Table 3.

**Table 3. Mean Efficiency Scores of Hospital Roles**

Hospital Roles	Mean Efficiency
A1	0.59
A2	0.81
B	0.76
C	0.59
D	0.46
E1	0.43
Overall	0.60

The findings also indicate that there are remarkable regional differences between MoH hospitals in terms of technical efficiency. The average hospital efficiency scores are presented in Table 3. on the basis of geographical, NUTS (Nomenclature of Territorial Units for Statistics) level I and level II regions. Within the geographical regions, while East and Central Anatolia regions have the lowest average efficiency score, Marmara has the highest. When NUTS level I and level II regions are considered, the highest average efficiency score is obtained by the Istanbul region, which is the region that has the highest population and highest development level in Turkey. These findings support the inefficiency effects model results.

**Table 3. Mean Efficiency Scores of Hospital Roles**

Geo. Regions	Mean Eff.	NUTS I	Mean Eff.	NUTS II	Mean Eff.
<i>Mediterranean</i>	0.63	TR1	0.73	TR10	0.73
<i>East Anatolia</i>	0.55	TR2	0.58	TR21	0.65
<i>Aegean</i>	0.59	TR3	0.59	TR22	0.54
<i>South East Anatolia</i>	0.65	TR4	0.68	TR31	0.63
<i>Central Anatolia</i>	0.55	TR5	0.59	TR32	0.59
<i>Black Sea</i>	0.58	TR6	0.64	TR33	0.56
<i>Marmara</i>	0.66	TR7	0.54	TR41	0.64
		TR8	0.55	TR42	0.70
		TR9	0.56	TR51	0.57
		TRA	0.55	TR52	0.62
		TRB	0.57	TR61	0.60
		TRC	0.65	TR62	0.65
				TR63	0.67
				TR71	0.55
				TR72	0.53
				TR81	0.67
				TR82	0.42
				TR83	0.59
				TR90	0.56
				TRA1	0.51
				TRA2	0.59
				TRB1	0.46
				TRB2	0.65
				TRC1	0.72
				TRC2	0.66
				TRC3	0.61

## Conclusion

The overall technical efficiency of outpatient service production of the hospitals is found 0,60. The results indicate that there are significant differences in efficiency distribution across Turkey's regions. The development level of the region that the hospital is located is found to be positively correlated with efficiency scores. While the teaching status of the hospital is negatively correlated with the efficiency of outpatient service production, hospital role level is positively correlated with efficiency.

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# ASSESSMENT OF PHYSICIANS ABOUT COMMUNITY HEALTH CENTRES ACCORDING TO THE URBAN AND RURAL; TURKEY SAMPLE

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## INTRODuCTION

The efforts of improving health services continue to be principal and priority agenda item of the all countries. In this context Health Transformation Programme (HTP) has been implemented in Turkey in 2005. According to program primary health care services is divided into mainly two parts as Family Medicine Center (FMC) and Community Health Centers (CHC). HTP aims at strengthening primary health care services through the use of a family medicine system. At the end of 2010, the Family Medicine Programme (FMP), assigning each patient to a specific doctor, was established throughout the country. CHC, providing free-of-charge logistical support to family physicians for priority services such as vaccination campaigns, maternal and child health and family planning services, were established. Both FMC and CHC are under the supervision of Provincial Health Directorates (81 provinces) which are responsible for planning and provision of health services at provincial level and accountable to the Ministry of Health. However CHC have some challenges to provide the primary health services in Turkey. In this context, determining the status of CHC in HTP is so critical. It was known that there was an own differences between the urban and rural areas as follows; working condition, living conditions, physical facilities etc. The aim of study was evaluating the assessments of Community Health Centers Responsible Physicians (CHCRP) about CHC according to the urban and rural.

## METHODS

This cross sectional study was conducted on all the CHCRP in Turkey at April and May 2014. There are 971 physicians in Turkey working as a responsible physician in CHC. The study was reviewed and approved by the Public Health Institution of Turkey and the Ethic Committee of Eskişehir Osmangazi University. It was expected to be reaching all of the CHCRP. The working place (Urban and Rural) were used to determine the distribution of CHCRP in Turkey. A questionnaire was delivered to physicians via internet. In case of non-response physicians were contacted via telephone. The questionnaire consisted of socio-demographic characteristics of CHCRP (gender, age, working area, working time, marital status and career),

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opinions about their job, CHC's physical facilities and Community Health Medicine (CHM). Nomenclatures of Territorial Units for Statistics (NUTS 1-12 regions) regions were used to determine the distribution of CHCRP in Turkey.

Chi-square and Kolmogorov Smirnov tests were used to evaluate the data. Table 1 summarizes the distribution of total number and response number of CHCRP according to NUTS Regions.

**Table 1: The distribution of total number and response number of CHCRP according to NuTS Regions**

NUTS 1 Regions		Total CHCRP	Number of Response	
		n	n	%
1	Istanbul	39	26	66.7
2	West Marmara	60	35	58.3
3	Aegean	136	86	63.2
4	East Marmara	90	80	88.9
5	West Anatolian	61	41	67.2
6	Mediterranean	104	51	49.0
7	Central Anatolian	86	50	58.1
8	West Black Sea	109	66	60.6
9	East Black Sea	79	50	63.3
10	Northern Anatolian	56	31	55.4
11	Central East Anatolian	70	39	55.7
12	Southeast Anatolian	81	56	69.1

## RESULTS

A total of 611 (62.9%) physicians completed the questionnaire. Among the physicians, 66.6% were male; 81.3% were working in rural; 37.8% were working at their first working place. There is no difference between the NUTS regions in means of the number of responded physicians ( $\chi^2:1,029$ ;  $p=0.241$ ). The average working time of physicians was  $8.1\pm7.7$  years, the average working time at CHC was  $2.2\pm1.9$  years. In the study 15.7% of male physicians and 24.5% of the female physicians were working in the urban. Table 2 summarizes the some socio-demographic characteristics of CHCRP according to working place.

**Table 2: The socio-demographic characteristics of CHCRP according to working place**

Socio-demographic characteristics		RURAL		URBAN		TOTAL
		n	%	n	%	n
GENDER*	Male	384	68.7	33	53.2	407
	Female	175	31.3	29	46.8	204
MARITAL STATUS	Single	239	48.1	34	29.8	273
	Married	258	51.9	80	70.2	338
CAREER	General practitioner	447	89.9	98	86.0	545
	Specialists	25	5.0	16	14.0	41
	Dentist	25	5.0	0	0	25
HAVE YOU EVER TAKEN ANY COURSES REGARDING CHCRP?*	No	162	32.6	23	20.2	185
	Yes	335	67.4	91	79.8	426

WORK DURATION AS A PHYSICIAN*	Less than a year	112	22.5	4	3.5	116
	1-4 years	143	28.8	25	21.9	168
	More than five years	242	48.7	85	74.6	327
WORKING DURATION AS A CHCRP	Less than a year	199	40.0	21	18.4	220
	1-4 years	252	50.7	79	69.3	329
	More than five years	46	9.3	14	12.3	62
CHC IS MY FIRST WORKING PLACE?*	No	285	93.1	95	83.3	380
	Yes	21	6.9	19	16.7	231
DO YOU WANT TO BE PERMANENT AT THE CURRENT JOB?*	No	349	70.2	43	37.7	392
	Yes	148	29.8	71	62.3	219

\*=  $p < 0.05$

Among the CHCRP, 43.7% reported the number of staff was insufficient; 57.3% reported the quality of the staff was insufficient; 42.6% temporarily assigned to another unit at least once; 68.9% reported physical competence of their CHC was inadequate; 64.2% considered being permanent at the current working place; 79.4% had a good relationship with their managers; 63.5% had some difficulties in supplying CHC materials for CHC; 76.6% had an authority limitation, 63.8% had a negative opinion about prestige of CHM; 43.9% had a negative opinion about future of CHM; 27.3% had a negative opinion about their job satisfaction. Table 3 summarizes community health centers responsible physicians' assessments about working conditions according to working place.

**Table 3: Community Health Centers Responsible Physicians' assessments about working conditions according to working place**

Working Conditions		RURAL		URBAN		TOTAL
NUMBER OF STAFF IS SUFFICIENT*	No	227	45.7	40	35.1	350
	Yes	270	54.3	74	64.9	261
THE QUALIFICATION OF STAFF IS SUFFICIENT	No	283	56.9	67	58.8	423
	Yes	214	43.1	47	41.2	188
PHYSICAL CONDITION OF CHC IS SUFFICIENT	No	349	70.2	74	64.9	223
	Yes	148	29.8	40	35.1	388
SUPPLYING OF CHC EQUIPMENTS IS SUFFICIENT	No	179	36.0	44	38.6	223
	Yes	318	64.0	70	61.4	388
YOUR SALARY IS SUFFICIENT?	No	330	66.4	73	64.0	403
	Yes	144	29.0	32	28.1	176
	No idea	23	4.6	9	7.9	32

\*=  $p < 0.05$

In the current study, to consider the number of staff of CHC were insufficient, to have the work experience less than 5 years and to work in CHC as first work place were more frequent among the physicians those working in rural statistically. In the study to have been trained regarding to their job, to be a female and to consider to being permanent at the current working place were more frequent among the physicians those working in urban statistically.

Having authority limitation, having a good relationship with their managers, considering physical competence of their CHC was inadequate, having some difficulties in obtaining necessary materials for CHC, having a negative opinion about prestige of CHM, having a negative opinion about future of CHM, having a negative opinion about their job satisfaction,

reporting their income were not sufficient and assigning to another unit at least once were not varying by the urban and rural.

## CONCLUSION

There was no difference between the NUTS in means of the number of responded physicians. This finding suggests that our results could represent whole Turkey. The physicians those working at rural areas and at east regions of Turkey were younger and inexperienced. This might be resulted from the fact that , the recent graduated doctors were usually appointed to the Eastern and Southeastern region and especially rural areas due to law of conscription.

In this study, the majority of the characteristics were not varying by working place. According to report of Ministry of Health at 2013, motivation and job satisfaction of physicians, working in Turkey, were found lower throughout the country. In the current study the six of ten physicians had a negative opinion about prestige of CHCRP and four of them had a negative opinion about future of CHM. This finding might be resulted from public perspectives, as the practitioner physicians had lower respectability when comparing with the specialists.

The six of ten physicians did not consider to being permeant at current job. According the study conducted by Tanrioer et al. the medical students had not wanted to work at primary health care services due to insufficient prestige of the physicians working in primary health care services and binary structure primary health care services after health transformation programme.

To increase quality and quantity of primary health care services, it is necessary to solve the problems of PHCRP.

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# EFFECT OF INTELLECTUAL CAPITAL ON COMPANY INNOVATION

## A RESEARCH FOR HEALTH ADMINISTRATION

Esra Çiğdem CEZLAN<sup>1</sup>

The main purpose of the study is to determine the effect of intellectual capital accumulation on innovative practices in today's health care businesses.

The answers have been searched for the questions of "Is there any relationship between intellectual capital accumulation and innovative practices in health care businesses?" and "If so, what is the direction of this relationship and interaction?"

245 employees from two hospitals operating in Istanbul have constituted the sample mass of this research, which has been performed with a combination of qualitative and quantitative research methods, and the opinion of the respondents has been measured by means of a conceptual model.

As a result of the research, it has been concluded that the sub-dimensions of intellectual capital as human capital, relationship capital and organizational capital in health care businesses positively impact innovation activities.

**Key Words: Management of Health Care Businesses, Intellectual Capital, Company Innovativeness**

### 1. INTRODUCTION

Today, the dizzying developments in entire production processes especially in communication and information technologies have transformed the industry-based economies which have been established to transform goods or services into knowledge economies.

Especially in today's information society, people have begun to widely prefer people oriented, competitive, innovative businesses which hold extremely high brand value and produce high quality health care services. Therefore, intellectual capital accumulation in healthcare sector has become the most important factor from the point of effecting innovative initiatives (Kanter, 2006:79).

In fact, the concept of intellectual capital was first introduced at the end of 1960s, and at that time it was defined as "a mental movement beyond static and intangible value" (Harrison and Sullivan, 2000:33). In the coming years, intellectual capital concept has begun to define in the meaning of today with the development of knowledge economy (Ross et al., 1998).

Stewart has defined the intellectual capital in the vernacular of the day as "obtained experimented knowledge" and evaluated every kind of intellectual input, information, intellectual property and experience which would be used to create wealth in this concept (Stewart, 1997). Similarly, Youndt states that intellectual capital actually comprises of all kinds of information inside or outside the business, and businesses should effectively manage their intellectual capital in the globalizing world to get competitive advantage (Youndt, 2004:337).

In the literature, the intellectual capital is handled and measured in three dimensions as "human capital", "organizational capital" and "relationship capital" (Sveiby, 1997; Stewart, 1997; Tsang et al., 2005; Ross and Ross, 1997; Ross et al., 1998; Chu et al., 2006).

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Human capital dimension of intellectual capital is defined as the sum of knowledge, skills, abilities, experiences and all other information stocks of employees in organization (Brooking, 1996; Edvinsson and Malone 1997; Stewart, 1997; Huang et al., 2002). This kind of intellectual capital consists of genetic inheritance, vocational education, job experiences, ideas and attitudes towards workplace of employees in a business (Bontis and Fitzenz, 2002).

The second dimension of intellectual capital is the organizational capital, and in the simplest way, it can be defined as all kind of knowledge, organizational processes and technological infrastructure which belong to an organization. (Narvekar and Jain, 2006). In a broader meaning, organizational capital consists of organizational vision, culture, mission, management philosophy, processes, information technologies/systems, patents, copyrights, trademarks/secrets, logos, databases, R&D and innovation facilities of a business (Hsu et Fang 2009; Solitand and Tidström, 2010).

Relationship capital, the third sub-dimension of intellectual capital, includes relations between all parties who are capable to create added value for production processes, internal and external customer satisfaction of a business (Das et al., 2003). In fact, relationship capital which has a perceptual process feature in a sense is defined by linking the brand value of businesses in the literature. Such capital accumulation is shaped with mutual relationship of a business with external and internal customers (Stewart, 1997).

The concept of business innovativeness is defined as all activities which contribute added value in technological infrastructure, production processes and presentation of new goods and services of businesses aiming to create or develop a new idea or product in the literature (Dess and Lumpkin, 1997; Knight, 1997).

Indeed, a company must discover new marketing methods, create new products, acquire new supplier sources, create new forms of production or become open to innovation to be known as innovative today. (Thakur et al, 2012:565). An innovative company is started to be mentioned with the intensification of continuous innovative investments and efforts in knowledge economy (Chang and Tseng, 2005).

Finally it should be noted that innovation practices are classified in various ways according to occurrence frequency, innovation degree of company and level of meeting customer expectations in literature (Damanpour et al., 2009). However, innovation is grouped in a simple manner as product and process innovation (Burgelman et al., 1995; Kanter, 2006).

Some researchers separate innovation into two group as technological and product-market innovation (Miller and Friesen, 1978); on the other hand, another researchers define it as radical (revolutionary, discontinuous) or gradual (evolutionary, incremental, continuous) according to its occurrence (Tidd et al., 1997:24).

## **2. LITERATURE REVIEW**

When the literature is examined, it is seen that lots of research have been done in recent times about knowledge management, intellectual capital and innovation practices in health care businesses (Bontis, 2002; Gallup, 2002; Van Beveren, 2003; Habersam and Piber, 2003; Hermansson et al., 2004; Chen et al. , 2005; Lee et al., 2007; Peng et al., 2007; Bontis and Serenko, 2009).

For instance, Bontis (2002) has studied knowledge management differences affecting health care businesses, and Van Beveren (2003) has concluded knowledge management requires privileged and special techniques specific to general and healthcare public businesses. Both of these studies declare that organizational performance of healthcare businesses that

focus on effective management of intellectual capital could be increased with innovativeness (Thakur et al., 2012: 564).

Habersam and Piber (2003) have compared brand values and effectiveness in serving healthcare services of two hospitals in Italy and Austria according to their intellectual capital capacity, and as a result of the research; they have made several suggestions concerning relationship between intellectual capital and innovative practices. Hermansson et al. (2004) have contributed to the literature by modeling intellectual capital in healthcare businesses.

Likewise, Lee et al. (2007) have completed their research by aiming to make intellectual capital measurable from uncertain state of annual activity report which is prepared to minimize the uncertainty of intellectual capital in healthcare businesses. In this context, researchers have categorized intellectual capital as human capital, patient capital, information technology capital, process capital, innovation capital and strategic capital (Lev et al., 2007).

Chen et al., (2005) have inspected the intellectual capital structures and the advantages of those structures for 35 healthcare companies with their special measurement method, and concluded innovation, customer and human capital to be more valuable for healthcare businesses in creating intellectual capital.

Bontis and Serenko (2009) have outlined that healthcare businesses supply significant benefits to intellectual capital on knowledge management, and stated healthcare employees are actually the best examples for “knowledge workers”. At this point, Fitzgerald (2002) who has given a new perspective to innovation particularly in health refers that innovativeness which spread all processes of a healthcare organization would be more successful when healthcare employees believe the interaction among themselves.

In the light of this literature review, it's possible to say that employing talented workers, becoming a learning organization, and successfully managing the intellectual capital in today's knowledge economies are the main sources of becoming innovative, creating value and making difference in competition in healthcare businesses (Bontis, 2002; Huang and Liu, 2005; Guthrie et al. 2002; Hsu and Fang, 2009). Thus, all sub-dimensions of intellectual capital, mainly human capital that consists of talent and knowledge accumulation of employees, have a positive contribution to innovation practices of companies (Subramaniam and Youndt, 2005).

Also, literature review findings show that the research which focuses on the relationship between intellectual capital and company innovativeness implicated the relationship of those concepts according to the measurement of three sub-dimension of intellectual capital into the research models (Covin and Slevin, 1991; Bontis, 1998; McAdam, 2000; Nonaka and Treece, 2001; Youndt et al., 2004; Subramaniam and Youndt, 2005; Bosworth and Webster, 2006).

For example, McAdam, who has inspected the effects of human capital, a sub-dimension of intellectual capital, on company innovativeness in empirical aspects has concluded in his research effective and systematic knowledge management affects innovativeness in key fields for increasing employee benefits (McAdam, 2000). Similarly, Covin and Slevin (1991) Bontis (1998), Nonaka and Treece (2001), Youndt, et al., (2004), Subramaniam and Youndt, (2005) and Bosworth and Webster (2006) have concluded human capital increases company innovativeness.

In the literature, it is possible to claim there is positive and obvious interaction between organizational capital and firm innovativeness according to the studies which examine and explain the relationship between these two concepts in empirical aspects (Covin and Slevin, 1991; Nonaka and Takeuchi, 1995; Bontis, 1998; Youndt et al., 2004; Youndt and Subramaniam, 2005).



For instance, Nonaka and Takeuchi (1995) have concluded that the innovations in knowledge production and business infrastructure provide competitive advantages to firms; and Bontis (1998) has argued in his research that organizational capital contributes to the innovation performance of business. Also, Youndt et al. (2004) and Subramaniam and Youndt (2005) proved that organizational capital has positive effects on innovative performance of business.

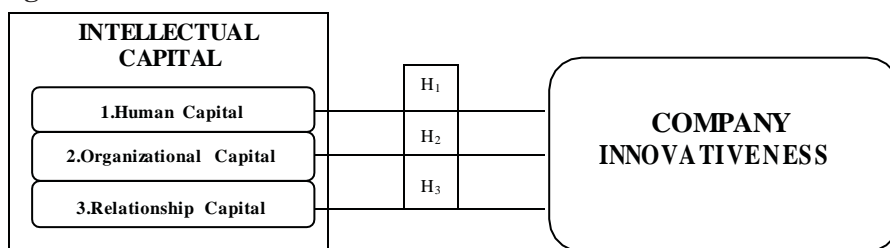
When the studies conducted on the relationship between company innovativeness and relationship capital, the most strategic component of intellectual capital, is examined, a positive and mutual interaction between these two concepts is observed (Bontis, 1998; Phillips, 1999; Gray et al., 2000; Agarwal et al., 2003, Youndt and Snell, 2004; and Youndt Subramaniam, 2005; Ottenbacher and Gnoth, 2005).

### 3. METHODOLOGY

Participants from the two leading hospitals in Turkey who have been selected with convenient sampling method constitute the population of this research. 245 health workers in various positions such as doctor, nurse, emergency medical technician, hospital manager, hospital logistic, quality, human resources and patient consultant from the mentioned healthcare businesses have been included in the study.

The main mass of employees surveyed corresponds to 25% of the total employees. The following research model has been developed for measuring the effect of intellectual capital which consists of three sub-components on company innovativeness on the basis of proposed research hypothesis in the concept of this research, which has been carried out with both qualitative and quantitative research methods.

**Figure 1: Model of the Research**



Arrows shown in the figure above indicate the relationship between basic concepts of this research, direction of the interactions and research hypothesis. The research hypotheses indicated with arrows are those below:

**$H_1$  : There is a positive relationship between company innovativeness and human resources of companies.**

**$H_2$  : There is a positive relationship between company innovativeness and organizational capital of companies.**

**$H_3$  : There is a positive relationship between company innovativeness and relationship capital of companies.**

Furthermore, the subscales of “human capital”, “organizational capital” and “relationship capital” defining intellectual capital in parallel with the hypothesis of this research have been taken from the studies of Bontis (1998), Subramaniam and Youndt (2005), Hsu and Fang (2009), Ling (2011), Longo and Mura (2011) and Hsu and Sabherwal (2011); and “Business Innovativeness Scale” has been taken from the studies of Subramaniam and Youndt (2005),

Ling (2011), Hsu and Sabherwal(2011).

Eventually, it should be noted that SPSS 20.0 and AMOS 4 computer programs have been used for the analysis of data gathered through survey form in scope of this research. The consistency of the hypothesis shown in the research model has been investigated with reliability and validity analysis, then correlation analysis and lastly regression analysis.

#### 4. FINDINGS

First of all, demographic features of participants have been examined in the context of research. Demographic features such as company name, professional title, gender, age range, education and job duration have been collected and shown below:

**Table -1: Demographic Profiles of the Respondents**

		Frequency	Percentile	Cumulative P.
Business	Public	133	54.2	54.2
	Private	112	45.8	100
	TOTAL	245	100	
Title	Administrative Personnel	103	42	42
	Medical Personnel	142	58	100
	TOTAL	245	100,0	
Gender	Female	141	57.5	57.5
	Male	104	42.5	100
	TOTAL	245	100,0	
Educational Status	High school Graduate	59	24.1	24.1
	Associate Degree	55	22.4	46.5
	Bachelor	85	34.7	81.2
	Post graduation	46	18.8	100
	TOTAL	245	100	
Age Range	20-25 years	63	25.71	25.71
	26-35 years	110	44.90	70.61
	36-40 years	46	18.78	89.39
	More than 40 years	26	10.61	100.00
	TOTAL	245	100	
Job Duration	0-5 years	143	58.37	58.37
	06-10 years	75	30.61	88.98
	11-15 years	19	7.76	96.73
	More than 16 years	8	3.27	100.00
	TOTAL	245	100	

As an overall evaluation of demographics of participants shown in the figure, both physiological features of participants such as gender and age and vocational education, professional title and experience levels of participants illustrate a wide sample of overall health sector. In other words, the demographic findings have been found sufficient enough to reach meaningful results in the scope of survey.

Secondly, reliability and validity analysis have been conducted for data set variables in the context of the research. Primarily, average value of proficiency has been calculated with



Kaiser-Meyer-Olkin (KMO) sample test. KMO sample proficiency value (0.90) has been observed to be higher than the proposed value (0.50) in the literature (Stoel and Muhanna, 2009).

Then Bartlett Sphericity Test have been conducted and the findings of this test has shown to be statistically significant at 5% ( $X^2(153) = 840.26, p < 0.5$ ). Therefore, it has been concluded each statement (communalities) in the survey is above 0.30 and each indicator has common variance with other indicators (Field, 2005).

“Explanatory Factors” test has been conducted in the third stage of the reliability and validity analysis and findings have been shown in the table below:

**Tabla-2: Factor Loadings**

	Human Capital	Relationship Capital	Organization Capital	Innovativeness	Coefficient of Communalities
HC2	0.88				0.83
HC3	0.84				0.79
HC1	0.84				0.77
HC5	0.83				0.79
HC4	0.81				0.73
HC6	0.79				0.73
HC8	0.79				0.69
HC7	0.78				0.71
RC2		0.76			0.71
RC4		0.75			0.72
RC3		0.74			0.67
RC5		0.67			0.64
RC6		0.67			0.66
RC1		0.57			0.52
OC4			0.80		0.74
OC5			0.80		0.76
OC2			0.59		0.61
OC3			0.58		0.59
Inno.4				0.79	0.77
Inno.2				0.78	0.72
Inno.1				0.77	0.76
Inno.5				0.76	0.71
Inno.6				0.63	0.58

\*Principle Component Analysis and Varimax Rotation are used. Total Variance Explained: 68.80%

As observed in the table, total 3 indicators have been eliminated on account of not attaching to a factor and not fulfilling the criteria of being equal or higher than 0.50 or attaching to more than one factor (factor load in another factors-cross load) equals or more than 0.40 (Stoel and Muhanna, 2009). Thus, the number of questionnaires has been reduced to 32 from 35 questions.

All statements in the data set have been subjected to “Confirmatory Factor Analysis” in order to realize scales are reliable and valid; and the findings of this analysis have shown AVE value correlation coefficients of each factor are smaller than squares.

In the final step, Cronbach Alfa reliability coefficient and composite reliability coefficients of all indicators in survey form have been determined to be higher than standard threshold value (0.70). This finding has proved the reliability of the scales applied in survey to be high.

Correlation and regression analysis have been used to test the research hypothesis in the third and last stage of the study and the correlation analysis findings are shown in the table below:

**Table -3: Correlation Coefficients and Descriptive Statistics**

Variables	Average	Standard Deviation	1	2	3	4	5
1.Human Capital	3.66	0.94	-				
2. Relationship Capital	3.64	0.91	0.63**	-			
3.Organization Capital	3.53	0.87	0.57**	0.58**	-		
4. Innovativeness	3.18	0.88	0.21**	0.37**	0.38**	-	
Cronbach Alfa Reliability Coefficient			0.95	0.88	0.83	0.89	0.92
Composite Reliability(CR)			0.95	0.88	0.81	0.89	0.92
Average Variance Extracted(AVE)			0.69	0.56	0.51	0.61	0.57

(\*)  $p < 0.05$ , (\*\*)  $p < 0.01$

As seen in the table, the correlation coefficients which show the linear relationships between variables indicate a relationship between some variables at 0.05 significance level ( $p < 0.05$ ), but 0.01 significance level between others.

Then, multiple regression analysis has been conducted in order to test the hypothesis in research model. In this context, firm innovativeness as dependent variable, and human capital, relationship capital and organizational capital, sub dimensions of intellectual capital, as independent variables have been subjected to regression analysis.

The findings of the regression analysis held with SPSS 20.0 program have been illustrated and reviewed below in terms of research hypothesis:

**Tablo-4: Regression Analysis Results Related to Firm Innovativeness**

(for  $H_1$ ,  $H_2$ ,  $H_3$  hypotheses)

Independent Variables	Dependent Variable			
	Company Innovativeness			
	Standard Beta ( $\beta$ )	t value	p-value	VIF value
1.Human Capital	.298**	4.448	.000	1.418
2.Organizational Capital	.097	1.312	.191	1.744
3.Relationship Capital	.196 **	2.809	.005	1.548
$R^2 = 0,239$				
$F = 25.185$				
$p\text{-value} = 0.000$				

\*  $p < 0.05$ ; \*\*  $p < 0.01$

According to the regression analysis findings shown in the figure, the relationship between company innovativeness and human capital, a sub dimension of intellectual capital, is statistically significant and this sub dimension of intellectual capital has positive impact on company innovativeness ( $\beta = 0.298$ ,  $p < 0.01$ ). In addition, these findings support the hypothesis ( $H_1$ ), which assumes human capital positively effects company innovativeness.

In contrast, organizational capital doesn't have a statistically significant effect on company innovativeness in terms of regression analysis findings of the hypothesis ( $H_2$ ), which assumes that organizational capital positively affects company innovativeness ( $\beta = 0.097$   $p > 0.01$ ).

This result doesn't positively affect  $H_2$  hypothesis which assumes organizational capital has positive effects on company innovativeness.

Finally, the  $H_3$  hypothesis have been tested which is based on the assumption that relationship capital, a sub dimension of intellectual capital, has a positive effect on company innovativeness. There is a positive and significant interaction between relationship capital and company innovativeness according to the regression analysis findings held for this purpose ( $\beta = 0.196$   $p < 0.01$ ). This result supports the hypothesis ( $H_3$ ) which assumes relationship capital positively effects company innovativeness.

**Table-5: Research Hypothesis Test Results**

Hypothesis	Suggestion of the Hypothesis	Consequence
$H_1$	There is a positive relationship between company innovativeness and human resources of the companies.	APPROVED
$H_2$	There is a positive relationship between company innovativeness and organizational capital of companies.	REJECTED
$H_3$	There is a positive relationship between company innovativeness and relationship capital of companies.	APPROVED

## 5. CONCLUSION AND DISCUSSION

As a result of the research, the human capital and relationship capital as sub dimensions of intellectual capital of healthcare businesses have been evaluated to have positive effects on company innovativeness.

It is possible to say the investments in both these two dimensions of intellectual capital and successful practices would provide significant contributions to the ongoing innovative practices in businesses according to these findings. Interestingly, the survey results haven't justified the assumption that the organizational capital sub dimension of intellectual capital doesn't have positive impact on company innovativeness. However, many research findings on this subject in the literature have reached the conclusion which confirms this assumption. Furthermore, when looked in the perspective of daily business life, the new investments of organizational capital accumulation and new practices in this context are generally thought to be the most concrete indicators of company innovativeness by healthcare employees.

Thus, this finding of the research could be explained as mismanagement of the organizational capital in healthcare businesses or the failure in the measurement of correlation and regression relationship between these two concepts.

As a result of the research, it has been concluded that the managers in healthcare businesses should effectively manage all three dimensions of intellectual capital, while increasing the

efforts to enrich the intellectual capital in healthcare businesses. Moreover, only organizational or technological investments would be insufficient to provide high company performance the basic production of which is human factor, so the investments on human capital and relationship capital must be increased in parallel with those investments.

Particularly, the complexity in healthcare services, overuse of technology and the entity of human interaction make the adaptation of healthcare businesses to external environment difficult and cause administrative problems. At this point, it has been observed that healthcare businesses could be successful only by training the staff with leadership skills, including them in management processes and creating a new organization culture and climate suitable for innovation and creativity.

Eventually, it must be said with regard to future researches, detection of the effects of the mentioned factor on intellectual capital will be possible if the “company innovativeness factor” held as independent variable in this research is examined as a “moderator variable” with its sub-scales in a similar model with this research.

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# MANAGEMENT OF RISKS BY THE FMEA METHOD IN MORROCAN HEALTH INSTITUTIONS: CASE OF PATHOLOGICAL ANATOMY AND CYTOLOGY LABORATORY IN RABAT

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## ABSTRACT

Because of the severity of accidents' consequences that can take place, the safety of personnel, its environment, and property made available is, currently, a prime necessity for laboratories of Pathological Anatomy and Cytology (PAC). zero risk does not exist but it may as well be mitigated or controlled. Indeed, the personnel in the laboratories PAC is likely to be exposed on the one hand; to different classes of biological pathogens and, on the other hand; to the chemical Risks due to the manipulation of fixed parts and large quantities of chemicals used during technical process (carcinogenic, toxic, flammable,). That's why, taking account of these risks in these laboratories becomes a hot topic.

The objective of this study is to establish a comprehensive list of existing failures and resources in place to manage risks in PAC laboratory of University Hospital Center (CHU) Ibn Sina of Rabat, Morocco; in order to set up an effective approach to risk management.

To do this, we have adopted the FMEA approach (Failure Mode Analysis and their criticality) that allows an estimate of risk levels depending on exposure conditions.

Our study demonstrated that the PAC laboratory, contains the following risks:

- **Risks Inherent to tasks:** septic pits, AES, contamination by hepatitis or HIV, injuries cut glass, burns (Bunsen burner, bath, Oven, Stove, Microwave ...) handling soiled equipment, postural constraints (standing or sitting station with station leaning forward).
- **Risks of CMR** (carcinogenic, mutagenic, toxic for reproduction): Formol, Haemalum Mayer, MGG, EUKITT
- **Risks of chemicals:** acids, bases, solvents, dyes, paraffin, bleach for disinfection.
- **Biological risks:** handling of biological products (blood, urine, biopsies, ....) Accidents exhibitors whose blood contamination routes are either mucocutaneous, respiratory or digestive.
- **sensory Risks:** eyestrain ( related to the nature of activities), odors of organic products (blood, urine ...) and disinfectants.
- **Organizational Risks**

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In the light of the results obtained, it appears that the semi-quantitative method of FMEA allows; not only to identify dangers and propose mastery of the actions, but also to propose a management model specific to risks at PAC structure.

**Keywords:** Risk management, Danger, AMEC, Criticality, Laboratory of Pathological Anatomy and Cytology

# INSTITUTION OF QUALITY MANAGEMENT IN MOROCCAN HOSPITALS: “CASE OF IBN SINA UNIVERSITY HOSPITAL CENTRE OF RABAT”

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## ABSTRACT

The work aims to analyze the modalities of implementing quality management in the Academic Hospital Center Ibn Sina (CHIS) of Rabat in Morocco and to identify quality sustainability factors management in services involved in the process. The study focuses on 21 Medico-technical and Administrative Services of the Academic Hospital Center (CHIS) that joined the governmental program in implementing the quality process from 2007 to 2011. Semi-directive interviews were conducted for those involved in the service and quality approach management. The interviews were held with a representative sample of sufficient staff. In total, 51 people were interviewed: 9 doctors, 16 health professionals, 14 technicians and 12 administrative staff. On November 30th, 2011, four years after the launching of the program, six services (29%) had an active quality approach and 15(71%) had none. The survival average period of quality circles was 17 months and the median was 12 months. In 70% of services, quality circle works or functions as a place for co-ordinating the quality approach. Quality circle is seen as a forum for the exchange of ideas (views) and as a means of expression for all personnel. In all meetings, it helps to create new links between professionals and deepens the concept of communication and consolidation (or harmonization) of functional relationships between different departments. It has been a major factor in decompartmentalizing teams and introducing a certain collegiality in service operation. In several services, quality circle has proved to be the only place for exchange and discussion between staff.

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# MEASURING PROCESS PERFORMANCE WITHIN HEALTHCARE LOGISTICS A DECISION TOOL FOR SELECTING MEASURING TECHNOLOGIES

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## Abstract

Performance measurement can support the organization in improving the efficiency and effectiveness of logistical healthcare processes. Selecting the most suitable technologies is important to ensure data validity. A case study of the hospital cleaning process at a public Danish hospital was conducted. Monitoring tasks and ascertaining quality of work is difficult in such a process. Based on principal-agent theory, a set of decision indicator has been developed, and a decision framework for assessing technologies to enable performance measurement has been proposed.

**Keywords:** Performance measurement, technology assessment, healthcare logistics

## Introduction

Logistical processes are essential for a hospital to function and in providing services for the patients. Improving the efficiency and effectiveness of healthcare processes not only economizes on resources but also improves the quality of services. Performance measurement can support an organization to motivate employees and induce learning to improve processes (Neely et al., 2005). In a healthcare logistics context, employees will often perform tasks in various parts of a hospital and without close supervision. From a principal-agent point of view, there is a need to measure and monitor the process (Eisenhardt, 1989a; Melnyk et al., 2004). Technologies such as RFID, barcodes and portable job agents can capture data in a process and enable process measurement (Ferrer et al., 2010; Sarac et al., 2010). When measuring several performance indicators, one technology may not fit all, and a range of different technologies may be needed to enable performance measurement. Selecting the appropriate technologies for capturing data is important to ensure data validity and enable measurement of the most suitable performance indicators. Based on a hospital cleaning case study, a framework is developed that serves as a decision tool for assessing which technologies to implement to enable performance measurement in a healthcare logistics context.

## Methodology

In this section, the research objectives, research design, collection of data, data analysis, and research quality are described for the study.

### Objectives

A framework is developed by answering the following research questions (RQs):

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RQ1: How can performance indicators measure process performance of a logistical healthcare process?

RQ2: How can technologies for measuring process performance be assessed for a logistical healthcare process?

The objective is to develop a decision support tool for logistics management within healthcare to decide on which technologies to implement for measuring process performance. *RQ1* is answered by developing a set of performance indicators that reflects the performance of the hospital cleaning process. These indicators are based on the strategic goals of the organization. To answer *RQ2*, the selected performance indicators are then used to develop a framework for assessing and selecting technologies to measure these performance indicators.

#### *Research design and data collection*

The research design chosen for this study is a single case study because it provides an in-depth understanding of a problem and is well suited for answering “how” questions (Eisenhardt, 1989b; Yin, 1994). A case study focusing on the hospital cleaning process was conducted at a public Danish hospital. Although cleaning at a hospital is not considered a traditional logistical process, the process contains some logistical elements. First, the service of cleaning is *distributed* across the hospital. Secondly, the technologies investigated are technologies commonly used within *supply chain management* and *logistics*, such as RFID and barcodes (Ramanathan et al., 2014).

Data for the hospital cleaning case was collected over a five month period from October

2014 to February 2015. During the case study, 20 interviews were carried out, the cleaning process was observed, and several documents were collected. Interviews were carried out with managers and supervisors of the logistics and cleaning departments as well as managers from the central IT department and the Strategy department. Case study results were presented to management for respondent validation (Bryman, 2012).

#### *Analysis*

A framework was developed by Jørgensen (Jørgensen, 2013) to serve as a decision support tool for assessing technologies in logistical healthcare processes. A modified version of the framework can be seen in Figure 1. The framework depicted in Figure 1 is valid for technologies performing logistical processes and will in this study be generalized for technologies capturing data to measure performance.

A principal-agent problem occurs when a) goals differ between the principal and agent and b) information and verification of behavior is difficult (Eisenhardt, 1989a). Cleaning personnel disperse into all parts of the hospital to clean their designated areas, and it is currently not possible to monitor and check the work of all employees. Providing information through performance measurement could create transparency about employee performance and the quality of their work (Neely et al., 2005). However, if data is not captured automatically, the employee may forget or deliberately neglect the registration of data. Thus, the technology used to capture data in a process affects data validity due to the particular process for capturing data. The principal-agent problem appears to be twofold: 1) getting employees to perform cleaning tasks and 2) ensuring that employees measure the cleaning process. Principal-agent theory was used to assess how the different technologies affect data validity. Based on an analysis of the hospital cleaning case using principal-agent theory, a decision process for selecting the technologies to measure performance was developed.

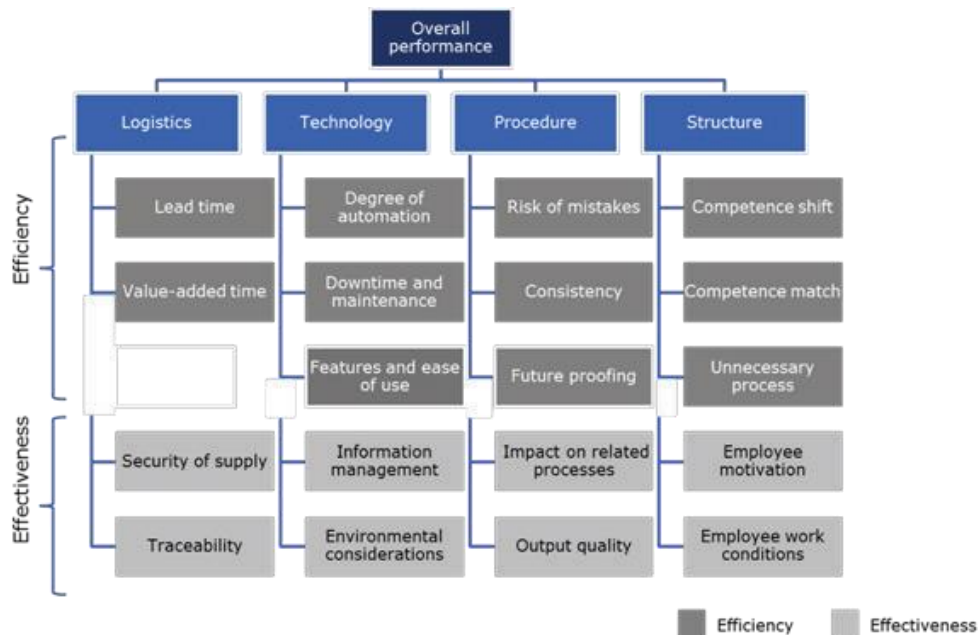


Figure 1 - Decision indicators for assessing technologies in healthcare logistics

#### Validity and reliability

Data from different sources were gathered and analyzed, and respondent validation was carried out to ensure construct validity (Bryman, 2012). Internal validity was ensured through pattern matching by comparing findings of this study with similar findings from a different context, in this case the framework in Figure 1 (Denzin and Lincoln, 1994; Eisenhardt, 1989b). External validity is limited to a logistical healthcare context within Denmark. This study is a generalization of an existing framework to include measuring technologies. Reliability was ensured through triangulation and colleague review.

#### Defining the performance indicators

Performance indicators should reflect the strategy of the organization and help achieve organizational goals (Brewer and Speh, 2000). To align organizational behavior with strategic goals, central management had in the case defined the following five performance aspects to be measured: 1) quality 2) resources, 3) productivity, 4) satisfaction, and 5) service delivery. Performance indicators were then defined for three management levels as seen in Figure 2. Investing in technologies would be necessary to enable data registration for measuring *productivity* and *delivery*. The following technologies were assessed: iBeacon, tablet, RFID, barcode and mobile job agents.

In measuring performance of the hospital cleaning process, it is only possible to check the quality of a random sample of rooms. To provide some reassurance of quality for the rooms not checked, supporting performance measures were developed. The productivity measures in Figure 2 aim to support the quality measures. Case study interviews showed that quality and time spent on cleaning are closely related. Demonstrating that a certain amount of time has been spent in a room could therefore provide supporting evidence of the level of quality provided. In line with principal-agent theory, this is an attempt to monitor the employee. It is important to note that measuring is also done to ensure that employees are allowed enough time for tasks.

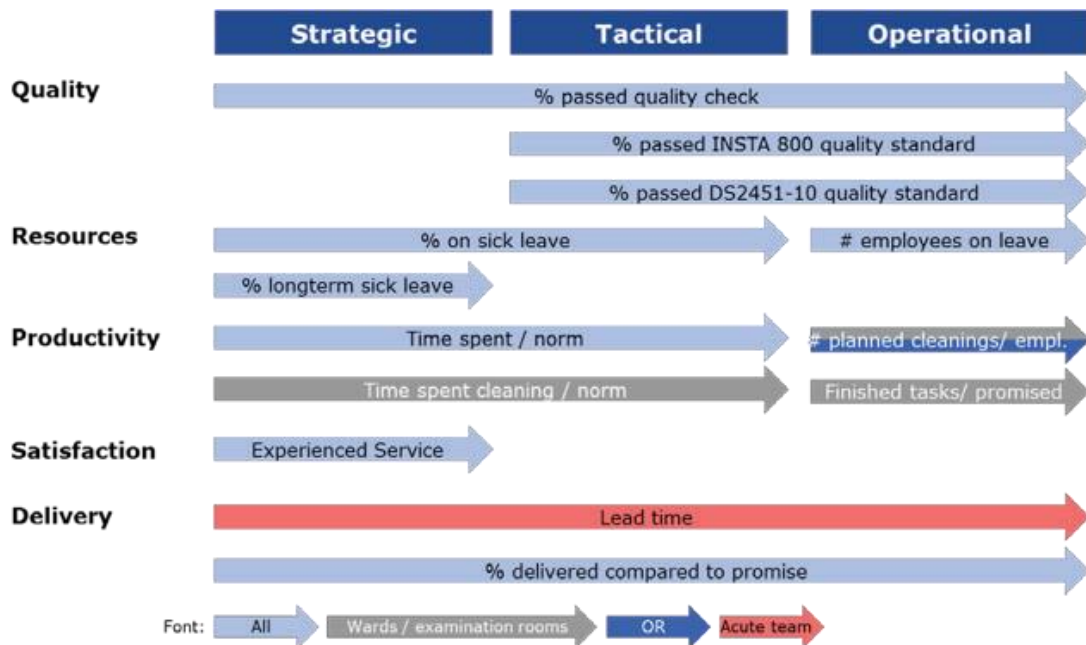


Figure 2 – Selected performance indicators across three managerial levels

### Decision process for selecting measuring technologies

Some key steps were identified in the hospital cleaning process. First, a high number of data registrations, i.e. critical mass, is a precondition for a business case to justify an investment in technology. Secondly, when capturing data, some data points would be captured simultaneously in the cleaning process. E.g. the number of rooms cleaned/entered would be measured at the same point in time as starting time or end time of cleaning a room. Data points should therefore be bundled according to when data is captured in the process. Thirdly, technologies may provide the opportunity to potentially improve employee performance and the quality of cleaning; iBeacons and iPads allow for showing pictures and other types of instructions to cleaning personnel.

Data validity was assessed for every data point in combination with each of the five measuring technologies. The process of registering data was analyzed for each of the five technologies from a principal-agent and risk perspective. The following variables were found to affect data validity: 1) number of registrations, 2) level of automation for registering data, 3) employee motivation for performing registrations, and 4) traceability. Thus, the technology capturing a data point affects the validity of that data. The number of registrations and level of automation are closely related to employee motivation to perform the registration. The employee may not want to make personal performance transparent. Furthermore, the employee may forget to actively register e.g. start and end time of a task. The more registrations needed, the more the employee might forget or deliberately neglect to perform the registration. To increase validity of data, a high level of automation coupled with traceability is preferable. Number of registrations and employee motivation will not affect data validity if the data registration process is fully automated and traceable. Traceability is closely related to the principal-agent problem. Ascertaining the location of the employee will ensure that the employee was present at a given point in time. After assessing the validity of data points for each technology, it was clear that for some data points, only one technology could provide sufficiently valid data.

Thus, the technologies were a given for these data points. Consequently, data points bundled with these data points were also a given. For the remaining data points to be measured, data validity should be compared to the cost of measuring data. There are several cost aspects of capturing data and measuring performance. First, there is the investment in and maintenance of technologies. Secondly, there is a cost of processing and maintaining data. Thirdly, a cost occurs if the employee spends time registering data in the process. E.g. registering entry and exit from a room is automatic with RFID, but barcodes require the employee to actively scan the barcode. Lastly, economies of scale can reduce the marginal costs.

Technologies providing the most valid data may not be economically feasible solutions for the organization. The main part of Danish healthcare is public, and funds are limited. This means that funding for logistical investments is often scarce as clinical investments are prioritized. Financial considerations could have practical implications for the choice of performance indicators and measuring technologies. Although performance measures should be governed by the overall strategy of the organization (Brewer and Speh, 2000), the economically feasible technologies may not enable measurement of the preferred measures. Therefore, two additional steps in the decision process are added to accommodate any financial limitations. Based on the analysis presented in this section, a decision process is proposed in Table 1. Decision indicators from Figure 1 that are relevant to the proposed decision steps are included in the table. All decision indicators in Figure 1 were found to be relevant except *environmental considerations*.

**Table 1 - proposed decision steps and relevant decision indicators to assess technologies**

Decision step	Decision indicators affecting decision step
1. Select performance indicators	Lead time, value-added time, security of supply, traceability, output quality, consistency, information management, competence match, unnecessary process
2. Ascertain critical mass for data Registration	
3. Bundle data points	
4. Assess data validity for data-technology combinations	Risk of mistakes, consistency, output quality, degree of automation, employee motivation, employee work conditions
5. Decide to include or reject any quality bonus option	Output quality
6. Determine given technologies	
7. Determine given technologies as a consequence of bundling	
8. Compare data validity with cost of measuring to select technologies for remaining data points	Future proofing, impact on related processes, downtime and maintenance, features and ease of use, unnecessary process
9. Determine feasible technological solutions from a financial perspective	Future proofing, impact on related processes, downtime and maintenance, features and ease of use, unnecessary process
10. Adjust performance indicators if necessary	



## Discussion

Measuring performance is an incentive in itself to motivate desired agent behavior (Melnik et al., 2004). The proposed productivity measures do not ensure that the employees actually carry out the cleaning task sufficiently, but they do ensure that the person was there when the registration was made. Similarly, knowing how much time was spent in a room does not ensure that time was spent cleaning or even that it was done adequately. Thus, the principal-agent problem is still there, but it is reduced. The other principal-agent problem addressed was that of measuring data. If the process of registering data is not automated, the lack of data will show if the employee did not register data, which could itself provide an incentive for data registration. However, automating and tracing data registration will eliminate the problem entirely.

*Environmental considerations* were not included in the suggested decision process, but it could be taken into consideration if possible and if of significance to the organization. However, it was not relevant in this case. The financial considerations included in the decision process are deliberately included towards the end of the process to prevent innovative ideas from being discarded early in the process.

The research questions are answered by analyzing how performance measures can be developed for a process where employees are not monitored and where the level of quality is difficult to ascertain. Furthermore, a decision tool consisting of 10 steps was proposed based on an analysis of the process for registering data.

### Limitations and future research

Findings in this paper are limited to a healthcare logistics context and should be validated for other contexts and settings outside of Denmark. Financial considerations provided some practical implications for the choice of performance measures. Other practical implications for deciding on performance measures and measuring technologies should be investigated.

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# WHAT ARE THE ISLAMIC DISCUSSIONS ABOUT SURROGACY MATHERHOOD THAT CONNECTED TO THE SEVERAL ADVANCED MEDICAL TECHNOLOGY?

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## ABSTRACT

**The Problem of the Study:** In the family life, having a child ideas of mother and father and wanting continue this way for their generation, play an important role. However, the mentioned above ideas sometimes is'nt possible for various reasons.

This problem sometimes can came from the mother and father candidates and sometimes can came both. Therefore, the wife can not stay pregnant. The parents, through the encouragement of the developments in the health sector, enter into a quest and are able to get the child.

According to Islamic law the use of reproductive technology on the cells (sperm and eggs) that taken from married couples is possible. Thus, the couples will have children. This one is not a dissenting opinion.

However, nowadays, especially as fertilization techniques and methods is clear that the use of many different options. Even if we have to express about the some modern countries, it is a well known fact among non-married groups allow artificial insemination.

Therefore, this matter at the present time, continues to be discussed as a between the disciplines in health sciences and in religious studies and in ethics and in law as in the past.

**The Purpose of the Study:** In this study, as a primary concern, free (halal), forbidden (haram) and the ugly (makruh) techniques which takes place on issue of having children will be described.

While doing so will benefit from the following opinion of the jurisprudence of Islamic scholars according to the evidence In the light of Islam.

**Method:** At this point, it is planned to explain terms of generation and marriage and adultery. During this study from Arabic and English and Turkish sources were utilized and research.

**Findings and Results:** In addition, some proposals will be presented in the problem of the mixing of genes that is the seen as a global issue. This presentation is aimed at the formation of a certain idea of the public.

**Key Words:** Surrogacy Matherhood, To Having Child, Mixing Genes, Islamic law.

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# THE ANALYSIS OF PRIVATE HOSPITALS' MISSION STATEMENTS IN TERMS OF STAKEHOLDERS

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## ABSTRACT

**The Problem of the Study:** The main concern of this paper is to state, whether the firm has mentioned about it to the stakeholders in their statements or not.

**The Purpose of the Study:** Mission is one of the main concern of strategic management. The statement of mission which can be stated as to explain the reason of the firm's existence and as to distinguish itself from the others, contribute the firms to be understood correctly by its environment. The firms are open systems. They are interacting with their environment. The elements which are influenced directly or indirectly by the activities done in order to reach the firm's goal can be stated as the stakeholders. The firms of health-sector also will be successful as long as they build harmonic relationships with their stakeholders. The purpose of this research is to state whether the firm has made the stakeholders of concern in their mission statements and which one of the stakeholders is of concern more often.

**Method:** Mission statements of 284 private hospitals with content analysis method in the study are searched in terms of eight stakeholders (customers, employees, owners, competitors, suppliers, dealers, community-government, financiers and environment) which are stated by Kujala (2001). In this study, mission statements are converted the form with text mining application which can be analyzable. Mission statements are firstly pre-processed; the sentences are split into the words, the roots of the words are obtained and then stop-words are removed. Text mining step is completed by means of appointing different numbers to the each root which are available after pre-process. After this stage, the analysis process is organized according to enumerated data (term). The terms which represent the stakeholders are determined by the authors before analysis. As the final, analysis was completed by sorting these terms descending according to occurrence frequency in the mission statements.

During the process of analysis, word roots are put in order according to frequency of appearance in the mission statements.

**Findings and Results:** In this study, it is searched that 284 private hospitals gave place or not to eight stakeholders in mission statement. In mission statements of private hospitals customers, employees, community-government and environment were emphasized and competitors, suppliers, financiers and owners were not. It was seen that customers was the most common stakeholder, community-government, employees and environment was second, third and fourth, respectively.

**Key Words:** Mission Statements, Stakeholder, Text Mining, Content Analysis.

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## 1. INTRODUCTION

Mission statements serve primarily as a communication tool to tell their own company to stakeholders at least forty years (King et. al., 2014: 21). When the study about mission statements is searched, it seems less in comparison to foreign literature. Studies about mission statements are usually interested in universities (Erdem and Tanrıöğren, 2002; Toprakçı et. al., 2007; Karabulut and Köseoglu, 2010; Özdem, 2011) and industrial enterprises (Ay and Koca, 2012; Karabulut, 2007 Coşkun and Geyik, 2004). But Uğurluoğlu (2011) examined mission statements of special and public hospitals.

A sector which is vital to the health sector in our country is discussed in the study. The research will be useful to reveal mission statement that is one of the most important elements of strategic management, represents what meaning in terms of the companies operating in our country. The study is multidisciplinary research; it can also be specified as a contribution.

## 2. THE CONCEPTUAL FRAMEWORK

**2.1 Mission Statement:** There are many definitions as to what a mission statement should be. In a generally a mission statement defines a statement of the purpose of a company, organization or person. A mission statement is a declaration of an organization's "reason for being" and distinguishes one organization from other similar enterprises (Pearce, 1982).

**2.2. Stakeholder:** According to Freeman (1984) stakeholders are individuals or groups who can affect or affected by the corporation.

## 3. RESEARCH

**3.1. Sample:** The hospitals are the target population of this study. According to the health statistic Ministry of Health General Directorate of Health Research in 2013, in Turkey there are 1517 hospitals which are classified 845 as Ministry of Health, 69 as university hospitals, 550 as private hospitals and 44 as others. It is aimed to access all private hospitals' websites. But only 379 of 550 private hospitals' have websites and just 284 of these have mission statements in their website. Consequently, the study is done with 284 private hospitals.

**3.2. Results:** Mission statements of 284 private hospitals are analyzed in the study. These hospitals which have one branch offices are classified as group. The distribution of hospitals according to the number of branch offices is shown in Table 1. When Table 1 is examined, maximum number of branch is 20. According to table, 284 private hospitals are operating with 448 branch offices. 242 hospitals with one branch office and 42 hospitals with more than one branch office are operating. The ratio of one branch hospitals is % 85,21.

**Table 1. The Distribution of Hospitals According to Branch Number**

Branch Number	Hospital Number	%	Total Branch Number	%
1	242	85,21	242	54,02
2	10	3,52	20	4,46
3	12	4,23	36	8,04
4	8	2,82	32	7,14
5	3	1,06	15	3,35
6	1	0,35	6	1,34
7	1	0,35	7	1,56
8	2	0,70	16	3,57
9	1	0,35	9	2,01
10	1	0,35	10	2,23
17	1	0,35	17	3,79
18	1	0,35	18	4,02
20	1	0,35	20	4,46
<b>Total</b>	<b>284</b>	<b>100,00</b>	<b>448</b>	<b>100,00</b>

Ten cities which include the highest number of hospital are listed in Table 2. 284 hospitals, with 448 branch office in total, are operating in 65 cities. According to the table, İstanbul is the most private hospitals located in provinces with the 148 private hospitals. 17 cities have only one hospital and 19 cities have not any private hospital.

**Table 2. The Distribution of Hospitals According to Cities**

	City Name	Branch Number	%
1	İSTANBUL	148	33,04
2	ANKARA	33	7,37
3	ANTALYA	25	5,58
4	İZMİR	21	4,69
5	BURSA	17	3,79
6	ADANA	15	3,35
7	KOCAELİ	12	2,68
8	MERSİN	11	2,46
9	TEKİRDAĞ	11	2,46
10	GAZİANTEP	9	2,01

At the table 3, in the mission statement of private hospitals Kujala's (2001) proposed eight stakeholders whether they place or not and the number of the highlighted of these stakeholders are summarized. According to the table, it is seen that the most highlighted stakeholder is client; second is community - government, third is employees and fourth is environment. The four stakeholders which are owners, financiers, competitors and suppliers, are not included in the mission statement.



**Table 3. Stakeholders and Highlightened Number**

Stakeholder	Highlightened Number
Customers	176
Community-Government	63
Employees	60
Environment	13
Owners	-
Financiers	-
Competitors	-
Suppliers	-

#### 4. CONCLUSIONS AND FUTURE PROJECTIONS

The study in which mission statements of private hospitals are analyzed in terms of stakeholders, mission statements of 284 private hospitals are extracted from internet sites and whether they are located or not to stakeholders is analyzed by using content analysis technique. Content analysis was performed by using text mining method.

171 private hospitals have not a website. This is the first important result in this study. Making immediately private hospitals' website will help them to better the health services also it provide as well as to gain respectability.

Lack of the mission statements of 95 private hospitals is another result we have achieved. This result indicates that companies do not give the necessary importance to the mission statement.

Private hospitals highlight customers, community - government, employee and environment stakeholder in the mission statements however, owners, financier, suppliers do not highlight. It is understood that customers is the most highlighted stakeholder according to the highlighted frequency. This result is consistent with the literature. (Uğurluoğlu, 2011; Karabulut Temel ve Köseoğlu, 2010; Karabulut Temel, 2007). The second is community-government, the third one is employees and the fourth one is environment comes. This situation reveals that there is insufficient in terms of occurrence stakeholders of mission statements of private hospitals.

The mission statement needs to be studied more in the literature. As a continuation of this study, it is investigated why not include some stakeholders by carrying out interviews with private hospitals. Especially, mission preparation process of the private hospitals can be examined. The differences can be demonstrated by working again with different hospital types.

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# HEALTH EFFECTS OF ENERGY PART OF EMPLOYEES TO THE THERMAL INSULATION IN HOSPITALS ABOUT SAVING IDEAS

Halil İbrahim İÇOĞLU <sup>1</sup>

## ABSTRACT

Problems in the thermal insulation of the extraordinary changes that have occurred as a result of hospital technology is easily solved. However, the lack of health workers in the hospitals they work their effects on energy saving thermal insulation affects their work. In hospitals provided with energy-saving insulation, increasing the quality of health service delivery. Health institutions get rid of the old traditional energy saving methods, must pass the energy-saving systems with modern insulation. In this project, The effects of the lack of health workers in the building energy-saving insulation in hospitals aimed to evaluate their thoughts on. In March 2014 a State Hospital for Mental Health and 300 health workers in the survey consisting of 24 questions was conducted Hospital. Research on female health workers (80.7%), 26-35 years of age workers (69.53%), married (66.4%), those with associate degrees (54.9%), State Hospital employees (68%, 1), working in services (81.4%), this office working hours from 3-4 years (41.7%), the hospital operating time between 4-8 years (43.4%), high heat-saving information and found that they are adept heat savings. The effects of energy-saving building insulation deficiencies in the hospital, especially people in the health sector is important because of the sector interested in the first degree. To remedy the deficiencies in the hospital in building insulation levels affecting the energy sector projects should be developed in this purpose.

Keywords: Energy saving, Thermal insulation, Energy savings in hospital

## 1. INTRODUCTION

In the world today, energy saving is an issue especially emphasized in the building sector. In none of the developed countries, the equivalent of going concern of the country's energy crisis, there has been the construction of new power plants. Instead of attempting to increase the energy efficiency sector. It has now been found that it is more profitable. In addition, by increasing the energy efficiency is seen as having the air pollution problem in developed countries. Since the first oil crisis in 1973, almost all of these countries have made significant contributions to the national economy by implementing this strategy. Annual energy requirements of a building in Europe 100 kWh / m<sup>2</sup> is taken very bottom.

The annual energy requirements of a building in our country, according to the results of earlier studies, 200 kWh / m<sup>2</sup> indicate that rises above. The negative impact on the economies of the result is obvious. It is also one of the important causes of the energy bottleneck in our country. This excessive consumption can be pulled down; the application of heat insulation in buildings and natural or reduction of heat losses must be supplied from mechanical ventilation. In our country, as well as the absence of the desired level of thermal insulation, made significant errors in the application and reduces the performance of the system significantly. Implement an appropriate technique by an expert team of thermal insulation, of sufficient quality for the purpose will geilebin prevent this problem thanks to materials and equipment. In detail, the economic insulation thickness of the insulating material to be used is thick enough to

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provide maximum energy savings with minimal investment costs. The thermal properties of materials, the cost of materials and application can vary depending on climate and energy prices. As a result, the heating of the building (cooling) being spent too much energy on the structure comfort decreases, increasing operating costs and environmental pollution that leads to unnecessary foreign exchange loss of causing severe damage to the national economy. TS 825 according to the first educators in the implementation of the appropriate details in the structure of the thermal insulation regulations and local governments, architect-engineers, building owners, large task falls to media organizations (1).

## **2. THE IMPORTANCE OF HEAT AND POWER**

The purpose of the thermal insulation in buildings, heat indoors than outdoors in the winter, summer conditions to reduce the transition to the internal environment from the external environment. As is known, the basic requirement of the heat transfer is that the temperature difference between the two environments. Therefore, in summer and winter season, with indoor and outdoor temperature difference between the heat insulation of the building is constantly need to keep under control the heat transfer. Insulation and heat transfer can not be completely prevented, but the amount of heat transfer per unit time can be reduced. According to this point of climate season, day in winter heat loss and heat gain if the type is reduced, energy efficiency target will take place intended. Some of the electrical energy and part of the heat energy used in the housing are obtained from fossil fuels. In the electric energy production still largely fossil fuels are used. Fossil fuels in the electricity and electrical energy is converted into thermal energy conversion techniques in this regard, the basic requirement for the efficient use of energy is through assessing the correct temperature. In this context, the studies considered before the energy consumption, energy production and manufacturing facilities is an important issue we face is to be determined in the substantial investment and operating costs. The importance of the energy produced by the high cost, is not noticeable during use, are attempts inefficient even with the most efficient power plants and energy policy would have been followed unsuitable. Based on energy policy in the consumption phase of the sensitivity in shaping the production phase is understood that have also to be shown.

### **2.1. Insulation**

Two different systems, a purpose is called technical insulating system for separating them. Insulation process is classified according to the type of insulation material used and tasks in the system. Heat insulation, waterproofing, emerges with varieties such as fire insulation and soundproofing. Thermal insulation in buildings and installations to reduce heat loss and gain, and to prevent unwanted energy transition is called the general of the transaction. Technically, thermal insulation: the temperature is used to reduce heat transfer between two different media unit time (2).

The definition of thermal insulation material; Turkish Standards TS 825 and German DIN 4108 norm in accordance; Stone wool, Extruded Polystyrene, Expanded Polystyrene, glass wool, polyethylene, polyurethane, glass foam, thermal conductivity, such as phenol foam ( $\lambda$ ) 0,060 kcal / thermal insulation material to the material under the  $\text{mh}^\circ\text{C}$  value is called the building material is full of the remaining material above this value (2 )

### **2.2. Thermal insulation in buildings**

Thermal insulation, protection from adverse effects of climate conditions in the building; human health, maintenance costs are very important in terms of fuel savings and the initial investment costs. In this respect, the task of thermal insulation is to ensure the formation of a

healthy and peaceful living space with adequate protection from the building climate. Living volumes, the need for heating energy and heating costs incurred to provide it depends on the thermal conductivity properties of the elements that make up the unit of time and decreases the ability to transmit heat from the building structure with thermal insulation. In addition to the external environment surrounding the volume with adequate protection from seasonal thermal effect component of the structure surface and the inner parts of the condensation event, avoiding freezing of the piping and damage may occur depending on these structures for maintenance and decreases the repair and refurbishment costs. Looking at the building, which made insulation; exterior walls, ceilings, stairs, windows, unheated volume laying on, is losing heat from the elements such as ground based floors and an outdoor walkway slabs on and is increasing the amount of energy consumed for air conditioning of so building (3). As with the thermal insulation preventing heat loss prevention structural member is moisture and humidity, as well as to protect against corrosion in reinforcement of columns and beams. Thus, thermal insulation in buildings, acting positively to the life of the building increases the life of the building. Passing in buildings with insulation structural elements in the columns and beams of the inner and outer surfaces prevent the thermal stress is due to temperature variations that may occur in the formation of possible cracks which may occur due to thermal stress in this way, the support element is prevented. This situation; Due to be in Turkey's earthquake zone and carrying the risk of earthquakes, an important issue that needs attention and sensitivity shown emerges. From this perspective Considering the per capita consumption of the insulation and insulation material used in our country seems to be implemented at a very low level compared to developed countries. Thermal insulation materials are manufactured according to the specifications of the selected area to be insulated. Thermal insulation applications of the car from home, we thought it applied in many areas of industrial furnaces up to skyscraper design of these materials, it is clear that should be very careful in the production and application. Thermal insulation, when correctly applied, conduction, convection and / or radiation reduces the energy transfer through heat transfer types, materials. This fibrous insulation materials, granular, film-layer, made from one piece block or open - closed cell, chemical-mechanical hybrid materials can be linked together or supplemented (4). Thermal insulation increases the initial investment costs, but fuel and energy costs used in the heating and cooling system with thermal insulation shows drop in a very large extent. Besides, the capacity of the equipment used in heating and cooling system with thermal insulation has been decreasing. From this perspective, overall installation costs of air conditioning systems is decreasing. For example, a building insulated with insulation in a building boiler boiler has about 60% capacity and the rated difference and purchase offers great savings in terms of both business (2). Similarly, honeycomb radiator heating the insulated building insulated building height in selected small size. Thus it is seen that the air conditioning system is reduced to the initial investment cost spent. In addition, the smaller sizes are increasing areas of use in the building air conditioning system components will be reduced in the areas they occupied the building. Building insulation made every aspect of economic users, offers a comfortable and healthy living opportunities.

### **3. RESULTS**

About the lack of building insulation in hospitals as a result of the examination of the effects of energy-saving ideas of health workers; The distribution according to gender; 80.7% of women (n = 238), men 18.6% (n = 55), 0.7% missing data (n = 2), respectively. Research has found that the participation of more women health workers. The distribution according to age; Between 18-25 years and 13.9% (n = 41), 69.5% between 26-35 years of age (n = 205), 35 years and older was 16.6% (n = 49), respectively. Research has shown that the more the participation of health professionals between the ages of 26-35.

The distribution according to marital status; married, 66.4% (n = 196), single 28.5% (n = 84), divorced, 3.7% (n = 11), 1.4% missing data (n = 4), respectively. The participation of married Research has shown that health care workers be more. The distribution according to education level; Vocational School of Health 24.4% (n = 72), 2.4% of nursing students (n = 7), Associate 54.9% (n = 162), Bachelor of 12.9% (n = 38), M.Sc. 2% (n = 6), 3.4% missing data (n = 10), respectively. Research associate degree graduates were found to be more than the participation of health professionals. Distribution according to which they work unit; Surgical Intensive Care and 0.7% (n = 2), services 81.4% (n = 240), administrative units, 9.5% (n = 28), 8.5% missing data (n = 25) was found. Research has shown that the participation of the service employees more. According to the distribution of working time in this task; Less than 1 year 4.1% (n = 12), 9.2% 1-2 years (n=27), 23.1% between 2-3 years (n=68), between 3-4 years 41% 7 (n=123), 4 years and older, 21.7% (n = 64), 0.3% missing data (n = 1), respectively. Studies have shown that this office working time is more than the participation of the health workers between 3-4 years. According to the distribution of working time in this hospital; Less than 1 year 3.7% (n = 11), 39.3% 1-3 years (n = 116), 43.4% between 4-8 years (n = 128), 7% between 9-15 years 8 (n = 23), 16 years and above 5.8% (n = 17), respectively. Studies have shown that this hospital working time is more than the participation of health professionals, from 4-8 years. The gender make up of the research group of health workers “Do you have a heat insulation hospital?” The statement on the comparative analysis performed in order to determine whether there is a relationship between the statistical response; According to the working group was statistically about gender perceptions about the presence of the hospital’s insulation is determined that there are significant differences (p <0.05). The gender make up of the research group of health workers’ knowledge about heat saving is high. “In a statement to the comparative analysis performed in order to determine whether there is a relationship between the statistical response; According to the working group on gender perceptions as to whether the information on high heat efficiency was determined to be statistically significant difference (p <0.05). By marital status variables of health workers form the research group “heat insulation of the hospital should be strong,” the statement on the comparative analysis performed in order to determine whether there is a relationship between the statistical response; According to the working group of the marital status was determined that hospitals were statistically significant differences on perceptions about the need of the strength of the thermal insulation (p <0.05). Of health care workers in this task by forming a study group working time variable “Is the heat insulation to the hospital?” The statement on the comparative analysis performed in order to determine whether there is a relationship between the statistical response; According to the working time of employees in this task group on perceptions about the presence of the hospital’s thermal insulation was determined to be statistically significant difference (p <0.05).

## 6. CONCLUSION

Investigation of thinking about the lack of health care workers in hospitals in the building thermal insulation effect of energy saving results of health workers;

- \* 80.7% % of (238 people) were women,
- \* 69.5% (between 205 people) aged 26-35,
- \* 66.4% (196 people) were married,
- \* 54.9% of the (162 people) with associate degrees,
- \* 81.4% (240 people) are taking part in the service,
- \* 41,7’n% (123 people) between 3-4 years of working time in this task,
- \* 43,4’n% of (128 people) working time is between 4-8 years in this hospital.



Sex groups of employees;

Hospital of the presence of thermal insulation, whether high of information on heat savings, whether it is strong thermal insulation, should be given attention to insulation and savings, whether they are skilled in energy saving, information workers to ensure that hospitals have energy to understand and contribute to shared and not shared, heat they know knows whether the insulation, whether high of information on energy saving, the hospital where the requirements of the efficient use of energy in the hospital to be given to thermal insulation and saving the information which will enable the hospital to save energy have to understand and contribute to the sharing was determined to be statistically significant differences between subjects. According to the gender of health professionals According to the research findings was affected their responses on the effects of the lack of energy-saving building insulation.

According to marital status groups;

There needs to be a hospital of strong thermal insulation, efficient use of energy in the hospital, it was determined that employees of the hospital's energy to understand and contribute to a statistically significant difference between subjects that are shared knowledge that will enable them to be. With regard to the findings of health workers according to marital status was affected their responses on the effects of the lack of energy-saving building insulation.

By educational status groups;

Hospital of the presence of thermal insulation, whether high of information on energy saving, efficient use of energy in the hospital, the hospital's heat insulation and to be effective in saving, low employee of energy saving in the hospital to be given to thermal insulation and saving the hospital carrying out the full meaning of thermal insulation and savings, they are adept heat, saving on energy saving was determined statistically significant differences between subjects having a positive attitude. With regard to the health of their employees according to the findings of education was affected their responses on the effects of the lack of energy-saving building insulation.

Appointed by the runtime group;

Hospital of the presence of thermal insulation, whether high of information on energy saving, the hospital where the requirements of the efficient use of energy in, the hospital's heat insulation and savings required to be effective, low employee of energy saving in the hospital where given to thermal insulation and savings to be adept at energy saving, employees the information which will enable the hospital to save energy and have a shared understanding of the contribution, it was determined that employees were statistically significant differences among the subjects to cooperate on energy saving in the hospital. Research findings analyzed according to the office working time when health care workers has been affected their responses on the effects of the lack of energy-saving building insulation. Currently, they work according to their working time in the hospital group; Whether the hospital's heat insulation, whether it is high knowledge about energy saving, hospitals thermal insulation should be strong, the hospital where the requirements of the efficient use of energy in the hospital thermal insulation and to be effective in saving, low employee of energy saving in the hospital where given to thermal insulation and saving, heat of having a positive attitude towards saving the hospital, which will provide students with the ability to understand and contribute to the energy savings are shared between threads of information is determined to be statistically significant. Referring to the findings of health workers in the hospital were identified according to their working time affect their responses on the effects of the lack of energy-saving building insulation.



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# ACTIVITY-BASED COSTING AND MANAGEMENT IN A HOSPITAL-BASED ENDOSCOPIC SURGERY UNIT

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## EXTENDED ABSTRACT

**Introduction and Study Purpose:** ActivityBased Costing (ABC) is an established costing methodology developed by Cooper and Kaplan (1988) in United States (USA) during the 1980's that calculates cost price of product or service by determining the usage of resources in accounting sciences.

Some researchers admit that ABC has several pitfalls (Anderson and Young, 1999). ABC accumulates overheads for each organizational activity in the company. During the end of 1990's due to implementation of new technologies and progresses in health care services, the application of ABC was common in United Kingdom (UK) and US. According to Innes et al. (2000), the usage of ABC in non-manufacturing and finance such as services industries were more than 21% in 1994.

Although, research on the cost performance of the ABC of health care organization does not clearly improve firm value, it has crucial influence for accountants in the managerial function. Health management accountants can play a basic role in the design of an ABC system suitable for health care service's needs.

Based on their skills and training in health management, they can help identify what is appropriate for analysis in hospitals or primary care centers like service product, customer, process, etc. As a result, they can explain health care instructions chief executives the probable causes of an existing cost system's deficiencies in developing countries. Successful implementation of ABC is not the same in every organization. There is not one way to follow for reaching the same path in ABC methodology.

The significant and relevant literature suggests that the implementation process of an ABC system includes four steps (Wegmann and Stephen 2009):

- (1) Cost system evaluation,
- (2) ABC design,
- (3) ABC implementation, and
- (4) System evaluation and validation.

By the use of ABC method, unused capacity can be detected and decreased in hospitals. Calculation of the cost price based on hospital level and sustaining costs of Iran's hospitals was studied by Rajabi and Dabiri's research in 2012. Several studies have been conducted on the use of the ABC method in emerging economies like Turkey (Nassar et al., 2009) in recent years.

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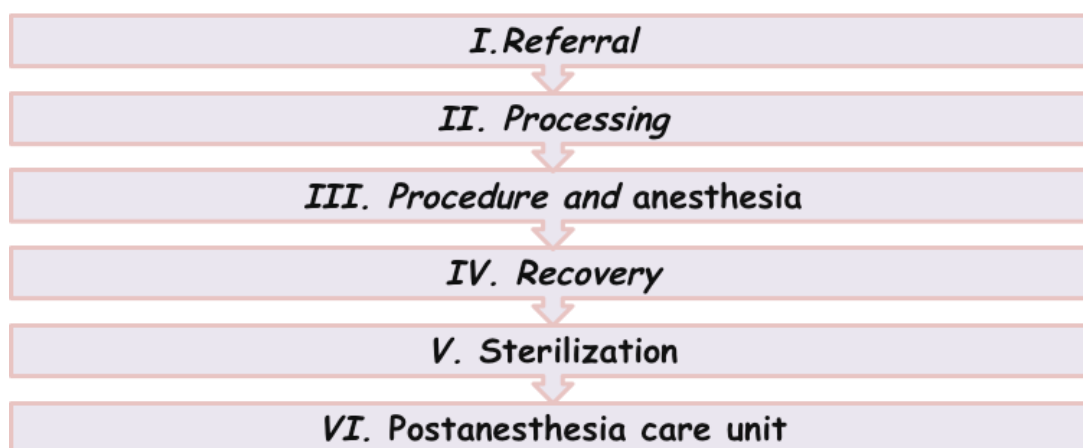
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The purpose of this research was to estimate the cost price of a gastrointestinal endoscopic procedure in a secondary care private hospital in Balkan Region of Turkey. The main hypothesis is the use of the ABC model will results an increase in health care organization's competitiveness better than the use of traditional management accounting systems.

**Methods:** Activity based costing is an approach for allocating overhead costs. An activity is an event that incurs costs. A cost driver is any factor or activity that has a direct cause and effect relationship with the resources consumed.

The two key cost drivers used in this research were employee costs (measured in time) and material costs (measured in number of items used).

Endoscopic unit was divided into six main units based on the procedures shown in Figure 1. Activity centers were defined by the activity analysis method. Costs of administrative activity centers were allocated into diagnostic and operational departments based on the cost driver. Finally, with regard to the usage of cost objectives from services of activity centers, the cost price of endoscopic unit services was calculated.



**Figure 1. Activity Centers**

Health care personnel get paid according to their performance from their private hospital. In calculations of the direct costs, all these amounts were considered as costs of the hospital in endoscopic unit. The direct working hours for the endoscopic procedures were collected from the time studies. Procedures were calculated according to endoscopic staff information's. During all endoscopic activities nurse and physicians make contribution to the process. Their working hours were calculated. These are endoscopy's physicians, nurses, anesthesia technician, nurses of anesthesia, and physician of anesthesia.

**Results:** In calculation of the cost price with the ABC method, the high level of indirect costs in the hospital endoscopic unit indicates that capacities of resources are not used correctly in referral and processing units. The daily patient costs in endoscopic unit were calculated to be 466 TL for gastrointestinal endoscopy without medical materials and medications. The overall cost for Referral was 30.31 TL. The cost per Processing unit is estimated at 29.39 TL; Procedure and Anesthesia 78.01 TL; Recovery 52 TL, Sterilization 90.20 TL; Post anesthesia care unit 38.64 TL, respectively. The three major cost drivers were physician fees, disposable equipment, and nursing costs. The intraoperative phase contributed to 94.5% of the overall cost.

**Conclusion:** The ABC method calculates cost price by applying suitable measures. In addition, this method provides useful information about the amount and combination of cost price services. This study estimated the overall cost of the endoscopic surgery unit services to be 739 TL per case.

Data obtained on the basis of the ABC model can be used in endoscopic unit in the hospital. The analysis of ABC can work with more effective implementation of the activities by identifying those that create the greatest value for the health care organization (Cinquini, Miolo Vitali, Pitzalis, and Campanale, 2009).

**Keywords:** Activity Based Costing, Gastrointestinal Endoscopy, Cost Drivers, Turkey

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# EFFECTS OF PERFORMANCE BASED PAYMENT SYSTEM ON HOSPITAL PRODUCTIVITY

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The improvement of health system performance has become a key policy issue in most developing and developed nations (Smith, 2002). Public hospitals are a significant component of health systems in many developing countries, generally responsible for 50 to 80 percent of recurrent government health sector expenditure (Chawla, Govindaraj, 1996).

Health administrators and policymakers are placing increasing emphasis on efficiency in the health sector. Efficiency considerations have been central to health system reforms in many countries (Hollingsworth, Bruce, Peacock; 2008). At the beginnings of the 2000s, Ministry of Health (MoH) initiated new program titled as “Health Transformation Project”. This program aimed at restructuring organization and functioning of Turkish health care system. Similar to other countries, the purpose of these reforms, in Turkey, is to make resource allocation in health care more efficient, more innovative and more responsive to consumers preferences while maintaining equity (Wynand, 1996). Consequently health transformation project has created radical changes in the organization, financing and provision of health services. Health Transformation Project has also stimulated competition among health care organizations and forced health care managers to focus on efficiency and quality in the provision of health services (MoH, 2003, 2007, 2009).

**New Premium System for Physicians:** In year of 2005, the MoH established a supplementary payment (premium) system, similar to fee for service arrangements, based on both individual and organizational performance. In this system, designed to motivate physicians and other health personnel, physicians’ premium levels are determined by all of the services they provide. Physician premiums depend on the quantity of medical services such as outpatient visits, patient admissions, inpatient days, surgical and other medical procedures provided by physicians (Aydin, 2007). The first benefit of this system is that the services provided in hospitals have become measurable. The second benefit is the evaluation and reflection of these services to service providers. In training hospitals, not only services provided to patients but also resident training, scientific studies, publications are also accepted as performance criteria. Thus, residents’ training and scientific studies are encouraged.

As shown in Table 1, the MoH has determined points for all medical services and procedures. Physician premium are determined in two stages. In the first stage, performance points of each physician are calculated by multiplying points of services and quantity of services. At the

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second stage, total premium payments are calculated by multiplying performance points by the premium rate. Premium rates are established by hospital administrations, depending on the financial status of the hospitals.

**Table 1.** Calculation of the physician premium levels.

Service Code	Procedures	Points of services (A)	Quantity of Services (B)	Performance Point (A x B)
520.030	Outpatient visit	21	100	2,100
510.021	Appendectomy	420	10	4,200
619.920	Normal delivery	143	10	1,430
Grand Total				7,730
Premium rate: 1.10 TL				
Total Premium Payment= 1.10 TL x 7,730= 8,503 TL				

### Potential Effect of Changing Physician Payment Systems on productivity improvement

In 2004 MoH introduced new performance based premium systems for physicians. Basic drive behind the new premium system is to enhance physician productivity by setting premium rates for all of the services and medical procedures that physicians provide. The new premium system is similar to the piece work payment schema. Because physicians initiate and lead clinical services in hospitals, it can be expected that new payment systems have a positive effect on hospital productivity. Therefore Malmquist index and its components were calculated for the period 2003-2005 to measure and to analyze efficiency improvement assumed to be result of the new payment systems. In table 2, descriptive statistics of Malmquist Index and its components are presented.

**Table 2.** Malmquist Index Results (2003-2005)

Period: 2003-2005	All Hospitals			MoH Hospitals		
	Mean	SD	N	Mean	SD	N
Malmquist Index	1,355	0,712	442	1,427	0,750	356
Efficiency Change	0,988	0,530	442	1,089	0,533	356
Technological Change	1,411	0,392	442	1,340	0,365	356

As shown in Table 2 over the period 2003 -2005, general hospitals have achieved a noticeable productivity improvement, calculated as 35,5 %.

### Malmquist index

In recent years the Malmquist index has become the most widely used approach to the measurement of productivity changes in different periods. The concept of Malmquist productivity index was first introduced by Malmquist (1953), and has further been studied and developed in the non-parametric framework by several authors. Malmquist indexes were firstly introduced by Caves, Christensen, and Diewert (1982). Caves et al (1982) showed that productivity changes,  $t$ , ( $M_o^t$ ) and to period  $t+1$  ( $M_o^{t+1}$ ) is equal to

$$M_o^t = \left( \frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} \right)$$

and

$$M_o^{t+1} = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^t, y^t)}$$

Fare et al (1992; 1997; 1997b), using this notation, defined the Malmquist index as the geometric mean of these two indexes.

$$M_o(x^{t+1}, y^{t+1}, x^t, y^t) = \left[ \left( \frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} \right) \left( \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^t, y^t)} \right) \right]^{1/2}$$

Fare et al (1997) also decomposed the Malmquist index into two independent indexes, namely efficiency change index

$$\frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)}$$

and technological change index.

$$\sqrt{\frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})} \cdot \frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)}}$$

Efficiency change index measures how the decision-making unit (i.e. hospital) is catching up to frontier. More specifically, the efficiency change index compares efficiency levels of hospitals between time periods (t and t+1). By definition, an efficiency change index greater than 1 means efficiency improvement. The next component of the Malmquist index, technological change or frontier shift, focuses on technological or innovative improvements between two periods of time analyzed, and measures the movement of efficiency frontier enveloping inefficient units. The Malmquist index has numerous advantages compared to other productivity indices. For example, for computational purposes, the Malmquist index does not require more assumptions for hospital behavior or objectives (e.g., profit maximization), and any price information for inputs used and outputs produced (Fare et al, 1992; 1997). For practical purposes, the Malmquist index is computed by using a linear programming method named Data Envelopment Analysis (DEA) developed by Charnes et al (1978).

#### **variables**

##### **Output variables**

**Outpatient visits:** Total number of scheduled visits including emergency and follow up visits.



**Patient days:** Total number of inpatient days produced (Number of admissions x Average length of Stay).

**Gross death rate (GDR):** The ratio of total deaths to total hospital discharges. Gross death rate was reciprocally transformed ( $1/\text{GDR}$ ), which means that an increase in  $1/\text{GDR}$  represents decrease in gross death rate.

**Surgical procedures:** Total adjusted surgical procedures performed in hospitals. In Turkey, surgical procedures are classified in three categories: minor, medium and major procedures. Recently, Social Security Institution (SGK) changed this classification scheme by adding new surgical categories such as A1-A3, representing highly complex procedures (e.g. organ transplantation, open heart surgery). Because the content of major surgical categories was extended to cover highly complex surgeries, we used the mean of the points of each surgical category mentioned in SUT (Health Services Price list) as the basis for categorizing surgical procedures. Points of each category reflect the relative difficulty of procedures. These points are also being used for determining physician performance. In sum, adjusted surgical procedures were calculated as follow:

Where

P: Midpoint of each category of surgical procedures,

N: Number of surgical procedures in each category,

J: Number of the surgical categories (1 to 3).

Weights (midpoints) used in this study are minor = 1, medium = 3,01 and 36,9 = major-complex procedures.

Buyukkayikci and Sahin (2000) have developed a different approach to adjust surgical procedures. Based on cost data, they developed weights for categories of surgical procedures. The weights are: major = 1, medium =  $1/3$  and minor =  $1/7$ . A similar approach was adopted by Bilsel and Davutyan (2011).

### **Input variables**

**Specialists:** Number of specialists employed by hospitals.

**Practitioners:** Number of practitioners employed by hospitals.

**Beds:** Total number of beds available in hospitals.

### **Population and Data Sources**

The study population comprises MoH acute general hospitals. Small or day hospitals and training hospitals were excluded to assure homogeneity. In day or small rural hospitals, emergency medical care services are provided or delivered on an outpatient basis. Training hospitals, with their different mission and more severely ill patients, are not homogeneous with other hospitals and were therefore excluded to obtain a more accurate assessment of MoH's general hospital performance. Finally, the study population comprised 356 acute general hospitals satisfying establishment time and size considerations.

Data pertaining to the inputs and outputs of individual hospitals were derived from the Statistical Year Books of Inpatient Care Facilities of Turkey (2001-2009) annually published

by MoH (2010) and MoH electronic records collected from Curative Services Directory.

## Results

Table 3 gives descriptive statistics on inputs and outputs of the hospitals. The data set comprises actual inputs and outputs of hospitals (N=356) for the period from 2003 to 2005. While the number of inputs increased slightly or remained steady over the two years, hospitals *increased* their outputs by 79% for outpatient visits, by 23% for inpatient days and by almost 111% for adjusted surgical procedures. The most noticeable feature of the results presented in Table 3 is the notable decrease in the gross *death rate*. The gross hospital death rate declined by 34% from 2003 to 2005. These statistics show that hospitals increased the volume of outputs while improving the quality of health care services simultaneously.

**Table 3.** Descriptive statistics (N=356)

Years	Descriptive Statistics	Number of Beds	Number of Specialists	Number of Practitioners	Number of Outpatient Visits	Number of Inpatient Days	(1/GDR)	Total Adjusted Surgical Procedures
2003	Mean	98	19	10	110.927	19.119	232	20.359
	Standard Deviation	110	30	9	115.053	30.339	297	37.307
2004	Mean	103	20	10	144.145	22.484	255	33.463
	Standard Deviation	114	28	10	150.497	35.019	410	65.345
2005	Mean	113	22	11	198.904	23.554	310	43.033
	Standard Deviation	130	31	11	226.571	38.248	475	85.258

**Table 4.** Productivity Improvements (2003-2005)

Periods and Years	Efficiency Change		Technological Change		Malmquist Index	
	Mean	SD	Mean	SD	Mean	SD
2003=>2004	1,067	0,496	1,214	0,210	1,247	0,455
2004=>2005	1,115	0,514	1,202	0,438	1,243	0,575
2003=>2005	1,089	0,533	1,340	0,365	1,427	0,750

As shown in Table 4, over the period 2003-2005, Turkish hospitals achieved a noticeable productivity improvement (42,7%) due to technological progress (34 % ) and catch up effect or efficiency change (9 %)

Figures presented in Table 3 indicate that the new compensation system has increased both physician productivity and hospital productivity. For example, from 2003 to 2005 outpatient visits per physician and adjusted surgical procedures per physician increased significantly. As a result of the new premium system, physicians extended their working hours voluntarily and tried to maximize productive use of their time and potential. Most specialist physicians preferred to close their private offices and began to work as full-time equivalents at the hospitals. By the beginning of 2003, the share of full-time specialists was 11%, and reached

75% in 2009 (Akdag, 2008; OECD, 2009). Increased productivity of physicians in Turkey enabled administrators to overcome chronic problems of physician shortage, long waiting lists, and inefficient use of facilities such as operating rooms.

As stated by Shortell et al (2001) and Tufano et al (2001), compensation method is perceived to be a significant influence on the physician productivity, giving impetus to hospital productivity improvements. Shafrin (2010) found that financial incentives significantly influenced the frequency of patient surgery. If a specialist is compensated via fee for service as opposed to capitation, surgery rates increase by 78%. In the outpatient setting, changing physician compensation increases surgery rates by 84%. Conrad et al (2002) found that individual physician incentives based on their own production increased physician productivity. Especially in Turkey, after implementation of the new compensation scheme, patient referrals diminished dramatically and physicians began to accept more complex cases instead of referring them to other hospitals. During this period the MoH introduced the physician choice policy that encourages physicians to provide more patient-centered medical care services. Therefore, physicians have been encouraged to focus on quantity and quality of services simultaneously.

## **Conclusion**

As the policy-makers put emphasis on efficiency in their agenda, they focus on more organizational structure and behavior of the health care providers in micro level. Measuring hospital efficiency provides concrete feedbacks about policy objectives. It is difficult to achieve policy or reform goals without human resource supporting policy.

Performance based payment system is important with regards to integrate health workforce into reform process. Human resource resistance is mostly opponent of reforms. Health policy must be able to convert opponent into component of the system.

As a part of HTP program, performance based incentive payment system had many effects on the health care system. It was aimed at value creation with win-win strategy. After implementing the new payment method, it was a substantial improvement in both quantity and quality of service delivery.

Impact of performance based payment system assessed with using DEA based Malmquist Index with two years period. Malmquist index results show that Turkish acute general hospitals have achieved a noticeable productivity improvement, calculated as 42 %. Although input level almost remained stable, hospitals increased their outputs significantly. Productivity improvements of the general hospitals can be depended, to a great extent, on setting work environment of physicians. Therefore, the physicians causing inefficiencies have been put into system with the incentive payment system. Besides, they not only work efficiently but also make this voluntarily.

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# COMPARISON OF FEMALE AND MALE NURSE MANAGERS' LEADERSHIP STYLE

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## ABSTRACT

**The Problem of the Study:** Success in achieving the organization goals, depends on management and leadership style. One of the factors that affect leadership style, is gender.

**The Purpose of the Study:** The purpose of this study was to determine the difference between female and male nurse managers' leadership style at selected hospitals in Isfahan (Iran) in 2014.

**Method:** The study population was composed of nurse managers working at 13 selected hospitals in Isfahan, who were selected through convenience sampling procedure. To collect the data, a questionnaire which contained two parts was exploited: the first part included questions about the participants' personal information and the second part was Salzman standard questionnaire which was based on Rensis Likert leadership style perspective. The data were analyzed via one-way ANOVA, Chi-square and Kruskal-Wallis tests using SPSS 20.0 software.

**Findings and Results:** 51 male and 83 female nurse managers participated in this study. In female nurse managers, the most frequency was participative leadership style (78.3%), and the lowest frequency was exploitative authoritative leadership style (3.6%). In male nurse managers, the most frequency was participative leadership style (58.8%), and the lowest frequency was benevolent authoritative leadership style (9.8%). The Chi-square test indicated that frequency distribution of leadership styles was significantly different among male and female nurse managers ( $P=0.04$ ).

**Conclusion:** Leadership style in male nurse managers differed from female nurse managers which coincided with the gender clichés approach. Hence, it is recommended that an appropriate combination of men and women's different styles be applied so that these styles together present the best consequence and efficiency.

**Keywords:** leadership Style; Male leadership Style; Female leadership Style, Nursing Management

## INTRODuCTION

Provide optimal care and improved processes all contribute to the hospital's human resources and provide continuous service, by their proper and effective teamwork and largely depend on the organization's staff and leadership style of managers. Given the importance of the hospital and how Administration and its resources, it is useful practices and effectiveness of the leadership and guidance materials to be used, because research has shown that healthcare managers' leadership style effectiveness, efficiency and productivity of the organization,

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job satisfaction and organizational commitment relationship (Ameriun et al., 2011). Individual and organizational characteristics affect the ability of the leader's influence over subordinates (Masoudi Asl, 2010) Else on leadership styles, effective gender (Layhv and Brandt, 2013). Research has yet to result in significant differences between men and women in leadership have failed. Generally it can be said that the research results are divided in two groups. The first group of studies that have recognized the leadership styles of women and men alike. The second group of studies has identified different styles of them more women than men have a transformational leadership style and contingent reward (Sohrab 2001)

The questions which arise in this period, including the cases cited: Does the leadership styles of men and women are different? (Sohrab, 2006) Leadership differences between men and women in this respect it is important to recognize, effectiveness and progress to leadership roles in helps organizations (Eagly et al., 2003). Given the important role of nurses in the health care system and because of insufficient effectiveness or non-effectiveness of hospital nursing manager's difficulties for staff and consequently for patients and the community has created (Ebadi et al., 2006). Research conducted in this area was necessary and what is of interest in this study was determining the difference between male and female leadership styles of nurse managers in selected hospitals Esfahan.

## METHODS

This study is cross-sectional and correlational. The study population consisted of all nursing managers include: Matron, supervisor and head nurses at 13 Hospital in Isfahan had formed. The questionnaire used to collect data included questions about demographic characteristics and leadership styles questionnaire with 35 items using a Likert Rnsys Salzmn leadership style was based on the four leadership styles - authoritative style of exploitation, authoritative style - well-intentioned, Sheraton collaborative consulting style deals. Statistical tests used in this study are: ANOVA, chi-square test, Kruskal-Wallis test using the general operation was performed using SPSS software.

## FINDINGS

The findings of the study showed that 51 male and 83 female nursing managers participated in the study. 70.1% were at the undergraduate level and 29.9% had a master's degree. The mean of age was 48. In terms of position, 6.2% were matron, 30.8% supervisors and 63% head nurses. The mean years of managerial experience  $6.47 \pm 9.33$  and mean clinical experience was  $6.73 \pm 12.07$ . The results showed that the most frequent female nurse managers related to participative management (78.3%), counseling (12%), benevolent authoritative (6%) and exploitative (3.6%) and the highest frequency of male nurse managers related to participative management (58.8%), exploitative and consult each (15.7) and benevolent authoritative management style (9.8%). Chi-square test showed that the distribution of male and female management styles of nurse managers is a significant difference ( $p = 0.04$ ).

Table 1. Management style based on gender distribution of the sample

Management style	Female		Male		Sum	
	Number	Percent	Number	Percent	Frequency	Percent
Exploitative	8	15.7%	3	3.6%	11	8.2%
Disciplinarian - goodwill	5	9.8%	5	6%	10	57.5%
Advisory	8	15.7%	10	12%	18	13.4%
Collaborative	30	58.8%	65	78.3%	95	70.9%
Total	51	100%	83	100%	134	100%



## DISCUSSION

The results showed that the management style of nurse managers is a significant difference between males and females ( $p = 0/04$ ). The findings of this study showed woman in nurse managers were the most frequency (78.3%) of participative management and lowest frequencies (3.6%) of the autocratic management style - is exploitative. However, the results of the study Cuadrado et al (2008) showed the leadership and gender democracy and relationship-oriented leadership styles are stereotypes of women were found. Qureshi et al. study (2011) entitled ((The impact of culture and gender in leadership behavior)) showed that female leaders, were handled in a more participatory leadership and tried to adopt democratic leadership style in different cultures and female characteristics in leadership behaviors, showed. These results are consistent with the findings of this research. The results Cuadrado (2008) as ((women and led by sex)) showed that some women leadership style democracy. Their composition and despot this study is not consistent with the findings of this study. The findings of this study showed that the most frequency male nurse managers (58.8%) of participative management and lowest frequencies (9.8%) of the autocratic management style - which is good. The results of Kvadradv et al. (2008) as ((leadership and gender)) showed autocratic and task oriented leadership styles are a stereotype assigned to the men was found. The findings of the study, (Qureshi et al., 2011) entitled ((The impact of culture and gender in leadership behavior)) showed that the impact of culture on the leadership of men. And they take authoritarian leadership style were more and more men are believed to have strong individuality and ideals of masculinity at work and they take authoritarian focus on direct action and solutions with regard to Wins and losses are offered and competitive nature of the impact that culture makes them seem less friendly. The results showed that the most frequency female nurse managers related to participative management (78.3%), counseling (12%), benevolent authoritative (6%) and exploitative (3.6%) and the most frequency male nurse managers related to participative management (58.8%), exploitative and consult each (15.7) and benevolent authoritative management style (9.8%). Findings Akbari et al (2004) as ((the relationship between managers' leadership style and conflict management in hospitals affiliated to Tehran University of Medical Sciences)) showed there was no significant relationship between leadership styles and gender more task-oriented style and men's and women's styles are applied.

## CONCLUSION

Findings of the study showed that 70.9% of nursing manager used collaborative leadership style, therefore this method can be better way to handle specialty nursing units in hospitals. Knowledge of leadership styles for managers is important that the effectiveness of group leaders and direct the activities that play a vital role. The results of such research should be very careful when appointments within the organization, and identifying the right people for each job after, because the health-critical task because who are responsible for their own facilities to produce products to improve the health of the population, enough to take advantage. Managers of health care services with the claim that the administration of the health centers of expertise can be entered on themselves so it is necessary that in all matters use of manpower, so with tact and act as expert enough to take advantage of the expertise of staff and achieve organizational goals. The results showed that leadership style of nurse managers, nurse managers, men and women are different approach is consistent with gender stereotypes. It can be argued that women are better leaders than men too much emphasis on women's skills in building relationships men do not consider the nature of racing. The truth is that mediocrity should be taken into account at all levels feature a mix of feminine and masculine is required. This unique combination of leadership needs in the future. They have



so much to learn from each other. This feature or other features, not enough, both are required for effective leadership (Shirvani et al., 2009). Therefore appropriate to use a combination of different styles for men and women are advised to learn Awards and to bring together the best results and efficiency. Is suggested to increase the familiarity of the managers of the health behaviors of women and men in leadership positions, thoughts on education, women and men have different characteristics and prospects.

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# A NEW APPROACH TO THE ORGANIZATIONAL MANAGEMENT:USING COSO MODEL IN HUMAN RESOURCE MANAGEMENT IN HEALTH CARE

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## ABSTRACT

**The Problem of the Study:**The COSO model is developed as one of the directors of organizational management model, strategic management, human resources management, process management, corporate performance method, accounting and financial management, informatics applications and can be applied in many units, such as the organizational structure. An important model for effective and efficient execution of activities, although internal risks have been eliminated. COSO internal control system of the use of the institution, and that is to be made according to the characteristics of individuals and the applicability of health system performance, working environment, working system, job satisfaction, pricing in terms of the adequacy of policies the Administration as human resources, it is possible to so with this model the competent Unit.

**The Purpose of the Study:**Internal controls (COSO) model and the applicability of the model in the health system by creating institutions can be provided of the internal control system of objective dichotomy.At the same time the hospital management is to provide support to the work of the quality standards.

**Method:** The theoretical part of this study, is developed via literature review. The COSO model is in line with the human resources unit, components of internal control, providing the application model has been demonstrated.

**Findings and Results:**Accounting and finance, although the theoretical framework of this model also worked with telling over yet because of the lack of examples of applications as implemented in the health sector first studied and created the application model. Internal control system operation can be implemented in every sector, such as where applicable in the industry besides the fact that have wide application in each volume offers.

**Key Words:** COSO, health care, hospital, internal control system

## INTRODuCTION

A good way to control health care institutions to ensure the implementation of the internal control system as a management model is required. Thus I need accreditation in the healthcare industry with internal control system as well as total quality management and to contribute to the level of perfection of internal control mechanism, creating the risk that may occur in the system and is an important method of preventing errors, although easy to implement a control model.

Control of the business is one of the core management functions. Check function of internal control system in enterprise is fulfilled through the constructed. Internal control, time, complete and accurate information, the risk of errors in financial reporting, to minimize the

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maximum and can be made in trust to be shut down of operations helps the Administration some of the issues. Business management is necessary to prevent mistakes and tricks of the systems to create and improve them as a management responsibility.

Governments that is pre-populated for responsibility systems, internal control system among others. COSO as an organizational management model in human resources can be used as a method of ensuring internal control. The COSO model with “activities effective and efficient conduct of business within the framework of the purposes of the” execution and corporate risk management, with the “internal” risks “has been eliminated.

For example, an empty position in the schema and the organization level in-or outside of the Organization of personnel needed for the management of human resources by giving the appointment, powers and responsibilities, such as rotation of staff within the framework of the purposes of upbringing and business in all sectors to move and can be used as a model that can be applied to each volume.

## 2. THE CONCEPTUAL FRAMEWORK

The COSO (Committee of Sponsoring Organizations of the Committee the Commission), the internal control system in an enterprise’s human resources management in setting up task imposes. COSO, American Accountants Association, American Association of Chartered Accountants, Institute of Management Accountants and Finance Managers Association, International Internal Auditors Institute is supported by. The COSO model, although the issue of accounting and control for funding in order to establish internal control system of the healthy, all units are checked and constitute a model that should be applied, to be for the control.

COSO, internal control in organizations in order to improve the quality of the internal control System in 1992 – has published an integrated Framework standards. COSO internal control system for financial reporting and is integrated with the organizational management.

As an organizational management model includes five essential elements and 26 policy the COSO. These elements can be applied to each organization and standards (Lanz ve diğ.,2006).

These basic elements include (Graham, 2008:28)

- **Control environment:** The area around the active control factors; commitment to truth and ethical values, management philosophy and operating style, organizational structure, Management Committee and Audit Committee, powers and methods of assigning responsibilities, human resources policies and practices, external influences can be listed as follows (Atmaca, 2012:197).

- **Risk determination:** The determination and analysis of the risks of pulling off the business objectives refers to.

- **Control activities:** Management directive to help towards the achievement of the processes, policies and procedures and more.

- **Information and communication:** Accomplishing the responsibilities of management and employees and systems, which allows for the reports.

**Tracking:** Internal control is a process that controls the level of performance, this process is performed by the internal audit department monitoring (observation).

Control environment is fundamental to organizational management. Control environment standards, management philosophy, Management Board, ethical values, organizational

structure, talent management and human resources management policies and practices are associated with. Accordingly, the COSO organizational management and establishes a link between human resources management. Because the potential of the employees, the employees and the COSO abilities of special importance. Bu durum yönetim felsefesi ilkelerinde çalışana önem verme ve işletme hedeflerine ulaşma olarak tanımlanmıştır (Uysal, 2010:3).

Determination of the organizational principles of the Mission's organizational structure, organizational objectives, the organization chart, power relations, task definition and responsibilities, workflow, the signature and ratification process is related to processes such as. Talent management job analysis, job description, training and development, professional Executive development program, feedback, performance appraisal applications are emerging as (Uysal, 2010:3).

In my activities with effectiveness and efficiency of internal control system and risk management of affect. Are relevant to the corporate mission and the Organization's mission goals and is used as a method on the valuation model of internal and external risks have been eliminated. Internal risks are related to the activities of the institution, the institution in the event of disruption in their activities, hampers the achievement of the objectives of the mission. External risk is related to the stakeholder satisfaction. Customers, staff, suppliers and the services offered by the institution of stakeholders such as shareholders is to be satisfied with the Agency's goals and mission, transports.

### 3.RESEARCH

The COSO model, human resources management, recruitment, orientation, training, performance appraisal, promotion, ücretleme, communication, motivation, reward and punishment system and includes applications such as disciplinary processes. The COSO model of human resources in the implementation:

**3.1. Control Environment: Inspects the format of job execution:** Integrity, ethical values, management philosophy, human resources management, management expertise, and the commitment to the Organization's structure, transfer of authority and responsibility as well as basic subjects (Demirbaş, 2005:169; Memiş, 2006:73).

**3.1.1. Information about the administration of the application:** Health institutions, Deputy Chief in charge of the human resources unit, Assistant Director, personnel Director, depending on the subscribed is connected (Officer and subcontracted offices), accrual unit, part of the capital (related performance distribution) occurs.

**3.1.2. The Method used For The Analysis Of The Environment Control:**Control environment control environment components and ' evaluation criteria ' is determined.

**Table 1:** Control Environment Components: Human Resources Management

Job Analysis System
Job Evaluation
WorkForce Staffing Planning
Recruitment System
Career System
Organisational Planning
Performance And Reward System/The Pricing System

\* This title is a subset of the questions will be prepared by volumes.

In this study, only the performance of the human resources unit has been asked to be measured. Ethical values of communication, organization, process management, information flow, hierarchy process, information processes, such as integrated processes analysis facilities is also possible. Under the table above title for review are prepared questions about the desired volume.

**3.2. Preparatory Work:** This control should be managed by a team/unit. This training is given to individuals who are selected, and the team. Will be notified two groups about internal controls and information events are made.

**3.3. Data collection:** Control environment analysis studies in data collection and analysis is carried out in two separate parts. The data collection phase, the two different groups, with two different methods: data is collected. The first group will create us to be applied to the mass survey method (nurse, Secretary, healthcare worker, etc..) The second group is bound to the given staff to questions of the survey units and is created by experts. Through the survey to employees is negotiated face to face with the administrator part.

Employees and experts ' questions are respectively,

1- I disagree, not applied

2- Partially agree, partially implemented

3- I agree, is applied.

statements prepared questions to reflect the reviews requested. Data analysis the data obtained from the experts and employees from the three points over averages are calculated (Güner,194). Both sides are asked questions which are required. These questions are pointed as each from one to three scale.

**3.4. Data analysis:** Control environment analysis provides information about both. The first one listed in the table control environment component to the enterprise activity, process, practice, procedures, such as action and/or regulations is to determine whether. The presence of the latter action specified is to determine the levels of implementation of/editing.

In the first, each group is calculated by the average weights in itself. Then the employee surveys with expert opinions of half and half (50%) ağırlıklandırılarak, both groups gave scores are calculated. This type of weighting is preferred is because the general public's mind the idea of the institution develop (Güner,196).

**Table 2:** Control Environment The Evaluation Result

	Employee	Expert	Grand Total
Human Resources Management	2,12	1,83	1,97

$$(2,12+1,83)/2$$

The final phase of the application, evaluation and reporting of the results of the control environment is the analysis. Application of human resources management and employees 2.12; Experts suppose, overall average 1.83 points, let's stop the instantiated as 1.97. The institution, which are necessary for a strong control environment human resources management practice has a partial might say. Management by generally accepted is 2 (two) points. If under two criteria in table 1 in the direction of improving the low score is a management decision to take action.

#### 4. CONCluSIONS AND FuTuRE PROJECTIONS

Control environment the successful administration of the internal control system and continuous development of directly affects. Control function of health checking to be effective in business environments should be analyzed, and the internal control systems should be established. COSO internal control system can be applied as a governance model appears to be. In the health sector, the establishment of the mechanism and the development of health services in terms of control and prevention of the risks that can occur when the system control and health institutions in terms of a model is required for.

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# EFFECTS OF ORGANIZATIONAL TRUST ON IDENTIFICATION IN A UNIVERSITY HOSPITAL

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## Abstract

The organizational trust of employees in the health sector and the levels of identification with their organizations are significant issues. In this respect we aimed to determine the levels of trust which employees at a university hospital in Konya, Turkey (235 employees) feel towards their organizations and the levels of identification with their organizations, and to discover the relationship between the levels of their organizational trust and organizational identification. We conducted our study between April-June 2013 and we used the questionnaire technique. The questionnaire consisted of demographic questions and organizational trust and organizational identification scales. The data were arranged in the SPSS and frequency, descriptive statistics, t test and correlation analyses were performed; in this way, our hypotheses were evaluated. As a result of the findings that emerged, the levels of healthcare employees' trust in their organization and their identification with it were found to be high. A statistically significant difference was found by gender between levels of organizational trust and organizational identification. Moreover, a high and positive relationship was found between healthcare employees' trust in their organization and the levels of their identification with it.

## 1. Introduction

In the health sector, where members of various professions serve, team work is inevitable. It is important to raise healthcare employees' levels of trust in and identification with their organization in order to make team work effective and increase the quality of patient care.

The level of organizational trust, transparency and honesty are factors that determine to what extent cooperation will take place in a workplace. The feeling of trust constitutes the basis of a health team work (Baltas, 2001: 57). The concept of trust is explained through some behaviors and ideas such as meeting expectations, showing interest, and supporting team members in their presence and absence. Trust in the self and the other are among the fundamental conditions for success and happiness. If team members' levels of trust in themselves, their directors and colleagues increase, efficiency and productivity in the organization are expected to rise (Asunakutlu, 2002: 1).

Organizational identification, on the other hand, is a form of social identification (Gautam et al., 2004: 302). Social identification covers a person's concept of ego, and involves categorizations that are important for and adopted by the person (Ceylan and Ozbal, 2008: 83). Just as social identification constitutes a basis for an individual's attitudes and behaviors, so does organizational identification form a basis for an individual's attitudes and behaviors towards an organization (Van Knippenberg, 2000: 138). Identification helps motivating people, encourages them to spend more voluntary work for the success of the organization, engages

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in cooperative and positive interactions with team members and establishes a psychological contact with the organization (Ceylan and Ozbal, 2008: 83).

In this context, it is important to raise healthcare employees' levels of organizational trust and identification. It is believed that health employees who trust their organization and will behave, out of their own will, in a way that supports their organization and make a voluntary effort in the interest of the organization.

## **2. Method**

**2.1. Aim of the study:** Our goal was to investigate the effects of environmental trust of organizations to identification of healthcare staff in a university hospital in Konya, Turkey

**2.2. Material and Methods:** Our research was carried out in a University Hospital in Konya between April -June 2013. Surveys were randomly distributed to different profession groups in the hospital and each professional group (doctors, nurses, secretary, office staff, and technical staff) were presented in the sample. A total of 250 questionnaires were sent out, with 235 completed copies returned, indicating a valid response rate of 94%.

The staff were randomly selected and they were asked to answer the questions about their demographic features, perceived organizational trust and organizational identification.

Two hypotheses were tested in the research;

H1: There is a difference by gender between healthcare employees' levels of organizational trust and organizational identification

H2: There is a positive relationship between perceived organizational trust and organizational identification

The first part of the questionnaire consisted of questions to determine the demographic characteristics of healthcare workers participated in the survey. The second part of the questionnaire aimed to determine the levels of perceptions of organizational trust of employees. The short form of the organizational trust scale developed by Bromiley and Cummings (1996) was used with 12 questions 7-Likert scale. Tuzun adapted it to Turkish in 2006 and stated that one of the items about trust in the scale had been loaded in both factors and dropped one question. So, we also used the last form of the questionnaire reorganized by Tuzun (2006).

The last section of the questionnaire, aimed to determine the level of organizational identification of healthcare employees. The scale of Mael and Ashforth (1992), leaders to describe the concept of organizational identification, was used to measure organizational identification in our study. Their questionnaire consisted of 6 questions 7-Likert scale and has also been used by other researchers (Tuzun, 2010).

Frequency distributions were calculated using the SPSS statistical program, and then reliability analysis, frequency, descriptive statistics, t test and correlation analysis were performed.

## **3. Findings**

We tested the relationship between organizational identification and organizational trust in a University Faculty Hospital in Konya. Demographic information of 235 employees in the survey is given in the table below.

Table 1: Demographic Variables

Variable	Groups	Frequency	Percent	Cumulative Percent
Gender	Male	138	41.3	41.3
	Female	97	58.7	100.0
Marial Status	Single	63	26.8	26.8
	Married	172	73.2	100.0
Age	18-30	42	17.9	17.9
	31-40	91	38.7	56.6
	41-50	57	24.3	80.9
	51+	45	19.1	100
Education Level	Elementary School	15	6.4	6.4
	High School	57	24.3	30.7
	University/PostGrad.	121	51.5	82.2
	Doctoral Degree	42	17.9	100.0

As shown in the table above, approximately 70% of the health care workers had university or higher education level. However, 73% of the employees were married and 81% of them were under the age of 50.

According to the results of reliability analysis, the Cronbach Alpha value was estimated 0.84 for perceived organizational trust. The Cronbach Alpha value was estimated 0.99 for perceived organizational trust. The Cronbach Alpha value was very close to 1 which proved that the organizational identification test's reliability was also very high.

Table 2. Comparable levels of organizational trust and organizational identification according to gender

	Gender	N	Mean	Std. Dev.	F	P
Org.Trust	Female	97	4,45	1,06	17,42	,00
	Male	138	4,69	,80		
Org. Identification	Female	97	4,78	1,79	12,29	,00
	Male	138	5,29	1,40		

As seen in Table 2, there was a difference by gender between the groups according to the results of the t test ( $p < 0.05$ ) both on the organizational trust and identification levels of the healthcare employees who participated in the study. Our results supported our hypothesis (H1) that "there is a difference by gender between hospital employees' levels of organizational trust and organizational identification".

Table 3: Relationship between organizational trust and organizational identification

		Identification	Trust
Organizational identification	Pearson Correlation Sig. (2-tailed)	1	,943** ,000
Organizational trust	Pearson Correlation Sig. (2-tailed)	,943** ,000	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

As seen from the table 3, there was high and a positive relationship between organizational trust and organizational identification at confidence interval ( $r=0.943$ ,  $p<0.01$ ) and 89% significance level. According to these results, our second hypothesis (H2) in the study, "there is a positive relationship between perceived organizational trust and organizational identification" was also corrected according to our results.

#### 4. Conclusion

The results of our study prove that healthcare employees' levels of organizational trust and identification are high. However, it is showed that the levels of organizational trust of healthcare employees are lower than the level of organizational identification. Moreover, the atmosphere of trust that emerges in organizations has a high and positive correlation with organizational identification. The effect of organizational trust on the level of identification levels of health care employees' was % 89. Therefore, it can be said that an atmosphere of trust created in an organization will increase employees' levels of identification with their organization (Tuzun, 2010; Van Knippenberg and Van Schie, 2000; Tokgoz and Seymen, 2013).

Creating an atmosphere of trust in hospitals should be one of the fundamental competences that hospital managers need to develop. Being transparent and honest towards employees and making arrangements to meet their needs within the framework of sensitive and reasonable performance will help to form an attractive working environment for employees. It will be possible when an open network of communication is established in organizations. Once an atmosphere of trust occurs in organizations, employees will identify with their organizations of their own will. In addition, there is a need for educational programs that are based on concrete experiences. Then, concrete steps are needed in organizations to help put into effect the developments in education. In this way, employees' identification with the organization will be encouraged.

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# A CURRENT SITUATION ANALYSIS ABOUT DISASTER MANAGEMENT OF PUBLIC HOSPITALS OF GÜMÜŞHANE AND ITS DISTRICTS

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## Abstract

**The Problem of the Study:** Disasters are extraordinary events occurring unexpectedly, deeply affecting the course of daily lives along with the detrimental effects on the health care services. It has a great importance for individuals, particularly health care consumers and providers, to be prepared against natural disasters in order to take proper reaction in a timely manner.

**The Purpose of the Study:** The main purposes of this study are two folds: To analyze the current disaster management readiness levels of all public hospitals of the province Gümüşhane and its all districts and, secondly, to raise proposals augmenting the situation based on the analyses which will be conducted during the first phase. Moreover, the disaster preparedness plans of all aforementioned hospitals including all the measures against the disasters will be further investigated to gain implications alleviating the current situation.

**Materials and Methods:** This study benefited much from a MS thesis survey on “Organization of Hospitals at Disaster Time and the Preparedness Levels of İzmir Hospitals” which was conducted in 1996 in 9 Eylül University. A number of interviews and surveys have been conducted with the managers of relevant departments of public hospitals of Gümüşhane and its districts, which elaborates on the findings of the previous study.

**Results:** As a result of this research; it was found out that all of the hospitals which have attended to the research had a disaster plan formed against a possible disaster; the controls of this plan was made on a regular basis; all of the units in the hospital could easily determine this plan and it was found out that the institutions that collaboration should be established was determined. On the other hand; some of the various criteria such as planning the crisis rooms which will be used in a case of disaster, determining the hospitals where the patients will be transported on the evacuation plans, additional ambulance supplies in case of disaster and the lack of a plan made for the continuation of communication in case of disaster was found to be absent in the hospitals.

**Keywords:** Gümüşhane Public Hospitals, Disaster Preparedness Plans, Disaster Preparedness

## I. INTRODUCTION

Disasters are extraordinary events occurring unexpectedly, deeply affecting the course of daily lives along with the detrimental effects on the health care services. It has a great importance for individuals, particularly health care consumers and providers, to be prepared against natural disasters in order to take proper reaction in a timely manner.

The main purpose of disaster management in health institutions is to minimize the losses by ensuring that health care consumers and providers and therefore all of the members of the community will be affected minimum by a disaster.

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In this study, it is aimed to evaluate the current situation of disaster management of public hospitals in Gumushane province and districts and to offer suggestions on making comparisons between hospitals.

## **II. GENERAL INFORMATION**

Disasters are natural, technological or human born events and their results causing physical, economic and social losses, affecting communities by stopping or interrupting daily lives and human activities that the affected community can not overcome its affects by their own means and resources (Turkish Prime Ministry Disaster and Emergency Management Presidency 2011). The magnitude of the disaster or catastrophic event is measured generally by deaths, injuries, the structural damage and the resulting economic losses caused by it. (Bozkırlı 2004). A comprehensive disaster management consists of four components; loss lessening, preparedness, response and, improvement (Coppola, 2011). As a result, disaster management will not end, and it is a continual process of renovating (Lettieri et al. 2009).

## **III. DISASTER MANAGEMENT IN HOSPITALS**

Hospitals play a key role in providing health services to people during and after disasters (Kayari,Mobaraki, 2012). During disasters quickly intervened by, the duties of the person approaching the event in a particular system is well defined, it kept regular records and cope with the disaster system that uses the common language in all areas “hospital disaster plan” is defined as (Rodoplu, Ersoy, 2001). The purpose of disaster recovery plans The development of emergency response system, staff training, and through the purchase of necessary equipment of hospitals the current can continue to care for existing patients, enabling them to be prepared to respond to needs arising in order to protect the staff and disasters (Mehta 2006). Hospital staff in pre-disaster, during disaster and to provide adequate health care services after the disaster must improve their professional skills (Hsu 2004). Lock the hospital staff who organized a procedure for managing resources and personnel should be trained to implement the official during an emergency incident command system. Hospitals also a sufficient number of hazardous substances from protective clothing should maintain negative pressure isolation rooms and decontamination equipment ready for use. The subject of a hospital’s emergency action plan must be assessed is whether handle (Mehta 2006). True organized and effective is carried out quickly pre-planned activity management system in order to minimize negative consequences of the disaster and limited human resources in a balanced way maximum effectiveness of using medical services can be achieved (Moghaddam et al., 2005; Sztajnkruc 2004; Zadeh et al., 2003). In case of disaster, hospital, which will face the very top of the usual number of injured, should be prepared for this situation by theoretical and practical. This arrangement has three stages including that, planning to do before disaster of this regulation, when emergency notice is received works to be done and when the wounded arrive at the hospitals works to be done. (Göksoy 2000).

## **IV. METHODS**

This research, public hospitals’, where are in Gümüşhane province and its districts, the current situation related to disaster management is a descriptive research aims to provide advice by comparasions between the hospitals. In the study, what kind of measures that hospitals have developed plans to be prepared against internal and external unusual situation and examining what measures are taken in accordance with these plans some suggestions are developed. This study is cross-sectional, descriptive nature. Research universe, Gumushane constitute state hospitals located in cities and towns. The sample selected for the study was conducted at five



hospitals who agree to participate in research studies. This research May 4, 2015 - May 15, 2015 period was conducted through face to face interviews. The hospitals interviewed for the study were as follows: Gümüşhane State Hospital, Kelkit State Hospital, Şiran State Hospital, Torul State Hospital, Kürtün State Hospital.

In the study, at Business Department of 9 Eylül University Serhat Hacımusalı made by the 1996 "Organization of the hospitals in the disaster and the status of the hospital in İzmir" titled thesis includes the paper a question of making use of the questionnaire, used. The questionnaire includes under the titles that, hospital disaster planning, evacuation plans, emergency plans, ambulance, security, communications, pharmacy, food service, power generator, chemical and radioactive accidents and the morgue, thirty questions. The questions in the survey is to examine the existence of which must be related to disaster management in the hospital. In the study, units' chiefs and directors which are related the subject of the research, made face to face questionnaire was filled.

## **v. RESULTS**

The results of research; hospitals which are in the study have a disaster plan for a possible disaster situation, the plan of controls is made on a regular basis, all other units in the hospital that is easy to transport to this plan and was determined to cooperate and to participate in the organization to do.

As a result of the negotiations, information is gotten that, hospitals are except for Gümüşhane State Hospital have a crisis room, hospitals are except for Şiran and Kürtün State Hospital have achieved the knowledge that more than one phone in the crisis room and the availability of other means of communication. Multiple telephone and other communication tools are in the crisis room, has done better in terms of crisis communication is the most important immediate needs.

Four hospitals, stated that they have crisis room, have disaster plan in their crisis room, two of them have backup lighting tools in their crisis room. It has been understood, all hospitals, which are in the study, are except for Kelkit State Hospital have hospital discharge plan in their hospitals and it is seen as indication of outpatient and inpatient exit door in this plan. All hospitals are except for the Kürtün State Hospital is stated to be in the hospital will be transferred to the patient.

When the emergency plans of the hospitals are examined, it has been seen that, all hospitals are except for Kelkit State Hospital have emergency triage plans and all hospitals' are except for Kelkit State Hospital emergency triage plans included that, what units could be done. According to the hospital by ambulance when you compare it seems to have all the sufficient number of ambulances all hospitals are except for Şiran State Hospital. The Kelkit State Hospital stated that they meet needs through the 112 emergency call. These four hospitals which stated having enough ambulances, except for Torul and Şiran State Hospital also noted the absence of detailed city and regional maps indicating have enough ambulances. When analyzed in terms of safety in the event of special security units in all hospitals in the scope of research and the fire has been determined that the early warning system.

It is seen that, at all hospitals are except for Kelkit and Torul State Hospital, there are specialists of public relations to establish a relationship with the media during disasters. There is also a disaster communications plan in all hospitals surveyed.

All hospitals surveyed indicate that compared according to the criteria of having the drug store pharmacy which has importance vital, it has seen they had. In terms of catering services, it has



seen that, all hospitals are except for Kürtün State Hospital had a disaster plan related with catering services, but all hospitals are except for Gümüşhane and Kürtün State Hospitals have a negotiated institution for helping catering services during the disaster. It has seen that, in the event of a possible disaster, in addition to catering services all hospitals had these following protocols.

According to the findings Gümüşhane State Hospital and Torul State Hospital have backup generators and all hospitals made maintenance of their generators regularly. When evaluated according to the criterion of chemical and radioactive accidents, it has seen that, Kelkit State Hospital, Torul State Hospital and Kürtün State Hospital have no plans and no equipments for possible these accidents.

During the disasters which causes mass deaths, present morgues would be inadequate, so Gümüşhane State Hospital and Torul State Hospital set temporary morgues.

## **VI. CONCLUSIONS AND RECOMMENDATIONS**

The results of research it has been determined that; all hospitals, which are in the study, have a disaster plan for a possible disaster situation, these plans have been controlled regularly, other units in the hospitals has reached these plans easily and institutes which are cooperated have been determined. On the other hand it has seen that; hospitals have some lacks of criterions which includes that, planning using crisis room during the disaster, determining hospitals that patients would be transferred in the evacuation plans, supplying additional ambulances in disaster situation and making a plan for make sure that seamless communication during the disaster.

Hospitals should educate their personel about handling with disaster to be succeed of disaster management. Health facilities should cooperate and share information with other institutions continously for overcomeing possible crisis situations more coordinatedly, effectively and less missings.

When the disaster plans are prepared in hospitals, danger and risk analysis should be done and according to result of this analysis mittigation efforts should be considered. It is known real that structural damage and demolitions would prevent hospital to carry on its activity.

Consequently, education, experience, coordinate and control must be health facilites managing disaster effectively. Also disaster plans which are prepared, should be reviewed regularly, because changing environmental conditions and developing technology require hospitals keeping up to date their disaster plans. When considering all these, it is necessary that, in our country, disaster plans, which are prepared at the both hospital level and country level, should be revisioned and restructired as other developed countries.

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# DEVELOPMENT OF “MEDICAL DEVICE CALIBRATION GENERAL EVALUATION FORM” FOR MEDICAL DEVICE USERS

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## ABSTRACT

**The Problem of the Study:** Medical devices play a significant role in the diagnosis and treatment phase. To have accurate results on time, calibration of the devices has to be made. Attitude of users towards calibration is vitally important. On the other hand, how users handle the calibration process is in close relation with patient safety as well.

**The Purpose of the Study:** This study aims to develop of medical device calibration general evaluation form for medical device users.

**Method:** The research is a methodological study. Study group consists of medical and healthcare professional groups who use medical device. For this objective, an expression pool is formed with the help of literature and the experts of their subject. In line with the experts' knowledge and views the number of items are decreased to 59 by elimination. In the next step, the form has been applied to approximately 60 medical device users. “Kaiser Meyer Olkin(KMO) Test” have been used to measure if the sample size is adequate. KMO value has been found as 0.866, which is appropriate for the factor analysis of the sample size. For the accountability of the form Cronbach Alpha Internal Consistency Coefficient, and for the validity “Scope Validity”, “Scale Validity” and “Structure Validity” have been examined. Furthermore, factor analysis and experts views have been examined to set dimensions.

**Findings and Results:** Cronbach Alpha Internal Consistency Coefficient of the form was found as 0.913 which proves the form is accountable. For the validity “Scope Validity”, “Scale Validity” and “Structure Validity” have been examined and found to be valid. Besides, 12 dimensions have been obtained by taking consideration of factor analysis and experts' opinions. This form demonstrate that it may be used in researches to measure how medical device users look at calibration and how serious they find it.

**Keywords:** Calibration, Medical Device, Medical Device Calibrations

## INTRODuCTION

Medical devices, expert from pharmaceuticals, from very primitive tools to high-tech devices such as MR (Yerebakan ve Karakuş, 2007) are products which are used to improve health quality, diagnosis and treatment options of individuals (İzmir Ticaret Odası, 2012). More broadly, medical devices are not effective pharmacologically, immunologically, metabolically but supportive functionally on humans during;

- the diagnosis, prevention, monitoring, treatment or alleviation of the disease, diagnosis, monitoring, treatment, alleviation or removing victimization of injury or disability,

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- research of an anatomic and physiologic function, modifying or exchanging,
- defined as; produced for birth control or drug implementation, alone or together, backed by softwares when needed, including tissues of dead animals, all types of devices and accessories and other materials (93/43/EEC Konsey Direktifi, 1993; Sağlık Bakanlığı, 2011; Yerebakan and Karakuş, 2007).

1978 Alma-Ata Declaration and World Health Organization (WHO) defines medical devices as the most efficient factor that affects human health. Health organizations and workers are responsible to take precautionary measures to protect human health and improve treatment process. According to National Patient Safety Foundation, patient safety is to prevent errors related to healthcare and decrease patient injuries caused by health services (NPSF, <http://www.npsf.org>). To clear these mistakes away or to keep them at the minimum level, studies are required to be done on a continuing basis. In the scope of these studies, medical device calibrations have to be done regularly to prevent undesired outcomes (Odacıoğlu, 2008).

Hospitals are organizations where most accurate researches for treatment and diagnosis of diseases are made. Calibration enables medical devices to produce accountable results. Considering this, medical calibration is vitally important for hospitals.

Calibration is finding the difference between the value that reference device shows and what the device being calibrated should demonstrate (Ulusal Metroloji Enstitüsü, <http://www.ume.org>). In more general sense, under certain conditions, it shows the relationship between the values that measurement system or measurement device demonstrates and its corresponding reference value (MEGEP, 2008). Calibration in the biomedical field is reporting the deviations, differences and accountability of the measurements of any medical device by comparing it with the calibrator, in other words reference measurement system or reference measurement device (Karagöz, 2013). Medical devices generally makes measurement for chemical, biological and physical parameters (MEGEP, 2008). As a result of medical device calibration, tracking measurements of the medical devices and measurement chain is enabled. A certificate is given to devices if certain biomedical calibration conditions are met. By doing so the accuracy of the measurements is taken under guarantee (Güleç at all., 2009).

To consider a measurement as a calibration, “calibrators”, “trained staff”, “environmental conditions” and “measurement uncertainty” are needed (Cıvdi, 2015; [slideplayer.biz.tr](http://slideplayer.biz.tr)).

Reasons why a device should be calibrated are as follows:

- To create traceability chain and maintain it,
- To guarantee that data coming from the system or the measuring device is consistent with other measurements,
- To determine the accuracy of the data coming from the system or measurement device.

Thus it is to provide measurement accountability (Howarth and Redgrave, 2008).

To summarize, medical calibration is controlling medical devices which are used for treatment and diagnosis according to standards on a regular basis.

**The Purpose of the Study:** This study aims to improve the general evaluation form that is applied to medical device users.

## METHOD

**Type of the Investigation:** “Medical Device Calibration General Evaluation Form” has been developed in this methodological study.

**Ethical Committee Approval and Collection of Data:** Using an opinion funnel, “Candidate Calibration General Evaluation Form” which consists of 65 items and has been turned into “Expert Evaluation Form” and presented to the experts knowledge and evaluations. Form consisting of 59 items has been approved by Gülhane Military Medical Academy Ethical Committee on 09 April 2014 and Survey Committee Head on 02 November 2014. Data has been acquired by face to face interviews with staff working in clinics, laboratories, physicians working in operating room, nurses and health technicians.

**Application:** “Medical Device Calibration General Evaluation Form” has been developed in many steps as follows;

**1. Defining Evaluation Attribute:** General knowledge of physicians, nurses and health technicians about calibration will be examined in this study.

**2. Determining the Scope of the Evaluation Attribute:** At this stage, literature and expert opinions have been used to determine the scope of the thema that will be evaluated and expressions related to the evaluation. Furthermore, 50 people consisting of physicians, nurses and health technicians that use medical devices have been asked four open ended questions and their opinions have been examined to determine evaluation attribute’s scope.

**3. Gathering of Expert Knowledge and Opinions:** A group of 10 people consisting of 1 biomedical engineer instructor, 1 electronics engineer instructor, 2 health institutions management instructor, 1 psychometrics instructor, one manager from Ankara Gülhane Military Medical Academy Biomedical Engineering Center, two managers from Ankara Gülhane Military Medical Academy Calibration Center, 1 Turkish Standards Institution Calibration Manager and one manager from Yüksek İhtisas Hospital Calibration Laboratory have expressed their opinions.

**4. Generation of General Evaluation Form Expressions with Respect to The Scope (Expression Pool):** With reference to the expressions above, and considering expert opinions and literature, an “Expression Pool” has been generated with 65 items. Generating both positive and negative expressions which contain actions, knowledge and sensual content is a top priority. On the other hand, high attention was paid to keep expressions away from more than one judgement. “Candidate Calibration General Evaluation Form” has been presented to experts to have their opinions about it (**Table 1**).

**5. validity and Reliability of Calibration General Evaluation Form:** A validity analysis has been made to find out if form is suitable for calibration attributes that will be evaluated and if form covers to topics that will be evaluated. Validity analysis covers the examination of the form in terms of “**Scope validity**”, “**Surface validity**”, “**Criterion validity**” and “**Structure validity**”.

**5.1. validity of Scope:** Validity of Scope decides if the expressions in the form represents the field that will be evaluated. At this stage, “Candidate Calibration General Evaluation Form” consisting from 65 items, has been modified to “Expert Evaluation Form” which is submitted to expert to have their opinions and comments. Form has been handed in to expert by the

researcher. Experts graded each item as “Appropriate” or “Not Appropriate” and expressed their comments about rooms for improvements. “Scope Validity Ratio – SVR” is calculated for scope validity. Scope validity ratio is set by “**Lawshe Technique**” (Table 1). SVR (Scope Validity Ratio) form located calculated value of each item and the smallest values were 0.60. SVR value of each item must be a minimum of 0,62 (Lawshe, 1975; Yurdagül, 2005). Calculation of SVR is as follows;

$$\text{SvR} = \frac{\text{NE}-\text{N}/2}{\text{N}/2}$$

NE= Number of experts who grade the expression as “Appropriate”

N= Total number of experts

The experts mostly contributed to modifying expressions and asking for new, untouched topics. After SVR evaluation, number of items in the evaluation form has been decreased to 59.

**52. Surface validity (logical validity):** Expression in the previous items of Calibration General Evaluation Form has been modified by the researcher in terms of “comprehensibility” and “accurateness of the expression” according to suggestions coming from experts. Calibration General Evaluation Form, consisting from 59 items, has been answered by 60 people which are physicians, nurses and health technicians of Ankara Gülhane Military Medical Academy. This form has been applied to staff which work in the relevant clinics with the medical devices. Expression in the form were evaluated from the perspectives of; “Propriety”, “Meaningfulness”, “Legibility”, “Comprehensibility” and “Simplicity” and modified when needed. Meanwhile Cronbach Alpha Internal Consistency Coefficient has been calculated as 0.923 (Table 2). At this stage useless items is removed providing that disturb the overall structure and finally the form consists of 40 items.

**53. Criterion validity:** Since “Medical Device Calibration General Evaluation Form” is not available, this analysis could not be made.

**54. Structure validity:** Factor analysis is used for structure validity. Factor analysis helps related variables stay together. Factor analysis is used to find out how the structure that belongs to attributes which will be evaluated took place with the evaluation form that is to be developed (Tavşancıl, 2010). Last version of the form which contains 40 items is completed by 60 medical device users and the results were tested by “**Kaiser Meyer Olkin (KMO) Test**” to find out if sample size of the study satisfies the factor analysis which is used for structure validity. KMO value was found as 0.866 which satisfies the requirement needed to make factor analysis (Aydn, 2007). Since there is no related information in literature and it is not known how many factors the topic has, “**Principal Components Analysis**” which is a sub technique of “**Explanatory/Discovering Factor Analysis**” is used to group the expressions in this form. In the Principal Components Analysis, **Total variance Explained Table** and **Component Matrix Table** has been considered to set the structure of the variables. Since it is expected to have more than one factor (dimension), “**varimax Rotation**”, a sub method of “**Right Angle Rotation Method**” is used (Büyüköztürk, 2004). Considering both analysis made and expert views, factors has been renamed and 12 dimensions have been obtained. 1<sup>st</sup> factor; “**Definition**



**of Calibration**", 2<sup>nd</sup> factor; **"Benefits of Calibration"**, 3<sup>rd</sup> factor; **"Calibration Awareness"**, 4<sup>th</sup> factor; **"Who is Doing the Calibration"**, 5<sup>th</sup> factor; **"Responsibility of the user"**, 6<sup>th</sup> factor; **"Calibration Period and Timing"**, 7<sup>th</sup> factor; **"Problems in Calibration"**, 9<sup>th</sup> factor; **"Calibration Training"**, 10<sup>th</sup> factor; **"Psychological Relationship Between user and the Calibration"**, 11<sup>th</sup> factor; **"Devices that are to be Calibrated"**, 12<sup>th</sup> factor; **"Calibration-Quality Correlation"** are decided as factors (Table 3).

**6. Reliability of the Form:** Cronbach Alpha Internal Consistency Coefficient has been calculated as **0.913** of the form which has 40 items (Table 4). Cronbach Alpha Internal Consistency is an important indicator for accountability. If Cronbach Alpha Internal Consistency Coefficient is higher than 0.70, evaluation form is held as accountable (Cornbach, 1951; Turan, 2012).

## FINDINGS AND RESULTS

"Calibration General Evaluation Form" has been developed containing 40 items as a result of this study. The form has been found to be valid and reliable. Cronbach Alpha Internal Consistency Coefficient has been found to be 0.913 and 5 point Likert Scale is used. Each user needs to choose either **"Absolutely Agree=5"**, **"Agree=4"**, **"Neutral=3"**, **"Disagree=2"**, or **"Completely Disagree=1"**. Items numbered "12", "20", "21", "28", "31" will be evaluated vice versa. These items will be evaluated as follows; **"Absolutely Agree=1"**, **"Agree=2"**, **"Neutral=3"**, **"Disagree=4"**, or **"Completely Disagree=5"**. Forms filled by users will have a lowest grade of 40 and a highest grade of 200. Higher grades should be interpreted as positive (Table 5). Considering both analysis made and expert views, factors has been renamed and 12 dimensions has been obtained. 1<sup>st</sup> factor; **"Definition of Calibration"**, 2<sup>nd</sup> factor; **"Benefits of Calibration"**, 3<sup>rd</sup> factor; **"Calibration Awareness"**, 4<sup>th</sup> factor; **"Who is Doing the Calibration"**, 5<sup>th</sup> factor; **"Responsibility of the user"**, 6<sup>th</sup> factor; **"Calibration Period and Timing"**, 7<sup>th</sup> factor; **"Problems in Calibration"**, 8<sup>th</sup> factor; **"Importance of Calibration"**, 9<sup>th</sup> factor; **"Calibration Training"**, 10<sup>th</sup> factor; **"Psychological Relationship Between user and the Calibration"**, 11<sup>th</sup> factor; **"Devices that are to be Calibrated"**, 12<sup>th</sup> factor; **"Calibration-Quality Correlation"** have been decided as factors (Surh, <http://www.2.sas.com>) (Table 3).

"Medical Device Calibration General Evaluation Form for Medical Device Users", a result of this study, may be used to judge if medical device users take calibration seriously and show necessary sensitivity or not



**TABLES****TABLE 1.** Expert Evaluation and SVR (Scope Validity Ratio) Values.

ITEMS	Expert Evaluation										SVR
	1	2	3	4	5	6	7	8	9	10	
1. Medical device calibration means that it operates properly or not.	+	+	+	+	C	C	+	+	+	+	1
2. Calibration provides regular controls of medical devices and also measurement accuracy.	+	-	C	+	C	C	+	+	+	+	0,80
3. Implementation of calibration processes on time and regularly in a hospital indicates that there is a high quality healthcare service in that hospital.	C	+	+	+	C	C	C	+	+	+	1
4. I take care on the calibration period of the medical device that I use.	+	+	+	+	C	+	C	+	+	+	1
5. I don't know the calibration frequency of the medical device that I use.	+	+	+	+	C	+	+	C	+	+	1
6. I can have the calibration of the medical device that I use done before the scheduled time when needed.	+	+	+	+	C	+	+	+	+	+	1
7. I don't know that the calibration frequency can differ depending on the device.	+	+	+	C	C	+	C	C	+	+	1
8. I can learn the calibration frequency of medical device that I use from user manual or calibration staff.	+	+	C	+	C	+	C	+	+	C	1
9. There is no need to calibration period for medical devices. The user can do or have the calibration done whenever he/she wants/desires/needs.	+	-	-	C	C	+	+	C	+	+	0,60
10. I don't know who will do the calibration of the medical device that I use.	+	+	C	+	C	+	C	C	+	+	1
11. I do the calibration of medical devices on time that are under users' calibration responsibility.	C	-	C	+	C	C	+	+	+	+	0,80
12. I don't only trust the calibration of the medical device that I use, but I also observe and control the operation of the device.	+	-	C	C	C	+	+	+	+	+	0,80
13. Use of the medical device requires its calibration.	+	+	+	+	C	+	C	+	+	C	1
14. Proper operation of the medical devices that are used in diagnosis and treatment is not important for users.	+	+	+	+	+	C	C	C	+	+	1
15. I don't think that there will be any difference in its operation for a medical device when environmental and operational conditions change.	+	-	+	+	C	C	C	+	+	+	0,80
16. Having the calibrations of medical devices done in a health-care organization gives confidence to both user and the patient.	+	+	+	+	C	+	+	+	+	+	1
17. The calibration of medical devices is not important for me.	+	+	+	+	+	C	+	C	+	+	1
18. It is unnecessary to do the calibrations of medical devices regularly in order to decrease the measurement errors of medical devices to a minimum level.	+	+	C	+	+	+	+	C	+	+	1
19. The calibration of medical devices is unnecessary because of its high costs.	+	+	C	+	+	+	C	C	+	+	1
20. I don't rely on the calibration of the medical device that I use completely.	+	-	C	+	C	C	C	C	+	+	0,80
21. The malfunction frequency of the medical device increases after a calibration process.	C	+	C	+	C	C	+	C	+	+	1
22. The opinions and suggestions of the users is not taken into account during calibration steps.	+	+	C	+	C	+	+	C	+	+	1
23. The calibrations of the medical devices must be done to be sure about the results produced.	+	+	C	+	+	+	+	+	+	+	1

24. The calibration of medical devices is not important for patients. Patients have to believe the results of the medical devices whether they are calibrated or not.	+	+	+	C	C	+	+	C	+	+	1
25. Users have to believe the results of the medical devices whether they are calibrated or not.	+	+	C	+	C	+	+	C	+	+	1
26. Proper implementation of calibration processes in a health-care organization is not a criteria of quality.	+	+	+	+	+	C	+	C	+	+	1
27. That the medical devices are calibrated, is not a crucial factor on the preference of a hospital by patients.	+	+	C	+	C	+	+	C	+	+	1
28. The medical device that I use is calibrated, gives me confidence.	+	+	+	+	C	C	+	+	+	+	1
29. I rely on the results of the calibrated medical device that I use.	+	+	C	+	C	+	+	+	+	+	1
30. I pay attention to the situation of its calibration for a medical device that I will use.	+	+	+	+	C	+	C	+	+	+	1
31. Calibration doesn't take place between the reasons that I first think about the working/operation inconsistency	+	+	C	+	C	+	C	C	+	+	1
32. I don't know what medical device calibration means.	+	+	+	+	C	+	+	C	+	+	1
33. I believe calibration processes in our hospital are implemented realistic, correct and reliable.	+	+	C	+	+	+	+	C	+	+	1
34. I don't have any information about the situation of calibration of the medical devices. Somebody does when it is scheduled.	+	+	+	C	+	+	+	C	C	+	1
35. That the medical devices are calibrated, doesn't prevent negative situations in diagnosis and treatment.	+	+	C	+	C	+	+	C	+	+	1
36. It makes me happy that a dministration gives importance to medical device calibration.	+	+	+	+	+	+	+	+	+	+	1
37. There is no need to inform medical device users sufficiently about calibration.	C	+	+	+	+	+	+	C	+	+	1
38. It is mandatory to calibrate all medical devices that are to be calibrated.	+	+	C	+	+	C	C	+	+	+	1
39. It is enough to calibrate some of important medical devices in the hospital.	+	+	+	+	+	+	+	C	+	+	1
40. The medical device that I use is calibrated, doesn't make my work easy.	+	+	+	+	+	+	+	C	+	+	1
41. The medical device that I use is calibrated, doesn't decrease my repeated working frequency.	C	+	C	C	C	+	C	C	+	+	1
42. The medical devices in a TSE ISO certified hospital are appropriate in means of calibraiton.	+	+	C	+	+	+	C	C	C	+	1
43. The medical device that I use is uncalibrated to discompose me.	+	+	+	+	+	+	+	+	+	+	1
44. I be have with the consiousness of doing my practice with calibrated medical devices.	+	+	C	+	+	+	+	+	+	+	1
45. There is no relation between the calibration of medical device and a accuracy in my practice.	+	+	C	+	+	+	+	C	+	+	1
46. I don't have any information about that, the medical device that I use must be calibrated in order not to face any negative legal situation.	+	+	C	C	C	+	C	C	+	+	1
47. It relieves my mind that the medical device that I use is calibrated to present a high quality healthcare service.	+	+	+	+	+	+	+	+	+	+	1
48. There is no benefit of medical device calibration processes except bringing extra work to users.	+	+	+	+	+	+	+	C	+	+	1
49. That the medical device is calibrated, doesn't remove the responsibility of users in means of reliability of results.	+	+	+	+	C	+	+	+	+	+	1

50. The calibration of medical devices is something that is faked-up within accreditation.	+	+	C	+	+	+	C	C	+	+	1
51. The processes that I made are reliable if the device that I use is calibrated.	+	+	+	+	C	+	+	+	+	C	1
52. I don't believe that the calibration of medical devices is done strictly.	-	+	+	+	C	+	+	C	+	+	0,80
53. Previously there was no such thing calibration is no need now.	+	+	+	+	+	+	+	C	+	+	1
54. I know that calibration of medical devices is done by using special kits, reference solutions and a calibrators.	+	+	+	+	C	+	+	+	+	C	1
55. I apply specific procedures while calibrating the medical device that I use.	+	+	+	+	C	+	+	+	+	+	1
56. Considering that medical devices are used in diagnosis and treatment for human health, regular adjustments and calibration checks of medical devices must be done and certified certainly.	+	+	+	+	+	+	+	+	+	C	1
57. I am able to do the basic service adjustments and user calibration of the medical device that I use.	+	+	+	+	C	+	+	+	+	+	1
58. The medical devices must be calibrated in order to achieve the accurate study in means of human health and quality of measurement.	-	+	+	+	C	+	+	+	+	+	0,80
59. The continueability of quality of medical devices which are used intensely in diagnostic and treatment processes is provided by calibration.	+	+	C	+	C	+	+	+	+	+	1
60. The user problems and risks are decreased to minimum by medical device calibration.	+	+	+	+	+	+	C	+	+	+	1
61. The calibration of medical devices is not vital for treatment process.	+	+	+	+	+	+	+	C	+	+	1
62. The calibration of medical devices are not only done in scheduled periods, it is also done if; a. the device is never used b. is defected or mechanically harmed c. is not used according to instructions for use d. periodic maintenance is not done e. adjustment mechanisms are broken f. in case of suspicious results	+	-	+	C	C	+	C	+	+	+	0,80
63. I am aware that, the right diagnosis obtained by providing measurement reliability will have a positive effect on treatment process.	+	+	+	+	+	+	+	+	+	+	1
64. I don't know that patients will be under risk when the medical devices don't operate properly.	+	+	+	+	+	+	+	C	+	+	1
65. The calibration of medical devices is crucial and necessary for presenting a high quality healthcare service, patient safety and environmental safety.	+	+	+	+	+	+	C	+	+	+	1

## C: Correction

**Table 2.** Medical Device Calibration General Evaluation Form Item Analysis Results.

Items (Expressions)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	232,9833	478,254	,104	,926
2	232,8167	474,525	,233	,924
3	232,2000	474,264	,538	,922
4	232,4667	470,490	,576	,921
5	232,4167	474,315	,347	,922
6	232,1167	475,088	,520	,922
7	232,1500	474,774	,525	,922
8	232,3500	472,808	,492	,922
9	232,6333	463,728	,647	,920
10	232,7167	473,393	,323	,923
11	233,6667	477,175	,148	,925
12	233,5833	461,874	,454	,922
13	232,5333	469,406	,567	,921
14	233,2000	468,366	,381	,922
15	233,3500	463,384	,469	,921
16	232,3333	471,141	,474	,921
17	232,3333	471,650	,511	,921
18	233,1667	462,412	,524	,921
19	233,7000	473,942	,239	,924
20	232,7000	470,925	,446	,922
21	233,4000	462,447	,534	,921
22	232,6000	472,312	,536	,921
23	232,8167	472,729	,410	,922
24	232,9667	463,118	,502	,921
25	232,2167	476,206	,452	,922
26	232,1000	473,244	,513	,921
27	232,1500	473,994	,417	,922
28	234,0000	498,542	-,214	,930
29	232,7667	465,334	,484	,921
30	232,7167	461,156	,533	,921
31	232,9333	468,775	,386	,922
32	233,2167	478,308	,194	,924
33	232,4167	472,620	,487	,922
34	234,1667	463,836	,447	,922
35	234,0667	480,538	,120	,924
36	232,3000	473,298	,405	,922
37	232,8500	469,587	,374	,922
38	233,6667	479,006	,156	,924
39	233,3667	464,440	,504	,921
40	232,8333	469,429	,476	,921

41	232,7000	467,536	,492	,921
42	232,5333	466,118	,512	,921
43	232,3667	475,728	,388	,922
44	232,9500	471,065	,321	,923
45	232,5500	473,608	,388	,922
46	232,6333	467,389	,513	,921
47	232,3000	471,163	,600	,921
48	232,3833	474,715	,427	,922
49	232,6167	466,918	,599	,921
50	232,3833	470,173	,620	,921
51	232,3833	469,190	,657	,921
52	232,6667	469,955	,542	,921
53	232,3333	472,802	,538	,921
54	232,3333	469,955	,651	,921
55	232,1833	474,525	,566	,922
56	232,4667	473,406	,418	,922
57	232,4167	468,417	,665	,921
58	233,0000	467,661	,366	,922
59	232,3000	474,553	,522	,922

**N:60; Number of Items 59; Cronbach Alpha Coefficient 0,923**

**Table 3.** Modified Sub Dimensions of Calibration General Evaluation Form.

Factors	Number of Items (Expression)	Item (Expression) Text
1. Factor: Definition of Calibration	1	Calibration helps us to measure how approximate does the medical device measures considering the reference value.
	3	I know that calibration of medical devices is done by using special kits, reference solutions and calibrators.
2. Factor: Benefits of Calibration	2	Calibration provides regular controls of medical devices and also measurement accuracy.
	39	The user problems and risks are decreased to minimum by medical device calibration.
3. Factor: Calibration Awareness	4	Use of the medical device requires its calibration.
	20	Proper operation of the medical devices that are used in diagnosis and treatment is not important for users.
	27	Calibration take place between the reasons that I first think about the working inconsistency.
	35	I am aware that, the right diagnosis obtained by providing measurement reliability will have a positive effect on treatment process.
	38	Management should pay importance to the medical device calibration.
	40	Since proceeding with uncalibrated medical devices will not have any meaning, using them mean time and financial loss.

4. Factor: Who is Doing the Calibration	5	I know that some devices do not require calibration, some of the calibrations are done by users, and some of them needs to be calibrated by a authorized staff.
	17	I know where to call in case of an emergency in terms of the calibration of the medical device I use.
5. Factor: Responsibility of the User	6	I am able to do the basic service adjustments and user calibration of the medical device taht I use.
	13	I know that when calibration period comes I need to prepare my medical device and not use it until it is calibrated.
	14	I know how to read the calibration certificate that is prepared after calibration and understand what the written data means.
	15	I know that if there is change in the measured values after the calibration, I need to use it according to the new values.
	16	I know that I need to keep the calibration all certificates of the devices that are calibrated.
	25	I don't trust only medical device calibration I use, I check if the device is calibrated before I use.
	26	I pay attention to the situation of its calibration for a medical device that I will use.
	32	I know that it is necessary the medical device that I use must be calibrated in order not to face any negative legal situation.
6. Factor: Calibration Period and Timing	36	That the medical device is calibrated, doesn't remove the responsibility of users in means of reliability of results.
	7	I can learn the calibration frequency of medical device that I use from user manual or calibration staff or I set myself in my experience.
	8	Since I know the calibration period of medical devices I use, I take the calibration period serious.
	9	The calibration of medical devices are not only done in scheduled periods, it is also done if; a. the device is never used b. is defected or mechanically harmed c. is not used according to instructions for use d. periodic maintenance is not done e. adjustment mechanisms are broken f. in case of suspicious results
	10	When the conditions of the environment where medical device is being used changes, recalibration is needed.
7. Factor: Problems in Calibration	11	I can have the calibration of the medical device that I use done before the scheduled time when needed.
	12	I do not information about the calibration plans of the calibration laboratory or company responsible for it, for the medical device I use.
	21	User opinions and suggestions are not taken into consideration in the medical device calibration phase.
8. Factor: Importance of Calibration	18	The calibration of medical devices is vital for treatment process.
	19	The calibration of medical devices is crucial and necessary for presenting a high quality healthcare service, patient safety and environmental safety.

9. Factor: Calibration Training	22	All medical device users need to be trained enough on a continuous basis about calibration.
	23	I took enough level of training about the calibration of medical devices.
10. Factor: Psychological Relationship Between User and the Calibration	24	Medical device users feel safe when devices are calibrated.
	28	The malfunction frequency of the medical device increases after a calibration process.
	29	I do not feel that medical device calibrations are necessary since they are a part of a procedure.
	37	I do not wish to work in a hospital where there are medical devices which I have doubts about how accurate they work.
11. Factor: Devices that are to be Calibrated	30	It is mandatory to calibrate all medical devices that are to be calibrated at the hospital.
	31	It is enough to calibrate some important medical devices that are to be calibrated at the hospital.
12. Factor: Calibration-Quality Correlation	33	Calibration of the medical devices are mandatory if the hospital has a ISO certificate.
	34	Calibrations made on time and on a continuous basis is an indicator of a high quality and reliable healthcare service.

**\*12-19-20-26-29-30-31 number of items encoded vice versa.**

**Table 4.** Last Format of Calibration General Evaluation Form with 40 Items.

Items (Expressions)	Absolutely Agree 5	Agree 4	Neutral 3	Disagree 2	Completely Disagree 1
1. Calibration helps us to measure how approximate does the medical device measures considering the reference value.					
2. Calibration provides regular controls of medical devices and also measurement accuracy.					
3. I know that calibration of medical devices is done by using special kits, reference solutions and a calibrators.					
4. Use of the medical device requires its calibration.					
5. I know that some devices do not require calibration, some of the calibrations are done by users, and some of them needs to be calibrated by authorized staff.					
6. I am able to do the basic service adjustments and user calibration of the medical device that I use.					
7. I can learn the calibration frequency of medical device that I use from user manual or calibration staff or I set myself in my experience.					
8. Since I know the calibration period of medical devices I use, I take the calibration period serious.					

9. The calibration of medical devices are not only done in scheduled periods, it is also done if; a. the device is never used b. is defected or mechanically harmed c. is not used according to instructions for use d. periodic maintenance is not done e. adjustment mechanisms are broken f. in case of suspicious results					
10. When the conditions of the environment where medical device is being used changes, recalibration is needed.					
11. I can have the calibration of the medical device that I use done before the scheduled time when needed.					
*12. I do not have information about the calibration plans of the calibration laboratory or company responsible for it, for the medical device I use.					
13. I know that when calibration period comes I need to prepare my medical device and not use it until it is calibrated.					
14. I know how to read the calibration certificate that is prepared after calibration and understand what the written data means.					
15. I know that if there is change in the measured values after the calibration, I need to use it according to the new values.					
16. I know that I need to keep the calibration certificates of the devices that are calibrated.					
17. I know where to call in case of an emergency in terms of the calibration of the medical device I use.					
18. The calibration of medical devices is vital for treatment process.					
19. The calibration of medical devices is crucial and necessary for presenting a high quality healthcare service, patient safety and					
*20. Proper operation of the medical devices that are used in diagnosis and treatment is not important for users.					
*21. User opinions and suggestions are not taken into consideration in the medical device calibration phase.					
22. All medical device users need to be trained enough on a continuous basis about calibration.					
23. I took enough level of training about the calibration of medical devices.					
24. Medical device users feel safe when devices are calibrated.					
25. I don't trust only medical device calibration I use, I check if the device is calibrated before I use.					



26. I check if the device is calibrated before I use.					
27. Calibration take place between the reasons that I first think about the working inconsistency.					
*28. The malfunction frequency of the medical device increases after a calibration process.					
*29. I do not feel that medical device calibrations are necessary since they are a part of a procedure.					
30. It is mandatory to calibrate all medical devices that are to be calibrated at the hospital.					
*31. It is enough to calibrate some important medical devices that are to be calibrated at the hospital.					
32. I know that it is necessary the medical device that I use must be calibrated in order not to face any negative legal situation.					
33. Calibration of the medical devices are mandatory if the hospital has a ISO certificate.					
34. Calibrations made on time and on a continuous basis is an indicator of a high quality and reliable healthcare service.					
35. I am aware that, the right diagnosis obtained by providing measurement reliability will have a positive effect on treatment process.					
36. That the medical device is calibrated, doesn't remove the responsibility of users in means of reliability of results.					
37. I do not wish to work in a hospital where there are medical devices which I have doubts about how accurate they work.					
38. Management should pay importance to the medical device calibration.					
39. The user problems and risks are decreased to minimum by medical device calibration.					
40. Since proceeding with uncalibrated medical devices will not have any meaning, using them mean time and financial loss.					

**\*12, 20, 21, 28, 29, 31 numbered of items encoded vice versa.**

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# SEGMENT DIFFERENCES IN SOCIAL MARKETING HEALTH INTERVENTIONS

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Tufan ÖZSOY<sup>1</sup>

## ABSTRACT

### **The Problem of the Study:**

One way to enhance awareness and change health related behaviors are to use social marketing principles. Different from the commercial marketing, social marketing aims to achieve social good and in spite of trying to convince buyers to purchase a product its overall purpose is long-term behavior modification. The implementation of the social marketing programs mostly involves mass campaigns with advertisement in mass media. Especially the effectiveness of health interventions in social marketing which planned without a proper segmentation approach, could be evaluated as moderate to even low. And even in most cases it is impossible to measure the effectiveness of campaign because of mass media usage.

### **The Purpose of the Study :**

Focusing only on mass marketing applications could miss important opportunities for behavior change of society. Segmentation could be use as an important tool to define target audience in a more detailed way when considering social marketing approaches. So social marketing campaigns possible to have more effective results. The purpose of this study to build a conceptual framework to provide better understanding of the segmentation on health related social marketing campaigns.

### **Method :**

The current study tries to build a conceptual framework via literature search. First, social marketing and segmentation concepts has been explained. Then importance of segmentation in health interventions has been expressed and questions mentioned those need to be answered before segmentation process.

### **Findings and Results :**

This study fills a gap in the existing research on how segmentation could be used in social marketing to increase awareness or change health related behaviors.

**Key Words:** Social Marketing, Health, behavior change

## INTRODuCTION

Social marketing has been a popular topic for a long time for the realization of social goals. When considering the complexity of human behavior, conventional social marketing applications seen unable to develop sophisticated approaches for each particular case. Most of the health related social marketing initiatives (especially government founded) are delivered as mass media campaigns. Mass approach of social marketing on message, audience and media selection and other traditional marketing practices must renewed in accordance with emerging social issues and new behaviors. In this context, segmentation can be considered as an important method for social marketing in the development of solutions to health related problems.

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## **2. The Conceptual Framework**

### **2.1. Social Marketing**

Social marketing takes learning from the commercial marketing and applies it to the resolution of social problems. This approach dates back to 1951, when Wiebe (1951) asked the question, “Can brotherhood be sold like soap?” and suggested that the using commercial marketing applications could improve the performance of social change campaigns. Social marketing could be defined as a discipline that uses commercial marketing techniques to promote attitudes and behaviors in societies through cognitive and rational responses, group identity, reference groups, social norms etc.

Andreasen (1995: 7) who recognized as one of the most important scholars in the field, describes social marketing as :

“Social marketing is the application of commercial marketing technologies to the analysis, planning, execution and evaluation of programs designed to influence the voluntary behavior of target audiences in order to improve their personal welfare and that of society.”

According to different definitions, four key basic of social marketing could be summarized as, voluntary behavior change, change by applying the principle of exchange, marketing techniques (such as consumer oriented market research, segmentation targeting, the marketing mix), to improve individual welfare and society, not to benefit the organization (MacFadyen, et al., 2002).

Lefebvre and Flora (1988) claim that social marketing is more difficult than commercial marketing. Because it involves changing intractable behaviors, in complex economic, social and political climates with often very limited resources. There are some important differences between social and commercial marketing (MacFadyen, et al., 1999):

- Complex products
- Varied demand
- Intense consumer involvement
- Subtle and varied competition
- More challenging target groups to reach

Social marketing began with health promotion campaigns in the US in the late 1960s (Kotler, et al., 2002). According to Wakefield et al. (2010) mass media usage on health interventions effects the performance of social marketing campaign. For some issues the level of evidence strong (e.g. smoking cessation, road safety) moderate (e.g. physical activity, nutrition, cardiovascular prevention, birth rate reduction, HIV prevention, cervical and breast cancer screening, immunization, and organ donation) or weak/uncertain (e.g. alcohol dependence, colon cancer screening, skin cancer prevention, breastfeeding, and violence).

### **2.2. Segmentation**

A “target audience” is simply means that a group of society has been identified or whom the offering should be “right” and to whom the social marketer will direct the majority of its time and resources. The process of defining the target audience in more detailed way, by grouping audience into clusters, which are internally homogenous and mutually heterogeneous, called as segmentation. Market segmentation has been accepted as a strategic marketing tool to define markets and thereby allocate resources for so long (Asseal et al., 1976: 67). Segmentation is

more than being one of the major ways of operationalizing the marketing concept but also it provides guidelines for marketing strategy and resource allocation. Following a market segmentation strategy, especially when faced with heterogeneous markets, usually can increase the expected profitability (Wind, 1978: 317).

Hanson (1972) described the importance of segmentation as:

“If you can divide a larger market into smaller segments with different preferences and subsequently adjust your product (or service) to the preferences in the different segments, then you reduce the overall distance between what you are offering to the market and what the market requires. By doing so the marketer improves their competitive position.”

Categorizing individuals into different types according to similarities (socio-economic circumstances, lifestyles and behavioral patterns) leads to develop more efficient, effective and exact social marketing initiatives to improve health and to reduce health inequalities.

According to Hooley and Saunders (1993), there is no single “correct” approach that fits all and should seek continually for new and creative ways of defining the market in order to gain new insights and thereby a potential competitive advantage. There are many possible segmentation criteria as *demographics* (who target audience are), *geographics* (where target audience live), *psychographics* (what target audience think), *behaviouristic variables*:

- Demographics (age, gender, race, generation, nationality, ethnicity, income, education, occupation, family size, family life cycle, religion)
- Geographics (region, urban/suburban/rural, city size, county size, state size, density, climate, terrain)
- Psychographics (personality attributes, motives, values, beliefs, social class, lifestyles, life goals, interests, service expectations, past experiences)
- Behavioristic variables (volume usage, end use, benefit expectations, brand loyalty, price sensitivity, loyalty status, readiness stage, user status, occasions)

Market segmentation represents several approaches depending on marketing objectives. Table.1 shows a segmentation that considers life style dimensions.

**Table 1. Life Style Dimensions**

Activities	Interests	Opinions	Demographics
Work	Family	Themselves	Age
Hobbies	Home	Social issues	Education
Social events	Job	Politics	Income
Vacation	Community	Business	Occupation
Entertainment	Recreation	Economics	Family size
Club membership	Fashion	Education	Dwelling
Community	Food	Products	Geography
Shopping	Media	Future	City size
Sports	Achievements	Culture	Stage in life cycle

Source: (Plummer, 1974: 34)

Brooksbank (1994), defines some key requirements for effective segmentation. These are;

- Homogeneity within segments.
- Heterogeneity between segments (customers between segments have significantly different needs and wants/responsiveness to marketing offerings).
- Targetability via marketing mix.

When the social marketing goal(s) concerned with health, more effective segmentation could be achieved through defining;

- Audience within segments have similar needs and wants/responsiveness to social marketing offerings,
- Audience between segments have significantly different needs and wants/responsiveness to social marketing offerings,
- Segments can be easily defined, measured, reached and served.

Accenture (2013) conducted an online survey of 3200 consumers to understand their expectations and preferences related to healthcare insurance. Five distinct consumer segments defined after the analysis (Table.2).

Disengaged: Why do I need to do anything different? I'm covered.	Value-gamers: Let's see how I can get the most value for me and my family.	Bargain buyers: I want my coverage to be basic and cheap.	Loyalists: I want to take care of myself, and my insurer helps me do that—it's a win-win.	Overwhelmed: I have a lot on my plate. I need my healthcare insurance to be easy.
I want quality healthcare coverage and my insurer to take an active role in my health. I prefer my employer to make insurance decisions for me.	I am in the prime of life and tend to not worry about my health until I'm sick.	I want low-cost coverage, and I am willing to accept reduced benefits and/or restricted networks to get there.	I want great healthcare coverage, and I don't mind paying for it. I'm not interested in changing my habits to save a few pennies.	I need to work with my health insurer often. Because of this, I value convenience and ease of doing business with my insurer above all else. I just want insurance that is easy to use and understand.
I do take risks with my health like smoking and not getting checkups. But if my employer is paying, and my insurance company looks out for me, why bother changing?	While I do value low costs, I don't want to sacrifice quality—really, I want the best value for my money. That's why I'm willing to take many actions that can help me reduce my costs without compromising care.	When dealing with my insurer, I don't care much for online tools, self-service options, rewards or other features that insurers have introduced.	My healthcare insurer is different than the others, and they develop new and innovative capabilities that keep them ahead of the pack. I'm planning on sticking with my insurer, and am happy to recommend my plan to friends and family.	I don't care about price nearly as much as simplicity; however, I do appreciate it if my insurer can help me understand how much my healthcare costs will be in advance.
I want an insurer I can trust to take care of me, but don't know if I can trust their advice.	In my daily life, I'm heavily into digital, including mobile apps, texting and social media.	Basic coverage and a live person to talk to when I need assistance is all I really need from my insurer.		
I don't expect healthcare insurance to be easy, and I rarely take the initiative to shop around or switch insurers.	When I need to interact with my health insurer, I prefer to use self-service options and digital channels.	I'm not looking to change my habits to save additional money, and I don't need my insurer taking an active role in my health.	I feel like I have a pretty good grasp on the intricacies of the health insurance market, but I really value health support and guidance.	I call, click and visit my insurers often to deal with my pressing issues; however, I particularly value the convenience of a live interaction.
	I really feel it's a hassle to switch insurers, and I value those companies that reward me for my loyalty.	All in all, I don't interact with my insurer very often.		

Source: Accenture (2013).

Involvement level of audience has a vital role on the success of social marketing campaigns. Especially health oriented social marketing applications need high involvement of individuals and because of desired complex lifestyle changes, social marketing planning needs careful consideration. Inertia - tendency to continue in current behavioral patterns- is a very powerful competitor when the audience have low level involvement. When the social marketing campaign is intended for behavior change on health related issues, a involvement level will be depend on a combination of some factors as;

- Present situation of health problem (severity of addiction/health conditions) (eg. smoking, obesity, alcohol consumption / chronicity, curability, infectivity etc.)
- Readiness to change/ Intention to recover (resistance to change/recovery request)



- Perception/Awareness (attitudes about the health related issues)
- Risk attitude (interpretation of risk level -high or low risk-)
- Channels of communication
- Risk factors related
- Risk behavior engaged (limit of health condition where medical aid accepted by patient)
- Social environment/Social pressure (social norms about the type of health problem and recovery treatment) (attitudes, acceptance and rejection of others)
- Social security status (insurance, medical care coverage, national and regional services etc.)

Providers of healthcare and policy makers (government agencies, advocacy groups, and health foundations) as well as social marketers should take into account the complexity of human behaviors especially when it is about health. And segmentation strategy looks as an essential tool that lightens the road for planners and practitioners of any social marketing interventions.

### **3.CONCluSIONS AND FuTuRE PROJECTIONS**

Health problems have a social, as well as an individual, dimension. One-size fits all approach rarely works for these complex health related behaviors. To develop effective messages that needs better focusing on audience profiles. Segmenting the target population enables social marketers to target specific groups for tailoring messages and offerings to these groups. Once different segments are identified, a social marketer can determine the most appropriate messages and communication paths to raise awareness. Effective and rationale use of resources, in segmentation related literature, metaphored as “to use a rifle than a shot-gun to get results”.

Social marketing must frequently deal with negative demand when it is a health intervention. Target audience mostly apathetic about or strongly resistant to a proposed behavior change, unresponsive to interventions to influence their behavior, least accessible, hardest to reach, most resistant to changing health behavior. So health intervention strategies need to be tailored for the selected segment(s).

To achieve its purposes a particular social marketing campaigns need to answer the following questions:

- Which characteristics of audience are important to consider?
- Which techniques do social marketers need to use for segmentation?
- How should audiences in different segments react differently to the social marketing offers they receive?
- Is the segment large enough to make a measurable difference
- Is the segment small enough for us to reach effectively with social marketing campaign resources?
- Is the segmentation approach consistent with the behavior change objectives?
- Does the segmentation reveal significant difference between the defined segments on behavior change measure?
- Can these differences be understood to improve social marketing campaign?



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# ASSESSING THE RETURN OF INVESTMENT ON HEART DISEASE PREVENTION/MANAGEMENT PROGRAMS AT THE WORKPLACE

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## ABSTRACT

This paper presents a systematic review of the empirical evidence on the return of investment on interventions designed to prevent or better manage heart disease in the workplace. Goldschmidt's Informational Synthesis Model is used as a conceptual framework to summarize the related literature on this important topic. A systematic literature review was conducted using PubMed and EBSCO databases including CINHALL, MEDLINE, and Academic Search Premier. Key terms searched included "Heart Disease", "Chronic Illnesses", and "Chronic Illness in the Workplace", "Cost Effectiveness", "Cost-Benefit", and "promoting healthy lifestyles within the workplace". The time frame specified for the search is literature published from 1997-2015. The total number of citations identified was 121 out of which 27 articles contained relevant information about the topic and included in this review. The total number of relevant citations used in the review is 9 studies. The majority of the studies included in this review suggest that the worksite wellness programs are both cost effective and beneficial in addressing heart disease among other illnesses within the workplace. Findings reported in these studies clearly document that worksite wellness programs can provide significant cost savings for both the employer and the employee in regards to preventable health care use, sick leave, and productivity losses. Additional research is needed to help employers develop strategies to sustain the return on investment on their wellness programs on a longer time frame while simultaneously meeting the expectations of their employee.

## INTRODUCTION

Heart Disease is the leading cause of death among both women and men in the United States (Centers for Disease Control and Prevention [CDC], 2004). With such a high number of Americans affected by this disease, it is important to examine this public health problem as to why so many people are diagnosed with some sort of cardiovascular disease. In today's society, cardiovascular disease (CVD) is a huge burden which prompts the need to increase the prevalence of healthy lifestyle choices. Chronic diseases are the leading cause of death and disability in the United States (Wu & Green, 2010). Cardiovascular disease alone caused 1 of every 7 deaths in the United States in 2011. Each year, an estimated 635,000 Americans have a new coronary attack and will need to be hospitalized (Mozaffarian, et al. 2015). Out of that number, 80 million have some sort of cardiovascular disease. About 2,200 people die every day of cardiovascular disease (Wu & Green, 2010). In 2010, the total cost of cardiovascular disease, which includes heart disease and stroke, in the United States was estimated at \$444 billion (Roemer, et al. 2013). Treatment for these diseases account for about \$1 of every \$6 that is spent on health care within the United States, and as the population ages, the cost of

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these treatments are also expected to increase substantially (Roemer, et al. 2013). Although heart disease, stroke, and related chronic conditions are among the most common and most costly of all health problems, they also tend to be the most preventable (Roemer, et al. 2013).

Despite advances in (CVD) prevention in the United States, CVD continues to be a major public health problem (Aneni, et al. 2014). With about 59% of the entire US population currently in the workforce, CVD prevention through worksite wellness programs can provide an opportunity to reach many Americans that would have been hard to reach out to otherwise (Aneni, et al. 2014). Implementation of health and wellness programs in the workplace allows for the opportunity to continually engage a group of individuals with the intent of implementing a positive and continual change in life style choices (Arena, et al. 2013). Current evidence indicates that health and wellness programs, when implemented in the workplace, provide numerous benefits to those enrolled within the wellness programs as well as to their employer. (Arena, et al. 2013).

Employees and their families share the financial burden through escalating contributions to insurance, higher co-pays and deductibles, reduction or elimination of coverage, and trade-offs of insurance benefits against wage or salary increases (Carnethon, et al. 2009). When worksite wellness programs are successful, their influence expands beyond the individual workers to their family members, who are often exposed to their positive lifestyle changes (Carnethon, et al. 2009). Worksite wellness programs that can reduce certain risk factors associated with CVD can also ultimately decrease the physical and economic burden of other chronic diseases (Carnethon, et al. 2009). While wellness cannot be delegated, it can be encouraged and facilitated. According to Berry & Mirabito (2011) “Workplace wellness is an organized employer-sponsored program that is designed to engage and support employees (often family members as well) in adopting and assisting behaviors that reduce/eliminate health risks, improve quality of life, increase personal effectiveness, and benefit the organization financially” (Berry & Mirabito, 2011). Successful wellness programs use evidence-based programming to reduce employees’ modifiable health risks linked to behaviors such as unhealthy eating habits, tobacco use, physical inactivity, and poor work-life balance (Berry & Mirabito, 2011).

Not all wellness programs are created equal; they tend to vary depending on the company’s available resources (“How can wellness programs”, 2012). Wellness programs can consist of many wellness plans to alter the needs of individuals and their lifestyles. Worker productivity lost to cardiovascular health, diabetes, depression, and other chronic and preventable illnesses is estimated to reach \$1.1 trillion annually (“How can wellness programs”, 2012). In response to this deficit, an increasing amount of private and public sector employers are implementing a wellness program for their employees in hopes that the program will provide a strong return on investment for employers and employees alike (“How can wellness programs”, 2012).

In today’s workforce, it is a growing world-wide movement to use the workplace as a setting to improve overall worker health, driven heavily by the increased prevalence of chronic diseases among employees and the epidemic rise in the costs of health insurance to cover them (Cullen, 2009). In much of these workplace wellness programs, the wellness programs implement routine health screenings to identify any early stages of health problems such as hypertension, diabetes, and if someone is at risk to develop these illnesses in the future. They also tend to offer education programs such as nutrition, smoking cessation, and diabetes information. There is also incentive payments for completing personal health risk

questionnaires or joining a gym membership that have all been tried with varying success (Cullen, 2009). Although the evidence is far from perfect, most attempts to assess the “return of investment” have indicated at least some measurable health benefits (Cullen, 2009). There is evidence that the benefit extends beyond just the cost of care, to-reduce the likelihood of absenteeism, less unproductive workers, and other enhancements of worker productivity even in countries where health insurance is not a predominant means of health care (Cullen, 2009).

Heart disease prevention/management is crucially necessary since heart disease is very dangerous to those who have this illness, and can also be very costly to individuals as well as their employers. By implementing a prevention/management wellness program within a work setting you can offer employees the proper knowledge, guidance and wellness they can assuredly benefit from. Worksite wellness programs offer an array of incentives for the employee as well as the employer. Through a worksite wellness program, employees can benefit their quality of life, increase their work productivity, become educated on their illness, and also learn of ways to manage/live with their illness. Employers are providing a quality wellness program to their employees who can engage in heart healthy wellness, ways to improve their overall work productivity, help in decreasing absenteeism and insurance costs.

## **METHODS**

### **Definition of “Worksite Wellness Program”**

For the purpose of this literature review, “worksite wellness” is defined as “an organized employer sponsored program that is designed to engage and support employees (as well as family members) in adopting and sustaining behaviors that reduce health risks, improve quality of life, enhance personal effectiveness, and benefit the organization/employer financially” (Berry & Mirabito, 2011). Successful wellness programs use evidence-based programming to reduce employees’ modifiable health risks linked to heart disease among other illnesses. Health risks are also linked to unhealthy eating habits, physical inactivity, and poor work-life balance (Berry & Mirabito, 2011).

### **Literature Search and Date Abstraction**

A systematic literature review was conducted that included a search of PubMed and EBSCO databases including CINAHL, MEDLINE, and Academic Search Premier. Online searches of relevant literature were also conducted using Google Scholar and the MeSH Database. Key terms searched included “Heart Disease”, “Chronic Illnesses”, and “Chronic Illness in the Workplace”, “Cost Effectiveness”, and “promoting healthy lifestyles within the workplace”.

### **Exclusion-Inclusion Criteria**

Studies are included in this review if: (1) They are published in English; (2) discussed cost effective ways to implement wellness programs within the workplace setting; (3) discussed the efficacy of wellness programs of those in a workplace environment and the effectiveness it has on its employees; (4) examined variables specifically related with cost effectiveness and the advantages workplace wellness programs offer to employers as well as their employees. The time frame specified for the search is literature published from 1997-2015. The total number of citations identified was 121 out of which 27 abstracts were identified in these searches that presented information documenting key components of worksite wellness programs. The total

number of relevant citations used in the review is 9 studies. The remainders of the studies were excluded because they did not include variables specifically associated with the cost effective benefits of worksite wellness programs.

## **RESuITS**

Heart disease is common both in population at large, but also in the working age population. According to Lynch, et. al, (1997), “The Kupio Ischemic Heart Disease Risk Factor Study” investigated whether the association between workplace conditions and risk of all-cause and cardiovascular mortality and acute myocardial infarction differed by socioeconomic status. Researchers’ understanding of how organizational and psychosocial features of work affect morbidity and mortality has been greatly influenced by the idea that poor health outcomes may be associated with work that is psychologically demanding but offers new opportunities for control.

During this study, prospective data was used to examine 2297 men, with adjustment for prevalent disease and biological, behavioral, and psychosocial covariates, and stratified by employment status and workplace social support (Lynch et. al, 1997). Results of their findings showed that elevated age-adjusted relative hazards for all-cause mortality were found for men who reported high demands, low resources, and low income; high demands, high resources, and low income. Similar patterns were found for cardiovascular mortality. In conclusion, they find that the negative effects of workplace conditions on mortality and of myocardial infarction risk depend on income level and were largely mediated by known risk factors (Lynch et. al, 1997).

Employers can play a crucial role in tackling a chronic disease early on, and an increasing number of companies are focusing on improving employee health. There are opportunities for bringing the endemic of heart disease under control by dealing with the problem in the workplace, where 139 million Americans spend about a third of any given day (“Fighting heart disease”, 2013). Many studies have shown that cultivating a healthy workforce can lower direct costs, such as worker’s compensation claims and insurance premiums, as well as indirect costs such as absenteeism in employee productivity and “presenteeism” when an employee who comes to work but are suffering from a physical or mental impairment that can prevent them from working at their full potential (“Fighting heart disease”, 2013).

In 2011, the estimated annual cost for cardiovascular disease (CVD) and stroke were \$320.1 billion, which includes \$195.6 billion in direct costs (hospital services, home health care, physicians and other professionals, medications, and other medical variables) and \$124.5 in indirect costs of which is due to lost productivity (Mozaffarian et. al, 2015). Worksite wellness programs are geared to prevent major risk factors that contribute to cardiovascular disease. Worksite wellness programs also represent an opportunity to prevent CVD and stoke in a large segment of the population (Carenthon et. al, 2009). According to Carenthon, et.al, (2009) a national survey of approximately 3000 employees was conducted online on 2 separate occasions in July 2007 by HarrisInteractive. This survey allowed for the American Heart Association (AHA) to assess the role that leadership plays in creating an atmosphere in which employees feel free to actively take advantage of worksite wellness programs.

The participants within the survey conducted by HarrisInteractive indicated that they saw improvements within their health as a result of their worksite wellness program (Carenthon

et. al, 2009). The participants reported improvement in a number of health outcomes ranging from weight loss to better productivity and fewer sick days. These results demonstrate the benefits of worksite wellness programs in individuals who elected to respond to the survey (21%), which leaves unknown data on the impact the wellness program had to those who did not respond (Carnethon et. al, 2009). In summary of this survey, an assessment of workplaces offer wellness nutrition programs and/or information on healthy lifestyle program studies have shown that these programs are generally effective in favorably modifying dietary practices and in reducing major cardiovascular risk factors such as overweight/obesity, hypercholesterolemia, and hypertension. The return of investment in a worksite wellness program has the capability to be beneficial in many ways, including decreased healthcare costs, improved healthcare utilization, lower rates of absenteeism, increase in work performance, and a reduced prevalence of chronic disease (Carnethon et. al, 2009).

Employer spending on health promotion, wellness and management is a great financial investment when it succeeds in altering the health of employees. Worksite wellness programs have achieved a rate of return on investment ranging from \$3 to \$15 for each dollar that is invested, within 12 to 18 months (Carnethon et. al, 2009). Employees with significant health risks, who have poor emotional health, and have higher percentages of adverse behaviors are at a higher risk for lost work days and having lower productivity overall. Individuals who reduce 1 risk factor in their health, decrease presenteeism by as much as 9% and absenteeism by 2% (Carnethon et. al, 2009). It is estimated that health-related productivity loss cost US employers \$225.8 billion per year, which in turn costs the employee \$1685 per year, of which 71% is due to decreased work performance (Carnethon et. al, 2009). These findings reinforce the need to accelerate worksite nutrition education and weight management activities. Worksite wellness programs that are put to use and implemented correctly can be a huge financial asset to the employer as well as the employee with cost savings in health care, medical expenses and overall productivity in the workplace.

In 2010, Baicker, Cutler & Song developed a cost benefit study of criteria meta-analysis literature on cost and savings associated with wellness programs. The authors found that employees saved an average of \$6 for every \$1 spent, including \$3.27 saved in medical cost and an additional \$2.73 gain because of reduced absenteeism. The analysis also found that health promotion programs in organizations of all sizes reduced sick leave, and also reduced health plan cost by roughly 25 percent (Baicker et. al, 2010). There are several reasons as to why employers can benefit from investing in a worksite wellness program for their employees. Such programs can lead to reduction in health care costs and premiums, healthier workers tend to be more productive and miss fewer days of work (Baicker et. al, 2010). Review of evidence suggest that large employers using a wellness program see substantial positive returns on investment, even within the first few years after adoption (Baicker et. al, 2010)

More than 109 million Americans report having at least one chronic illness/disease, for a total of 162 million cases. The total impact of these diseases on the economy is \$1.3 trillion annually (DeVol et. al, 2007). Of this amount, lost productivity totals \$1.1 trillion per year, while another \$277 billion is spent annually on treatment (DeVol et. al, 2007). In response, an increasing number of private and public sector employers are implementing wellness programs which provide a strong turn on investment for employers and employees alike ("How can wellness programs", 2014). Companies and governments nationwide are currently



implementing employee wellness programs. Wellness programs are a cost effective way to reduce the employer's health care expenses as well as a way to promote better overall health and productivity amongst their employees ("How can wellness programs", 2014). Implementing health and wellness programs in the workplace allows workplaces the opportunity to engage a group of employees with the intent of effecting a positive and sustainable change in lifestyle choices. Health and wellness programs within the workplace have the ability to provide numerous benefits to altering cardiovascular risk factors in healthy individuals. Also, worksite health and wellness programs may be the ideal setting to provide long-term care and support from traditional cardiovascular services("How can wellness programs", 2014).

In a recent intervention study by Arena, et.al (2013) using cardiac rehabilitation (CR) staff that were enrolled in a workplace wellness program, showed improvements in body fat content, blood pressure, depression, anxiety, hypertension, quality of life and total health scores after a worksite health and wellness intervention (Arena, et. al, 2013). Of the employees who were classified of high risk at baseline, 58% converted to low risk after the intervention program. The rates of absenteeism and presenteeism reduced after a health and wellness intervention, and the ROI estimates 10%-15% reductions in health care expenditures (Arena, et. al, 2013). Total medical claims significantly reduced after a worksite wellness program using CR staff for 12 months after the implementation of the program with approximately \$6 saved for every dollar invested in worksite health and wellness incentives (Arena, et. al, 2013). The ROI ranged from \$3 to \$15 for each dollar that was invested over several years after the program implementation (Arena, et. al, 2013). Besides the impact that worksite wellness programs have on reducing employee health risks, reducing absenteeism/presenteeism, improving employee productivity, and lowering the cost of employee healthcare, there is also evidence that such incentives may improve employee morale and job satisfaction, which can be beneficial in the retention of good employees and for the corporate image as a whole (Arena, et. al, 2013).

During the late 1970's Johnson & Johnson Company established 2 health related goals for their employees: encourage employees to become the healthiest in the world, and to reduce the cost of health care for the firm (Berry & Mirabito, 2011). Between 1995 and 2010, the percentage of Johnson & Johnson employees who smoke declined by more than two-thirds, and the number of employees with high blood pressure who are physically inactive decreased by more than half (Berry & Mirabito, 2010). The company's wide ranging employee health promotion program includes education on nutrition, weight management, stress management, onsite fitness, tobacco cessation, and other services. The company estimates that its health promotion program has saved them \$250 million in health care costs during the past decade (Berry & Mirabito, 2011).

In 2008 Berry & Mirabito conducted a primary field research to study workplace health promotion (WHP) programs at Johnson & Johnson and 9 other employers (Berry & Mirabito, 2011). Berry & Mirabito found that all the employers they researched have successful WHP programs that emphasize whole-person wellness. In these organizations they studied, wellness extended beyond physical health to include emotional and spiritual health. Stress management and disease prevention were priorities (Berry & Mirabito, 2011). Their research and related literature suggest a link between strategic WHP and along with lower health risks, lower health care use, and improved productivity of employees. Employers' health promotion programs emphasize behavioral change, which is undercompensated in the medical community but does

pay off in the business community (Berry & Mirabito, 2011). Results of this study indicated that the average medical claim costs for the intervention group decreased by 48%, yielding a 6 to 1 return on investment. WHP studies found that on average \$3.37 in health care costs was saved for every dollar spent over a 3 year period (Berry & Mirabito, 2011). Employer's health and wellness promotion programs highlight behavioral change, which is undercompensated in the healthcare community but pays off in the business community, therefore a business-healthcare community opens up a new path to accomplish a greater balance between prevention and treatment; wellness is the common goal (Berry & Mirabito, 2011).

Most workplace wellness programs tend to focus predominantly on employees' lifestyle behaviors which consist of physical activity, weight control and smoking cessation; all of which are major risk factors for heart disease, diabetes, and stroke (Jones et. al, 2007). When employees lack the knowledge of the important relationship between behavior and disease, they are not likely to change their personal behavior to reduce their risk (Jones et. al, 2007). Interventions such as the one described below can be used within the workplace to transmit this knowledge and improve perceptions of susceptibility (Jones et. al, 2007).

In an attempt to investigate both level of heart disease knowledge along with the perceived susceptibility to heart disease among female municipal workers, a one-group, repeated measure, quasi-experimental design was conducted (Jones et. al, 2007). The study was a 5-week, 1 hour per week heart disease prevention program for sedentary female municipal workers with known heart disease risk factors. The group consisted of forty-eight women 25 to 66 years of age. Participants completed a 33-item heart disease knowledge questionnaire with demographic questions and a single visual scale to assess perceived susceptibility. Fifty-eight percent of the women who participated in this prevention program improved their knowledge of heart disease and 50% increased their perception of susceptibility to heart disease from the pre-to post-intervention (Jones et. al, 2007). The benefits from this workplace health education project for largely female municipal workers were moderate, but evident. A workplace health education program like this one can increase ones knowledge of heart disease and may also increase their perceptions of susceptibility to heart disease (Jones et. al, 2007).

The Centers for Disease Control (CDC) has implemented a Health ScoreCard (HSC) to help employers determine the extent to which they have implemented evidence-based interventions for health promotion in their worksites that are geared towards preventing heart disease, stroke, and other chronic conditions among their employees (Koffman, 2013). The HSC helps identify the gaps in employers health promotion programs and in prioritizing strategies within the following 16 topics: (1) organizational supports, (2) tobacco control, (3) nutrition, (4) physical activity, (5) weight management, (6) stress management, (7) depression, (8) high blood pressure, (9) high cholesterol, (10) diabetes, (11) signs & symptoms of heart attack and stroke, (12) emergency response to heart attack & stroke, (13) lactation support, (14) occupational health and safety, (15) vaccine-preventable diseases, and (16) community resources and partnerships (Koffman, 2013). It consist of 125 "yes" or "no" questions about specific worksite strategies or interventions in place at the worksite across the 16 domains (Matson, K. D., 2012).

The Gateway Hypertension Project that was made up of 18 employers in Kansas City, Missouri who used the HSC as part of the Mid-America Coalition on Health Care (MACHC) was conducted from May 2010 to October 2011. The study consisted of two groups: with 9 in



the “treatment group” (Gateway Project) and 9 in a non-comparison group. All 18 employers completed a HSC and received a baseline score. The 9 employers within the treatment group worked with the MACHC to develop work plans and ways to add or improve interventions in their workplaces over the next 12 months (Matson, K. D., 2012). All 18 employers completed a follow-up survey in the fall of 2011 and received a report showing how they had scored on the HSC at the baseline and again at the follow-up. Results indicated that seven of the eight employers in the treatment group had improved their overall scores versus four of the eight employers in the comparison group. The eight employers in the treatment group stated that the HSC was a great planning tool, and was useful in measuring progress and offered credibility to management in addressing worksite health promotion (Matson, K. D., 2012).

The New York State Department of Health (NYS/DOH) has developed an innovative measuring tool called Heart Check that evaluates an organization’s support for cardiovascular health (Fisher & Golaszewski, 2008). Such supports include the presence of health supportive policies, services/screenings, and fitness facilities. Heart Check has provided evidence for validity and reliability, observed the relationships with health behaviors and ways to detect intervention effects (Fisher & Golaszewski, 2008). Since the original Heart Check contained 226 items, it tends to be too lengthy for certain applications. A study was done to develop and test a reduced-item version to measure employer supports for cardiovascular health (Fisher & Golaszewski, 2008). Multiple samples were used to address the needs within this study.

In 1999, 1000 random worksites were selected from 32 New York counties which were identified as targets for a Heart Check assessment. A total of 324 worksites from the original sample chose to participate in the intervention group. A second independent sample of 255 worksites also joined the intervention; these worksites did not vary from the other participating worksites in any way (Fisher & Golaszewski, 2008). The original Heart Check consisted of 226 item inventory to measure worksite features. This study eliminated the 226 item Heart Check and used two modified versions. The modified versions consisted of Heart Check Lite (HCL27) and Heart Check Lite (HCL55). The HCL27 consisted of 27-item version of measuring tools and the HCL55 consisted of 55-item version of measuring tools (Fisher & Golaszewski, 2008). The analysis of the Heart Check instrument of the two brief versions with 27 and 55 items found that both the reduced item versions demonstrated a moderate to strong ability to reproduce the results that were observed using the full Heart Check (Fisher & Golaszewski, 2008). Heart Check scales can successfully gauge overall worksite wellness and worksite cardiovascular health. However, its value there is room for further enhancement by additional investigations that can examine the association between HCL measures and cardiovascular health-related behaviors and the impact these behaviors show following a worksite-focused intervention (Fisher & Golaszewski, 2008).

Occupational stress is often defined as ongoing stress that is related to the workplace. This stress can be contributed to the responsibilities associated with work itself, or can be caused by conditions within the corporate culture as well as personality conflicts (Djindjic et. al, 2013). Occupational stress can affect both the physical and mental well-being of any individual if not managed effectively. Cardiovascular diseases (CVD) and hypertension are on if its major components, and is a major cause of morbidity and mortality within today’s society (Djindjic et. al, 2013). Occupation is a major socioeconomic factor, if linked with continued exposure to stress at work, it can directly affect the autonomic nervous system and neuroendocrine activity

which causes hypertension and can develop lipid disorders and increased incidence of diabetes (Djindjic et. al, 2013).

A study was conducted to determine occupational stress and its aspects with hypertension and lipid disorders. A cross sectional study was performed during 2008-2010 on a group of 439 male profession drives (aged 35-60 years). The groups of males were divided into 4 occupational groups (94 city bus drivers, 100 intercity bus drivers, 123 truck drivers, and 122 professional taxi drivers) (Djindjic et. al, 2013). The study consisted of a standardized questionnaire about working conditions, occupational stressors and medical exams/ as well as medical record analysis. Workers with acute or chronic inflammatory disease, immune disease, structural nonischemic heart disease and other acute illnesses were excluded from the study. Overall participation rate was 95.4% (Djindjic et. al, 2013). Characteristics evaluated in this study consisted of family history, smoking habits, serum lipids and glycoregulation, blood pressure measurement and hypertension. Results indicated that the examined groups had similar prevalence in smoking habit and positive family history of atherosclerotic disease. Significant differences showed with age, years of service, hypertension and dyslipidemia (Djindjic et. al, 2013). According to the stress-disequilibrium theory, job stress could lead to chronic disease risk through several linked levels of cardiac and endocrine system mechanisms. This study provided evidence that the association with occupational stress with lipid disorders and elevated blood pressure in professional drivers can have a possible link between job stress and coronary artery disease (Djindjic et. al, 2013). The study provides an evidence for the significant association of occupational stress with links to lipid disorders and elevated blood pressure, which could be a feasible relationship between job stress and CVD. Workplace interventions and regular periodical examinations aimed to decrease occupational stress index (OSI) are important aspects in primary intervention and supplementary reduction of CVD (Djindjic et. al, 2013).

## **DISCUSSION AND CONCLUSION**

The use of worksite wellness programs can be both effective for employees as well as their employers. Worksite wellness programs are cost beneficial to the employer and are beneficial in health to the employees. In order to have a full understanding of heart disease and its effect on those who are diagnosed, there is need to study the disease and how the disease starts. The disease has a great impact on people in the workplace and can affect the working population in many ways. It is necessary to conduct research and study of heart disease and treatment. Wellness programs can have a huge impact on those diagnosed with heart disease and the programs can help screen, monitor and target the risks associated with the disease. Wellness programs are affordable and cost effective. Wellness programs also benefit both the employee and the employer. With wellness programs we can expect to see an increase in employee performance and decrease absenteeism, injury and insurance costs. The majority of the studies focused on certain health risks associated with heart disease and ways to prevent these risks. More research should be done to educate awareness in the wellness programs and ways to avoid these risks associated with heart disease so that heart disease can potentially be avoided with lifestyle changes and healthier eating habits. Studies failed to show how wellness programs would be cost beneficial in future years if the company were to implement the program on a yearly basis.

Key findings within these studies show that wellness programs are being implemented more regularly to assist in employee wellness and overall health of individuals to minimize their risks of heart disease and other illnesses. Worksite wellness programs are designed to benefit the employee as well as their employer on many levels. The key aspect for the employee is gaining a healthy lifestyle and modifying their daily routine to successfully better their overall health and positively affect their work ethic and daily productivity. Employers gain awareness of how important it is to have healthy employees and also implement healthy rewards to encourage employee wellness in the workplace. There is also a return on investment when implementing a wellness program onsite that can deliver great results in regards to decreasing absenteeism, increasing productivity work flow and also minimizing the use for disability and sick days. Within the studies included in this review, the return of investment deems beneficial for the employer when numbers in absenteeism and cost of insurances decrease; in regards to employees the return of investment is portrayed through their increase in productivity and presenteeism.

The common limitations found in the literature include small sample size, employee participation, and self-reporting by subjects. Many of the data that was collected was from surveys, personal interviews, and gender specific. Lacking complete survey data is a potential threat for the inconclusive results.

The use of data and education on heart disease, risk-related behaviors, and the benefits of wellness programs will help employers set goals and priorities for worksite wellness program planning and implementation. This is an important for data based-intervention planning and research for worksites to assess, educate, implement and provide a means of healthy work conditions for their employees. Worksite wellness programs will enable employees to feel worthy in their job environment, gain knowledge on health issues, adhere to a different lifestyle to become more healthy in their own environment as well as being more productive and attentive in their job setting. Additional research should be conducted to help employers develop strategies to assist in the return of investment in their wellness programs on a lengthier time frame while meeting the needs of their employees.

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# PERCEPTION OF LEADERSHIP AND ORGANIZATIONAL COMMITMENT HOSPITAL WORKERS

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Gölnur ÜÇPINAR MERT

## ABSTRACT

This is the main purpose of a Bandırma State Hospital operating in the health sector research is to reveal the relationship between leadership and organizational commitment.

The research found the universe (N = 900) of health personnel, the sample is selected randomly (n = 505) consisted of working health personnel. To determine the leadership behavior of managers working in relation to data collection and research, 1980, Bass and developed by Ayalio and in 1995 the so-called Form 5X or MLQ 5X 36-item Multifactor Leadership Questionnaire (Cronbach's alpha 0.89) "Multifactor Leadership Questionnaire (MLQ)" was used.

Keywords: Leadership, Organization, Organizational commitment

## 1. INTRODUCTION

This confidence to manage their impact on loyalty research organization destined to get under the spotlight. One of the variables is affected by the organizational culture and organizational commitment. Organizations in research, management and organizational commitment examining concepts; A literature study was conducted in order to find the effect on employees' commitment to manage the trust in organizations. Impact on employee engagement, trust managers in organizations, it is essential for the productivity of the continuity of the organization and employees.

Commitment to the dictionary definition, be close with respect heartfelt, sincere, meaning not intimacy. The organizational commitment, to coincide with the purposes of the value of the member organizations, members of the internal state of being close to adopting organizations. Sometimes members of the organization work and commitment to the profession of loyalty, obedience and loyalty sometimes stems from its members. Different sources of organizational commitment, though, is the need for this concept is common in all organizations. Managers who are obliged to live according to the organization's purpose, that purpose can perform with members of the high level of commitment. Administrators will affect the organizational commitment of the members of the organization with leadership behaviors they exhibit significantly.

In this research, the trust manager is arranged to contribute significantly to the understanding of organizational commitment.

## 2. LEADERSHIP

Leadership, is an English word for word as the original verb 'lead' shaped; means indicate direction, guidance, guide to, to lead is to provide guidance. 'Leader' is the word directory,

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guide, leader, chief, leader, carries the meaning head [1]

Leadership in return for the leadership of the Turkish cases, yederlik in the national literature is recommended mentorship word 'leadership' and the word is used more widely accepted [2]

Erol Eren, (2001), "To perform a group of people gathering around specific goals and objectives of this is the sum of them to implement action-oriented knowledge and skills."

### **3. LEADERSHIP THEORIES**

Opinions and leadership theory, Traditional (Classic) can be collected in three basic approaches in behavioral and Contemporary Approaches to Leadership. These approaches are situated within the framework of theories and opinions, in addition to a social unit or group to explain what the leadership is "Who is the leader?" and "Which leader or leadership style would be successful?" is intended to answer the questions.

### **4. THE CONCEPT OF ORGANIZATIONAL COMMITMENT**

Commitment as a concept and understanding way, is there anywhere that sense of community is an emotional narrative forms of social instincts. Slave to the master, officers of the task, in the sense of commitment to the military's domestic loyalty, loyalty to the shape of the old pronunciation, describes the state of being faithful. Overall commitment is a feeling in the highest degree. To a person, an idea, an institution or an obligation to explain that we have to bring something against the show we saw instead of commitment and greater than ourselves. Whyte years ago voiced the danger of excessive dependence "organization man" doing the work, organizational people working in the organization not only describes but also as persons belonging to the organization. According to the author organization of people, while seeing the group as a creative source, believes that his final requirement of the sense of belonging somewhere. Harold Guetzkov the commitment of people to a certain idea, preparing in advance against the person or group is described as a behavior. This behavior is characterized by action that allows the emotions and aim to provide the continuity purposes.

Commitment to hear the business who are strongly believes in the organization's goals and values, voluntarily obey orders and expectations. These members also reveal a lot of effort on the desired minimum expectations for the realization of the goals and demonstrate commitment to remain in the organization. Business who are showing commitment, are internally motivated. Their intrinsic rewards, rather than conditions that are controlled by others, comes from the act itself, and successful

Commitment to organizational goals, only the absence of a certain role in the degree of success in terms of raising the quality and quantity and not only contribute to the reduction of labor turnover; as well as individuals, organizational life and led many voluntary action necessary for success at the highest level of the system [3]

### **5. LEADERSHIP AND ORGANIZATIONAL INTERACTION OF COMMITMENT APPLICATION OF A STATE HOSPITAL**

#### **5.1. Research Objectives and Type**

In this study, the hospital medical staff working in health personnel in leadership styles of managers perceive was conducted as a descriptive study reveals the impact on their commitment

to the organization.

## **5.2. The place and time of the survey**

The research data; one from the Bandırma State Hospital, was completed between 01-31.03.2015 history with 455 health workers randomly selected.

## **5.3. universe and Sample Selection Research**

The research population, total health personnel in a Bandırma State Hospital, while the sample was randomly drawn from employee health staff (N = 900).

The size of the universe random sample of the study determined that the sample size was determined as 900 people and 505 people.

Sampling taken from 505 health staff participated in the survey of 445 health care workers, the rate of return is determined as 88%.

### **Data Collection Tools**

Research data, 7-item information form containing the demographics of the participants developed research by researchers for detecting managers leadership style 36 questions Multifactor Leadership Questionnaire and collected three forms to measure organizational commitment for 15 questions, including the Organization Commitment Scale.

## **4.5. Statistical Analysis of Data**

Coded by the researcher; Statistical analysis of data collected from hospitals, the computer (SPSS 10.0.), with the number and percentage of descriptive statistical methods were used Kruskal-Wallis and Mann-Whitney U test.

## **6. CONCLUSION**

Participated in the study of health personnel of 64.9% between 18-25 years old, is a graduate of bachelor of 72.8%, when viewed according to the year in the job to be in the profession of 59.6% between 1-3 years and 81.6% 's still seems to work in institutions of between 1-3 years. Again, as 80.7% of the medical staff of nurses and 64% of the positions they are determined to work between 1-3 years, while 94.2% are working procedure shifts.

The results related to demographic characteristics, the number of participants from the 31-35 age range in age group very little to the (n = 5) 31-35 age range 26-30 age range in subsequent findings combined 26 and are discussed in the age range above. Similarly, in education, which associate a small number (n = 6) and a master's degree (n = 3) were evaluated in combination with other groups. Associate Degree graduates of vocational high school graduates with a master's degree health are discussed in conjunction with the degree graduates. Few 12 years and over health staff working according to the working time (n = 3), 8-11 years between medical staff combined with the number of 8 years, and as the number of older workers health staff, working from a small number of 8-11 year study period in the institution (n = 4), are expressed in the form of 4 years and above, combined with 4-7 years working employees.

Research within the scope of the health of the leadership styles subgroups perceive staff Transformational, Subscriber, Freedom Demonstrating the scores obtained by the all subscales findings on leadership with the subgroup of organizational commitment to the Organization Commitment 1 and Organization of Commitment 2 sub-factors mean and standard deviation



taken in total are examined, Transformational Leadership average score of (4.14), Transactional Leadership (2.37) and the Freedom Leadership Tanyan (1.22) was found to be higher than the style.

The highest average they receive from the organization commitment subscales Organization Commitment 1 (5.73) that the sub-factors, hospital transformational as the mean value of leadership style was higher than other leadership style subscales and Organizational Commitment 1 of the sub-factors of the average score is higher than the Organization Commitment 2 subscales, groups it is understood that a statistically significant difference found between. In running, the leadership style of the scores obtained from the survey is analyzed, the average score of Transformational Leadership (12.48), Transactional Leadership (7.05) and Freedom Demonstrating Leadership (3.64) was found to be higher than the style. Hospital medical staff working at the Organization Commitment When the sub-factors, they receive the highest average total was determined that the Organization Commitment 1 sub factors 17.24. Leadership style according to the age group of the sub-dimensions of Transformational Leadership Style points higher than the others, it was found that there was a significant statistical difference between the Organizational Commitment 1 subscale sub-dimensions of organizational commitment Organizational Commitment 2 is higher than the lower size and groups. Under the leadership style dimensions by education Transformational that the Leadership Style points is higher than the other leadership subgroup Organization Commitment 1 and the lower size seems to be higher than the Organization Commitment 2 subscales, but the group was not a statistically significant difference between the groups. When all runtime group in the leadership style of the Transformational Leadership Style points in three dimensions compared to other leadership style dimensions and looking at the commitment subscales of the organization, it is observed that the Organizational Commitment 1 sub-dimensions of the whole study group was higher than the Organizational Commitment 2 subscales and between groups statistically significant differences were found. When the operating time set in the institution's leadership style transformational sub dimensions of Leadership Style points compared to the other leadership style dimensions and looking at the factors that lower organizational commitment still seems to be higher than the overall study group in Organizational Commitment 1 subscale of the Organization Commitment 2 subscales and between statistically significant difference There

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# EFFECT OF PER CAPITA INCOME ON THE REGIONAL DISTRIBUTION OF PHYSICIANS: GROWTH CURVE MODEL

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Akın Dayan<sup>2</sup>

## 1. INTRODUCTION

In order to provide adequate healthcare to everybody in need, well balanced management and recruitment is essential countrywide besides health workforce that is equipped with necessary knowledge and required skills (Solak et al., 2010).

Accessibility within the healthcare sector is closely related to the available health facilities and geographical distribution of health care professionals. In all countries, including Turkey, the main issue is the distribution of health care workers, especially physicians (Blumentahl, 1994; Dussault et al., 2006; Matsumoto et al., 2009). The number of physicians working within big cities is disproportionately condensed compared to rural areas (Pong and Pitblado, 2005; Rivo and Kindig, 1996). Generally within all countries, rich or poor, health workers are prevalent within socio-economically developed and prosperous urban areas (Dussault et al., 2006; Dubois et al., 2011). This issue is greater in poorer countries; for example there is more than a fivefold difference in Tanzania which is one of the poorest countries in the world with the least number of doctors and lowest per capita income between the urban districts with the lowest and highest number of health workers per capita (Munga et al., 2009).

Comparing Turkey with Europe/OECD countries, manpower supply for healthcare is found to be limited. Especially, the density of practitioners and the ratio of physicians to nurses are half of the average rate in those countries. (Molahaliloğlu et al., 2007; Akdağ, 2012). In addition to this, the number of expert physicians is greater than the number of practitioner physicians, and the number of midwives and nurses is less than the number of physicians which shows another dimension of the overall problem (Solak et al., 2010; Molahaliloğlu et al., 2007; Akdağ, 2008).

In this study, we examined the relationship between the number of practitioners and specialists per 10.000, and the income per capita in various cities for the period of 1991-2000. The change in the distribution of physicians with respect to the change in the level of income during the 10-year period was analyzed.

## 2. INCOME LEVEL AND DISTRIBUTION OF PHYSICIANS

In the health sector, cost and demand is rapidly outgrowing the available funding. In countries, where the general public shapes governments, they are under pressure to increase health spending to meet their expectations. In addition, healthcare workers are trying to maintain or increase their incomes (Akdağ, 2011).

The physician distribution imbalance indicates some kind of social and economic reason especially within cities and city centers. In economic literature, the most widely accepted

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measure of total economic performance is the per capita income (GDP). Therefore, the relationship between the ‘per capita income’ and the density of physicians has been the focus of attention for researchers in this area. Analysis from OECD countries, including the United States has been identified the relationship between physician distribution and per capita income multiple times (Cooper et al., 2003).

“Standard economic theory, (neoclassical) assumes that physicians seek to maximize their profit and therefore tend to practice in regions with high income. The existence of a positive relationship between the number of physicians and the level of income has been proven empirically (Isabel and Paula, 2010).

As long as physicians provide services without being subject to public intervention, their location is decided by the GDP in the region. “Increase in per capita income, a measure of community wealth, was significantly associated with an increase in the number of physicians... residential population size and community wealth were still strong determinants of change in local physician supply” (Jiang and Begun, 2002).

The market demand for physicians increases with the level of GDP. The increase in GDP also affects the demand for specialist physicians. This also increases the overall demand for general healthcare. When comparing specialist physicians with practitioners, special physicians work with market demands with higher GDP communities; therefore, higher GDP cities have a larger number of specialist physicians than the lower GDP areas. When we observe an increase in an area’s GDP, we also observe an increase in specialist physicians.

Therefore, societal perspective market mechanisms alone do not allow and adequate supply of health personnel to be reached, public interventions such as human resources planning are a means to correct for market failures (Zurn et al., 2004).

Health authorities are carrying out necessary practices to increase the number of physicians almost all over the world. However, increasing the number of physicians is not a solution for the distribution problem. Despite the increase in the number of physicians, the distribution imbalance continues to exist (Matsumoto et al., 2010; Pong et al, 2005; Tanihara et al., 2011; Ide et al., 2009).

### 3. MATERIAL AND METHOD

In this study between 1991 and 2000, the number of physicians to population data by province and GDP were used. For GDP analysis, Turkish Statistical Institutes’ between the years 1987 to 2000 data was used (TUIK, 2014). In particular, our reason to choose this period is due to the presence of provincial GDP data for this period in Turkey.

Number of specialists and general practitioners (GPs) per 10,000 population<sup>3</sup> and, per capita income<sup>4</sup> constituted the input for our analysis. We decided to include the data of 70 cities (out of 81) and 1991 to 2000 (10 years) period to obtain a complete data set with maximum number of years and maximum number of cities.

In our original plan we were supposed to investigate the 1987 to 2000 period with 81 cities, but during the aforementioned period (at different years) the government restructured the

<sup>3</sup> Source: Turkish Statistical Institute (TÜİK)

<sup>4</sup> Source: Turkish Statistical Institute. Input as x1,000 TL. Each year’s PCI has been divided by the GDP deflator (1998=100) of that year in order to reflect real income variations.

boundaries of some of the cities and created “new” cities. It was not possible to trace back some of the “new” cities’ data. Therefore for the sake of balanced and widest data we decided to drop data of some of the cities and the periods. The city, “Kırıkkale” was also dropped from the data (even though it has a complete data set) because, in our preliminary analysis it was detected as outlier.

Multilevel Regression Analysis (a growth model) has been utilized in order to determine if specialists and GPs prefer higher income cities and the preference is more among specialists compared to GPs. We set up two regression analyses: In one of them, “number of specialists per 10,000” is the dependent variable and in the other, “number of general practitioners per 10,000” is the dependent variable. We started with the null model and finalise it with a two level random coefficient model where “per capita income” and “year” are the explanatory variables. We specified random effects at the city-level. Besides random intercept we allowed random slope on “year”. In order to let both the intercept and the “year” slope depend on “per capita income”, the interaction term “per capita income x year” has been added to the regression equation for a cross-level interaction. The analyses were performed by STATA 10.0.

## 4. RESuITS

### Null Model (the Intercept-Only Model)

The intercept-only model (the intercept vary across cities) is useful that serves as a bechmark with which other models are compared (Hox, 2002). For our data, the intercept-only model is written as:

$$\text{Specialist}_{ij} = b_0 + u_{0j} + e_{ij} \quad i = 1, \dots, 70 \quad \text{and} \quad j = 0, \dots, 9$$

$$\text{GP}_{ij} = b_0 + u_{0j} + e_{ij}$$

The regression coefficient ( $b_0$ ) estimates the grand mean of the dependent variable (average number of specialists or general practitioners per 10,000 across all cities), and the residuals ( $e_{ij}$ ) are the individual deviations from the mean. The term,  $u_{0j}$  represents the deviations of the city means from the grand mean.

**Table.1**

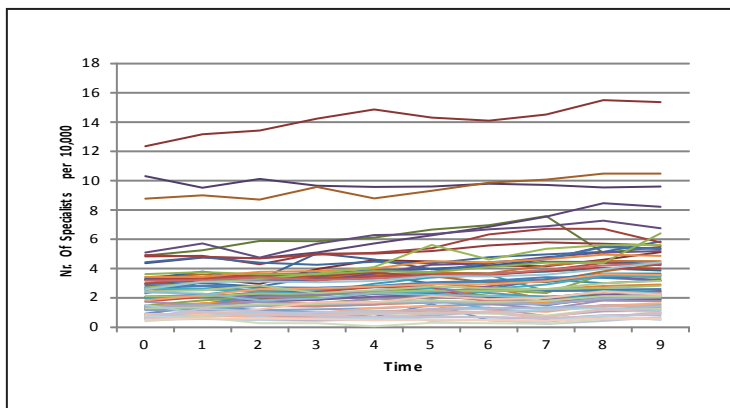
The Null Model	Specialists		G. Practitioners	
Fixed Part	Coefficient	Standard Err.	Coefficient	Standard Err.
Intercept	2.93	0.27	5.12	0.26
Random Part				
$\sigma_e$	0.52	0.01	0.85	0.02
$\sigma_{u0}$	2.29	0.19	2.12	0.18
(ICC)	0.95	0.01	0.86	0.02
Deviance	1431.23		2043.47	

Average number of “specialists per 10,000” ( $b_0$ ) is 2.93 (Table.1). Between city variation ( $\sigma_{u0}$ ) is 2.29 which points to a high variation. Within city variation ( $\sigma_e$ ) is 0.52. ICC (Intraclass Correlation - the proportion of the variance explained by the grouping structure in the population) equals to 95% indicating clearly that a multilevel model is required (Ringdal, 2013).

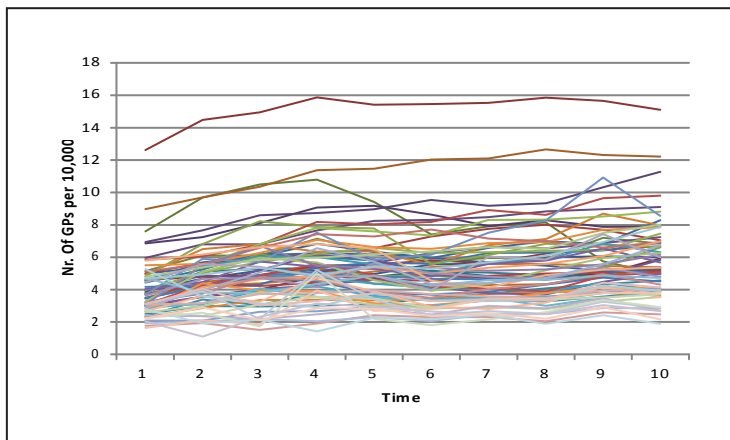
For general practitioners, the average number of “GPs per 10,000” is 5.12.  $\sigma_0$  is 2.12, again pointing to a high variation. The high level of ICC 86% , warns us to conduct multilevel model.

Indeed, the graphs of number of specialists and GPs per 10,000 versus time (each line presents one city) suggests a linear growth, city-specific random intercepts and city-specific linear trends (Fig.1 and 2).

**Fig.1**



**Fig.2**



### **Random Coefficient Model with One Explanatory Variable – “Year”**

Since number of specialists and GPs growth per 10,000 vary from city to city through the years, we included “year” as an explanatory variable allowing for a random intercept and random slope on “year”:

$$\text{Specialist}_{ij} = b_0 + b_1 \cdot \text{year}_{ij} + u_{0i} + u_{1i} \cdot \text{year}_{ij} + e_{ij}$$

$$\text{GP}_{ij} = b_0 + b_1 \cdot \text{year}_{ij} + u_{0j} + u_{1j} \cdot \text{year}_{ij} + e_{ij}$$

**Table.2**

Random Coefficient Model	Specialists		G. Practitioners	
Fixed Part	Coefficient	Standard Err.	Coefficient	Standard Err.
Intercept ( $b_0$ )	2.47	0.25	4.48	0.24
year ( $b_1$ )	0.10	0.01	0.14	0.02
Random Part				
$\sigma_e$	0.30	0.009	0.59	0.02
$\sigma_{u0}$	2.08	0.18	1.97	0.17
$\sigma_{u1}$	0.09	0.009	0.14	0.01
$\sigma_{u01}$	0.43	0.11	0.11*	0.13
Deviance	871.82		1707.69	
*: Not significant				

As for Specialists; average number of specialists per 10,000 is 2.47 across cities at the beginning of the 10-year period, and the standard deviation of the constant ( $\sigma_{u0}$ ) is 2.08 (SE=0.18) indicating a high variation of the constant (Table.2). The regression coefficient of “year” is 0.10 (which is significant at 95% confidence level - 95% confidence interval is 0.08 and 0.13) meaning that average number of specialists per 10,000 increases by 0.10 each year. The SD of the coefficient of the “year” variable ( $\sigma_{u1}$ ) is 0.094 (SE=0.009) also pointing to a significant deviation. The random intercept and slope have a positive correlation ( $\sigma_{u01}$ ) of 0.43. This means that cities that tend to show higher number of specialists per 10,000 for average cities also tend to show higher gains in number of specialists per 10,000 per year.

As for GPs; average number of GPs per 10,000 is 4.48 (SE=0.24) and increases by 0.14 (SE=0.02) each year. The SD of the intercept ( $\sigma_{u0}$ ) is high (1.97; SE=0.17) but not as high as compared to the specialist’s situation. The variation of the coefficient of the “year” variable ( $\sigma_{u1}$ ) is 0.14 (SE=0.01) pointing to a high deviation at city level. We can also use the standard normal distribution to estimate the percentage of regression coefficients that are negative: 15% of the cities are expected to have a regression coefficient that is actually negative (for specialists it is 14%).

Given the large and significant variance of the regression coefficient of “year” across cities it is attractive to attempt to predict its variation using city level variables (i.e. per income capita).

#### **Random Intercept and Slope with One Explanatory Variable – “year” and by Introducing One Explanatory Variable – “per capita income” at the City Level (2-Level Regression Model)**

Taking up from our last premise we added “per capita income (PCI)” as level-2 explanatory variable. However we grouped cities into two, with respect to their 10 year average PCI, as high income and low income cities. The dividing line between the two groups is the median 50 (cities were listed from high to low income and upper median 50 is labeled as “high income - SES\_1” and lower median 50 as “low income - SES\_2”).

The regression equation (for the specialists) was constructed as follows :

$$\text{Specialist}_{ij} = \underbrace{b_{0(\text{SES}_1)} \text{SES\_1}_{ij} + b_{0(\text{SES}_2)} \text{SES\_2}_{ij} + b_{1(\text{SES}_1)} (\text{year}_{ij} * \text{SES\_1}_{ij}) + b_{1(\text{SES}_2)} (\text{year}_{ij} * \text{SES\_2}_{ij})}_{\text{Fixed part}} + \underbrace{u_{i0(\text{SES}_1)} \text{SES\_1}_{ij} + u_{i1(\text{SES}_1)} (\text{year}_{ij} * \text{SES\_1}_{ij}) + u_{i0(\text{SES}_2)} \text{SES\_2}_{ij} + u_{i1(\text{SES}_2)} (\text{year}_{ij} * \text{SES\_2}_{ij})}_{\text{Random part}}$$

**Table.3**

Random Coefficient Model	Specialists		G. Practitioners	
Adding Level-2 Explanatory Variable (per capita inc.)				
Fixed Part	Coefficient	Standard Err.	Coefficient	Standard Err.
Intercept ( $b_{0(\text{SES}_1)}$ )	3.58	0.41	5.37	0.38
Intercept ( $b_{0(\text{SES}_2)}$ )	1.36	0.13	3.59	0.20
Year*SES_1 ( $b_{1(\text{SES}_1)}$ )	0.14	0.02	0.16	0.03
Year*SES_2 ( $b_{1(\text{SES}_2)}$ )	0.06	0.01	0.12	0.07
Random Part				
$\sigma_{(\text{SES}_1)}$	2.40	0.29	2.21	0.27
$\sigma_{(\text{year} * \text{SES}_1)}$	0.10	0.01	0.15	0.02
$\sigma_{(\text{SES}_2)}$	0.73	0.09	1.14	0.15
$\sigma_{(\text{year} * \text{SES}_2)}$	0.08	0.01	0.13	0.02
Deviance	806.43		1677.59	

### Specialists

The regression coefficient of SES\_1 (3.58; 2.78 – 4.37) is significantly higher than that of SES\_2 (1.36; 1.11 – 1.61) meaning that SES\_1 is on the average 2.22 points higher on number of specialists per 10,000 (Table.3).

The difference between SES\_1 and SES\_2 grows wider as years pass by (the growth of number of specialists per 10.000 per year is significantly higher in SES\_1 than that of SES\_2).

$$\text{year} * \text{SES}_1 = 0.14 (0.11 - 0.18)$$

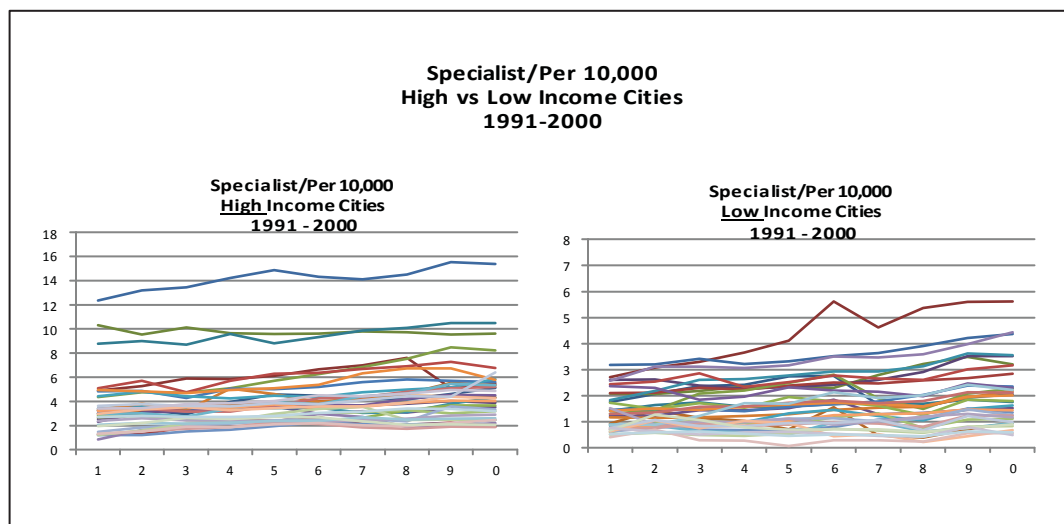
$$\text{year} * \text{SES}_2 = 0.06 (0.035 - 0.09)$$

This concludes that there is a systematic difference in the overall population mean line between SES\_1 and SES\_2.

SD (SES\_1) is 2.40 (1.90- 3.04) and it clearly shows that regression slopes for SES\_1 vary across cities significantly. SD (SES\_2) is 0.73 (0.57 – 0.93), it means that regression slopes for SES\_2 vary across cities significantly, too, however the variation in SES\_2 is far below than that of SES\_1 (i.e. SES\_1 and SES\_2 demonstrate different variability about their respective average lines) (Fig.3).

SD (year \* SES\_1) and SD (year \* SES\_2) are significant but are very low to have a significant impact.

**Fig.3**



### GPs

The regression coefficient of SES\_1 (5.37; 2.63 – 6.12) is significantly higher than that of SES\_2 (3.58; 3.20 – 3.98) meaning that SES\_1 is higher on number of GPs per 10,000.

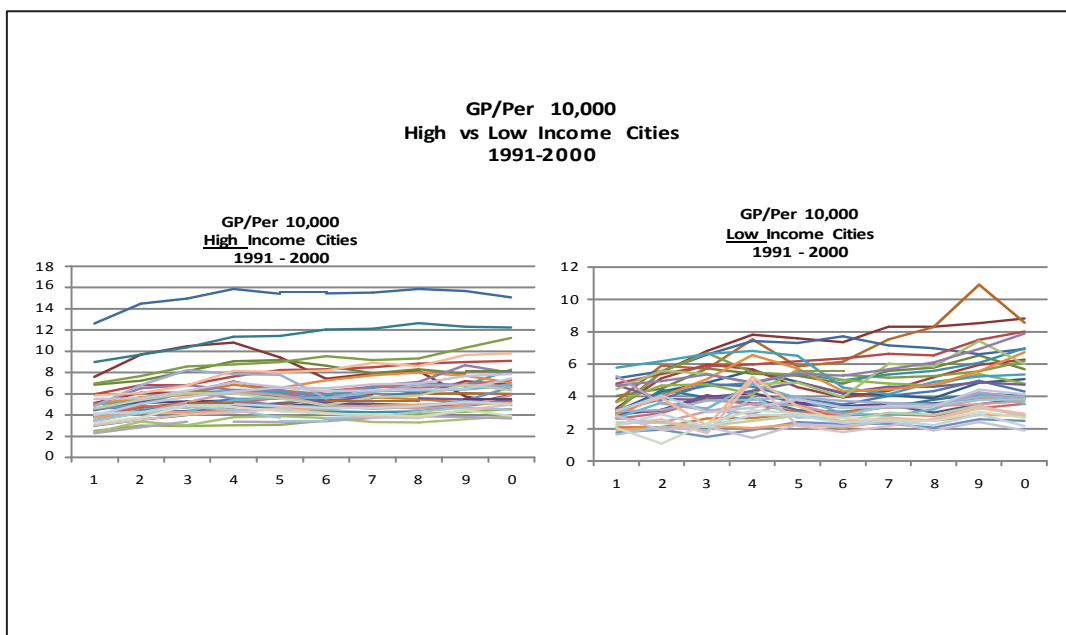
The difference between SES\_1 and SES\_2 with respect to the growth of number of GPs per 10,000 per year is not significant. This means that the difference between the two groups with respect to number of GPs per 10,000 (the difference in regression slopes) is significant but the difference is not growing at a higher rate as years pass by.

year \* SES\_1 = 0.16 (0.11 – 0.21)

year \* SES\_2 = 0.12 (0.075 – 0.17)

SD (SES\_1) is 2.21 (1.7 – 2.81) and it clearly shows that regression slopes for SES-1 vary across cities significantly. SD (SES\_2) is 1.13 (0.88 – 1.46), it means that regression slopes for SES\_1 vary across cities significantly however the variation in SES\_2 is far below than in SES\_1 (Fig.4).



**Fig.4**

## 5. CONCLUSION

Comparing our final model (in which we have introduced PCI as class variable) with the previous one (random coefficient model with one explanatory variable – “year”) yields the following:

- The deviance test (Hox, 2002), comparing two models is significant for both specialists and GPs at 95% confidence level ( $p < 0.001$  for both). This is to state that our final model fits significantly better than our previous models.

We noted down the following conclusions as per our final model reveals:

- Comparing intercepts, it is revealed that either the number of specialists or GPs per 10,000 in the “higher income cities” (SES\_1) is higher than that of the lower income cities (SES\_2).
- Among specialists; annual growth rate for the number of specialists per 10,000 is significantly higher in SES\_1 compared to SES\_2. In other words, the gap between the higher and the lower income cities has grown during 1991 and 2000 period. Among GPs, there is no statistical evidence that the gap between the SES\_1 and SES\_2 is getting wider.

As per our findings we concluded that there had been geographically unfair distribution of physicians and this continued, indeed, deteriorated between the years 1991-2000. Cities with high income attracted more and more physicians, and this tendency is more among specialists compared to the GPs.

In our study, during the 10-year between the 1991-2000, we found that as the GDP increases so does the level of specialist physicians and practitioners. All of which shows, that the permanent solution to inequality of healthcare and distribution of specialist, physicians and practitioners can be effected by the reduction of socio-economic disparities.

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# BALANCED SCORECARD APPLICATIONS IN HEALTH CARE

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Ramazan Erdem<sup>2</sup>

## SuMMARY

With reference to the saying ‘You can’t manage what you can’t measure’ making management by measuring is possible with Balanced Scorecard which is one of the performance evaluation models. It is not only accepted as an element of strategic management, it is also accepted as a management system that allows the business strategies become measurable. Balanced scorecard provides the businesses to be evaluated in a holistic sense by means of financial, customer, internal processes through learning and development aspects. This model can also be used in many industries to improve corporate performance. The model which is also increasingly being used in the health sector, has also been found that it can be applied in health care organizations in different scales. The study aims to examine the feasibility and assessment of the Balanced Scorecard in terms of the aspects used in the health care.

## 1. Introduction

In addition to the successful implementation of the Balanced Scorecard in service and industrial establishments, the implementations in the hospitals can be seen in many countries despite the scarcity of the number. (Chen and Ho, ts.: 1-7) The Balanced Scorecard was changed by various researchers and applied in health care providers and suggested to be an effective performance measurement model (Yin and Ling, 2008). According to Zelman (2003), it’s also been confirmed that Balanced Scorecard implementations exist in the health sector group including hospital systems, hospitals, university departments, long-term care services, psychiatric centers, insurance companies, national health service organizations, federal governments as well as local governments. Chang et al., (2008) implemented the Balanced Scorecard successfully in Mackey Memorial Hospital which has 2149 beds and more than 9.000 outpatients daily. They attributed this to two reasons: Firstly, The Balanced Scorecard management team consisted of senior executives and board members from the beginning of the implementation, secondly the modular Balanced Scorecard implementation which was launched successfully, was implemented to the entire organization two years later, depending on the budget planning. It can be concluded from this that the Balanced Scorecard which can be implemented in Mackey Memorial Hospital successfully can also be implemented to the other health care organizations. According to the results of the research carried out in 121 hospitals out of 555 hospitals in Canada by Chan and Ho (ts. 1-7), 80% of the hospitals namely 97 hospitals have heard the Balanced Scorecard before and 43 hospitals have been implementing the Balanced Scorecard. As a result of this implementation, the Balanced Scorecard have been recognized as one of the modern management tools by hospital managers. According to Coskun (2009), the Balanced Scorecard can also be used for the hospital units, too. There are Balanced Scorecard samples prepared for Pediatrics, cardiology, intensive care units, hospital

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emergency room, anesthesia units, burn treatment center, cardiology unit, obstetrics and mental illness treatment centers available. An example to be given for one of these departments is that Chun-Ling (2008) uses the Balanced Scorecard that they prepared to measure the patient flow and patient density level in the emergency unit.

## **2. Balanced Scorecard Implementations in Health Care**

When the studies are revealed, it is seen that Balanced Scorecard implementations exist in many countries, mainly the USA.

### **a. Mayo Clinic**

Mayo Clinic-specific key performance measures are determined by the team that developed the measurement system. As a result of the collection and analysis of data that will contribute to the formation of the Balanced Scorecard four performance criteria within eight dimensions were determined on (CURTRIGHT al., 2000: 58-68):

1. Customer satisfaction: Primary care and minor health care delivery rate,
2. Clinical efficiency and effectiveness: The clinical efficiency of physicians per capita for each working day of each business day for the number of physicians per capita outpatient treatment,
3. Financial: costs of service units,
4. Activities (internal processes): The average examination time in one day, patient complaint rates, waiting times of patients,
5. Mutual respect and diversity: percentage of staff from the less represented groups, employee satisfaction surveys,
6. Social responsibility: Mayo Clinic's contribution to society,
7. Foreign bystanders' hospital assessments: environmental studies done by organization managers, Mayo Clinic's market share,
8. Characteristics of the patients: geography and income groups of patients.

### **b. Duke Children's Hospital**

The most used strategic aspects that Duke Children's Hospital used in the performance measurement via the Balanced Scorecard are research, education, and training aspects instead of the customer and financial aspects (Gao et GURD, 2006: 6; Gao et GURD, 2008: 13).

### **c. Bridgeport Hospital**

At the beginning of 2000, the Balanced Scorecard Implementation was based on 12 critical success factors established by 56 criteria. By the year 2001, Bridgeport Hospital which lead to improvements increased the success factors to 5 and reduced the criteria to the 35s and continued to make performance measurement. In 2002, thanks to the quality and process improvement studies, by reducing the critical success factors (aspects) to 4 in total, the Balanced Scorecard is used with the final state. (Gumbus al., 2002: 50).

The Balanced Scorecard implemented by the Bridgeport Hospital is limited to the following four performance aspects (Gao et GURD, 2006: 9):

1. Increasing market share
2. Quality improvements,
3. Process improvements,
4. Organizational health.

#### **d. Sema Hospital**

Still continuing its activities in Istanbul, Sema Hospital implemented a strategic plan in 2007 within the framework of the Balanced Scorecard.

The senior management of the hospital studied this strategic plan under the name of “Hospital United Balanced Scorecard” in four aspects. In the established criterions four aspects are used to measure the performance of both the hospital and the laboratory services (Ozturk, 2007: 493-498):

1. **Customer perspective:** How do patients and their families see our hospitals? How are we known? What is important to them? Criteria that are used: patient satisfaction, employee satisfaction, employee turnover rate.
2. **Financial Perspective:** How investors see our hospital? What is important to them? The criteria that are used: the number of the patients, patient use templates, patient demographic information, financial records, major surgery number / total number of operations increase.
3. **Functional Perspective:** what areas do we need to be successful in our work? What are the areas that will harm our business if done wrong or badly? Criteria Used: quality improvement efforts, infection rates, waiting times.
4. **For the learning and Innovation:** How can we continually improve our securities in the health sector? How can we do better for our patients, community or Turkey?

The criteria that are used: the education per capita , business development efforts.

#### **a. Vakıf Gureba Teaching Hospital**

The Balanced Scorecard model was implemented in Vakıf Gureba Teaching Hospital within the standards of Joint Commission International (JCI) by Turkeli and his friends (2008). as a result of the studies carried out with “Quality Management Development Committee (KYGK)”, the vision, mission, corporate objectives, internal and external factors, alternative strategies, strategic objectives, aspects, key performance indicators were identified. In the implementation, all 150 JCI criteria used for inspection of the Ministry of Health took place. Besides, more than 100 criteria selected from the criteria used by the international institutions were shared with KYGK.

As a result of both surveys, in the enterprises where the researches were carried out, it was detected that the Balanced Scorecard wasn’t measured as frequently as the criteria within current performance aspects (infrastructure assets) were identified as important. The Balanced Scorecard was used for performance measurement in Brilliant Hospital and Balanced Scorecard measurements were carried out through the four traditional aspects. The patient satisfaction was the only measure of performance in the Customer aspect. In the financial aspect, return on net assets, competitive positions, growth in business volume, the decline of the cash payment, and increase in the cash flow, new product development in the process aspect, excellent services

that are offered, strategic sensitivity in the aspect of learning and development while using outcome measures related to the clinical quality criteria, leadership research and criteria that are used in the form of training time per employee aspect were used. (Coates, 2009: 60).

Changi General Hospital, is a public hospital that operates in Singapore and uses the Balanced Scorecard performance measurement tool models which was created in the framework of a strategic plan. The key performance indicators of the Balanced Scorecard were implemented through five indicators, having been created according to the strategy of Changi General Hospital in the departments such as the hierarchical, administrative, operational and clinical. These indicators are respectively as follows :

Corporate (overall corporate) aspect,

1. The aspect of being better (better),
2. The aspect of being faster (faster),
3. The aspect of being less expensive (cheaper),
4. The aspect of patient satisfaction

In the implementation where the same aspects (indicators) were used for all units, indicators were implemented under the name of “quality indicators”. (Chow and Goh, 2002: 61-63).

### **3. The Aspects of the Balanced Scorecard used in Health Care**

Despite Kaplan and Norton created the Balanced Scorecard in four aspects as the original one, they later added new aspects to it, which can be changed in accordance with the strategy of the organization. For example, while Provost and Leddick (1993) added the aspect of “human capital” which was seen as an element of the importance of this area to be used in manufacturing and service industries (Zelman, 2003: 5), Potthoff et al (1999) stated that these aspects were of “development and community-oriented” , “human resources”, “care and quality of service”.

Baker and Pink (1995), in their study, proposed a strategy to adapt the Balanced Scorecard to the health care organizations. With this strategy, Kaplan and Norton’s four proposed aspects were turned into clinical utilization and outcomes aspect, system integration and change aspect, financial performance and patient satisfaction aspect without adding a new aspect, re-conceptualizing (financial, customer, learning and internal processes and developments aspects).

According to Griffity and White (2002), adopting the Balanced Scorecard into the health care services after having some changes made in accordance with the strategy of the organization is a widely used method. Santiago (1999) made a similar change with an extension in the work of Baker and Pink, increased the number of aspects to five. Accordingly, these aspects were: learning and development aspect that investigate the complexity and accessibility of information systems with measures evaluating the innovation initiatives, length of stay, mortality, complications, side effects, duration of response (response time) and internal process aspects focused on the functional and financial results, such as cost per service units, patients, families, those who pay and health-related quality of life with employers, functional level, the ability to perform daily life activities, satisfaction and market share protection and expansion



criteria directly related to the aspect of the customer and the financial aspect, consisting of investment criteria, including, such as added economic value (Kaya, 2005: 87).

In the health care services, four aspects are chosen by making changes on the original version of the Balanced Scorecard to measure the performance of patient flow and density the emergency department. These aspects (Chun-Lin, 2008: 8) were: Patient experience, hospital processes, learning and development and the accountability.

According to Pakdil (2007: 133-144), the performance measurement in health organization are performed through indicators from different areas such as performance indicators based on the process of the business, financial performance indicators, patients (customers) related performance indicators, performance indicators related to employees, supplier performance related indicators and medical performance indicators.

Hospital performance is multi-dimensional structure; There is no single detailed performance criteria covering hospital. In studies to define the performance of the hospital, the cost indicators, output ratios and many financial measures were used. In one of the studies that Gruca et al (1994) conducted, they identified the hospital performance in three criteria (Quoted by Tengilmoglu et al., 2009: 390-391): financial performance, operational / business performance, and marketing performance. The hospital performance indicators were studied in four groups by Tengilmoglu et al (2009) as the service indicator, the indicator related to the use of beds, staff-related performance indicators, indicators related to the financial performance. Accordingly, the indicators used to measure the service performance of a hospital are in the following order: the polyclinic number, the number of discharged patients, the number of patients who died, the number of operations, the number of birth, the number of boarding days, the number of emergency room visits. Some of the indicators taken place in the 2008 report of The World Health Organization were collected in five areas (Smith et al., 2008: 6): patient safety, quality of mental health services, the quality of health promotion, disease prevention and primary care services, the quality of diabetes care, the quality of Cardiac care. According to Li and Durbin (2008), it is necessary for the available data to be calculated, for the potential indicators to reflect the strategic objectives and for the measures to be in a applicable level, short and understandable.

#### **4. Conclusion and Evaluation**

Balanced Scorecard makes both financial and non-financial indicators of the businesses an effective strategic element by evaluating material and non-material wealth together. The model is not only implemented in the services and industrial enterprises, but it is also implemented in many health care organizations in different scales throughout the world, particularly in hospitals. In addition to the traditional aspect in the most of th organizations, some aspects that can be evaluated by the patients were added. It can be concluded from this point of view that a holistic approach with a patient perspective are followed in the halth care where the Balanced Scorecard is implemented.

In addition, health care organizations need to identify their goals and define the mission and vision according to mission of this technique. The employees of the health organization need to get trained about this subject, so that all the staff adopt and implement the model in a holistic sense.



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# EVALUATION OF SHIFT WORK IN ORAL AND DENTAL HEALTH CENTERS FROM EMPLOYEES' POINT OF VIEW

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## ABSTRACT

**Objective:** Evaluate shift work introduced by Ministry of Health of Turkey in Oral and Dental Health Centers from employees' point of view.

**Material- Method:** This cross-sectional study was conducted on 128 healthcare professionals employed in an Oral and Dental Health Center of the Ministry of Health within the borders of Konya province, in which center shift work is applied. Survey method was employed in the research.

**Findings:** 58.5% of the healthcare professionals, who participated in the study, were female and 41.5% were male. According to the healthcare professionals' responses to evaluations on "adequacy of knowledge on healthcare policy", 69.5% of the healthcare professionals thought that they do not have enough knowledge about the healthcare policy, whereas the remaining 30.5% stated that they have adequate knowledge on such matter. The rate of healthcare professionals who said "Political reasons played a significant role in the transition to the Practice of Shift Work" was 68.8% and was in the first place as compared to other reasons.

**Key Words:** Oral and Dental Health Center, Shift Work, Ministry of Health of Turkey

## 1. INTRODUCTION

Shift work is described as "an employment practice designed to make use of separate worker groups during the day (or everyday of the week, albeit in different (consequent) time frames on the same day) at a workplace that is constantly engaged in business and depending on the nature of the work and workplace in question". Shift work system requires more than once shift and work team. For this reason, each shift team works the shift in their designated time slot and is relieved by the next shift team by the end of their shift, and the next shift hands the work over to the team after them. This way it is ensured that the service is provided on an interrupted and long term basis (Korkusuz, 2005: 2-3).

Shift work system is not a very popular practice among workers. This is because the shift work and irregular working hours have various undesirable effects on the workers themselves. A number of studies conducted on this particular subject establish that the persons working in shifts experience an increase in their somatization, obsessive-compulsive, anxiety and paranoid ideation levels (Selvi et al., 2010) and a decrease in their cognitive functions (Sarıcaoğlu et al.,

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2005), and a decrease in their work satisfaction (Kahraman et al., 2011; Oflezer e. al. 2011) and in their overall life quality, and an increase in their state of somnolence (Muşlu et al. 2012). Shift work system is also a significant source of stress for many workers (Soysal, 2009: 22).

Despite its various undesirable effects on workers, the shift work system is introduced in various sectors as a necessity for keeping up with the increasing demand in today's business life. One of the sectors included in this scheme is the medical sector. Ministry of Health of Turkey has introduced the shift work system in various hospitals since 1999, a scheme that gradually included Oral and Dental Health Centers into the system in the later phases. The Ministry of Health summarizes the purpose of going into the shift work system as (Ministry of Health, 2001: 5) "ensuring an uninterrupted and more efficient health service for the public and minimizing the patient backlog arising during the provision of the medical examination and diagnosis services".

The shift work practice has three significant components, namely the politicians, healthcare workers and healthcare service users. In order for the system to work in a healthy manner and serve its purpose, both the policy makers and service users, along with the healthcare workers, should be satisfied with the practice (Ceyhan and Çelik, 2004: 169-170). This study has been conducted with the aim of evaluating the shift work system introduced in Oral and Dental Health Centers by the Ministry of Health from the point of view of the employees themselves.

## 2. MATERIAL AND METHOD

This study has been conducted at an Oral and Dental Health Center -associated with the Ministry of Health- in Konya province (of Turkey) where the shift work system is in practice. The center in question employs 165 healthcare and administrative personnel. Efforts have been made to contact all the 165 personnel without limitation. As a result of which 130 persons were persuaded to participate in the study. Two of the questionnaires were cancelled as they were found to have contained significantly insufficient data, and thus 128 questionnaires were evaluated.

A survey method was employed in the collection of the study related data. The survey used was developed by Ceyhan and Çelik (2004) which included questions aimed at identifying the workers' views on supporting the Shift Work System (SWS); their opinions on other oral and dental health care providers practicing the SWS and the effects on the quality of the services provided and the main reasons behind the transition to the SWS and their opinions on the overall effects of the SWS on hospitals and workers.

## 3. FINDINGS

A total of 128 people participated in the study which included physicians (40.6%), nurses (28.2%), other healthcare personnel (18.7%) and administrative staff (12.5%). 58.5% of the participants are female and the remaining 41.5% of them are male. When their educational status is observed, it is established that 51 participants have undergraduate degrees, 49 have graduate degrees while the remaining 28 have high school degrees. Of the employees participating in the study, 6.2% of them stated that they served in the capacity of a "decision maker", 18.8% of them in the capacity of "expressing their opinion" and 56.2% of them in the capacity of an "implementer". When they were asked the question "how would you rate the adequacy of your knowledge regarding the health policies being implemented in Turkey?",

69.5% of the participants said they had “inadequate” knowledge on the subject.

**Table 1. Employees’ Opinion on Supporting the Shift Work System**

Questions and Answers	Number	%
<b>Are you happy with the SWS?</b>		
Yes	26	20,3
No	102	79,7
Total	128	100
<b>Do you support the SWS?</b>		
Yes	52	40,6
No	76	59,4
Total	128	100
<b>Would like to see the SWS introduced to all Oral and Dental Health Centers in the country?</b>		
Yes	37	28,9
No	91	71,1
Total	128	100
<b>When you evaluate the ODHCs that adopted the SWS, which direction do you think that the system should take?</b>		
It should continue	45	35,1
It should discontinue	35	27,4
More research should be made before deciding on whether to continue with the practice.	30	23,4
The practice should continue after its implementation method has been amended	18	14,1
Total	128	100

Table 1 represents the personnel’s opinions on the issue of supporting the shift work system. According to the results, a large majority of the personnel (79.7%) is not happy with the SWS. Similarly a significant portion of the personnel (59.4%) does not support the SWS. 71.1% of the personnel said “no” when asked “if they would like to see the SWS introduced to all the ODHCs in the country”. As for the question “When you evaluate the ODHCs that adopted the SWS, which direction do you think that the system should take?”, only 35.1% of the participants said “it should continue”. Apart from that, 37.5% of the personnel suggested that more research should be done regarding the practice and that the shift work system should continue once some changes have been made to its implementation method.

**Table 2. Employees' views on the Main Reasons that Brought About the Introduction of the SWS and on the Effects of the SWS on Hospitals and Employees**

Questions and Answers	Number	%
<b>What is the main reason behind the introduction of the SWS in the ODHCS?</b>		
Politic reasons	88	68,8
Reasons stemming from inadequate infrastructure	22	17,1
Administrative reasons	10	7,8
Economic reasons	8	6,3
Total	128	100,0
<b>Do you think the SWS has helped increase the utilization efficiency of the hospitals?</b>		
Yes	101	78,9
No	27	21,1
Total	128	100,0
<b>How did the SWS affect the costs at the ODHCS?</b>		
It increased the costs	92	71,9
They stayed the same	19	14,8
It reduced the costs	17	13,3
Total	128	100,0
<b>How did the SWS affect the use of personnel at the ODHCS?</b>		
It increased the use of personnel	121	94,5
It reduced the use of personnel	7	5,5
Total	128	100,0
<b>How did the SWS affect the use of medical equipment at the ODHCS?</b>		
It increased the use of medical equipment	56	43,8
It stayed the same	42	32,8
It reduced the use of medical equipment	30	23,4
Total	128	100,0
<b>How did the SWS affect the income of the personnel that work under this system?</b>		
It stayed the same	94	73,4
It increased slightly	21	16,4
I have no idea	8	6,3
It increased remarkably	5	3,9
Total	128	100,0
<b>How did the SWS affect your institution's personnel requirement?</b>		
It increased the personnel requirement	125	97,7
It reduced the personnel requirement	3	2,3
Total	128	100,0

Table 2 represents the employees' views on the main reasons behind the introduction of the SWS, and on the effects of the SWS on the hospitals and employees. According to the data available, 68.8% of the participants stated that political reasons were influential in the introduction of the SWS, while 17.1% of them stated that the inadequate infrastructure played

a significant role in the implementation; 7.8% of the participants stated that administrative reasons were influential, and the remaining 6.3% stated that economic reasons were effective.

While 78.9% of the ODHC employees stated that such a practice helped increase the utilization efficiency of the ODHCs, 71.9% of the participants stated that it increased the costs, and 94.5% of the participants stated that it increased the utilization of manpower, 43.8% stated that it increased the use the medical equipments, and 97.7% of the participants stated that it increased the institution's personnel requirement. As for the question "How did the SWS affect the income of the personnel that work under this system", a majority of the participants (73.4%) said "it stayed the same".

**Table 3. Employees' views Regarding the Effects of the Shift Work System on Other Oral and Dental Health Care Providers and the Quality of the Services Provided**

Questions and Answers	Number	%
<b>Do you think the SWS has affected the dental polyclinics in other institutions?</b>		
Yes	82	64,1
No	46	35,9
Total	128	100,0
<b>How do you think the SWS has affected the demand on university hospitals in terms of dental health care?</b>		
It reduced the demand	62	48,4
It stayed the same	54	42,2
It increased the demand	12	9,4
Total	128	100,0
<b>How do you think the SWS has affected the demand on private hospitals and private polyclinics in terms of dental health care?</b>		
It reduced the demand	99	77,3
It stayed the same	29	22,7
It increased the demand	0	0
Total	128	100,0
<b>How did the SWS affect the access to the oral and dental health care services?</b>		
It increased the access	68	53,1
It stayed the same	60	46,9
Total	128	100,0
<b>How did the SWS affect the quality of the oral and dental health care services?</b>		
It reduced the quality	99	77,3
It increased the quality	26	20,3
It stayed the same	3	2,4
Total	128	100,0

Table 3 represents the personnel's opinion regarding the shift work system's effects on other oral and dental health care providers and the quality of the services provided therein. According to the table above, 64.1% of the employees believe that the SWS affect the dental polyclinics in other institutions. In relation to this point, 48.4% and 77.3% of the participants said that "it



reduced the demand” when they were asked the questions “How do you think the SWS has affected the demand on university hospitals in terms of dental health care?” and “How do you think the SWS has affected the demand on private hospitals and private polyclinics in terms of dental health care?” respectively. A majority of the participants (53.1%) stated that the SWS helped increase the means of access to the oral and dental health care services. However, a large number of the participants (77.3%) expressed a negative opinion regarding the SWS’s effect on the quality of the oral and dental health care services.

#### **4. CONCLUSION AND SUGGESTIONS**

This study has attempted to evaluate the shift work system -introduced to the oral and dental health centers by the Ministry of Health of Turkey- from the employees’ point of view and conducted on 128 employees currently employed in an oral and dental health center. According to the study results, the employees are not happy with the SWS in general and they do not support it. Such a negative attitude on their part could be explained by a number of reasons. First of all, SWS is a practice that increases the employees’ workload. This is evident from the opinions expressed by the employees where they agree that the SWS causes an increase in the use of personnel and the institutions’ personnel requirement. Moreover, since the employees are made to work outside their routine working hours due to the shift system, they may have various family related and personal problems as a result. Workers think that they could justify the extra workload and working outside the normal working hours only when they get paid handsomely or when they really think that they are doing useful things for the others. However, a large majority of the participants said that there was no improvement in their pay and think that the quality of the service being provided compromised after the introduction of the SWS.

Another important finding of the study was the scant number of employees who said that the “SWS should discontinue”. Despite their unhappiness with the practice, the personnel employed at the ODHC think that the SWS should continue provided that a number of amendments be made to the system.

When the literature on the subject is examined, one can not find any study evaluating the shift work system in the oral and dental health care centers. Moreover, the study that was conducted by Ceyhan and Çelik (2004) on the shift work system introduced by the Ministry of Health in 1999 has also yielded similar results. According to the findings of the said study, a majority of the medical personnel, especially physicians and nurses, are not happy with the implementation of the system and they do not support it.

In the light of the findings of this study, the following suggestions could be made;

- Employees should be adequately informed of the medical policies being implemented. This is because 69.5% of the participants said that they had “inadequate” knowledge when they were asked the question “how would you rate the adequacy of your knowledge regarding the health policies being implemented in Turkey?”
- In line with the views and requests of the employees, some arrangements could be made in the SWS. Such arrangements could include an increase in the number of personnel, minimizing the number of watches, reorganization of the working hours and an increase in the pay.

- While it is important the service period and accessibility improved with the introduction of the SWS, it is also important to consider the quality of the services provided in this process.

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# HISTORICAL DEVELOPMENT OF HEALTH MANAGEMENT TRAINING IN TURKEY

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## ABSTRACT

Today, health management training, with its increasing interest and importance, has had an important part in training programs in developed countries. Global competition, the purpose of profit and management challenges arising from the structure of health institutions entailed delivery of health institutions to professional health administrators. The aim of this study is to study the historical process of health management training in Turkey. In view of the literature, it is seen that the first health management began in the area of hospital administration. During the Otoman era, hospital managers were selected from non-physician people. During that period, all the administrative and financial affairs of a hospital were conducted by “Müdür-i hastane” i.e. a hospital manager. The chief physician of a hospital had a position dealing with patient care and coordination of subordinate physicians. After the proclamation of the Republic, the first school established to train students in the field of management of health institutions was Health Administration High School, which was established within the Ministry of Health, General Directorate of Vocational Education on December 19, 1963. Then, this school was assigned to Hacettepe University in 1982, and it has graduated students under the Faculty of Economics and Administrative Sciences ever since. Now, there are a total of 55 universities providing education at undergraduate level in the field of health management in Turkey. Because of the great importance of health management training for the sector, this study is expected to make a significant contribution to the literature.

**Keywords:** Health Management, Training, Historical Development

## 1. INTRODuCTION

There are two most important problems underlying the problems related to health, which have built up over years: firstly, “lack of finance”, and secondly, “lack of trained managerial staff” are the problems expressed on every occasion. Although therapeutic health services are concentrated on in health policies, it is a known fact that these systems do not have sufficient efficiency, that they not satisfy the service providers and service receivers. One means for overcoming these problems is based on raising managers who have modern management understanding and who are in command of management methods (Batirel, 1997, Cit: Hayran and Sur, 1997).

Influences of well-trained professional health managers on health institutions are substantial. Efficient use of the resources, prevention of unnecessary drug use, increase and follow-up of performance of the institution may be listed among these. Therefore, professional training is

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the most important characteristic that should be possessed by the managers serving at all levels in the hospitals (Tabish, 1998).

The fact that countries with any level of development from America to India, from Africa to England have similar training programs in their university curriculums, and that management training is given on several special fields reveals as a universal reality that there is a need for field-specific manager training such as “sports management, disaster management, training management, health management” (Bostan, 2014).

## **2. CONCEPTUAL FRAMEWORK**

### **2.1. Training**

One of the most important of issues of our era is training. In the rapidly developing world, available information is increasing and changing as never seen in the previous years. In addition, the substantial and rapid developments in the industry have developed the efforts to make the human factor more useful and stronger. Training expenditures are now regarded as investment in the future. Now the researches include the expenditures made for human force training in their field of examination (Tortop, 1994: 235-238).

Training is a very broad concept in terms of scope. It can be defined as an individual's activities of making changes in his/her knowledge, talents and skills through formal programs, or by himself or through gaining experience, within or outside the establishment. In a sense, training may be defined as a change process (Koçel, 2013: 76-77). According to another definition, training is defined as “In order to enable that the individuals or the groups constituted by them to carry out the tasks they have undertaken or will undertake in the establishment more effectively and more successfully, all of the instructional actions, which broaden their professional knowledge horizon, which enhance the knowledge, experiences and skills aimed at making positive developments in their thoughts, behaviors, attitudes, habits and understanding” (Sabuncuoğlu, 2011: 124-125). In addition to the training definitions made above in individual terms, the definition “all the managerial purposes aimed at developing current success of the organization from the aspect of effectiveness, freedom and efficiency” is made in organizational terms (Keskin, 2001: 61-62).

The organizations are aware of importance of training and its contribution to performance, and are increasingly making effort for employer training. In order to be able to get result in training, it is compulsory to be fast and to use the time effectively in today's information age. The main goal in training of health professionals is to realize quality of the health services, i.e. to ensure that the personnel is equipped in accordance with the requirements of the age in respect of the issues such as knowledge, skills, ethic values and social approaches, and as a result of this, to increase healthiness level of the society (Topçu et al., 2003: 161).

### **2.2. Health Management Training**

Today, health institution management is considered as one of the special management fields, and it is stated that professional health managers are indispensable for the establishments to reach the desired effectiveness and efficiency level. In Turkey, health management training is given at the associate degree, undergraduate, graduate and doctorate levels. However, since professional health management is not recognized as required in the health establishments, the institutions cannot make use of these professionals sufficiently (Akdaş et al., 2008: 1).

The fact that a special training was required for managing the health institutions was realized in the USA in the 1910s, and graduate hospital management programs were started to be opened in various universities beginning from 1934. In the historical process, the changes seen in USA in the health management training have entailed a series of changes in role, title, duty and functions of hospital or health services manager. Fifty years ago, a hospital manager would not receive any special training for the management role, whereas today, that person is designated as chairman of board of directors, CEO, can become the member of a professional association, and carries out all activities of the organization he/she takes part in (Şahin et al., 2000).

From the past to present, it is seen that the new approaches manifest themselves in the management training, and that importance is placed on accreditation (Çınaroğlu, 2012: 83). The requirement of giving the Health Institutions Management training within certain standards is among the issues of debate in America and Europe. For example, while it is known that the programs providing training in this field are present within different faculties, recently, these departments are seen to be providing training under the faculties of business management. This is encountered in Turkey, too. In the USA, these programs are accredited by an autonomous agency (ACEHSA). A program approved by this agency gives to a potential student the warranty that it will meet the minimum standards developed by that profession or health system. The main goal of ACEHSA is to establish standards for planning and policy of the graduate training in the health management field, to carry out the studies that will stimulate the universities for the development of the programs. Another agency established by all the university programs in the health services management field is AUPHA (The Association of University Programs in Health Administration). According to the statistics of 2008, 160 programs have become member of this program so far. Two agencies that have ensured formation of this agency are AHA (American Hospital Association) and ACHA (American College of Hospital Administrations). While all profession groups can become member to AHA, ACHA is an agency that has been established to elevate the profession standards and that accepts only selected professionals to membership. In Europe, EHMA (The European Health Management Association) acts as the superior body of the European health management. In Turkey, organizations at association level (Association of Health Administrators, Association of Health Managers) are present (Tengilimoğlu et al., 20014: 555).

### **2.3. Historical Development of Health Management Training in Turkey**

In this section, emergence and development of health management in Turkey and the universities currently providing training in this field were examined.

#### **2.3.1. Emergence and Development of Health Management Training in Turkey**

The profession of health management is a fairly new profession throughout the world, and the most developed branch of this profession is hospital management. The first training programs in the health management field have been started with the name of “Hospital Management”. Today, hospital managers assume the responsibility for a very big budget under the pressure of scarce resources and the too rapidly advancing technology and consumer movements, and are supposed to operate a very complex institution so as to ensure the harmony of the professional, semi-professional and assistant service class personnel from a wide range of fields. The adventure of health management training that has started in 1910 in the USA have

been redesigned particularly in the last two decades, and have become aligned with the needs (Sur, 2013).

When we go a little back in the history, hospitals are the most ancient ones among the examples that can be given for the social organizations. Hospital management is an ancient profession. The great Turkish physician Mehmet Razi (850-923) is known to have served as Head Manager at Baghdad Hospital (Ak, 1990: 101). In the Ottoman Empire, hospital management was regarded as a specialty field of occupation. The person who is responsible for management of the medical services in the hospital management was the head physician, and “Tımarhane Ağası”, “Bimarhane Ağası” (chief of the institution), the person who was not a physician, was responsible for administration of the affairs other than the medical services (Ministry of Health, 2004: 4-5).

Following the 1840s, hospital managers were given the title of “Hastane Nazırı” (Ministry of Health, 2004: 4-5), or “Müdür-i Hastane”. The person with the title of Müdür-i Hastane was not a physician. All administrative, financial and operation services of the hospital were being carried out by the Müdür-i Hastane. At that time, the chief physicians were responsible only for carrying out the professional services regarding patient treatment (Ak, 1990: 101).

In the Republic period, first training in the field of health management has started with the Higher School of Health Administration founded on December 19, 1963 as affiliated to the Ministry of Health, General Directorate of Vocational Education, as prescribed in the first five-year development plan (Tengilimoğlu et al., 20014: 555). In 1970, the Higher School of Hospital Management was opened in Hacettepe University, and that school gave graduate training until 1975. At that date, name of the program was changed into Higher School of Health Administration, and these schools that gave training between 1975 and 1982 were joined by virtue of the Decree Law no. 20 July 1982/41, and made affiliated to the Rectorate of Hacettepe University (cit: Tengilimoğlu, 2014: 555). With the requirement that the management phenomenon, which is certainly known to have a great contribution to make the health system effective, and the recent acceleration in the efforts to ensure establishment of and to develop this new profession, new departments have started to be opened (Çimen, 2010: 137).

### 232. The universities giving Health Management Training

The adventure of health management training that has started with the Higher School of Health Administration in Turkey continues very fast. The health management departments in the public, private and foundation universities in Turkey are examined below. Websites of the universities were examined to create tables.

**Table 1. Health Management Departments in Public universities**

UNIVERSITY	Undergraduate (4 Years) (F.T.)	Under graduate (4 Years) (E.T.)	Associate degree (2 Years) (F.T.)	Associate degree (2 Years) (E.T.)
AFYON KOCATEPE UNIVERSITY	X	X	X	-
AĞRI İBRAHİM ÇEÇEN UNIVERSITY	X	-	-	-
AKSARAY UNIVERSITY	X	-	-	-
ANKARA UNIVERSITY	X	-	-	-
ATATÜRK UNIVERSITY	-	-	X	-
BALIKESİR UNIVERSITY	-	-	X	X

BATMAN UNIVERSITY	-	-	X	X
BİLECİKŞEYH EDEBALI UNIVERSITY	-	-	X	-
BİNGÖL UNIVERSITY	X	-	X	-
BİTLİS EREN UNIVERSITY	-	-	X	-
BOZOK UNIVERSITY	X	-	-	-
CUMHURİYET UNIVERSITY	X	X	-	-
Ç.KALE ONSEKİZ MART UNIVERSITY	X	-	-	-
ÇANKIRI KARATEKİN UNIVERSITY	X	-	-	-
DİCLE UNIVERSITY	X	-	-	-
DOKUZ EYLÜL UNIVERSITY	-	-	X	-
DUMLUPINAR UNIVERSITY	-	-	X	X
DÜZCE UNIVERSITY	X	X	-	-
ESKİŞEHİR OSMANGAZI UNIVERSITY	X	-	-	-
GAZİ UNIVERSITY	X	-	-	-
GAZİANTEP UNIVERSITY	X	-	-	-
GAZİ OSMANPAŞA UNIVERSITY	X	-	X	X
GÜMÜŞHANE UNIVERSITY	X	X	-	-
HACETTEPE UNIVERSITY	X	-	-	-
HAKKARİ UNIVERSITY	-	-	X	-
İSTANBUL MEDENİYET UNIVERSITY	X	-	-	-
İSTANBUL UNIVERSITY	X	-	-	-
İZMİR YÜKSEK TEKNOLOJİ UNIVERSITY	-	-	-	-
KAFKAS UNIVERSITY	-	-	X	X
K.MARAŞ SÜTÇÜ İMAM UNIVERSITY	X	X	-	-
KARABÜK UNIVERSITY	-	-	X	-
KARADENİZ TEKNİK UNIVERSITY	X	-	-	-
KARAMANOĞLU MEHMETBEY UNIVERSITY	-	-	X	X
KIRIKKALE UNIVERSITY	X	-	-	-
KIRKLARELİ UNIVERSITY	X	X	X	X
MARMARA UNIVERSITY	X	-	-	-
MEHMET AKİF ERSOY UNIVERSITY	X	-	-	-
MERSİN UNIVERSITY	X	-	-	-
MUĞLA SITKI KOÇMAN UNIVERSITY	X	-	-	-
MUŞ ALPARSLAN UNIVERSITY	X	-	X	X
NAMIK KEMAL UNIVERSITY	X	-	-	-
NECMETTİN ERBAKAN UNIVERSITY	X	-	-	-
NEVŞEHİR HACI BEKTAŞ VELİ UNIVERSITY	-	-	X	-
ONDOKUZ MAYIS UNIVERSITY	X	-	-	-
PAMUKKALE UNIVERSITY	-	-	X	-
SAKARYA UNIVERSITY	X	-	-	-
SELÇUK UNIVERSITY	X	X	-	-
SİNOP UNIVERSITY	-	-	X	-
SÜLEYMAN DEMİREL UNIVERSITY	X	X	X	X
TRAKYA UNIVERSITY	X	X	-	-
UŞAK UNIVERSITY	X	-	X	X
YALOVA UNIVERSITY	-	-	X	-

Health management departments in public universities are given in Table 1. Information on the departments of undergraduate degree formal training, undergraduate degree evening training, and associate degree formal and evening training. Accordingly, 36 undergraduate programs are available in formal training and 9 in evening training in the public universities. Again,



according to the same table, number of formal training programs is 22 and number of evening training programs is 10 at the associate degree level.

**Table 2. Health Management Departments in Private & Foundation universities**

UNIVERSITY	Under graduate (4 Years) (F.T.)	Under graduate (4 Years) (E.T.)	Associat e degree (2 Years) (F.T.)	Associate degree (2 Years) (E.T.)
ACIBADEM UNIVERSITY	X	-	-	-
AVRASYA UNIVERSITY	-	-	X	X
BAHÇEŞEHİR UNIVERSITY	X	-	-	-
BAŞKENT UNIVERSITY	X	-	-	-
BEYKENT UNIVERSITY	X	-	X	-
BEZM-İ ALEM VAKIF UNIVERSITY	X	-	-	-
BİRÜNİ UNIVERSITY	X	-	-	-
ÇAĞ UNIVERSITY	-	-	X	-
İSTANBUL AREL UNIVERSITY	X	-	X	X
İSTANBUL AYDIN UNIVERSITY	X	-	X	X
İSTANBUL BİLGİ UNIVERSITY	X	-	-	-
İSTANBUL BİLİM UNIVERSITY	X	-	X	X
İSTANBUL ESENYURT UNIVERSITY	-	-	-	-
İSTANBUL GELİŞİM UNIVERSITY	X	-	X	X
İSTANBUL MEDİPOL UNIVERSITY	X	-	X	-
İZMİR EKONOMİ UNIVERSITY	X	-	-	-
NİŞANTAŞI UNIVERSITY	X	-	X	X
OKAN UNIVERSITY	X	-	X	-
SELAHADDİNEYYUBİ UNIVERSITY	X	-	-	-
TOROS UNIVERSITY	X	-	-	-
ÜSKÜDAR UNIVERSITY	X	-	X	X
YENİ YÜZYIL UNIVERSITY	X	-	-	-
ATAŞEHİR ADIGÜZEL MYO	-	-	X	-
İSTANBUL KAVRAM MYO	-	-	X	X
İSTANBUL ŞİŞLİ MYO	-	-	X	X
PLATO MYO	-	-	X	-

Distribution of health management departments in private-foundation universities is given in Table 2. Accordingly, number of programs at undergraduate level is 19, and number of programs at associate degree level is 15. There are no evening training programs at undergraduate level.

When examined in terms of graduate and doctorate training, number of universities giving graduate training in the field of Health Management in Turkey is 39 (including Ahmet Yesevi University and GATA). The number of universities giving doctorate training in the field of Health Management in Turkey is 10 (Tengilimoğlu et al., 2014: 559-560).

### 3. CONCLUSION

Once the schools training health managers, which have a history of around 50 years in Turkey, provide a really efficient training, the graduates, who are the output, will accomplish quality works in the field. Major tasks fall to the instructors in provision of this training. However, the non-area academicians and the fewness of academicians are among the main problems hindering this.

Well-trained health administrators who are professionalized in their field will achieve success in the environments where there is intensive uncertainty and variability. It is considered that there will be a linear relationship between placing the necessary importance on health services management and success of the national health system (Çimen, 2010: 138).

In Turkey, the need for professional managers equipped with the operation and management knowledge in health institutions of every level, who can assume duty in different managerial positions, is increasing day by day (Tengilimoğlu et al., 2014: 552). Similarly, the number of health management departments are increasing in number day by day in Turkey Here, the essential objective desired to be achieved is, rather than numeric increase, to manifest actual quality of these departments by transferring the output, i.e. the graduates who are enterprising, knowledgeable, self-confident and open to innovation, who will represent the profession of health management.

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# MEDICAL TECHNOLOGY AND THE IMPACT OF HEALTH CARE EXPENDITURE

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## ABSTRACT

In the United States, health care expenditure is growing every years and the spending relative to GDP has also growing more rapidly than in any country. The increasing of the spending making the economy of US health care system facing the biggest challenge of making the system accessible. This study addresses the factors that impact on medical technology spending from the patient's level and provider level. This study indicates that consumer demands, health insurance system, professional desire, commercial companies and public and private investment in basic science research are factors affecting medical technology growth. In general the objective of this paper is to identify the impact of medical technology to the cost of health care and what factors affects the growth of medical technology.

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# ORGANIZATION BEHAVIOR OF HEALTHINSTITUTE



# FACTORS AFFECTING THE DECISION MAKING PROCESS IN HEALTHCARE INSTITUTIONS

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## ABSTRACT

**The Problem of the Study:** In health care organizations, decision making is very complicated and could be of both clinical and nonclinical nature. Decision towards patients is usually associated with multiple factors including economic ones, in addition to several treatment options. Leaders and managers in healthcare organizations have to adapt significant pressure to make difficult operational and budgetary decisions by maximizing operational efficiency and reducing unnecessary costs while improving and maintaining high quality. Several factors influence decision making in healthcare organizations. Because of that it is imperative to identify and understand factors that positively or negatively influence the decision making process in such critical and sensitive forms.

**The Purpose of the Study:** The purpose of this study is to determine and examine factors that affect decision making process in Healthcare Organizations.

**Method:** A meta-analytic study was done to identify the most cited factors affecting the decision making process in the last five years throughout searching and screening the literature using Ankara University Electronic library, The Pub med, SAGEM library, Google scholar. Time period for scanning was between October 2014 and February 2015. First, all of the articles were tabulated according to the year of publication, the Author and the resulted factors influencing the decision making process in health care organizations. A lot of studies were found related to our key words of interests but many of them were talking about the factors affecting the decision making process from a clinical perspective and only articles talking about the process from a managerial point of view were included in our study. As a result 48 articles were included as they met our research criteria. Articles of interest were collected, gathered and tabulated according to the resulted factors affecting the decision making process in health care organizations. The following keywords were helpful in articles pickup process (Healthcare organizations, Decision Making, Process, Impact and Factors).

**Findings and Results:** During the last five years Knowledge based decision making, Informative decision making, training effect on decision making were the most cited factors 14/48 studies. Followed by 11 studies mentioned the organizational and institutional factor, 7 studies considered the using of specific models for decision making and decision supporting tool a great and a helpful factor in the decision making process. The characteristic of the decision maker as an influencing factor took a part in three studies and was equal to the financial resources which were also taken in consideration in 3 studies also. The timelines of decisions, the delegation of decisions, and shared decision making factors came to play in one to two studies.

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**Conclusion:** Decision making in health care organizations is a complicated process because it is of both clinical and non clinical nature. According to findings, knowledge and evidence informed decision making (EBDM) was the most cited factor to influence the decision making process in health care organizations. However, “the most cited” doesn’t mean “the most important”. Beside this the use of information and communication technologies and decision support tools, the environmental and institutional factors, the financial factors and the delegation of decisions were also important factors to discuss in this context.

**Keywords: Decision Making, Healthcare, Management**

## INTRODuCTION

Making and implementing decisions are central functions of management (Ozcan, 2005). Decision making is the process of analyzing alternatives to reduce uncertainty about achieving a desired outcome, with the best effect on the organization. Timelines, methodological considerations, interpretations of value for money, explication of social values, stakeholder engagement and accountability for reasonableness are main issues surrounding the decision making process (Stafinski et al, 2011). Consideration of social and organizational dimensions of context is critical in optimizing the quality decision making (Smith et al, 2015) . The **decision** makers’ thinking **processes** included: vision, political astuteness, being tactical, being strategic, due diligence, and risk management; and the ethical **processes** included: respect for diverse opinions, integrity and trust, democracy, impact of policies, passion for public service, and intuition about doing the right thing. Strong face validity and trustworthiness of the data was achieved to inform future research (Jiwani,2011).

Healthcare managers, administrators, physicians and other health care professionals have a great pressure to make the best use of available resources to get excellent results from limited resources. In addition to ensure providing high quality of care at a lower and competitive cost, because of today’s highly complicate, technologic and competitive healthcare arena (Hanson et al., 2011). Decisions towards patients are usually associated with multiple factors including economic ones, in addition to several treatment options. In health care organizations, managers have to make decisions frequently based on collected information, they must decide how to direct and organize others, how to control processes within the system plus helping others to reach their own decisions. As a result,decision making can be quite stressful in today’s dynamic and complex health care industry (Ozcan, 2005). Healthcare decision making is complex and requires access to a wide array of high-quality information and success depends on whether or not enough right decisions are both made and implemented (Bansal, 2005). Decisions can be described in terms of decision characteristics and attributes (e.g. complexity, urgency etc), nature of the task, the characteristics of the decision maker (e.g. demographics, diversity, tenure) , and in which context the decision will take place, in addition to the availability of information required for making decisions, the economic and financial factors and to what extent the government is involved in decision making regarding to politics and regulations. Many factors may lead to more evidence based decision making such as the developed personal skills, the use of data and analytic tools, plus the suitable and favorable organizational climate. Knowledge and leadership are factors that influence the managers’ decision. Although most people understand this concept, a relatively small number had substantial expertise and experience with its practice. Factors associated with use of EBDM included strong leadership; workforce capacity (number and skills); resources; funding and program mandates; political

support; and access to data and program models suitable to community conditions (Sosnowy et al, 2013).

### 3. RESEARCH

#### 3.1. Methodology

The aim of this study was to identify the most cited factors affecting the decision making process in the last five years throughout searching and screening the literature using Ankara University Electronic library, The Pubmed, SAGEM library, Google scholar. Scanning process was carried in the time period between October 2014 and February 2015. First, all of the articles were tabulated according to the year of publication, the Author and the resulted factors influencing the decision making process in health care organizations. A lot of studies were found related to our key words of interests but many of them were talking about the factors affecting the decision making process from a clinical perspective and only articles talking about the process from a managerial point of view were included in our study . As a result 48 articles were included as they met our research criteria. Articles of interest were collected, gathered and tabulated according to the resulted factors affecting the decision making process in health care organizations. The following keywords were helpful in articles pickup process (Healthcare organizations, Decision Making, Process, Impact and Factors).

**Table 1. Articles tabulated according to the year of publication, the Author and the resulted factors influencing the decision making process in health care organizations**

Publication	Findings
Purwanto et al , 2012	Dual hybrid model is useful for generating appropriate decisions which will be helpful for the healthcare managers. Special generated models for taking decisions
Adeyemi et al , 2013	The transferable skills; the health outcomes, understanding of how the accesses, uses health service and information in making strategic decisions; and Practical involvement in how information informs commissioning decisions. Knowledge and information effect
Sosnowy et al , 2013	Knowledge and leadership. Evidence based decision making
Yuen , 2014	This study identified the need for having a receptive climate that supports the use of research in decision making. institutional and organizational factor
Solans et al , 2013	The relationships between managers. Shared decision making
Nutley et al , 2013	Decision support tool play a vital role in health decision making. Using decision support tools and models
Zeng et al , 2013	Considering VIKOR for use as a decision support tool for future study. Using decision support tools and models
Tromp and Baltussen , 2012	Recommended the use of conceptual mapping criteria by decision makers. Using decision support tools and models (mapping criteria)
Stipp and Kapp, 2012	Directors inform their decisionmaking with streams of information. organizational knowledge and value for local practice effectiveness.
Tso et al , 2011	Decisionaid to support policymakers in population-based healthpolicydecisions.

**Table 1. Articles tabulated according to the year of publication, the Author and the resulted factors influencing the decision making process in health care organizations (Continues)**

Publication	Findings
Simonen et al, 2009	Manager's professional background and activity sector are associated with the kind of knowledge that affects their decision making.
Tourigny and Pulich, 2006	The role of delegation in improving the decision making process.
Kotalik et al, 2014	Ethical decision-making as well as advance the ethical atmosphere of the institution.
Bai et al, 2014	Task based and employee based sequential-decision approach, extensive computational analysis of a clinical workflow process
Williams et al, 2014	Decision-maker characteristics and processes that may influence the decision, including demographics, structure and operations, readiness, attitudes, barriers, and facilitators.
Wills, 2014	The effect of data analytics in health care on decisions
Yousefi et al, 2014	Implying a positive atmosphere towards implementation of evidence-informed decision making in this public health organization.
Legare et al, 2014	Health professionals and managers attitude are barriers that influence decision making.
Sosnowy et al, 2013	Strong leadership; knowledge, workforce capacity (number and skills); resources; funding and program mandates; political support.
Villa, 2013	One's workforce and board of health were also influential in making decisions regarding resource allocations
<u>Hoflund, 2013</u>	Health care decision makers identified timeliness as a key factor.
Koon et al, 2013	The principles that are representative of the larger environment.
Poulin et al, 2013	Our findings suggest that four qualities influence decision: reputation, capacity, quality of connections to decision-makers, and quantity of connections to decision-makers and others. In addition to this, the policy strongly influences up take.
Hamrock et al, 2013	The effect of introducing new technologies on the decision making process.
Grayson, 2013	Decisions on subjective information. Discrete events simulation (DES), a computerized method of imitating the operation of a real-world system
De Graaf and Bakker, 2013	Shared Decision making effect
Mendez et al, 2013	Conceptually, the hospital self-management policy is based on financial autonomy, and implementation is affected by persistent capacity gaps in policy design.

**Table 1. Articles tabulated according to the year of publication, the Author and the resulted factors influencing the decision making process in health care organizations (Continues)**

Publication	Findings
Donnellan ,2013	The mission, vision, and values statements of these organizations have been successfully translated into a set of shared values--a moral compass that guides behavior and decision making.
Mc Cormack, 2013	Levels of knowledge and actual levels of involvement in decision making
Lee et al, 2013	The effect of implementation qualitative analysis for past decision making results on developing appraisal guidelines and enhance the objectivity of decision-making processes.
Mc Caughey and Bruning, 2010	Cognitive information processing as a key factor in the decision-making process.
Shoemaker et al , 2010	Financial considerations were a factor in decision making.
Tso et al, 2011	Decision aid is intended to help public sector health policy decision makers.
Joseph et al, 2013	Unilateral decision making (one person within an organization makes decisions for the quilting on his/her own).
Jack et al, 2011	Experiential knowledge. Individual and organizational facilitators and barriers.
Khoumbati et al, 2008	MAESTRO identifies a set of factors that influence decision
Champagne et al , 2014	The impact of training. Individual, organizational and program design factors that facilitated and/or impeded the dissemination of the attitudes and skills gained by trainees to other organizational members.
Hubbeling, 2014	The underlying psychological processes of normal decision-making are not well known and one cannot differentiate between unwise decisions caused by an illness or other
Williams and Brown, 2014	factors influence decisions impacting on quality and costs
François et al, 2014	Knowledge

### 3.2. Findings:

During the last five years Knowledge based decision making, Informative decision making, training effect on decision making was the most cited factor 14/48 studies. Followed by 11 studies mentioned the organizational and institutional factor, 7 studies considered the using of specific models for decision making and decision supporting tool a great and a helpful factor in the decision making process. The characteristic of the decision maker as an influencing factor took a part in three studies and was equal to the financial resources which were also taken in consideration in 3 studies also. The timelines of decisions, the delegation of decisions, and shared decision making factors came to play in one to two studies. These findings are showed in Tables 2 and 3 respectively from the most cited factor to the least cited factor. The most cited factor doesn't mean the most important factor.

**Table 2. The table below show the most cited three factors that affect decision making in health care organization.**

Knowledge based decision making	Organizational and institutional environment	The use of technology and analytic tools
Adeyemi et al , 2013	Yuen and Kevin , 2014	Wills et al, 2014
Sosnowy et al, 2013	Stipp and Kapp, 2012	Poulin et al ,2013
Simonen et al, 2009	Kotalik et al , 2014	Hamrock et al , 2013
Hamrock et al , 2013	Bai et al , 2014	Draaf and Bakker, 2013
Wilby and Al-siyabi, 2013	Yousefi et al , 2014	Stafinski et al,2011
Mccormack, 2011	Hoflund,2013	Yang et al ,2013
Lee et al , 2013	Donnellan,2013	Lugtenberg et al,2014
McCaughey and Burning , 2010	Jack et al, 2011	Glover et al,2010
Jack et al, 2011	(Gildiner, 2007)	Qureshi et al ,2014
Champagne et al , 2014	(Ellen et al,2013)	
(Ellen et al,2014)	(Noriega Bravo And. Pría Barros, 2012)	
Foshay and Kuziemy,2014		
Solans-Domènech et al ,2013		
Simonen et al ,2012		

**Table 3. The least cited factors affecting the decision making process in health care organizations**

Decision supporting tools and models	Shared decision making	Financial resources	Time and delegation
Zeng et al , 2013	Williams et al, 2014	Bekemeier et al, 2013	Villa et al ,2013
Tromp and Baltussen , 2012	Legare et al, 2014	Mendez et al , 2013	Tourigny and Louise, 2006
Tso et al, 2011	Koon et al ,2013	Shoemaker et al , 2010	
Koumaditis et al ,2013			
Kudyba et al ,2005			

#### 4. CONCLUSION

Decision making in health care organizations is a complicated process because it is of both clinical and non clinical nature. Leaders and managers in health care organizations are continuously asked to make critical operational and budgetary decisions, with an objective to achieve efficient operations, competitive costs, with high quality of services. Many factors influence the coverage and commissioning of decisions in health care system around the world. According to our findings, knowledge and Evidence informed decision making was the most cited factor to influence the decision making process in health care organization. However, the most cited doesn't mean the most important.

Having the knowledge means having the power in making decisions for both short and long term demands of the health reforms. Nowadays, many sources of information are available and

accessible whether as online medical literature or from the international health organizations publications. Health care organizations are being asked to implement accessible and effective web-based database of searchable evidence to facilitate the access to research evidence. Translating the research evidence into practice is not an easy job. On the other hand health care organizations could improve their employees in translating information in their decision making practice throughout continuous education and training. Having the information and all required data for making decision on a timely base facilitate the decision making process, because that the timeliness of decision is a sensitive factor to make the right decision on the right time. In our study the timeliness of decision was from the least cited factors. The institutional and the Enviromental factors were a key factors and were from the most cited factors that influence the decision making process in our study. The mission, vision and values statements guide the behavior and the decision making process.

The amount of data in health care reforms are increasing in an astonishing rate, make it impossible to evaluate the status and making a decision in according to. But the introduction of information and communication technologies helped in extracting actionable information that leaders and managers could take advantage of in their decisions. Many constructed decision tools are now available on the internet that the organizations could benefit from. The use of a decision aid tool can facilitate the mission to make appropriate decisions as some of these methods could imitate the operations in the real world system over time and could be a suitable predictor before implementing any decision.

The Financial side must not be absent in any decision making process in any organization and is considered to be a vital factor in the financing of health services delivery and in hospitals self management policies.

Because of the specific nature of health reforms, the shared decision making is a critical factor especially In investigation, screening and treatments decision making. Granting and delegating the authority for employees to make decisions, increase the decision making autonomy in the organization, although in our study these factors were from the least cited factors.

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## FACTORS AFFECTING THE DECISION MAKING PROCESS IN HEALTHCARE INSTITUTIONS

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# THE MANAGEMENT OF CORPORATE REPUTATION IN HEALTH CARE INSTITUTIONS: A RESEARCH STUDY FOR MEASURING THE PERCEPTION ABOUT CORPORATE REPUTATION OF EMPLOYEES WORKING IN PUBLIC AND PRIVATE HOSPITALS

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## ABSTRACT

**The Problem of the Study:** A corporate reputation is the contribution of reliance created by an organization in the total market value. It is equivalent of the intangible values of the institution. That being one of the most important values of the institutions, the management of reputation, with its feature that cannot be imitated by its competitors, has become one of the crucial management tools in recent years. Also, by addressing to the reputation issue that gives important information about themselves to the stakeholders, institutions, keeping strategic management on the agenda and making serious preparations to protect themselves against future potential dangers, make the corporate reputation as an important helper for the strategic management. Having a great importance the management of corporate reputation as in all sectors, has also begun to be taken into account in the health care sector. That it is one and perhaps the most important of the institution having vital importance in terms of trust, communication and behavior in social responsibility for its internal and external stakeholders, it becomes necessary for health care sector to deal with the issue of corporate reputation that will make great contribution to these institution in terms of creating the mentioned issues, ensuring sustainability and improving the quality of services. This is because, without a question, the subject of service is human health that has definitely great importance. In this study, under the roof of the corporate reputation concept that also exists among the remarkable subjects in the literature, it is dwelled on the corporate reputation in health care institutions, its implementation as a system, its importance and aspects. Furthermore, it is aimed to measure the perception of the private and public health sector employees as being the important stakeholders of the mentioned management term about their institutions by conducting a field survey and present it correlatively.

**The Purpose of the Study :** Although the number of corporate reputation researches in our country is not so many, an interest increase to the subject has been observed and the components of reputation in some studies conducted among different organizations have been examining. The contribution of the corporate employees, accepted to be the most important of these components, to the corporate management and their positive and negative perception level in the corporate reputation were tried to be presented with the limited number of researches that conducted for some sectors; however, they could not pass beyond giving an idea about the subjects related to this research. Moving from this gap in the literature, the aim of this research was; to present how the management process has been executed especially on the basis of

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the health sector and analyze comparatively that according to their working status, at what level and in which differences the employees in public and private sector (public hospital and private hospital) perceive corporate reputation.

**Method :** The study's theoretical platform supported with a field study, in the study, for the purpose of measuring the perception level about their institutions, by using a reputation scale, developed by Fombrun, a questionnaire was conducted on 253 nurses working in Nevşehir state hospital and 2 private hospitals in the same province. The questionnaire questions were asked to the participants with a face to face method within working hours. In order to simplify the research of the subjects that creates the roof of the research method, 3 research questions were determined. General reputational perception of the nurses working in the state and private hospital, the perception of the nurses working in the state hospital about the corporate reputation and the perception of the nurses working in private hospital about the corporate reputation were tried to be presented, and a hypothesis was developed according to the institution in which nurses worked in order to measure the possible dissimilarity in the perceptions of corporate reputation. On the prepared questions and the analysis and testing of the hypothesis, it was benefited from the programme SPSS (Statistical Package For Social Sciences) for Windows 16.0, and used descriptive statistical analysis methods such as number, percentage, mean, standard deviation and Independent Groups t-test.

**Findings and Results :** According to the results obtained from the research, the perceptions of the employees, (the nurses) in the hospitals (private and public) in Nevşehir city center, about the corporate reputation is moderate. This situation shows that the hospitals do not give enough attention to studies that can improve corporate reputation of the nurses who are the internal stakeholders of the hospitals. In addition, it was concluded that the level of perception of nurses differs according to the situation whether they work in public hospitals or in private hospitals. Accordingly, the perception about corporate reputation of the employees working in private hospitals is higher than the employees working in the state hospitals.

**Key Words:** Corporate Reputation, The Management of the Corporate Reputation, Health Care Institutions, Reputational Perception

## 1. INTRODUCTION

Reputation is a multi-dimensional component that focuses on what is done and how it is done in institutions and it is based on perception according to the experiences of the stakeholders (Bennet ve Kottasz, 2000:224-235). Ensuring the continuity and protecting the gained reputation is as important as gaining the reputation that has a great importance for institutions in terms of providing a competitive advantage. In other words, reputation should be protected against the risks it carries. Protection from risks depends on how much effectively the management of reputation is implied. In this context, institutions should conduct their own reputational risk studies by taking into account their own structure, the sector in which they exist, environment in which they operate.

Corporate reputation is the contribution of reliance created by an organization in the total market value and it is the equivalent of intangible value of an institution. It is known that corporate reputation that started to be taken into account in health sector and has crucial importance in the functioning of these institutions, affects the quality of service presented by the reliance and communication level between private and public health sector workers.

However, representing the institutions that offer health service through private and public sector may make a difference in terms of service quality, it will similarly influence corporate perception of the employees and so the quality of health service.

It is seen in the researches conducted in this field, it is not mentioned the issue that corporate reputation perception may vary in terms of employees according to the situation whether health institution functions in public or in private sector. This study, in the literature, considered to contribute to the studies that targets the completion of this field, aims to support the theoretical background including information about the management of corporate reputation with a field study and set light to other large scale studies.

## **2. THE MANAGEMENT OF THE CORPORATE REPUTATION IN THE HEALTH CARE INSTITUTIONS: CONCEPTUAL FRAMEWORK**

**2.1. The Management of the Corporate Reputation in the Health Care Institutions, Its Importance and Its Stakeholders:** Corporate reputation states the emotional and effectual reactions such as good or bad, weak or strong of the clients, enterprisers, employees, suppliers, administrators, credit providers, media and communities on what the institution is. In this aspect, corporate reputation is a set of perceptions regarding the evaluation of institution's past performance and its future behavior (Gümüş ve Öksüz, 2009:19-27). Fombrun (1996:74) accepts corporate reputation as a concrete factor that determines the place of the company in the market. Contemporary businesses are obliged to create trust and credibility among intended population. Therefore, by becoming transparent and showing themselves to their client, they build a way to gain reputation and they are in need of managing the reputation besides other entities (Uzunoğlu ve Öksüz, 2008:111-123).

Corporate reputation is expected to provide many benefits such as permanent profitability, high earnings, competitive advantage and preferability ratios from the viewpoint of employees, clients and suppliers. However, for the sectors such as health care sector that offers a vital service and makes an effort to hold its service conditions equal for each demand, the phenomenon of corporate reputation is seen to be more important compared to other sectors that do not feel the necessity for offering their services on equal terms. Although all treatment service conditions are equal for the treatment of a patient with a particular disease, those people, sometimes described as clients in the literature, may choose a hospital with a positive reputation.

As the subject of the service is human in health institutions, how reputation is perceived by stakeholders in health sector becomes important. Sorted by Fombrun (1997:5-13), the stakeholders such as employees, clients, suppliers, enterprisers, member of the government, media, environmental organizations and opponents also can be considered as a stakeholder in the management of corporate reputation of health care institutions. It is possible to include all institutions and people that have been affected by the actions, decisions, policies and objectives of the institution among these stakeholders. It is possible for the institution to create a quality service approach in the eyes of the stakeholders, increase appreciation and preferability only by creating a positive reputational perception. When considered from this point of view, the stakeholders considered in health institutions directly affect the management of the reputation and reputational perception of these institutions. The frequency and content of demanded health care service is affected by the quality of the institution and its employees, whether the services are reliable, the communication it established with its environment and its consciousness of social responsibility towards to the society.

Carrying out the process of the management of the reputation successfully in the health sector is associated with how much institutions deal with some processes that has to be considered especially in service. Foremost among them is to establish an effective communication system. Communication that has to be used effectively during the process of creating a successful reputational perception should be based on a sense of confidence and institution should present the efforts towards enhancing the community's quality of life together with these two facts with corporate social responsibility studies. It is obvious that management of the corporate reputation in health institutions has to be applied in a serious spirit in order to minimize, remove or keep the difference between perceived quality level and expected quality level by the clients, one of the most important of the stakeholders of the management of corporate reputation, and patients in the health care institutions.

## **2.2. The Role of the Management of the Corporate Reputation and the Role of the Health Workers' Perception About Corporate Reputation in Improving the Quality of Service:**

While analyzing "placing positive thoughts about a product, a person or an organization in peoples' mind" meaning "creating an image" and "perceptual management" that its validity can not be refused in today's conditions, it can be seen that it is "being understood by the opposite side" in reality. The sense of satisfaction that is considered as a factor eliminating the differences between expected and offered service manner by the clients and the employees in health care sector should be evaluated in this concept. Being understood by the others is in one sense the perceived level of corporate reputation. A successful management of corporate reputation is an effective factor to create a positive image in terms of stakeholders. The management of the corporate reputation including image and perceptual management will also improve the quality of service given by employees who are the most important stakeholders. In this way, minimizing of the negative communication patterns, creating the sense of confidence and loyalty in all health care sector stakeholders, shortening the duration of treatment, eliminating of absences, leave of employment and involuntary working behavior and also increasing the recommended level of the institution are expected.

It is known that corporate reputation in health care institutions provides benefits such as attracting qualified workforce, increasing the loyalty of the employees, attracting clients and creating client loyalty, increasing the market value, providing financial gain and attracting the enterprisers (Schwaiger, 2004:51). As seen in the listed benefits; employees not only take part in providing corporate reputation but also they are one of the targets of it. Employees are the basis of the corporate reputation process. In other words, it is impossible for the institutions to have a strong reputation without gaining the support of the employees. For this reason, institutions that want to have a strong corporate reputation should be aware of this fact. Ensuring the participation of the employees to the corporate reputation process possesses a crucial importance.

Indeed, both at the point of interaction with external stakeholders and with what they produce and offer, employees influence the perception and evaluation related to the institution with their behavior. The given promises can be fulfilled only when employees show effort to keep these promises. As being a concept that encompasses the whole institution, reputation necessitates the active efforts of the employees who are the key of corporate success. As active internal corporate communication contributes to the creation of corporate reputation process, the support and participation of the employees at every stage of this process is required. Since

being as a result of long years of a study, reputation influences the strength or weaknesses of corporate reputation that is created by the employees in the process. According to Kadıbeşgil (2001:241); basic policies related to the management of reputation are developed by the management but the protection of reputation is the work of all employees. For this reason, institutions firstly should keep the perception of the employees related to corporate reputation high and then tell them their role in the process of corporate reputation and manage this process by gaining employees' support.

### **3. RESEARCH**

**3.1. literature Review:** In the conducted literature review, has been found in some studies that it was either focused on the issue of corporate reputation management or aimed to measure the perception about corporate reputation in various institutions. In the research named “Corporate Reputation Survey and an Application Example” by Eroğlu ve Solmaz (2012:15-17), a survey was conducted to 258 public elementary school teachers working in the central districts of Bolu and the effects of the school managers to their perception level of corporate management was investigated. According to the survey result, it has been concluded that the school manager has an effect on this perception level. Accordingly, it has been determined that in terms of teachers' perceptions about corporate reputation and management style subscales, there is a strong relationship with a democratic and participatory-democratic management style; a moderate relationship with a sharing-authoritarian, a weak relationship with an authoritarian management style.

Another study named “The Management of Corporate Reputation and The Measurement of Corporate Reputation in a Public Institution” by Seval Yirmibeş (2010:70-93) is an unreleased postgraduate thesis. In this study, with the questionnaire of corporate reputation including 25 questions and developed by Charles J. Fombrun, it was investigated that how corporate reputation is perceived by the 57 employees of Uludağ Exporters' Union General Secretary and union members. As a result, corporate reputation of Uludağ Exporters' Union General Secretary was perceived as positive, and the coefficient of corporate reputation was determined to be 76.5%.

In a study by Çiğdem Şatır (2006:56-63) named “How External Stakeholders Perceive Reputation in a Public Institution Offering Health Care Service”, conducted to the 1904 employees of a research hospital performing in public and health care sector, it was aimed to measure the perception about corporate reputation of the employees namely internal stakeholders. According to the participants, the most important components to create reputation actually are institutional functioning, communication, confidence, service quality and social responsibility. However, it has been concluded that this ideal harmony did not exist in the institutional functioning in their institutions and in communication. Another study is “A Survey of Determining the Effect of Corporate Reputation Over the Employees' Performance” by Bekiş and colleagues (2013:19-27). It was conducted to the 130 employees working at management position in 19 private hospitals or private branch hospitals in Niğde-Nevşehir-Kırşehir and it has been concluded that corporate reputation has a positive impact over employees' performance.

**3.2. Research Model:** In our country, the number of researches on corporate reputation appears to be insufficient. Still, it is seen that it is not touch on the issue that the management of corporate reputation can be evaluated through different perceptual ground by the employees



according to the state of in which sector the health institution operates, in public or in private sector.

In the literature, this study that is considered to contribute to the work aiming to correct the deficiencies in this area, intends to create its theoretical background within the scope of the mentioned deficiencies, support the research problems with a field research and set light to other more comprehensible researches to be carried out. In the research, the reputational perception towards their own institutions of the nurses working in two private hospitals and in a public hospital was investigated. It is aimed to determine whether their perception about the corporate reputation differentiates according to in which sector the hospitals they work operates. It is seen that in private sector institutions, the concept of modern management and human resources practices are more known compared to public institutions and commercial concerns and motivational applications are more concerned. As being considered that this situation will affect the perception about corporate reputation of the employees who are the internal stakeholders, the main expectation in this study is for that the perception about corporate reputation of the nurses working in private sector is higher than the nurses working in public.

3 questions prepared in this respect and a hypothesis that is generated based on the 3<sup>rd</sup> question is as follows:

Question 1: At which level does the nurses who are working in public hospitals in Nevşehir province perceive the corporate reputation of the hospital they work in?

Question 2: At which level does the nurses who are working in private hospital in the city center of Nevşehir province perceive the corporate reputation of the hospital they work in?

Question 3: Do the perception about corporate reputation of the nurses who are working in public hospital and the perception about corporate reputation of the nurses who are working in private hospital in Nevşehir show differences?

Hypothesis 1 (H<sub>A</sub>): The perception about corporate reputation of the nurses working in public hospital in the city center of Nevşehir is different from the perception about corporate reputation of the nurses working in the private hospital.

**3.3. The Type of the Research, Main Population and Sample:** As of its nature, the research is descriptive and intends to demonstrate the current situation of the results to be achieved.

For the purpose of the research, 320 nurses in total (with integer sampling method) working in two private hospitals and in a public hospital in the city center of Nevşehir were asked to participate in the research through the survey form but the number of participants remained as 253. The nurses participated in the research constitutes 79% of the universe. 67 of the participants who were desired to be reached by face to face method and are in the scope of research did not participate in the research because of the reasons that they either did not want to participate in the research or were on leave with the reasons such as working hours, workload, birth and annual leave. The ratio of the sample number to the populace number is 79% in this research. Arlı and Nazik (2001:77) states that minimum sampling of 10% is needed in descriptive researches. According to this information; the number of sampling of the research is highly enough for the reliability of the results.

**3.4. Data Collection Method and Statistical Analysis of the Data Collected:** In reaching to the sample, questionnaire method was used. In the first part of the questionnaire 8 demographic question were given, in the second part the scale including 25 questions of corporate reputation, developed by Charles J. Fombrun, (Fombrun, 2001; within Yirmibeş, 2010:93) was used. The questions were asked to the participants in working hours and through face to face interview method.

The expressions in the second part apart from the first 8 questions regarding the descriptive characteristics of the institutes surveyed were prepared by using a 5 point likert-type scale. The options in the expressions were assigned as from the most negative to most positive. The number “1” was assigned to the most negative and the number “5” was assigned to the most positive. The answers given to the negative expressions were numbered as 2, 5, 13, 14, 19 and coded backward in order to ensure the reliability of the results. While evaluating the results of the research, it was benefited from the programme SPSS (Statistical Package For Social Sciences) for Windows 16.0 for the statistical analyses and descriptive statistical methods such as number, percentage, mean, standard deviation and Independent Groups t-test were used. The results were evaluated bidirectional at  $p < 0,05$  of a significance level and %95 of a confidence interval.

**3.5. Reliability Analysis:** In the second part of the questionnaire, the reliability of the 25-item scale named “The Scale Of Corporate Reputation” developed by Charles J. Fombrun (Fombrun, 2001; within Yirmişbeş, 2010:93) has been tested and the reliability coefficient was found to be 0.911. A scale that has reliability coefficient between  $0,80 \leq \alpha < 1,00$  is accepted to be a reliable scale (Yazıcıoğlu and Erdoğan, 2004:513-534).

In the selection of the analysis that would be applied for testing the hypothesis of the research, the suitability of the data to a normal distribution was examined. the suitability of the data to a normal distribution has been examined. The most used distribution used in statistical studies is the normal distribution. The coefficient of skewness of the data set related to the level of the reputational perception is 0,461 and the coefficient of kurtosis is 0,257. For normal distribution these coefficients have to be between -2 and +2 and when the sample number is sufficient, some resources accept that the data shows a normal distribution when it is reached to the coefficient of skewness and the coefficient of kurtosis that are until (- +) 3,26 (Tütüncü, 2012). While analyzing the answers given to the scale questions, for the average values the results between 1,0-2,5 (including 2,5) were evaluated as low level, the results between 2,5-3,5 (including 3,5) were evaluated as moderate level and the results between 3,5-5,0 were evaluated as high level of the reputational perception. In this evaluation it was benefited from experts' opinion.

#### 4. CONCLUSIONS AND FUTURE PROJECTIONS

**4.1. The Results of the Descriptive Characteristics of the Participants:** 8 descriptive questions in the first section of the questionnaire were asked to 253 nurses in the sample group and the data obtained is showed in Table 1 below.



**Table 1. The Results of the Participants According to Their Demographic Characteristics**

Age Ranges	Frequency	Percentage (%)	Service Unit	Frequency	Percentage (%)
18-25	103	40,7	Internal Medicine	23	9,1
25-35	71	28,1	Surgery	35	13,8
35-+	79	31,1	Pediatrics	15	5,9
Total	253	100	Intensive Care	59	23,3
Gender	Frequency	Percentage (%)	Emergency	30	11,9
Woman	230	90,9	Other	91	36,0
Man	23	9,1	Total	253	100
Total	253	100	Working Type	Frequency	Percentage (%)
Marital Status	Frequency	Percentage (%)	Watch Method	203	80,2
Married	140	55,3	Shift Method	50	19,8
Single	113	44,7	Total	253	100
Total	253	100	The Hospital Working	Frequency	Percentage (%)
Working Time in the Occupation	Frequency	Percentage (%)	Public Hospital	180	71,1
0-5	120	47,4	Private Hospital	73	28,9
05.Eki	42	16,6	Total	253	100
Eki.15	25	9,9			
15-+	66	26,1			
Total	253	100			

In Table 1 it is seen that 40,7% (103 people) of the nurses participated in the research is between the ages 18 and 25, 90,9% (230 people) of them are women, 55,3% (140 people) of them are married. The working time of 47,4 % (120 people) of the participants in the profession is between 0 and 5 years. 38% (91 people) of them are working apart from the given units, 80,2% (203 people) are working with a watch method, 28,9% of them are working in a private hospital, 71,1% of them are working in a public hospital.

#### **4.2. The Results of The Participants' Perceptual level About Corporate Reputation:**

The first of the research questions within the scope of the survey intends to identify the perception level of corporation reputation of the nurses who are a public hospital employees and the second one intends to identify the perception level of corporation reputation of the nurses who are a private hospital employees. The achieved statistical results in relation to the questions of the research and the average are as follows.

Question1: At which level do the nurses working in the hospital that is in the city center of Nevşehir perceive the corporate reputation of the hospital they work in?

**Table 2. The Perception About Corporate Reputation of the Nurses Working in A Public Hospital**

	HOSPİTAL	N	Mean	Std. Deviation	Std. Error Mean
MEAN OF PERCEPTION	Public Hospital	178	2,9106	0,43731	0,03278

As it is seen in Table 2 the mean level of perception of the 178 nurses working in a public hospital related to corporate reputation was found to be 2.9106. Thus, the reputational perception of the nurses working in public hospital about their institutions is moderate.

Question 2: At which level do the nurses working in the private hospitals that are in the city center of Nevşehir perceive the corporate reputation of the hospitals they work in?

**Table 3. The Perception About Corporate Reputation of the Nurses Working in A Private Hospital**

	HOSPITAL	N	Mean	Std. Deviation	Std. Error Mean
MEAN OF REPUTATION	Private Hospital	75	3,3659	0,49006	0,05659

As it is seen in Table 3 the mean level of perception of the 75 nurses working in a public hospital related to corporate reputation was found to be 3.3659. Thus, the perception level of corporate reputation of the nurses working in a private hospital was found to be higher than the reputational perception of the nurses working in the public hospitals. However, as the values between 2,5-3,5 were identified as

	HOSPITAL	N	Mean	Std. Deviation	Std. Error Mean
MEAN OF REPUTATION	Private Hospital	75	3,3659	0,49006	0,05659

s moderate, their perception level were also identified as moderate.

**4.3. The Results Related to the Differences in the Perception about Corporate Reputation of the Nurses Working in Private and Public Hospitals:** The last question in the scope of the research, a developed hypothesis based on the question and the gained statistical results related to both of them are as follows.

Question 3: Does the perception about corporate reputation of the nurses working in the public hospitals in the city center of Nevşehir differ from the perception about corporate reputation of the nurses working in a private hospital?

Hypothesis 1 (H<sub>A</sub>): The perception about corporate reputation of the nurses working in the public hospital in the city center of Nevşehir differs from the perception about corporate reputation of the nurses working in a private hospital.

**Table 4. The Results Related to the Differences in the Perception about Corporate Reputation of the Nurses Working in Private and Public Hospitals**

Independent Groups t-test

	HOSPITAL	N	Mean	Std. Deviation	Std. Error Mean
Generally	Public Hospital	180	73,9278	12,36278	1,92147
	Private Hospital	73	87,0274	17,42043	2,03891

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Generally	Equal variances assumed	10,896	0,001	-6,742	251	0
	Equal variances not assumed			-5,855	102,693	0

When the sided t-test results were examined within 0.95 (1- $\alpha$ ) confidence interval, the sigma value (0.001) was found to be smaller than the value of  $\alpha$  (0.05 = significance level) (Table 4). For this reason, the hypothesis 1 has been accepted. Thus, the perception about the corporate reputation of the nurses working in the public hospital in the city center of Nevşehir is statically different at 95% of confidence from the perception about the corporate reputation of the nurses working in a private hospital. The independent groups in t-test, the mean of perception about corporate reputation of the public hospital employees towards their institutions was measured as 73,9278, the mean of perception about corporate reputation of the private hospital employees towards their institutions was measured as 87,0274. Therefore, the perception about corporate reputation of private hospital employees is higher than the perception about corporate reputation of public hospital employees.

As a result, according to the results obtained from the research, the perception level about the corporate reputation of the employees (nurses) working in hospitals (private and public) is at a moderate level. This situation shows that the hospitals do not give enough importance to the studies that can improve their corporate reputation towards their nurses who are the stakeholders. Furthermore, it has been found that this perceptual level differs according to the situation that whether nurses are working in a private hospital or in a public hospital. Conducting the research to a large sample again, at the same time including the other stakeholders of the management of corporate perception in the research is recommendatory for the researchers of this subject. Moreover, conducting the research again according to the participants' age, working time etc., will enable researchers to obtain the results that can answer many questions related to this area.

#### **Appendix 1: The expressions in “The Scale of Corporation Perception” developed by Charles J. Fombrun (2001)**

1. I have knowledge of the services of the institution in which I work.
2. Recently, I haven't heard and seen anything about the institution in which I work in the media.
3. The institution which I work is managed well
4. The institution which I work has talented employees
5. The institution which I work is generally insufficient and unproductive
6. The institution which I work is managed by clever and talented people
7. The institution which I work offers high quality service
8. The institution which I work is innovative

#### FACTORS AFFECTING THE DECISION MAKING PROCESS IN HEALTHCARE INSTITUTIONS

9. The institution which I work adds value to its employees
10. The institution which I work has remarkable resources
11. The institution which I work is very powerful.
12. The institution which I work is the leader among the others.
13. The institution which I work in general sense is a weak institution
14. The institution which I work has no different features from the other
15. The institution which I work can be distinguished from the other in terms of its operating format
16. I really know the institution in which I work
17. I have positive feelings about the institution in which I work
18. I usually believe in the explanations made by the institution in which I work
19. Based on my experience, I must say that the institution in which I work never keep its promises
20. The institution which I work is an institution I can trust
21. The institution which I work is reliable and honest on the communication with the community
22. The institution in which I work is an institution that cares about its employees
23. The institution which I work contributes to its employees.
24. The institution which I work is environmentally responsible.
25. The institution which I work concerns about the safety of its employee.

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# MEDICAL PERSONNEL'S DUTY TO NOTIFY KNOWN CRIMES

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## ABSTRACT

**The Problem of the Study:** Turkish Criminal Code has a sentence for medical staff. According to the code, medical staff have to notify the known crimes. Violating the code is sentenced with imprisonment. The code underlies several several problems.

**The Purpose of the Study :** The purpose of this study is to determine the problems that causes from the code and suggesting some solutions to solve the problems

**Method :** This law text is a theoric study. In this study firstly articles of turkish Criminal Code is analyzed and some problems that causes or can be caused from the regulations are determined. Also literature is reviewed. Some solutions from literature are found. Then a list of solutions is suggested to achieve the problems.

**Findings and Results :** Some problems of regulation is found. Changes are suggested to solve the problems to provide equity and equality.

**Key Words:** Turkish Criminal Code, Medical Law, Criminal Law, Medical Staff, Duty to Notify Known Crime

## INTRODUCTION

Turkish Criminal Code (TCC) has a criminal sentence for medical personnel in article 280. Medical personnel is under the duty of notify the crimes that they are informed while fulfilling their jobs. This regulation causes several problems. These problems are analyzed in this study.

To begin with, failing to inform the known crime is regulated under the chapter titled “The Crimes against the Juridical Order of the Courts” in the TCC. Aim of supporting juridical orders of the courts underlies the regulation (SOYASLAN, 2005). Victim of this crime is the society. Subject of this crime is the judicial acts and juridical orders of the courts (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013) (DÖNER, 2005) (PARLAR, 2007) (ZAFER, Sağlık Mensuplarının Suçu Bildirmemesi Suçu, 2013) (CENTEL & YILDIRIM, Tarih Belirtilmemiş) (ÜNVER, 2012).

Courts need to be informed about crimes to fulfill their duties (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). Medical personnel's fails on informing the competent authorities about the known crime is sentenced because this failing obstructs the justice (ARTUK, GÖKÇEN, & YENİDÜNYA, 2012).

According to article 280<sup>th</sup> of TCC;

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“The Medical personnel who face with a doubt of a crime and do not notify the competent authorities or who are late to notify are sentenced with the penalty of imprisonment up to one year.”

Scope of “medical personnel” term is defined in the second paragraph of article 280. According to this paragraph; “Medical personnel are doctors, dentists, pharmacists, midwives, nurses and other personnel that provide health service”.

As is understood from the article, “only doctors, dentists, pharmacists, midwife, nurses and other personnel that provide health service” can be wrongdoer for this crime (ZAFER, Ceza Hukuku Genel Hükümler TCK m. 1-75, 2011). “...other personnel that provides health service” are the personnel who works directly related to examining and treating the patients, and diagnosing the diseases (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013).

## **PROBLEMS CAUSE FROM THE TCC**

First problem is about the workplace of the medical personnel. For the private medical staff, there is no problem about enforcement of this article. However, there is an argumentation about enforcement of this article for a medical personnel who are public officer because there is another article about the similar criminal act who is about the public officers. For the similar criminal act there are different content for the duty of notification and sentences. Some writers assert that because 280<sup>th</sup> article of TCC is an special provision, it also must be enforced for public medical staff (DÖNER, 2005) (ZAFER, Sağlık Mensuplarının Suçu Bildirmemesi Suçu, 2013). However, general acceptance among the Turkish criminal lawyers is that this is not an argumentation about general-special provision (TOROSLU, 2009). According to general acceptance, medical personnel who are public staff, must be punished according to 279<sup>th</sup> article instead of 280<sup>th</sup> article of TCC. Private medical staff is subject to 280<sup>th</sup> article of TCC (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013) (ÖZCAN, 2012). Hakeri also has the same opinion. According to him, aim of making such a regulation is to include the civil medical personnel in the duty of notification (HAKERİ, 2013).

Material element of crime is being faced with a doubt of crime by medical personnel. It is important that the personnel are responsible to notify only if they are informed about crime while fulfilling their job (TOROSLU, 2009). The concept of “while fulfilling job” is evaluated on a case-by-case basis. For example, while a doctor working in his workplace, he is in the scope of “while fulfilling job” (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). Also, while a doctor is making a private examination or emergency medical interventions, he is in the scope of “while fulfilling job” (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). As a support of that, it is regulated in 3<sup>th</sup> article of “Medical Guideline of Ethics” that “Medical attendant, whatever his or her job or specialization is not important, should make emergency medical treatment in emergency.” This means, medical attendants have to make medical emergency treatment regardless of their specialization as a duty. This provision proves that, emergency medical treatments are also in the scope of “while fulfilling job” (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013).

The type of crime that medical personnel are informed about is not important. They have to notify all types of crimes although the crimes are irrelevant to their job (TOROSLU, 2009). Medical personnel have to notify any crime of which they are informed. Law maker do not restrict the duty of notification for some certain crimes. Therefore, medical personnel are

under the duty of notification for all the types of crimes (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). In this way, the regulation widens medical personnel's duty of notification (HAKERİ, 2013) (TOROSLU, 2009).

The subject of duty for notification is patient. Therefore, it is considered that whether the patient is criminal or victim of the crime (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). In previous TCC numbered 765 the same responsibility was regulated. According to that regulation, if the notification would cause a penal prosecution about the patient, medical personnel did not have to notify the crime. With this provision individuals' right of health and right to live were protecting (HANCI, 2001). However, new TCC do not make such a distinction for patient. Thereof, this existing regulation hinders the criminals from reaching the right of health and leaves them to illnesses and death (HAKERİ, 2013) (KARAKEHYA, 2009). Existing TCC regulation prefer criminal proceeding and juridical order of criminal courts in order to people's physical integrity and right to live (HAKERİ, 2013). Also, criminal proceeding and juridical order of criminal courts is preferred in order to right of privacy (ZAFER, Sağlık Mensuplarının Suçu Bildirmemesi Suçu, 2013). Another distinction between previous TCC numbered 765 and existing TCC numbered 5237 is about the sentences. While the act of this crime was imposed punitive fine in the TCC numbered 765, it is sentenced to prison in the existing TCC.

Additionally, there is not any distinction between the crimes that are prosecuted ex officio and prosecuted on complaint. Similar regulation distinguishes these two types of crimes for public officers. Public medical personnel have to notify only the crimes that are prosecuted ex officio. It is asserted that courts should interpret 280<sup>th</sup> article of TCC in a similar way to the 279<sup>th</sup> article of TCC which are for civil medical personnel, and they should be punished only for failing to inform the known crime which are prosecuted ex officio (TOROSLU, 2009) (HAKERİ, 2013). However, it does not seem possible to apply despite the explicit regulation of the TCC (YENERER ÇAKMUT, 2006). This regulation is repugnant to the aim of crimes prosecuted on complaint (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). For example, sometimes bringing out the crimes may damage the victims more than the crime itself, or increase the damage. While there is such an approach of criminal law, it is unreasonable to put the medical personnel under a duty of notifying the crimes that can only be prosecuted on complaint.

The other problem is the scope of responsibility. In article 279, for the public officers, medical personnel have to notify only the crimes which are prosecuted ex officio. However, in article 280, other medical personnel have to notify any doubt of crime (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). This regulation not only widens the scope of notification, but also endangers the civil medical personnel to be accused by felony of malicious prosecution and criminal libel (TOROSLU, 2009). Also another problem for public medical personnel is how they could decide for an act whether it is a crime or not according to TCC. If the act constitutes a crime, how can the medical personnel define it and know whether this crime is prosecuted ex officio. Criminal law education is necessary to be able to specify the type of crime. Therefore, it is not appropriate to charged them with such a duty.

Delayed notification also constitutes the crime. This type of crime is a real negligent crime (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). Real negligent crime occurs in case of willfully ignoring an order of criminal codes (KOCA & ÜZÜLMEZ,



Türk Ceza Hukuku Özel Hükümler, 2013). Neither in the Criminal Code nor in the Criminal Procedural Code there is not any explicit provision about the timing (TOROSLU, 2009). Therefore, judges decide about the delay on a case-by-case basis (TOROSLU, 2009).

Not to violate TCC article 280, notification have to be made to competent authority. Competent authorities are the authorities which can launch a prosecution upon notification or is obliged to notify to competent authority (ARTUK, GÖKÇEN, & YENİDÜNYA, 2012). These authorities are prosecutors and police forces according to 1<sup>st</sup> paragraph of 158<sup>th</sup> article of Criminal Procedural Code (CPC). Furthermore, notifications that made to governorates and district governorates are also valid because these authorities are responsible to send all notifications and complaints to prosecutors according to 2<sup>nd</sup> paragraph of the Code. If medical personnel have a valid reason for delaying the notification, they are not punished.

280<sup>th</sup> article of TCC regulates an intentional crime. Therefore, medical personnel can only be punished if they willfully delay or do not notify. It is asserted in Turkish doctrine, that if medical personnel do not notify a doubt of crime which is about first degree relatives of them they should not be punished (TOROSLU, 2009) (KOCA, Çocuk İstismarında İhbar Yükümlülüğü, 2012). Otherwise, that sentence violates the Turkish Constitution article 38 (TOROSLU, 2009) (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). According to 38<sup>th</sup> article of Turkish Constitution “Anyone cannot be forced to accuse their relatives and give proofs that are accusing them”. Turkish Constitutional Court also canceled the similar provision in article 278 of the TCC which is for all of the people because of violating Turkish Constitution article 38 (AYM, 30.6.2011, E. 2010/52, K. 2011/113 (Cancellation Decision of Turkish Criminal Code Article 278), 2011). Then law maker re-regulated the same article with a fourth paragraph. This paragraph exempts the people who can refuse to testify.

There is not a phase like attempting the crime. Because this crime is completed with failing to inform, this is not sufficient for criminal attempt (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013). TCC article 280 can only be violated by medical personnel because it is special provision for them. On that sense other people would only be aider or instigator for this crime (KOCA & ÜZÜLMEZ, Türk Ceza Hukuku Özel Hükümler, 2013).

Sentences of 280<sup>th</sup> and 279<sup>th</sup> article of TCC are different although the acts for these crimes are similar. Civil medical personnel are imprisoned up to one year while public officers are sentenced from one to three year. This causes inequality and injustice (HAKERİ, 2013). These differences should be abolished and sentences should be balanced.

In article 46<sup>th</sup> of CPC refusal to testify is regulated. According to the article, medical personnel have a right to refusal to testify for information which they learn due to their professions. In spite of this provision, regulating the 280<sup>th</sup> and 279<sup>th</sup> articles of TCC is a contradiction (MALKOÇ & GÜLER, 1998).

## CONCLUSION

To sum up;

- Existing content of duty for notification is broad in scope. Because of that it should be restricted to some specific crimes. In other words, law maker should list the specific crimes which are the most important in terms of society such as murder, child abuse etc. to be responsible for notifying in the TCC. All medical personnel both in the scope of 279<sup>th</sup> and

280<sup>th</sup> articles of TCC should only be responsible for notifying these listed crimes.

- Problems arising from differences in the TCC and between the TCC and CPC should be solved. Provisions for civil and public medical personnel should be unified. For instance differences in sentences and scope of notification should be solved. Crimes prosecuted on complaint should not be the subject of the notification under no circumstances.
- There should not be any duty of notification to ensure the patients' access to the right of health if the patient will be prosecuted because of this notification.
- Medical personnel do not have to notify the crimes of their first degree relatives. Moreover, medical personnel must not be sentenced when they do not notify the crime of their first degree relatives in accordance with 38<sup>th</sup> of the Turkish Constitution. This is also suitable for the Turkish Constitutional Court's approach.

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# THE EFFECT OF THE ORGANIZATIONAL CYNICISM AND PSYCHOLOGICAL CONTRACT ON TURNOVER INTENTION: A RESEARCH FOR HEALTH CARE WORKERS

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## ABSTRACT

**Aim.** Hospital establishments are complex structures that embody various business fields. That is why the attitudes of employees towards organisation can be affected positively or negatively. If this effect is negative, the employees can display insulting and ironical negative attitudes and can cause cynical attitudes and psychological breach of contract. This situation can increase the turnover intention. The aim of this research is to identify the effects of organisational cynicism and psychological contract subdimensions on turnover intention. **Method.** The employees (n=324) of a state hospital in Tokat(Turkey) province were included this study and the datas were obtained by using survey method. In order to test hypotheses correlation and regression analysis. **Findings.** In the study the effect of organisational cynicism subdimensions on turnover intention was not found significant ( $p>0,05$ ), however the effect of operational psychological contract which is subdimension of psychological contract on turnover intention was found positive and significant ( $H2a:\beta=0,191, p<0,01$ ). **Result.** In the direction of research it was obtained that the perception of breach of operational psychological contract increases turnover intention.

**Key words:** Organizational Cynicism, Psychological Contract, Turnover Intention, Health Care Workers.

## INTRODuCTION

Hospital establishments are complex structures that embody various business fields. Within these complex structures as a result of multiple relations of employees among themselves, patients and hospital management, their commitment on organisation can be affected negatively or positively. If this effect is negative, there will be decrease in efficiency of staff and display negative attitudes towards organisation. One of the negative behaviours attitudes is cynicism. Cynicism is a determined personality trait that is innate and originates from personality of individual. Cynicism generally reflects negative perceptions regarding human behaviour (Tokgöz 2008 :285).

The highness of organisational cynicism and psychological contract breaches prevent hospital establishments continue their activities in healthy way. It is very important that hospital managers should manage well and aware of these situations that affect the motivation of employees and increase their turnover intention. With this aim it is thought that our

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research will contribute literature and applications regarding subjects such as organisational cynicism, psychological contract and turnover intention.

## **1. CONCEPTUAL FRAMEWORK**

### **1.1. Cynicism and Organisational Cynicism**

Cynicism is a concept which its beginning grounded on ancient Greek. It is a way of life and a concept of explaining school of thought (Dean vd., 1998: 342). General cynicism is arising from the an individual's personality a personality trait that is innate and determined. General Cynicism involves a concept that reflects generally negative perceptions about human behaviour (Tokgöz,2008:285). Organisational cynicism however defines negative display of an employee towards his job, manager or organisation (Anderson and Bateman 1997:454-455).

### **1.2. Psychological Contract and Psychological Contract Breach**

Psychological contract as a concept defines individual beliefs regarding mutual responsibilities between organisation and employees. Psychological contract is a concept that depends on subjective perception of employee working individually (Morrison and Robinson,

1997:228; Walker and Hutton, 2006:434; Üçok and Torun, 2014:234). The properties of psychological contract can be ordered like this; psychological contract is a subjective perception that changes from person to person, that is why it involves differences between individuals. Psychological contracts are dynamic, their meanings between employer and employee can change in time. Psychological contracts involve mutual responsibilities between employer and employee. They form bond for the content of relation that is why individuals or organisations cannot form psychological contract on their own (Anderson and Schalk, 1998:640).

Generally psychological contracts are divided into two as operational and relational. Operational psychological contracts are related with economical exchange and define “fair relation between work and wage”. Operational contracts involve economic contribution provided to employees and limited encouragements in response to contribution of employee to the work. Also operational contracts focus on short term relation between employer and employee as well as they involve well defined responsibilities of employees, little flexibility regarding mutual responsibilities and limited development regarding performed work. On the other hand relational contracts are related with social exchange and focus on long term relation. Relational contracts are contracts that involve important responsibilities for both employees (gaining of talents peculiar to establishment) and employers (mass education). Relational contracts have economic, emotional and holistic structure. In relational contracts fulfilling of obligations take long time, obligations can be partially implicit and terms of contract can easily change (Büyükyılmaz and Çakmak 2014:584).

Psychological contract breach concept is defined as “employee reaching an opinion of not fulfill one or more than obligation when he compares his contributions” (Üçok and Torun

2014:234). Psychological contract breaches occur when employees think their employers or chiefs did not keep at least one of their promises (Morrison and Robinson, 1997:231; Aslan and Boylu 2014:36 ).

### **1.3. Relations Between Organisational Cynicism, Psychological Contract And Turnover**

#### **Intention**

Turnover intention is generally defined as a wish of an employer to release from his actual organisation consciously and intentionally (Cho vd., 2009: 374). According to researches as organisational cynicism increases, turnover intention increase so a positive relation was obtained (Polat and Meydan, 2010:160). Mesci obtained in his research that when the turnover intention of an individual increases, cynical attitudes also increase (Mesci, 2014: 201-204).

Psychological contracts depend on confidence base. That is why, when psychological contract is strong, this causes emotional reactions and sense of betrayal. When psychological contract breach is weak, this causes high turnover intention, low confidence and low job satisfaction, low commitment to organisation and organisational citizen behaviour (Anderson and Schalk, 1998:644). Starting from this point, it is thought that there are significant relations between organisational cynicism and psychological contract with turnover intention. Accordingly the hypothesis of study was formed as follows.

- **H1: Organisational cynicism has a significant effect on turnover intention**
- H1a: Affective cynicism has a significant effect on turnover intention
- H1b: Cognitive cynicism has a significant effect on turnover intention
- H1c: Behavioral cynicism has a significant effect on turnover intention
- **H2: Psychological contract has a significant effect on turnover intention**
- H2a: Operational psychological contract has a significant effect on turnover intention
- H2b: Relational psychological contract has a significant effect on turnover intention.

## **2. METHOD**

### **2.1. Aim and Contribution**

This study tries to identify the effects of organisational cynicism and psychological contract subdimensions on turnover intention. With this aim, the effect of organisational cynicism and psychological contract on turnover intention was researched. The findings obtained at the end of this research are thought to form differentiation in subjects of health sector such as organisational cynicism, psychological contract and turnover intention and make contribution in literature as well as especially in human resource management applications for health care staff.

### **2.2. Population and Sample**

The doctors, nurses, medical secretaries and other healthcare staff working in a state hospital in Tokat province formed the population of research. In the scope of data taken from hospital 324 people formed the population. 5% of error margin in 95% reliability limits was taken into consideration and the lowest sample size was calculated as 177 people (Altunışık vd., 2005:127). In the population face-to-face interviews were made with 220 people randomly by taking conversation rate into consideration. However 16 questionnaires were



obtained as invalid and were taken out. As a result 204 questionnaires formed the sample of study. This rate forms 63% of distributed questionnaires. 129 of participants are female and

75 are male, 44 of them are between age of 18-27, 79 of them are between 28-37, 60 of them are between 38-47 and 21 of them are over 48. It was stated that 156 of them are married and

48 of them are single. According to their educational status, it was obtained that 45 of them have high school, 70 of them have foundation, 65 of them have university and 24 of them have postgraduate degree.

### **2.3. Data Collection, Analysing Method and Scales**

In the study the datas are collected by survey method. The questionnaire form is consisted of 4 parts and 42 questions. In the first part there are 8 questions regarding demographical properties of healthcare staff. In the second part there are 17 expressions regarding psychological contract perceived by healthcare staff. Psychological Contract Scale was developed by Millward and Hopkins(1998). Turkish validity of scale was done by Mimaroglu (2008:126-160). The scale is consisted of two subdimensions. The first subdimension is operational psychological contract dimension that focuses financial gainings such as wage, income involves 10 items. The other subdimension is relational psychological contract regarding education, development, job security involves 7 items. Cronbach alpha security coefficient of Psychological Contract Scale was found as 0.710 whereas it was found

0.668 for operational psychological contract and 0.677 for relational psychological contract. In the third part, a scale involves 14 expressions and was developed by Brandes (1997) is used in order to obtain cynical behaviours of employees. Turkish validity of Organisational Cynicism Scale was done by Erdost and his colleagues (2007). The validity and security study of scale on healthcare staff was done by Topcu and his colleagues (2013). The scale of organisational cynicism is consisted of 14 items and three dimensions as cognitive, affective and behavioral. Cronbach alpha security coefficient of Organisational Cynicism Scale was found as 0.934 whereas it was found 0.932 for affective cynicism; 0.841 for cognitive cynicism and 0.861 for behavioral cynicism. In the fourth part for measuring turnover intention a unidimensional scale with tervariant that was developed by Bluedorn (1982) and Netemeyer and his colleagues (1997) starting from the definition of Mobley, Griffin, Hand and Meglino (1979), was used (Özer: 2010). Cronbach alpha security coefficient of scale was found as 0.823. The questionnaire was applied to participants in March 2015. The analysis of datas was done by SPSS statistics programme. The relation between correlation analysis and variables were checked and in order to test hypotheses regression analysis was benefitted.

### **3. FINDINGS**

In Table 1 when organisational cynicism and psychological contract subdimensions were examined, there found positive correlations in the same direction between operational psychological contract with cognitive ( $r=0,221$ ), behavioral ( $r= 0,228$ ) and general cynicism ( $r=0,163$ ). With the seperate evaluations of affective ( $r=-0,373$ ), cognitive ( $r=-0,323$ ), behavioral ( $r=-0,288$ ) and general cynicism ( $r=-0,373$ ) done with relational psychological contract, there found negative correlations in the same direction. There also found negative

direction correlation between general psychological contract and affective cynicism ( $r=-0,222$ ). There found positive correlations in the same direction between turnover intention with affective ( $r=0,166$ ), cognitive ( $r=0,181$ ), behavioral ( $r=0,219$ ) and general cynicism ( $r=0,199$ ). There also found positive correlation between turnover intention and operational psychological contract ( $r=0,146$ ). As a result of correlation analysis the relations are found weak.

**Table 1. Defining Statistics**

Variable	Average	Std. Deviation	Correlations							
			1	2	3	4	5	6	7	8
1. Affective Cynicism	2,26	0,96	1,000							
2. Cognitive Cynicism	2,38	0,97	,542(**)	1,000						
3. Behavioral Cynicism	2,41	0,96	,483(**)	,875(**)	1,000					
4. General Cynicism	2,36	0,86	,730(**)	,938(**)	,921(**)	1,000				
5. Operational Psychological Contract	3,01	0,66	-,018	,221(**)	,228(**)	,163(*)	1,000			
6. Relational Psychological Contract	2,77	0,71	-,373(**)	-,323(**)	-,288(**)	-,373(**)	,210(**)	1,000		
7. General Psychological Contract	2,91	0,54	-,222(**)	-,009	,021	-,081	,836(**)	,672(**)	1,000	
8 Turnover Intention	2,32	1,00	,166(*)	,181(**)	,219(**)	,199(**)	,146(*)	-,088	,045	1,000

\* $p<0,05$ , \*\* $p<0,01$

In the scope of study, the effect of organisational cynicism on turnover intention is examined. In this frame the effect of three dimensions of organisational cynicism that are affective, cognitive and behavioral on turnover intention was researched. When the results in Table 2 are examined, it was found that the effect of affective, cognitive and behavioral cynicism on turnover intention is meaningless ( $H1a:\beta=0,134, p>0,05$ ;  $H1b:\beta=-0,097, p>0,05$ ; ( $H1c:\beta=0,260, p>0,05$ ). Accordingly  $H1a$ ,  $H1b$  and  $H1c$  hypotheses are rejected.



**Table 2 : The effect of organisational cynicism on turnover intention**

Hypothesis	Model Summary		ANOVA		Regression coefficients			Hypothesis
	R	R <sup>2</sup>	F	P	Beta	t	P	
H1a: Affective cynicism → Turnover Intention	,269(a)	,073	5,217	,002(a)	,134	1,556	,121	Reject
H1b: Cognitive cynicism → Turnover Intention					-,097	-,621	,535	Reject
H1c: Behavioral cynicism → Turnover Intention					,260	1,748	,082	Reject

\*P<0,05, \*\* P<0,01

In the scope of study, secondly the effect of psychological contract on turnover intention is examined. In this frame the effect of two dimensions of psychological contract that are operational and relational psychological contract on turnover intention was researched. When the results in Table 3 are examined, it was found that the effect of operational psychological contract on turnover intention is positive and significant (H2a:  $\beta=0,191, p<0,01$ ) whereas the effect of relational psychological contract is meaningless (H2b:  $\beta=-0,101, p>0,05$ ). Accordingly when H2a hypothesis is accepted, H2b hypothesis is rejected.

**Table 3: The effect of psychological contract on turnover intention**

Hypothesis	Summary of the Model		ANOVA		Regression coefficients			Hypothesis
	R	R <sup>2</sup>	F	P	Beta	t	P	
H2a: Operational Psychological Contract → Turnover Intention	,194(a)	,038	3,932	,021(a)	,191	2,683	,008	Accept
H2b: Relational Operational Psychological Contract → Turnover Intention					-,101	-1,419	,157	Reject

\*P<0,05, \*\* P<0,01

## RESuIT

The aim of this study is to examine the effect of organisational cynicism and psychological contract on turnover intention. With this aim, in the study correlation and regression analyses were benefitted.

As the findings are evaluated as a result of analysis of datas, when organisational cynicism and psychological contract subdimensions were examined, correlations were obtained positive and significant. There found negative correlations in the same direction between relational psychological contract and cynicism and subdimensions of cynicism. There found negative direction correlation between general psychological contract and affective ( $r=-0,222$ ) cynicism. There found positive correlation in the same direction between turnover intention and affective ( $r=0,166$ ), cognitive ( $r=0,181$ ), behavioral ( $r=0,219$ ) and general cynicism ( $r=0,199$ ). There found positive correlation between turnover intention and operational psychological contract ( $r=0,146$ ). As a result of correlation analysis the relations are found weak.

The effect of affective, cognitive and behavioral cynicism that are subdimensions of organisational cynicism on turnover intention was identified meaningless ( $H1a:\beta=0,134, p>0,05$ ;  $H1b:\beta=-0,097, p>0,05$ ;  $H1c:\beta=0,260, p>0,05$ ). Accordingly  $H1a$ ,  $H1b$  and  $H1c$  hypotheses are rejected. In other words there found no effect of organisational cynicism on turnover intention. It can be said that organisational cynicism attitudes of employees do not affect turnover intention.

When results of the effect of two dimensions of psychological contract that are operational and relational psychological contract on turnover intention are examined, the effect of operational psychological contract on turnover intention is positive and significant ( $H2a:\beta=0,191, p<0,01$ ). The effect of relational psychological contract on turnover intention was found meaningless ( $H2b:\beta=-0,101, p>0,05$ ). Accordingly when  $H2a$  hypothesis is accepted,  $H2b$  hypothesis is rejected. In other words in relational psychological contracts, it was obtained that the perceived breach increased turnover intention.

As a result, perception of operational psychological contract breach for healthcare staff in question is seen efficient for turnover intention. Different from other organisations, since the requirement for healthcare staff is more, it is thought that healthcare staff can find jobs more easily. Operational psychological contracts focus on financial incomes more. When these expectations are not satisfied efficiently, turnover intention increases for healthcare staff in question. This research is limited with the datas taken from hospital and used methods. It can be advised that researchers towards healthcare staff should be increased.

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# WHAT ARE THE MOTIVATION FACTORS FOR PHYSICIANS WHO CANDIDATE FOR MANAGERIAL POSITIONS? THE RELATIONSHIP BETWEEN THE NEED FOR POWER, THE NEED FOR ACHIEVEMENT AND PROFESSIONAL PERFORMANCE

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## ABSTRACT

### 1. Problem and Contribution

As the last phase of The Transformation in Healthcare Program in Turkey that began in 2003, the governmental decree number 663 in 2011 transferred hospital management to professional healthcare administration to achieve a functional distinction in the management of healthcare services (Lamba, Altan, Aktel ve Kerman, 2014). Yet, the debate of whether our healthcare institutions should be managed by physician administrators or non-physician *professional* administrators is still continuing (Hayran, <http://www.merih.net/m1/wosmhay21.htm>). This question brings into the focus of discussion the administrative competencies of physicians who would assume administrative functions. The aim of our study is to explore the relationship between the professional performance of our physicians and their motivational needs as achieving and power in the framework of McClelland's (1961; 1987) Achievement Need Theory. We think that the findings can contribute to the actual discussion on why our physicians should assume administrator functions or why they should not.

### 2. Method:

The analysis of the study was conducted on individual level. The population represents the attending physicians who work in governmental hospitals in Trabzon and Gumushane. The surveys hand out reached 93. The multiple regression analysis applied to reveal the affect of independent variables (need for power, need for achievement, the fear of power and the fear of failure) on professional performance of the physicians.

### 3. Findings:

The results of the regression analysis revealed a positive effect of need for achievement on professional performance while power need showed a negative effect. Similarly, the fear factor that comprised of the combination of the *fear of power* and *fear of failure* variables exerted also a negative effect on professional performance.

**Keywords:** Physician managers, need for power, need for achievement, Professional Performance

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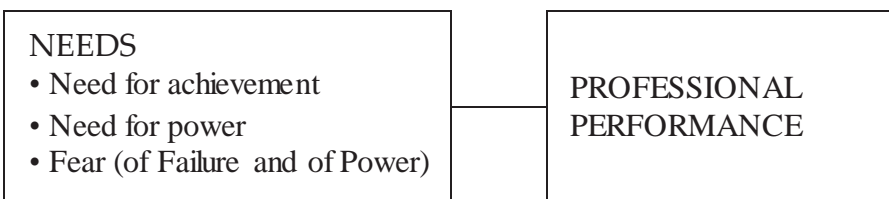
## 1. INTRODUCTION

Despite of the fact that the relationship between the goals of an organization and the motives of the manager is instrumental in the achievement of the organizational goals, it is poorly studied in Turkish management literature. However, *“psychologists have long realized that if they want to know how well something will be done, ..., it is important to know how much motivation and skill are involved”* (McClelland, 1985: 812). Thus, it proves significant to relate each of the motives with the achievement of the individual to understand how each motive affected the outcome as success or failure.

The aim of the study is to explore the relationship between the professional performance of our physicians and their motivations (needs for achievement and power) and compare their effects within the framework of David C. McClelland's (1961; 1987) Needs Theory. According to the assumptions of McClelland's approach in general the individual feels three kind of needs; power, relationship, and achievement and in particular there would be differences among managers in the satisfaction of these needs and the motivation of managers from these needs (McClelland and Burnham, 1976; 2003). At this point it is asserted that individuals with a particular *ideal* motivational pattern would excel to arrive at higher management positions within the organization (McClelland, 1975, cited in McClelland and Boyatzis, 1982: 737). Similarly, our study is built on the pretense that *“there would be differences of the intensity and direction of the perceived need and the professional performance of physicians”*. We think that the hypotheses and the findings of analyses to test this claim will shed light on the discussion why physicians should or should not be administrators.

The developed research model (Figure 1) aims to explore the effects of need for achievement and need for power of Turkish physicians on their professional performance. In accordance with the subject and aim of this study, we used the need for power and need for achievement (and also the *fear of failure and fear of power*) variables as independent variables and professional performance dependent variables.

**Figure 1. Research Model**



The hypotheses that were developed from the review of the literature according our research model are these:

H<sub>1</sub>: The achievement motivation of our physicians has a positive effect on their professional performance.

H<sub>2</sub>: The power motivation of our physicians has no significant effect on their professional performance.

## 2. METHODOLOGY

### 2.1 The Sample

The sample of the study as determined by the goals and limits of the study consists of specialist physicians working at the public hospitals in the provinces of Trabzon and Gumushane. After obtaining the required permissions for data acquisition, all specialist physicians who accepted to participate were included into the sample. Some of the collected questionnaires that were filled incompletely have been excluded from the sample to arrive at 93 valid samples.

### 2.2. The scales

The variables that were used to test the research model were obtained by a survey.

*The professional performance scale for the medical specialist:* 8 questions to assess the professional performance of medical specialists has been prepared by consideration of the working conditions, responsibilities and various aspects of the jobs of physicians<sup>1</sup>. The participants were asked to evaluate their performance in relation to various aspects of their jobs by a 5-point Likert scale that ranged from low (60 %) to high (100 %). The lowest value was set as 60 % because the critical nature of healthcare service doesn't tolerate failures that could very easily threaten human life (Tengilimoğlu et. al, 2009: 43). An exploratory factor analysis on the medical specialist's professional performance scale revealed that the items concentrated under a single factor. The Cronbach's Alpha coefficient ( $\alpha=.931$ ) for the obtained factor proved that the scale has a high internal consistency.

*Need for achievement and need for power:* The items for the assessment of the need for achievement and need for power have been adapted into Turkish from the work of Sokolowski, Schmalt, Langens and Puca (2000). The mentioned expressions are constituting a part of a wide assessment tool, the "Multi Motive Grid (MMG)" developed by the above researchers for the assessment of achievement, power and affiliation motives that originally featured 12 expressions representing 6 dimensions (hope of affiliation, fear of rejection, hope of power, fear of power, hope of success, fear of failure). To assess the need for achievement and need for power we chose for our study among these expressions 8 items in relation to the dimensions of hope of power, fear of power, hope of success and fear of failure. The participants were asked to answer according to the 5 points Likert scale with 1 for "I certainly agree" up to 5 "I certainly disagree". An exploratory factor analysis resulted in a three factors solution for the scale. This structure featured hope of success and hope of power in two distinct factors, the fear of failure and fear of power items were unified into a single factor. Considering the conceptual characteristics, this factor has been named as fear of failure and power (FEAR). The Cronbach's Alpha statistic yielded 0,617 for the whole of the scale. To evaluate the reliability of the hope for success and hope of power dimensions that consisted of two items each, we referenced prior research (ie. Rosenzweig, Roth ve Dean Jr., 2003: 444) and chose as a more appropriate approach, in lieu of Cronbach's Alpha coefficient, to look for the correlation coefficient among the items. The calculated Pearson correlation coefficients yielded for hope of success ( $r=.215$ ;  $P<.05$ ) and for hope of power ( $r=.433$ ;  $P<.01$ ) meaningful relations between the factors.

<sup>1</sup> The scale questions have been prepared by the third author.



### 2.3. Analysis and Findings

The results of the regression analysis that tested the effects of need for achievement, need for power and fear variables on performance are shown on Table 1. An F test for the meaningfulness of the model ( $F=8.422$ ;  $P<0.001$ ) proves that the model is meaningful as a whole. The calculated adjusted  $R^2$  value (0.195) reveals that 19.5 % of the total variance for the performance variable was explained by the tested independent variables. The interpretation of the obtained coefficients shows that the need for achievement had a meaningful and positive effect on performance ( $\beta=0.180$ ;  $P<0.10$ ). On the other hand, the effects of the need for power ( $\beta=-0.213$ ;  $P<0.05$ ) and the fear ( $\beta=-0.314$ ;  $P<0.01$ ) variables on performance were negative.

**Table 1. Regression analysis results between the need for achievement, need for power, fear and performance**

Independent variables	Professional Performance			
	$\beta$ <sup>1</sup>	SE	t	P
Need for achievement	0.180	0.102	1.910	0.059
Need for power	-0.213	0.070	-2.078	0.041
Fear	-0.314	0.091	-3.040	0.003
F	8.422			0.000
Adjusted $R^2$	0.195			

<sup>1</sup>Standardized regression coefficient

### 3. FINDINGS AND DISCUSSION

The findings generally prove our hypothesis that there is a positive relationship between professional performance and the need for achievement. The results suggest that physicians perceive that they achieve higher professional performance in accordance to their high need for achievement. The nature of a physician's job considered, it would not be inaccurate to state that errors or risks in relation to the performance criteria like accurate diagnosis, successful medicament treatment, successful operations etc, would produce more grave results than many other occupations. In this sense, high professional performance or achievement turns here out as an important result of need for achievement.

Contrary to the positive relationship between the need for achievement and performance, the variables of need for power and the fear affected professional performance of the physicians negatively. These results appear quite understandable in relation to the general perception of the medical profession. It can be argued that the social/cultural authority that physicians possess from a cultural-historical view point is actually derived from their role as competent and specialist healers (Aydın, 2010). Thus, it should not be incorrect according to this role, to say that physicians have to be successful in healing people. Consequently, professional performance is for physicians in close relation with their individual knowledge, competence and skill. While the need for achievement is readily accepted as a requirement to the individual performance of physicians, it can be argued that compatibility with the need for power might not be a requirement. It is known that individuals with high perceived need for achievement want to be successful by themselves, they attach much importance to the fact how successful they proved. On the other hand, individuals with high perceived need for power are inclined to influence others to achieve (Robbins ve Judge, 2012: 210).

As a result we can conclude that physicians with a high need for achievement are more motivated for professional performance. It can be argued that low need for power indicates low desire for administrative position and that physicians with low need for power are more motivated for a higher professional achievement.

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# STAKEHOLDERS' VIEWS ON TRAINING PERSONAL CARE GIVERS A TRANSNATIONAL STUDY

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## ABSTRACT

**The Problem of the Study:** An estimated 45 million people in Europe (15% of the EU population) have a long-standing health problem or disability (LSHPD), and, 70% of them will be over 60 by 2020. Elderly and people with disabilities (PwD) and especially those with mobility & sensory impairment depend considerably on Personal Caregivers (PCGs). Personal assistance is in fact key for the self-determination of PwDs and elderly.

**The Purpose of the Study:** On 15 November 2010 the European Commission (EC) adopted a new disability strategy to break down the barriers that prevent persons with disabilities from participating in society on an equal basis. One of the actions (funding) aims to “ensure that EU programs and funds in policy areas relevant to people with disabilities are used to promote ... and develop personal-assistance schemes”. In line with this EC policy priority, M-Care Project has conducted a survey research in order to identify the needs of PCGs and to examine the similarities and differences of PCGs between EU countries. As a part of this research, the purpose of this study is to highlight the views of stakeholders on PCGs training in Belgium, Turkey and Bulgaria.

**Method:** This study was conducted as a descriptive research, and, online and face to face survey methods were used to collect data. The survey questions were created by focus group study and by reviewing previous researches. The survey was conducted between May and July, 2014 in Turkey, Belgium and Bulgaria. The results of the questionnaire have been analyzed with SPSS program, and, frequency and percentage distributions were calculated.

**Findings and Results:** Totally, 240 stakeholders (policy makers, training and care centers, families) from Belgium, Turkey and Bulgaria participated in this study. The policy makers that participated in the M-CARE survey identified assistance with personal hygiene as the service they mostly offer (88,9%), with assistance with mobilization in second place (83,3%). Most training centers from all project countries provide training for assistance with mobilization (89,4%) and hygiene (82,4%). As a result, these findings provide a sound basis in order to develop policies for enhancing the life quality of PwD and elderly.

**Key Words:** Personal Care Givers, Policy Makers, M-Care, People with Disability, Elderly

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## INTRODUCTION

An estimated 45 million people in Europe have a long-standing health problem or disability. Seventy percent of them will be over 60 by 2020. Elderly (OP) and people with disabilities (PwD) and especially those with mobility & sensory impairment depend considerably on Personal Caregivers (PCGs). Personal assistance is in fact key for the self-determination of PwDs and elderly.

The International Classification of Functioning, Disability and Health (ICF) defines disability as an umbrella term for impairments, activity limitations and participation restrictions. Disability is the interaction between individuals with a health condition (e.g. cerebral palsy, Down syndrome and depression) and personal and environmental factors (e.g. negative attitudes, inaccessible transportation and public buildings, and limited social supports) (WHO, 2015).

One billion people, or 15 percent of the world's population, experience some form of disability, and disability prevalence is higher for developing countries. One-fifth of the estimated global total, or between 110 million and 190 million people, experience significant disabilities (Worldbank, 2015). In countries with life expectancies over 70 years of age, people spend on average about 8 years, or 11.5 per cent of their life span, living with disabilities (Disabled World, 2015). The global share of older people (aged 60 years or over) increased from 9.2 per cent in 1990 to 11.7 per cent in 2013 and will continue to grow as a proportion of the world population, reaching 21.1 per cent by 2050. Globally, the number of older persons (aged 60 years or over) is expected to more than double, from 841 million people in 2013 to more than 2 billion in 2050. (UN, 2015, s. 14).

One of the most significant barriers to health care is the lack of trained health care providers. Estimates put the total size of people in need of a PCG at 1% of all people with disabilities, so a real need of 450.000 European citizens. PCGs need to have a variety of skills, for example; nursing and first aid qualifications, personal care, etc. Training is linked to attitude and skills and directly correlates with the quality of care provided and therefore to the outcome of care (WHO, 2015, s. 9).

In this context, M-CARE Project aims to ensure that local Vocational education and training (VET) centers can offer an adequate PCG training anywhere anytime, for low-skilled people (without jobs), or people that want to extend their service provision (independent nurses, care workers, etc.), using innovative ICT based approaches i.e. mobile and web2.0 enabled online learning environments that embed video, animations, audio, but also textual training format, while including hands-on practicing. In this respect M-CARE conducted an online survey and a state of the art analysis in order:

- To identify the needs of the project's beneficiaries (PCG for PwD, PwD themselves, their family members, older people, stakeholders).
- To obtain a good perception of the need for adjustments in existing PCG training practices to enable the trainees and beneficiaries to achieve success.
- To define a set of learning activities appropriate to, and usable across, the range of user needs.
- To gain familiarity with the nature and potential value of adjustments in training methods and in their learning strategies to meet their needs.

- To identify and highlight similarities and differences between national contexts in the partner countries.

## **2. Personal Care Giver Profile**

A broad definition of a PCG for PwD and OP could be that of the employed professional who addresses the needs of people who are in one or more ways incapable of personal care tasks. These tasks, working conditions (hours, salary, etc.), training and possible limitations depend on each country's legislation and the existence (or not) of a formal job description. Therefore, there are a lot of different definitions given for the role in each project country. There are differences concerning what a personal care giver can and cannot do, his/her working conditions and the required training:

- In Flanders (Belgium) there is no special training necessary for a “personal assistant” to work. There is a list of requirements (competences, skills, personal characteristics, working conditions) that the Flemish employment agency expects from candidate PCGs but these are merely recommendations. There is a personal assistance budget (PAB), part of which is used to pay the salary of a PCG. The PAB holder can employ personnel to perform a variety of tasks to assist in the organization of his / her daily life. A PCG cannot do activities that fall under “performing therapies”.
- In Bulgaria the profession of PCG is formally described and graduation from a PCG VET course is required. The caregiver provides basic health care and / or supports the work of health care professionals in hospitals, in the community and/or at home. The services offered cover a wide range of activities (from assisting with mobility and hygiene to providing entertainment and emotional support), with the main goal of improving the patient's quality of life - always working under the guidance of doctors or health care specialists. Caring for the elderly, sick and disabled persons in the home environment is implemented under national, European and other projects.
- A general legislative framework including all possible services (caring and nursing) does not exist in Germany. There are rules of law or directives/ requirements for each service or offer. PwD and OP people do not have to pay for the PCG services, because the employment is financed by different state programs and implemented by social services and VET institutes.
- In Turkey, since 2005 all PwD in need of care -whether they had social insurance or not- became entitled to benefit from care services. PwDs in need without family and social insurance, are admitted to public or private care institutions or receive care services at home. The role of the personal caregiver is partially covered by the legislation for certified caregivers employed in public and private care institutions. According to it, their main responsibility is to provide services for PwD following the individual prescribed care program (hygiene, nutrition, etc.), to provide psychological support and inform medical staff if necessary.

## **3. RESEARCH**

**3.1. Research Model:** This study was conducted as a descriptive research. In order to address the goals of the M-CARE project a combination of methods was used. The main research instruments were the online questionnaires which were used to collect mostly quantitative

data. These questionnaires also formed the basis for face to face / phone interviews, which mostly focused on qualitative data. M-CARE project partners also conducted desk research collecting information about the current situation with PCG services in their countries. The survey was conducted between May and July, 2014 in Turkey, Belgium, Germany and Bulgaria. The results of the questionnaire have been analyzed with SPSS program, and, frequency and percentage distributions were calculated.

**3.2. Questionnaires:** The survey questions were created by focus group study and by reviewing previous researches. The questionnaires were designed to be short (about 20 questions) with simple and clear questions. Multiple choice and open ended questions were used in the questionnaire, and also different questionnaires were used for each target group of the Stakeholders (Family, policy makers and training or care centers). The questionnaires were accessible mostly online; there were also alternative solutions, such as face to face, personal interviews, focus groups, etc.

**3.3. Research sample:** In order to reach the project's target groups, and to identify their roles and the expected outcomes from their participation in this survey, a total of 240 questionnaires were completed by respondents living in Flanders (Belgium), Bulgaria, Germany and Turkey, either online or during an interview / focus group. The stakeholders can be grouped as:

Policy makers (40): Ministries of social affairs, social care agencies, state agencies of PwDs, daily centers, local authorities, employers of PCGs etc.

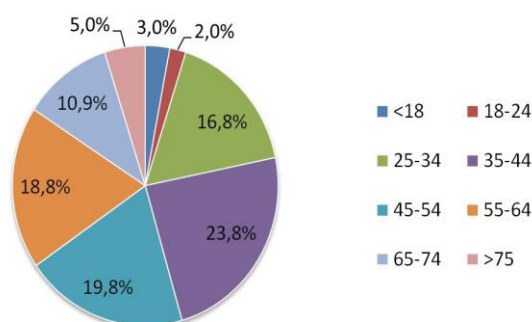
Family members of PwD / OP (102)

Care centers, VET centers and employment centers that want to provide PCG training (98)

Stakeholder's contribution in the M-CARE survey is important in identifying the current situation with PCGs in each country, the qualifications for becoming a PCG and the different policies across the project countries.

### 3.4. Family members of PwD and OP

Concerning the demographics of the family members of PwD and OP, the majority of the respondents exceed 45 years of age (54,5%) and were mostly female (78,2%). Based on their responses the persons in need for support are their sons / daughters, parents, partners, extended family and neighbours.



### Needs of assistance

They identified very common needs of assistance to those indicated by PwD and OP above.



The answers collected can be grouped as follows: Daily life and moving around, Social / psychological: Emotional support, communication, social participation, Social adaptation, mental and practical coaching, support to overcome the lack of verbal communication skills, time management, self-preservation guidance, memory workout, rehabilitation of disease and full support. Those needs are currently addressed by professionals (34%) or family members (66%).

It should be added that when asked about who is responsible for paying for PCG services (open-ended question), family members of PwD and OP provide very diverse answers. While analyzing the individual responses we can see that in most cases, it is the family that covers such costs. In many cases the PWD/OP himself/herself is using benefits or social insurance money. In some cases the cost is covered by the government / special programs, such as volunteering projects accomplished by VET or social centers. There were also responses stating that there is no one covering the necessary costs.

The cost, as mentioned before depends on a variety of parameters. Under the framework of the survey the answers collected by family members can be grouped as follows per country:

- Flanders (Belgium): Up to 1000 per month
- Bulgaria: Between 50 and 200 euros per month
- Germany: 100 to 200 euros per month for volunteering PCG (paid by the projects the PCGs are working for)
- Turkey: 1.500 TL /Month - 2.000 TL /Month (520 - 700euros)

#### Satisfaction with quality of PCG services

The survey respondents are satisfied in general by the PCG services they receive. In detail: 65,9% are either satisfied or completely satisfied, 26,4% are neutral and 7,7% are dissatisfied/ completely dissatisfied. This is also mirrored in the fact that the majority of family members (73%) say they trust their PCG.

### **3.5. Policy makers**

The policy makers that participated in the survey identified assistance with personal hygiene as the service they mostly offer (88,9%), with assistance with mobilization in second place (83,3%). The rest are the following: Providing emotional / social support services (80,6%), Assisting with meal preparation, grocery shopping, dietary planning, and food and fluid intake (69,4%), Taking and recording blood pressure, temperature, pulse, respiration, and bodyweight / Collecting specimens for required medical tests (33,3%), Observing, documenting and reporting clinical information (16,7% ). Important variations have been observed among the project countries. In Turkey, assistance with mobilization and personal hygiene come first with 88,5% and 84,6% accordingly. Emotional support services are third (76,9%) and observation (11,5%) and taking (30,8%) of clinical information are in the last place.

#### Preferred type of training for a PCG training program

We can infer by the collected responses that policy makers have a preference in a blend of training methods that combine online, printed material and face to face activities.



**Table 1: Preferred course material format**

Course Material Format	%
Text	27.8
Image	22.2
Audio	2.8
Video	47.2

It is worth nothing that video comes first in preference in both Flanders (Belgium) and Turkey, while in Bulgaria the most popular option is text (100%) (Multiple answers were possible).

### **3.6. Training centers**

Six out of ten training centers that participated in the survey do not offer a PCG training program. This can be attributed to the fact that only in Bulgaria there is an official PCG job description that requires the graduation from such a program.

#### Who provides the training

For Flanders (Belgium) it has to be noted that none of the centers provided PCG training. In Bulgaria, there are formal requirements for a person to become a trainer for personal caregivers. In Germany 92% of the training centers that participated in the survey offer a PCG training program.

In Turkey 53,8% of the training centers that participated in the survey offer a PCG training program. The training is conducted by the manager or deputy manager of care centers, social workers and professional experts.

#### Content of the training program

As indicated in the table 2 (multiple answers possible) most training centers from all project countries provide training for assistance with mobilization (89,4% of the total 98 respondents -13 skipped the question) and hygiene (82,4%). In Flanders (Belgium) all of the respondents stated that they provide training for mobilization support (100%). That is the case for Germany and Bulgaria as well. In Germany 100% of the respondents provide training for emotional / social support to PWD and OP. In Bulgaria, we observe a relatively high (compared to other countries) rate for training for observing, documenting and reporting clinical information (85,7%). For the Turkish training centers the most common programs are about hygiene (85,4%) and mobilization (83,3%).

Table 2: Type of care / training offered (all project countries)

Answer Options	Flanders (Belgium)	Bulgaria	Germany	Turkey	Total
Assisting with mobilization	0	6	0	26	32
Assisting with personal hygiene	0	1	0	30	31
Providing emotional / social support services	3	7	25	40	76
Assisting with meal preparation, grocery shopping, dietary planning, and food and fluid intake	2	6	25	33	66
Observing, documenting and reporting clinical information	2	5	24	31	70
Taking and recording blood pressure, temperature, pulse, respiration, and bodyweight / Collecting specimens for required medical tests	2	3	24	41	62

\*More than one option is cited

As far as the types of training currently in use, the following have been reported: Individual interviews / Group discussions, Print material, Practical training similar to internships, Legislation-professional knowledge, In-service training, PowerPoint slides, Only one answer was for online. The training centers suggested the practical training / training in real environment, online training, personal communication program, individual forms of trainings for special needs, video and group training for PCG training. The most used course format, text is the prevailing option (82,4%) followed by images (72,8%) and video (45,9%).

#### 4. CONCLUSIONS

The overall results are also extremely encouraging for the development of the PCG training curriculum and material, since people from all relevant target groups identified that the preferred methods for training cover all areas. Together with the training modules that are already in practice by VET centers. The research's results will work as a guide for the production of the PCG training outcomes. Stakeholders are important for developing PCG training curriculums.

Identifying the current situation with PCGs in each country, the qualifications for becoming a PCG and the different policies across these countries is an important basis while producing a training program for PCGs. Also, PCG training programs should follow innovative ways such as online courses or mobile platforms in order to be accessible without any time or place constraints, and include more visual contents.

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# EVALUATION OF LEADERSHIP STYLES, AND HEALTH WORKER PERFORMANCE IN HOSPITALS

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## ABSTRACT

**The Problem of the Study:** By the Modern management approaches and globalization, the human factor in the production of goods and services has become apparent. In this direction, the man is considered as the most important factor in achieving organizational objectives. For this reason, examination of human behavior and understanding how leadership style affect this behavior is important.

**The Purpose of the Study:** This study aims to determine partnership between relation-task oriented leadership, change oriented leadership styles and worker performance

**Method:** To collect data in private hospitals of Istanbul Province in 2014, hospitals were classified to their bed and staff number. The data we collected from A level hospital with more than 100 beds and health staff.

Our sample was purposively constructed to oversample the private sector and cannot be considered a random sample of hospitals in that region. Specifically, the initial sampling design included all private A level hospitals officially registered by 2014.

To take account of this sampling in the statistical analyses, we create indicator variables for hospital ownership categories (private not-for-profit, private for-profit and separate indicator variables for hospital levels of accreditation.

## Findings and Results

56.6% of those surveyed are women, 60.7% are 31-45 years of age, 59% of them are middle managers and 48.4% 's range of managerial time is 3-6 years.

It has been found that there are moderate and positive correlation between change oriented leadership level and performance ( $r = 0,45$ ;  $p < 0,05$ ). And there are poor and positive correlation between relationship-task oriented leadership level and performance ( $r = 0,344$  ;  $p < 0,05$ ).

**Key Words:** Leadership, Leadership Style, Performance

## INTRODUCTION

### 2.The Conceptual Framework

#### 2.1. Leadership

Leadership definition has been discussing for thousands of years but has not still an available single definition. This uncertainty arise from leaderships' continuously evolving nature and rely on how we look at it. As to Koçel's notions; leadership can be defined as the process of one's influence and guidance of others' activities to perform a specific person or group goals

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under certain conditions. The leader is the person who affects and guides others to behave for a specific purpose (Koçel, 2007).

The nature of leadership can be explained by means of this ideas; (Sharma, 2013)

- *Effective leadership is a key factor in the life and success of an organization*
- *Leadership transforms potential into reality.*
- *Leadership is the ultimate act which brings to success all of the potent potential that is in an organization and its people.*
- *Leaders propose new paradigms when old ones lose their effectiveness*

## **2.2.Power and Power of leader**

The concept of power is a phenomenon appearing in all areas and being an integral part of the human relations and communication whether in the organization or in any layer of social life. Therefore, the issue of power has been the main subject of considerable debates and researches for years (Bayrak, 2000).

Power is the ability to affect others. In other words power is the ability of induce others to direction that wanted. Therefore, power is a relational concept. The concept of power always refers to relationships between people. Alone and without associating with others it will be wrong to say this person is powerful. The power of the people can only be understood when it established relations with others. If the person is able to stimulate others to act in the direction which chosen, then it can be called strong (Koçel, 2007).

The most common classification of power; (<http://www.ndsu.edu>)

- Coercive power
- Reward power
- Legitimate power
- Referent power
- Expert power

## **2.3.Leadership Styles**

### **• Task-Oriented Leadership**

Task-Oriented Leadership expresses the level to which a leader describes the roles of their followers, concentrations on objective achievement, and establishes well-defined patterns of communication (Bass, 1990).

### **• Relationship-Oriented Leadership**

Relationship-Oriented Leadership expresses the degree to which a leader shows concern and respect for their followers, looks out for their welfare, and expresses appreciation and support (Bass, 1990).

### **• Change-Oriented Leadership**

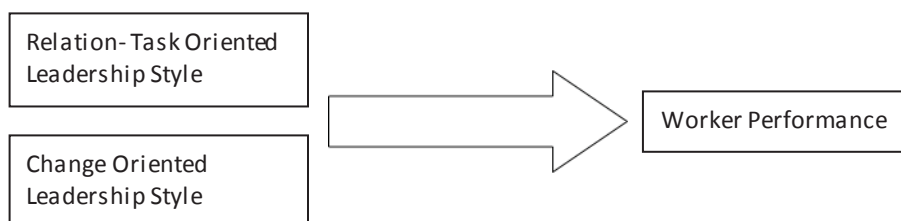
Change oriented leadership includes individualized consideration, intellectual stimulation, idealized influence (charisma), and inspirational motivation (Yukl, 1999).

## 2.4. Performance

Performance has entered the literature in recent years, but has a wide range usage. Besides, various indicators are used to measure performance as well. In general, performance can be defined as execute and complete tasks efficiently (Töre, 2014).

## RESEARCH

### 3.1. Research Model



**3.2. Scale** Leadership style scale is a 22-item scale which takes place in Özşahin, Zehir and Acars' work called "Linking Leadership Style to Firm Performance: The Mediating Effect of The Learning Orientation" and received from Yukls' work called "An Evaluative Essay on Current Conceptions of Effective Leadership, European Journal Of Work And Organizational Psychology".

The performance scale is the scale which is developed by Fuentes, Saez Montes (2004) and Rahman, Bullock (2004); adapted to Turkish by Göktaş (2004); used by Şehitler and Zehir (2010).

### 3.3. Sample

Our sample was purposively constructed to oversample the private sector and cannot be considered a random sample of hospitals in that region. Specifically, the initial sampling design included all private A level hospitals officially registered by 2014. According on a voluntary basis in 6 hospitals, 122 staffs were reached.

### 3.4. Reliability and Factor Analysis

Performance scale used in this study consists of 6 questions. The validity and reliability analyzes were performed. Accordingly, the internal consistency has not had any material negative effect. The Cronbach alpha coefficient is 0.85. The Cronbach alpha value of leadership scale is 0,97. KMO value is determined above 0.80 in all scales. In Bartlett sphericity test  $p < 0.05$  was determined. Two factors have emerged under the leadership type scale and first factor explains %38,5 of the total variance, second factor explains % 29,63 of the total variance.

## DISCUSSION

By the Modern management approaches and globalization, the human factor in the production of goods and services has become apparent. In this direction, the man is considered as the most important factor in achieving organizational objectives. The quantity of the organization would be productive and effective is calculated within the performance of employees. So, businesses reach their goals thanks to their employees. Therefore, the strongest influence on the efficiency of the organization are workers. So, leadership is the most crucial in the management of these human behaviors in order to produce services and goods (Yılmaz, 2011).

Besides the need of visionary and constantly evolving leaders, how they affect the worker performance has become one of the important points that need to be questioned.

It has been determined that the change oriented leaders affect the worker performance more than relation and task oriented leader. This is because of resistance which showed by workers. Therefore, the change oriented leader uses more power and this is lead to improved performance.

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# MUSHROOM MANAGEMENT THEORY IN HEALTH SECTOR

Taşkın KILIÇ<sup>1</sup>

Çiğdem GÜLCE<sup>2</sup>

## ABSTRACT

Concealment of some information by senior management from their subordinates is referred as “*Mushroom Management*”. Within the scope of the present study, Mushroom Management application and exposure levels of administrators and employers in the health industry were tried to be determined. To this end, 30 senior level health managers and 30 health workers from Gümüşhane City were interviewed. According to the obtained results, 84% of managers apply Mushroom Management, and 87% of employees feel Mushroom Management.

**1. Mushroom Management:** Mushroom management is a theory included in concept management sciences lately. They were called based on metaphor of raising “Mushrooms” such that mushrooms are provided manure and left in the dark for growth, and shortly yield is taken; according to this theory, Mushroom Manager gives his employees necessary job and tools but does not inform them about what purpose they are working for (Mar,2001). The manager only expects their performance and result. Nevertheless, Manager does not share strategies, income, expense and risks included, and etc. with them. There is an information asymmetry between manager and employees. Communication channels are closed (Kılıç, 2015).

For instance, a software company managed to get a large contract following a tender (4-5 Million TL), then, it gives software engineers employed with low salary (2-3 Thousand TL a month) and information technologists necessary tools so that they can make necessary software. Software specialists do not know for which company or organization they build this software; and the amount of money that their company receives in the exchange of their work. If they should have known that this was such a large-budget work, they would not have accepted to work for such a low salary; or they might have contacted with the company giving tender through unethical way. Hence, in such circumstances, Mushroom Manager does not disclose information to employees. **He only request result / solution from them.**

## Why do some managers apply Mushroom Method?

**a-) The information to be disclosed to employees is at strategic level:** For instance, a well-known soda company does not share its formula with more than 3-5 person. The most important reason is that when this formula is disclosed, number of rival companies with the same taste can join the market. Similarly, when Titanic ship hit the iceberg, only few personnel were explained about the real situation. If this information was disclosed to everyone, there might have been different results (either positive or negative)<sup>3</sup>.

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<sup>3</sup> <https://eversmarterworld.wordpress.com/tag/mushroom-management/>



**b-) Manager does not want employees to question and critique by holding the information and power at central point:** organization sometimes might be encountering a situation in which it experience serious economic or administrative crises. In such periods, information shared with subordinate levels might cause rumors within the organization, which can decrease motivation level and increase potential burden of the crisis. Therefore, information is not disclosed. For example, if you disclose information to the employees of a factory that the business is about to bankrupt, number of personnel, who are loyal to the company, might quit the job. Or, if you tell employees that the factory is a dangerous place to work in terms of health and safety at work code, they might sue you. Managers do not reveal information to his employees because of such similar circumstances.

**Benefits of Mushroom Management from the employees' perspective:** Although this management type seems negative, it offers some benefits from different angles. For instance, employees working under such management type have very limited responsibility. Employees are only in charge of implementing their duties, they are not held responsible for making decisions can reduce their liability and stress regarding outcomes of the company (wikipedia/mushroom management)

## 2. RESEARCH

Within the scope of this research, interview questions were developed in order to measure Mushroom Management perception. These interviews were conducted with 30 managers and 30 employees in health industry in Gümüşhane City through face-to-face method. Obtained data were analyzed by means of the SPSS software.

## 4. FINDINGS

**Table 1.** Demographical information of participants

Variables		Number	Percentage
Gender	Female	36	60.0
	Male	24	40.0
Education Status	High School	7	11.7
	College	20	33.3
	Bachelor	25	41.7
	Graduate	8	13.3
Organization	General Secretariat of Union Public Hospitals	12	20.0
	City Health Directorate	10	16.7
	Public Health Directorate	14	23.3
	Public Hospital	17	28.3
Title	Manager	30	50.0
	Employee	30	50.0

## FACTORS AFFECTING THE DECISION MAKING PROCESS IN HEALTHCARE INSTITUTIONS

Duration of Work	0-1 Years	8	13.3
	1-5 Years	8	13.3
	6-10 Years	7	11.7
	11-15 Years	6	10.0
	16 And over	31	51.7
Total		60	100.0

**Table 2.** Answers given by employees and managers for the question of “**what types of information are kept confidential at your organization?**”

According to Managers	%	According to Employees	%
• Non-task information	27,5	• Non-task information	28,57
• personnel rights – human resources- Personnel affairs	22,5	• Board Decisions –Amendments	16,32
• Investigations –disciplineinformation	10	• Human Resources	14,28
• Administrative and legal decisions	10	• Administrativeinformation	12,24
• Documents meant to be confidential	5	• Meetings	10,20
• Confidential correspondence	5	• Investigations	8,16
• Payments	5	• Income – financials	6,12
• Information that may cause panic	5	• Official correspondence	2,04
• Risk management	5	• Confidential correspondence	2,04
• Savings	2,5		
• Personal and organizational weaknesses	2,5		

**Table 4.3.** Answers given by employees and managers for the question of “**what is the point of keeping information confidential in an organization?**”

According to Manager	%	According to Employees	%
• Confidentiality	20,45	• Rules	32,43
• Eliminating conflicts among personnel	18,18	• Does not concern us	13,51
• Based on procedures/code of conduct	15,90	• Unnecessary	10,81
• Protection of organizational prestige and order	13,63	• Unwillingness for promotion	10,81
• Preventing rumors	6,81	• Egotistically	8,10
• Preventing misleading comments	6,81	• Lack of communication	5,40
• Maintaining motivation	6,81	• Future concerns	5,40
• Quality	4,54	• Waste of time	5,40
• Eliminating panic situations	2,27	• Hierarchal order	2,70
• Eliminating chaos	2,27	• Information safety	2,70
• Protecting peace at work	2,27	• Rumors	2,70

## RESuIT AND CONCluSION

According to the results obtained through this study, 84% of managers apply mushroom management; 87% of employees are exposed to mushroom management. When these rates are considered, there is correlation between the mushroom management felt by employees and mushroom management applied. Similarly, in answers given by managers and employees for the question of “*what is the purpose of hiding information?*” were similar to each other. Likewise, equivalent answers were taken for the question of “*what types of information are kept confidential?*” According to these findings, it was determined that there is mushroom management applied in health industry.

On the other hand, managers, who stated that they share all information with their subordinates; create a joint vision and mission mutually with their subordinates; and their subordinates play efficient role in decision mechanism, and they consider satisfaction of both service receivers and givers while making decision; and they act in transparently, constitute 16% of the sampling group.

In the present study, some of employees stated that they are aware of information about management and organization; they can have access to any information they want; they can be effective on decisions; and they do not feel mushroom management. The rate of employees who share this opinion constitute 13% of the sampling group.

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# AN EVALUATION OF HEALTH CARE PERSONNEL EMPLOYED IN THE PUBLIC HEALTH AGENCY OF TURKEY IN TERMS OF BUSINESS-FAMILY LIFE CONFLICT

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Adem BİLGİN<sup>2</sup>

## ABSTRACT

**Purpose:** The purpose of this study is to determine the understanding of the health care personnel working at Public Health Agency regarding the concept of business-family life conflict and the effects of business-family conflict and family-business conflict, which are the sub-dimensions of this concept, on the said personnel.

**Material and Method:** The study was administered to 147 health care staff members working at Karatay Public Health Center, Meram Public Health Center and Selçuklu Public Health Center, all affiliated with Konya Directorate of Public Health. “The Business-Family Life Conflict Scale”, which was developed by Netenmeyer, Boles and McMurrian (1996), was used to collect the research data. Cronbach Alpha coefficient calculated for the overall reliability of the scale was calculated to be 0,65 ( $p=0,000<0,05$ ). In the data analysis stage, frequency analysis was used for descriptive statistics, reliability analysis was used to determine the reliability of the scale, t-test was used for two-way comparisons of the scale and one way anova test was used for multiple group analyses.

**Findings:** It was found that there was a positive correlation between the variable of business-family conflict resulting from the business life of the research participants and the hours an employee spends at work, whereas a negative correlation was identified between the variable of family-business life conflict resulting from family life and the number of children an employee has. The factor analyses made also reveal that these two scales are empirically different from one another. The findings in question indicate that both these scales are powerful in terms of reliability and validity.

**Conclusion:** When the business-family life conflict was compared with demographic factors, it was found to be significantly correlated with many factors. In other words, problems in our business life affect our family life and in turn problems in our family life affect our business life. Measures should be taken on an individual, organizational and national basis to reduce these conflicts to a minimum.

**Key Words:** Business-Family Life Conflict, Public Health Center, Directorate of Public Health

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## 1.Introduction

It is about to discuss whether the life quality of employees increases when balancing private and professional life. The focus then is that 'Do employees work more efficiently and creatively at work' and 'Are employees happier when spending more private time with their families? More and more publications of business life are dealing with the topic and that is the reason why this currently became an important issue of intensive researches (Allen, Herst, Bruck ve Sutton, 2000; Frone, Russell, ve Cooper, 1992; Higgins ve Duxbury, 1992). As business and work is an issue for every individual, it is out of question that it has an effect on the life of people. Every individual struggles for better living conditions in the frame of society. Consequently, the balance between profession and privacy gets a different meaning; the people have to care about it. As changes in the world are occurring, this need of balance causes a development of strategies. The results of the researches mirror both, the focus on individuals and organisational groups. The increase of tension, the worsening performance and feeling of dissatisfaction in life are some result factors which came up in the researches (Frone vd., 1992:65-78). Thinking of a connection between privacy and profession, there are five theories to be mentioned (Bedeian, Burke ve Moffett, 1988; Bartolome ve Evans, 1980; Burke, 1986; Jones ve Butler, 1980; Cooke ve Rousseau, 1984; Duxbury ve Higgins, 1991; Duxbury, Higgins ve Lee, 1994; Evans ve Bartolome, 1984; Greenhaus ve Beutell, 1985; Zedeck ve Mosier, 1990; Greenhaus ve Parasuraman, 1986; Greenhaus, Bedeian ve Mossholder, 1987; Hesketh ve Shouksmith, 1986; Kopelman ve diğ., 1983; Letter ve Durup, 1996; Lobel, 1991; Paradine, Higgins, Szeglin, Beres, Kravitz ve Fotis, 1981; Thomas ve Ganster, 1995; Zedeck and Mosier, 1990)

'Rational Theory, Compensation Theory, Contribution Theory, Overflow Theory, Conflict Theory'

While preparing their research, the rational and compensation theories emphasized the unit of time pressure. The rational theory depicts that the conflict is caused by time. According to the compensation theory, there is an interconnection between privacy and profession. As an individual experiences inefficiency at work, he/she tries to compensate this 'loss' by turning towards the private life. This phenomenon causes an imbalance in time. The contribution theory claims that the individual influences the organisational group and the other way around. The result is that the whole satisfaction depends on that. The overflow theory reflects that when any changes come up in private life – good or bad – this will also have an effect on the work life. The conflict theory shows that people have to fulfill many duties and they are responsible for those. In contrast, they have difficulties in realizing them because it is too demanding for them. Globalisation changed the whole World. One example of this modern progress is that, women get more and more involved into business life. This shows that the birth rates are decreasing, while the divorce rates and marriage at an old age rates are increasing. The more successful a women is in terms of career and the more she is getting into the leading position in her family provokes divorce cases. As a consequence, this is one of the most experienced privacy-profession-conflicts (Mustafayeva, 2014:127). The resarch results show that it is not easy to presume that when the balance between privacy and profession is given, there will be fulfilled and satisfied employees. Identifying one reason is that both, the fields of work and family are flexibly changeable. The organisational groups are open systems and they can create a certain structure which is lived by the employees. Some factors of the organisational group influence

are as following: purpose, culture, structure, styles of administration, working procedures and their administrative system arrangement. This includes also the definition and needs of a work field. To sum up, changes can occur easily. Besides that, the family itself is a kind of social organisation which is also not static. The employees face a variety of features while being at home such as biological, psychological, economic-financial, social and legal factors. As a consequence, there is obviously a flexible connection between family and work which means that it is highly possible that any slight movement or change could create a conflict in one's life. When a conflicting situation inevitably occurs, it is necessary to manage it. To be able to tackle with problem cases between work and family, a valuable human resource policy should be developed, further organisational group arrangements and applications have to be realized. This is important for institutions and corporations because they have to know in order to act, if necessary (Özsoy, Osman 2002:106).

### Research Method

This research was carried out at the Karatay Toplum Sağlığı Merkezi, Meram Toplum Sağlığı Merkezi and Selçuklu Toplum Sağlığı Merkezi which are connected to the Konya Public Health Management. A group of 147 health staff members took part in the research. A limitation of the study is that some health staff members could not be reached because of their professional duties to attend the Aile Hekimliği Birimi, Aile ve Çocuk Sağlığı Merkezleri or some vaccination programmes at public schools. The methods of area research and literature research were used, finally the secondary literature was analyzed. The questionnaire technique was mainly used in the research. All collected data was analyzed by SPSS. The data was put together using the 'Family-Work conflict scale' developed by Netemeyer, Boles, McMurrian (1996). The first page of the scale included demographical features such as age, marital status, state of education. The second page of the scale included the family-work conflict scale questionnaire. It consisted out of total 10 questions created on the base of the 6-point Likert scale. To find out the dimensions of the family-work conflict scale, the Cronbach Alpha value was calculated as 0,88 ( $p=0,000<0,05$ ). For proving the reliability of the questionnaire, the SPSS programme was used (65%). The data was analyzed with the help of frequency analysis, variance analysis and reliability analysis.

### Research Results

First, the demographical results were shown in a table, After that, the answers to the family-work conflict scale were enlisted.

**Table 1: Results of the demographical data**

Length of Service	N	%	Job	N	%
1-5 year	24	16,3	Doctor	28	19
6-10 year	51	34,7	Nurse	35	23,8
11-15 year	41	22,9	Accoucheuse	32	21,8
16-20 year	26	17	Health officer	12	8,2
21 +	6	4,1	Technician	11	7,5
Study Year in Community Health Center	N	%	Technician	6	4,1
1-5 year	147	100	Administrative Staff	23	15,6
Working Hours	N	%	Age	N	%

40 hour	147	100	20-25	7	4,8
Marital status	N	%	26-30	28	19
Married	133	90,5	31-35	45	30,6
Single	14	9,5	36-40	34	23,1
Does your spouse work?	N	%	41-45	27	18,4
Yes	115	78,2	46 +	6	4,1
No	18	12,2	Education	N	%
Full-time Job	N	%	High school	2	1,4
Yes	147	100	Associate degree	35	23,8
No	0	0	Undergraduate	110	74,8
Gender	N	%	Total	147	100
Female	88	59,9			
Male	59	40,1			
Total	147	100			

As shown on the table, the research participants were about 19% doctors, 23,8% nurses, 21,8% midwives, 8,2% health officers, 7,5% technicians and 15,6% of administrative staff. Having a look at the age groups of the participants 30.6% are between 31-35 years old, so that they represent the majority. The minority participants are about 46 years old or older and represent 4.1%. The participants were mainly women (59,9%), the percentage of male participants were just about 40.1%. Their state of education differs, too. 1.4% were about high school graduates. The pre-license students were about 23.8%, while still the largest group was about the university graduates with 74.8%. The working years and the experience at work was mainly about 6-10 years which was in case of 34.7% of the participants. All employees work 8 hours a day on weekdays, which comes up to 40 hours in a week. The participants were married for 90.5% and their husbands/wives were actively working in business life for 78.2%.

**Table 2: Answers to the ‘Family-Work Conflict Scale**

	I totally disagree		I agree a little		I agree a little		I agree		I definitely		I absolutely agree	
	N	%	N	%	N	%	N	%	N	%	N	%
My job duties influence my family and home life in a negative way	9	6,1	18	12,2	28	19	39	27	37	25	16	10,9
As long as I work, it is difficult for me to fulfill my responsibilities towards my family	4	2,7	24	16,3	27	18,4	35	24	41	28	16	10,9
The activities I like to do at home are not to realize for me because of my job duties	9	6,1	16	10,9	29	19,7	34	23	40	27	19	12,9
The tension and pressure which are created by my work represent an obstacle for me in making my family dreams true	5	3,4	22	15	31	21,1	31	21	44	30	14	9,5
I have to change my family plans because of my job duties	7	4,8	26	17,7	22	15	32	22	43	29	17	11,6



The requirements my family need affects my work life in a negative way	56	38,1	50	34	37	25,2	3	2	1	0,7	0	0
My life at home requires that much duties that I have to postpone my work tasks	47	32	54	36,7	39	26,5	5	3,4	1	0,7	1	0,7
The responsibilities towards my family do not allow me to do professional activities I am interested in	58	39,5	50	34	35	23,8	3	2	1	0,7	0	0
My family life, arriving at work in time, fulfilling daily life needs and to work overtime are affecting my professional duties negatively	77	52,4	59	40,1	11	7,5	0	0	0	0	0	0
The tension and pressure caused by my family life affect me negatively in terms of realizing my job-related duties	58	39,5	50	34	35	23,8	3	2	1	0,7	0	0

Having a deeper look at table 2, it can be seen that the question ‘My job duties influence my family and home life in a negative way’ was answered with ‘I agree’ by 26.5%, while the percentage of people who marked ‘I totally disagree’ is about 6.1%. The statement ‘As long as I work, it is difficult for me to fulfill my responsibilities towards my family’ was ticked off ‘I definitely agree’ by 27.9% of people. Only 2.7% marked the answer ‘I totally disagree’. The next statement ‘The activities I like to do at home are not to realize for me because of my job duties’ was marked with a percentage of 27.2 as ‘I definitely agree’. In contrast, 6.1% projected their perspective by ticking off I totally disagree. The following issue ‘The tension and pressure which are created by my work represent an obstacle for me in making my family dreams true’ is marked by 29.9% as ‘I definitely agree’. The opposite case is the percentage of 3.4% with people who ticked off ‘I totally disagree’. The issue ‘I have to change my family plans because of my job duties’ was marked by 29.3% as ‘I agree’. The minority of 4.8% marked their opinion by ‘I totally disagree’. The statement ‘The requirements my family need affects my work life in a negative way’ was marked by 38.1% as ‘I totally disagree’. Only a percentage of 0.7% marked it with ‘I definitely agree’, further nobody ticked off the answer ‘I absolutely agree’. ‘My life at home requires that much duties that I have to postpone my work tasks’ was marked by 36.7% of people with ‘I agree little’. In contrast, 0.7% answered with ‘I definitely agree’ or ‘I absolutely agree’. The issue ‘The responsibilities towards my family do not allow me to do professional activities I am interested in’ was ticked off by 39.5% as ‘I totally disagree’; while a percentage of 0.7% marked the answer ‘I definitely agree’. The following statement ‘My family life, arriving at work in time, fulfilling daily life needs and to work overtime are affecting my professional duties negatively’ was marked by 52.4% as ‘I totally disagree’. Possible answers such as ‘I agree’, ‘I definitely agree’ and ‘I absolutely agree’ were not ticked off by any participants. The last issue ‘The tension and pressure caused by my family life affect me negatively in terms of realizing my job-related duties’ was answered by a percentage of 39.5% as ‘I totally disagree’. A percentage of 0.7 ticked off ‘I definitely agree’ while the possible answer of ‘I absolutely agree’ was not chosen at all.

**Research Analysis**



**Table 3: The One Way Anova Test and t Test**

Work-Family Conflict							
Gerend	Average	t	p	Age	Averagea	F	p
Female	2,975	2,11	0,011	20-25	2,2	5,935	0
				26-30	2,5393		
Male	2,7288			31-35	3,1333		
				36-40	3,1206		
<b>Marital status</b>	Average	t	p	41-45	2,6741		
Married	2,9917	7,125	0	46 +	2,8333		
Single	1,7786			20-25	2,2		
<b>Does your spouse work?</b>	Average	t	p	<b>Education</b>	Average	F	p
Yes	3,0165	1,148	0,253	High school	3,35	1,373	0,257
No	2,8333			Associate degree	3,0086		
<b>Job</b>	Average	F	p	Undergraduate	2,8255		
Nurse	2,9286	0,757	0,605	<b>Experience</b>	Average a	3,329	0,12
				1-5 year	2,4375		
Accoucheuse	2,9563			6-10 yıl	3,0216		
				11-15 year	2,978		
Doctor	2,6643			16-20 yıl	2,848		
				21+	2,8167		
Health officer	2,9833			Ortalama			
				1-5 year	2,4375		
AdministrativeStaff	2,9			6-10 yıl	3,0216		
				11-15 year	2,978		
Technician	2,9909						
Technician	2,6167						

The results of the research are shown in table 3. Referring to the significance test, the value ( $p < 0,05$ ) was identified. When the participants sex is taken into consideration while trying to build up a coherence to the family-work conflict, there is a difference visible which has a certain meaning ( $p < 0,05$ ). In comparison to men, women face situations of family-work conflicts much more often. The results which are enlisted in table 3 also include the factor 'marital status'. Once again, a difference between single and married people, in terms of family-work conflicts, appears which also shows a certain meaning ( $p < 0,05$ ). In comparison to singles, the possibility of experiencing a family-work conflict as a married person is even higher. According to the research results, there is no differentiating importance whether the life partner works or not ( $p > 0,05$ ). According to the research scale results, family-work conflict stay in very strong interrelation with ages. As a result, the highest degree of family-work conflicts occur in the age group between 31-35. The lowest degree of family-work conflicts occur in the age group between 20-25. Moreover, the state of education does not have an influential effect on family-work conflicts ( $p > 0,05$ ). The fields of work, as the participants profession was different from each other (doctors, nurses, technicians, etc.) does not have a significant differentiating effect ( $p > 0,05$ ). The tables which were created on the base of several analysis, there is no significant difference between family-work conflicts and work experience ( $p > 0,05$ ). Generally, it can be said that the possibility to live a conflict is on medium-level.

## 5. Discussion and Consequence

It is confirmed that the family-work conflict scale, which was used in our research, was proven to be reliable. When considering the difference between female and male participants in the issue of family-work conflict, the discrepancy shows that there is a meaning hidden. While the family-work conflict average for women is about 2,9750, for men it is just about 2,7288. As adding the criteria of marital status, there is a very clear and striking difference between the married and the single people. The risk of being confronted with family-work conflict is much more the case for married couples. Following the percentages, the percentage of married couples is about 2,9917 while the single people only have a percentage of 1,7786. The life partners of research participants were usually working which was also a factor for provoking a family-work conflict. Further, it can be assumed that the married couples have a possibility of about medium-level to face family-work conflicts. Having a look at the participants' age groups, there is a striking difference. The average of the age group 31-35 is about 3,1333 and the average of the age group 36-40 is about 3,1206. These results show a close connection between each other, moreover these two results represent the highest averages in the research. The average of the age group 20-25 is about 2,2000 and represents the lowest average result. One reason to explain this is probably the fact that comparatively the number of single people is higher than in the elder age groups. The three categories 'state of education', 'profession group' and 'work experience', which were involved and put into relation with family-work conflicts, do not show any deeper meaning in difference. The significant values of the categories are as following: 'state of education' is about 0,257, the 'profession group' is about 0,605 and the 'work experience' is about 0,12. As the difference is higher than 0,05, the difference has no important meaning and the conflict rate is on medium-level. Modern institutions which have an understanding administrative leadership and are aware of the current problems, are already busy with creating and launching programmes against family-work conflicts. Even though, the negative affects are still not removed totally from real life. To manage with the conflict, everyone has to put personal effort in it, further it is necessary that companies and corporations have to create programmes. The managers should make the human resources employees aware of its importance (Hammonds, 1996/16).

The results of this research represent very essential and valuable content for both, researchers who are focused on studies about family-work conflicts, as well as for professional administrators.

Based on this research results, further studies on family-work conflicts can be launched on issues as enlisted:

- The Family-Work Conflict should be analyzed by taking the five theories into consideration
- This research should be applied on different profession branches
- While carrying out this research, aspects like general profile and demographical features should be taken into consideration as well

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# EFFECT OF LABORERS' OVERQUALIFICATION PERCEPTION ON JOB SATISFACTION: AN EMPIRICAL STUDY ON HEALTH SECTOR

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**Abstract:** Unemployment problems of developed and developing countries including Turkey are pushing people to study and spend more and more for self-development. However, numbers of high quality jobs are not increasing as fast and most of these qualified laborer candidates are obliged to accept low quality jobs. The aim of this study was to investigate overqualified laborer phenomenon in Turkish context. According to the results, education is not the only antecedent of overqualification perception in Turkish context, also duration of employment and income affect it. Moreover, overqualification appeared as an important variable affecting job satisfaction.

**Key Words:** Overqualification Perception, Education Status, Job Satisfaction, Health Sector.

## INTRODuCTION

The percentage of higher education graduates shows significant increases in the USA, Russia, China, Brazil, Argentina and Finland in comparison with the recent years (O'Connel, 2010). While globalization, technological developments and increase in population and competitive conditions cause considerable rise in unemployment rates, they motivate the young population for education and self-development efforts. In addition to an increase of overqualified laborer candidates, this situation causes a rapidly rise in education level among the unemployed. However, laborers who don't prefer the available jobs or who deem that these jobs aren't suitable for them have been gradually forming an expanding group among the unemployed category for which employment opportunities don't change very much.

In this context, considering the unemployed category as per the situation of education in Turkey, it is understood that higher education graduates constitute the largest group in percentage (12,9 %) among the unemployed (tüik.gov.tr, 2014). The unemployment rate among the persons who are high school, university and post university graduates was 43,6 % in 2008, whereas this rate increased to 51,6 % in 2004 (tüik.gov.tr). A lot of people who cannot find a job which they have been seeking, although they are graduates and highly qualified, and who can no longer bear the suffering from sociological, family and psychological pressures stemming from being unemployed feel forced to choose and begin to work at a job which they do not find suitable for themselves. This group of laborers is called overqualified laborers in general in the literature (Khan and Morrow, 1991: 213).

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## **THE CONCEPT OF OVERQUALIFIED LABORER (OL)**

The concept of OL has become functional in two ways in the literature. First of them is the laborer's consideration of himself as overqualified based on his perceptions (Johnson and Johnson, 1996; Erdoğan and Bauer, 2007) and the other one is having overqualifications than the qualifications stated on the job definition form (Green and McIntosh, 2007: 431). It's being proposed to adopt the perceptive approach in the researches dealing with the impact of overqualification on the behaviors in the literature (Maynard et al., 2006: 521). Also in this study, perceptive approach has been adopted for the research of the effect of overqualification phenomenon on the behaviors of employees.

OLs are considered to be inconvenient and are refused by employers who seek low skilled or unqualified workers in general (Erdoğan et al., 2011: 216). The researches on employers for the reasons of refusal of overqualified candidates reveal that employers frequently affirming such candidates would demand for more remuneration and early promotion, wouldn't like to work with the managers who have less experience and information, wouldn't adopt to their work easily, wouldn't be motivated effortlessly and would quit their jobs once they receive a better job offer (Maynard and Hakel, 1999; Green, 2013).

## **THE OL PERCEPTION AND JOB SATISFACTION**

A simple definition of job satisfaction is the degree of contentment of laborers from the job (Gül et al., 2008: 1). Low job satisfaction may result in consequences such as high job rotation, absenteeism, the intention of leaving the organization, the weakening of the organizational commitment, alienation, too much stress, causing damage to machines and facilities, mental and physical health problems along with inefficiency (Judge et al., 1998: 28). Job satisfaction is generally discussed in terms of internal and external dimensions. However, the recent studies reveal that social satisfaction has been added as a third dimension (Peiro et al., 2010: 666). The internal dimension of job satisfaction is related to emotional satisfaction from the work itself; the external dimension is related to the situation of harmonization of the concrete outputs of the work with the expectations of the laborer whereas the social dimension is being contented with the colleagues (Avcil Okuyucu, 2014: 24).

Job satisfaction is generally approached in a single dimension in the studies carried out as a consequence of the OL perception and it has been determined that it has a negative relation with the OL perception (Fine and Nevo, 2008; Erdoğan and Bauer, 2009; Avcil Okuyucu, 2014). However, it has been evaluated that the OL perception with its sub dimensions shows an interaction in a different way when inner, external and social satisfaction dimensions have been taken into account. Because, compatible relations with the colleagues even though there is no inner and external satisfaction and facing with less social pressure as a result of having a job may pave the way for social satisfaction from the work. When taken into account that laborers working in the health sector are mostly women, they can have close and sincere relations with each other and have been assessed as having high social satisfaction from work. Accordingly, low inner and external satisfaction whereas high level of social satisfaction are observed among the laborers who work in administrative capacities and who describe themselves as overqualified persons. Although it is hard to estimate the effect of satisfaction with the supervisor in this pattern, it is envisioned that they would be in a type of interaction similar to social satisfaction. The hypotheses that have been produced are as follows:

*H-1:* OL perception will be negatively related to inner satisfaction.

*H-2:* OL perception will be negatively related to external satisfaction.

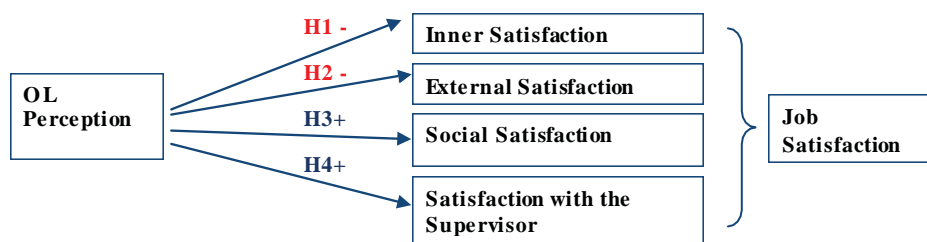
*H-3:* OL perception will be positively related to social satisfaction.

*H-4:* OL perception will be positively related to satisfaction with the supervisor.

## METHOD

### Research model

The research model and the hypotheses are shown in Figure 1.



**Figure 1: Research Model and Hypotheses**

### Sample

In line with the objectives of the research, it was considered that those who work in administrative duties in health sector (assistant of a physician, advisory officers, etc) as a group operating in health sector who are not required to receive technical training for their duties and is composed of people having different age, level of education and business experience can be an appropriate sample for the research. In order to test this thought, the scale of overqualification perception was applied for 25 advisory officers and physician assistants working in a private hospital in Ankara and consequently it was determined that those having overqualification perception was 65%. In line with this sufficient rate, it was decided to conduct this research in private hospitals operating in Ankara.

There are 547 private hospitals across Turkey (TKHK, 2015). 35 of them operate in Ankara (asm.gov.tr, 2015). The number of other health staff working in private hospitals in Turkey is 26393 for 2013 (TKHK, 2015) whereas the number of those working in administrative duties in private hospitals in Ankara is approximately 1250<sup>5</sup>. As a result of interviews with the private hospitals in general branch category in Ankara, six hospitals accepted to be involved in the research. The number of staff working as an advisory officer and physician assistants in these hospitals is 227. Accordingly, the general nature of the research is the administrative officers working in private hospitals in Turkey, whereas the research nature is the administrative officers working in 21 full-fledged private hospitals in Ankara. The sample group is the administrative officers working in six hospitals determined among these.

227 questionnaires were distributed in total within the scope of the research. The number of questionnaires appropriate for analysis is 142 and the rate of return is 62,55%. The sample group is composed of 142 persons, 104 women (73,23%) and 38 men (26,77%). 52% of the participants (74 persons) is married, 45% (64 persons) is single and 3% (4 persons) is a

<sup>5</sup> This figure was determined by comparing the number of staff in total in hospitals involved in the research



widower or was divorced. The average age is 28,2. The majority is between 26-30 years of age. 28 persons have the education level of junior high school, 38 of them have the education level of high school, 44 of them have the education level of undergraduate and 22 of them have graduate and post graduate education level. 38% of the participants are working in the hospital less than a year. The rate of employees who work in the same hospital for 10 years and over is 8,45%. The average duration of employment period is approximately four years. The average monthly income is between 1000-1500 TL.

### Scales used in the research

**Perceived Overqualification Scale:** In order to measure the overqualification perception a scale of four items was used ( $\alpha=0,72$ ) which was developed by Johnson and Johnson (1996) and its adaptation into Turkish was made by Erdoğan and Bauer (2009)<sup>6</sup>. This scale which is applied as unidimensional and a six point Likert scale there are items such as “Eğitim düzeyim işime göre fazladır”, “Yeteneklerimi şu anki işimde tam olarak kullanamadığımı düşünüyorum”. The Cronbach’s alpha reliability coefficient in the research was found as  $\alpha=0,818$ .

**Scale of job satisfaction:** *Minnesota Job Satisfaction Scale* was used to measure the job satisfaction of employees which is composed of 20 items and two dimensions (internal satisfaction, external satisfaction) developed by Weiss et al. (1967) and its adaptation in to Turkish was made by Baycan (1985). There are statements in the scale such as “Genel olarak işimden memnunum”, “Burada çalışmayı seviyorum” which is applied as a six point Likert scale. Five items varying from external satisfaction in this research constituted two different dimensions. Considering the statements in the new formed dimensions it was seen that the two items that are separate are related to the satisfaction with the chief, the other three items are related to the satisfaction with the social life on the job. Accordingly, dimension three was called *satisfaction with the supervisor* dimension four was called *social satisfaction*. The Cronbach’s alpha reliability coefficient of scale in the research was found as  $\alpha=0,844$ . The Cronbach’s alpha reliability coefficient of the internal satisfaction, external satisfaction, satisfaction with the supervisor and social satisfaction was found as  $\alpha=0,945$ ,  $\alpha=0,849$ ,  $\alpha=0,778$  and  $\alpha=0,746$  respectively.

### ANALYSIS AND FINDINGS

The data, except sex, conform to the normal distribution to a large extent. The majority of the participants is woman due to the profession of the sample group. A correlation analysis was made in order to determine the dimensions of the scales, to analyze the relationship between the determining factor analysis and the correlation and to test the hypotheses. Furthermore, according to overqualification perception and demographic data, t-test a one-way analysis of variance were made in order to determine the differentiations among the groups.

According to the results of the research, it was determined that 64,78% of the participants (92 persons) consider themselves overqualified for the job they do. While there is no significant differentiation among the participants in overqualification perception according to the sex, the hospital worked in, marital status and age, it was determined that there are significant differences according to the educational status, term of employment and monthly income.

The perception of overqualification is something to do with the level of education, the working period and the status of monthly income are also related to the perception of overqualification

<sup>6</sup> Authors thank Prof. Dr. Berrin Erdoğan who shares the perceived overqualification scale used in the research.

differently from the other studies. As the level of education increases, the perception of overqualification also increases. However, a relation which is not one-way is observed between the duration of employment and income and overqualification. When the relation of the perception of overqualification with both parameters is analyzed, it is seen that this constitutes a graphic similar to the bell curve. Accordingly, while the working period and the status of income increase, the perception of overqualification also increases. When coming up, a decrease is seen again. In other words, those whose' duration of employment and status of income are both low and high see themselves less overqualified.

**Table 1: Correlation Table**

	1	2	3	4	5	6	7	8	9
1. OL Perception	$\bar{x}:3,54$ sd:1,10								
2. Inner Satisfaction	-,169*	$\bar{x}:4,21$ sd:0,97							
3. External Satisfaction	-,010	,263**	$\bar{x}:2,92$ sd:0,90						
4. Satisfaction with the Supervisor	,039	-,373**	,490**	$\bar{x}:2,97$ sd:0,85					
5. Social Satisfaction	,179*	,097	,272**	,114	$\bar{x}:3,72$ sd:1,08				
6. Duration of Employment	-,103	,194*	-,003	-,224*	-,304**	$\bar{x}:4,16$ sd:4,43			
7. Education Level	,456**	,141*	-,277**	,047	,211*	,106	Under graduate sd:1,07		
8. Monthly Income	-,080	,056	-,058	,050	,120	,277**	,046	1250TL sd:1500	
9. Job Satisfaction	-,109	,871**	,112	-,080	,442**	,072	,078	,197*	$\bar{x}:3,82$ sd:0,60

\*  $p<0,05$ ; \*\*  $p<0,01$

The relations between the fundamental variances in the study are seen in the Table 1. According to this, positive and significant relation between the OL perception and education ( $r(142)=,456$ ,  $p<0,01$ ), negative and significant relation between the OL perception and inner satisfaction ( $r(142)= -,169$ ,  $p<0,05$ ), positive and significant relation between the OL perception and social satisfaction ( $r(142)= ,179$ ,  $p<0,05$ ) were determined. A significant relation between the other demographic variances, job satisfaction dimensions and OL perception could not be

determined. According to the duration of employment mentioned above and monthly income, bell curved looking relationship between the OL perception does not seen in the correlation results and it can be connected to two reasons. First one is the distribution of the sample group according to the duration of employment and monthly income does not show a normal distribution and as a second reason it is difficult to observe the bell curved relations in the correlation analyses revealing linear relations. Evaluating the hypothesis in accordance with these results, while *H1* and *H3* were supported, *H2* and *H4* were not supported.

According to the regression analyses results shown in the Table 2 regarding the status of OL perception of job satisfaction dimensions, it is seen that it affects inner satisfaction negatively ,032 percent.

**Table2: Results of the Regression Analyses**

Independent Variable	Dependent Variable	Sig.	R <sup>2</sup>	F	B	SD	β
OL	Inner Satisfaction	,034*	,032	4,609	-,189	,079	-,169
OL	External Satisfaction	,535	,003	,387	-,041	,067	-,010
OL	Satisfaction with the Supervisor	,389	,005	,748	,055	,063	,039
OL	Social Satisfaction	,057	,026	3,673	,147	,071	,135

\* p<0,05; \*\* p<0,01

## DISCUSSION AND CONCLUSION

In this study, the OL perception of the health sector administrative staff in the context of Turkey and Ankara and its effect on job satisfaction of this perception was examined. Educational status is presented as one of the most important cause of OL perception in the literature (Johnson - Johnson, 2000; Fine and Nevo, 2008). In this study likewise, a direct relationship was determined between the education level and the OL perception ( $r=.456$ ,  $p<0,01$ ). Grouping the participants according to their education, the average level of the highest OL was found in the university graduates, after in turn undergraduates, high school and junior high school graduates. However, education should not be regarded as equivalent or reason alone of the OL perception. While a case is expected to be high in the OL perception in patients with higher levels of education, this case should not be interpreted as every employee with OL perception has high level of education or every employee with a high level of education see themselves as overqualified. However, while only 12 (54,54%) employees from the 22 employees graduating from universities and post graduate level participating in the research see themselves as OL, 17 employees (60,71%) from 28 employees graduating from junior high school see themselves as OL.

Although there is not a direct relationship between the OL perception and monthly income and duration of employment, while participants are grouped according to their monthly income and duration of employment and examining their OL averages, the graphics of the OL averages of the group were determined as the bell-shaped curve. Accordingly, the ones who have low duration of employment and monthly income are seen that they have low level of OL perception, while these variables increases, the OL perception also increases, but when the monthly income and duration of employment is increased over a certain level, the OL perception restarted to decrease. This result is considered to be the result from several causes.

Primarily positive relationship between monthly income and duration of employment ( $r = 0,277$ ;  $p < 0,01$ ) show that the income increases when the duration of employment increases. In other words, it can be said that among the participants the ones who have the least income are the new starters. Considering new starters do not have the competence to recognize their work as well as the other experienced employees, they are evaluated as they do not see themselves overqualified because they do not fully recognize their work. It is evaluated that the working time, that is to say experience and the perception of low OL accompanying the ones who have high level income can be associated with challenging event parallel with experience and increase in the number of cases. However, it cannot be said that the data alone is enough to confirm this idea. It is considered that other variances like self-efficacy, psychological capital, cultural values etc. may be effective in this process and should be checked.

The relation between work satisfaction and OL perception were already researched previously (Nabi, 2003; Lee, 2005; Fine and Nevo, 2008; Erdoğan and Bauer, 2009). But in this research, job satisfaction is included to the model not as unidimensional but with its sub dimensions. While a negative relation is determined in the abovementioned researches it isn't found any significant relation between work satisfaction and OL perception.

On the other hand it is possible to say that the participants have high job satisfaction in general ( $\bar{x} = 3,82$ ). In terms of relation it is determined that OL perception has negative relation with internal job satisfaction ( $r = -0,169$ ,  $p < 0,05$ ) and positive relation with social satisfaction ( $r = 0,179$ ,  $p < 0,05$ ). The low level of internal satisfaction of a person with high OL perception can be linked to the idea of not being able to use the abilities precisely and to work in a job which has lower social statute than being deserved. Another important output of the research is that social satisfaction, which is related with gladness from the friends, is rising by the people with high OL perception. The reason of this relation can be listed as the gladness from the facilities of the workplace, good relationship among the employees with similar perspectives, developing a common identity as counselors and assistants of doctors.

Besides the ones who begin to work with high qualifications more than required for the work, it is possible that the employees, who were not as qualified as required at the beginning but improved themselves in time, may have overqualification perception. The perception of overqualification may turn to negative working behavior in time if it is not balanced with other factors and cause to employee turnovers for the organization, to lower job satisfaction, stress and even several health problems for the employees (Erdoğan and Bauer, 2007: 5). Considering the important results it is related to, it is estimated that the perception of overqualification will be more important for the labor markets and the management process of human resources in near future time.

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# THE RELATIONSHIP BETWEEN CLINICAL COMPETENCE AND JOB SATISFACTION IN SHAHID MONTAZERY HOSPITAL NURSES, NAJAFABAD CITY, IRAN

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## ABSTRACT

**The Problem of the Study:** Nurses' competence is regarded as an effective factor in ensuring the quality of surveillance services offered to the patients and attaining their satisfaction and in today's competitive world it is considered as a key factor in the survival of hospitals. Nurses' professional mission as one of the most significant members of the health team is maintenance and promotion of the quality level of surveillance to the standard level.

**The Purpose of the Study:** The purpose of this study was to determine the relationship between clinical competence and job satisfaction in Shahid Montazery hospital nurses.

**Method:** This was a descriptive- analytic study which was conducted on 123 nurses who worked at Shahid Mohammad Montazeri Hospital in Najafabad city, Iran. The participants were selected through census sampling procedure. Data collection tools included two questionnaires: 1) Mertoja Clinical Competence Questionnaire and 2) JDI Job Satisfaction Questionnaire. The reliability of these two questionnaires was calculated via Cronbach  $\alpha$ ; it was 0.97 for clinical competence and 0.92 for job satisfaction.

**Findings and Results:** The results obtained from the data analyzed by SPSS 18.0 software showed that the mean value for the clinical competence of the sections studied was 70.09 and it was *good*. It is worthy of noticing that the lowest mean value was associated with quality assurance with the frequency of 62.8 and the highest mean value was related to treatment interventions with the frequency of 73.61. Among the demographic information of the sections studied, age and job experience had a significant and positive correlation with clinical competence ( $P < 0.05$ ). Eventually, it was noticed that no significant correlation was observed between clinical competence of the nurses working at this hospital and with job satisfaction components ( $P > 0.05$ ).

**Keywords:** Clinical Competence, Nurses' Competence, Nurses' job satisfaction, Nursing Management

## INTRODUCTION

Nurses are the biggest service providers in the health care system and have a great impact on the quality of the care. Therefore, health care organizations cannot succeed without the help of qualified nurses (Habibzadeh et al., 2012). Regarding their clinical duties, all the nurses must have technical, communicational, and creative thinking skills. Evaluating the clinical competence of the nurses plays a great role in managing the process of healthcare and also

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achievement of its goals. (Karimi et al., 2011).

Barton et al. (2009) argues that nurse managers are responsible for creation and maintenance of a professional work environment for nurses, and that their leadership style is essential to the development of an influential atmosphere for nurses to foster a higher level of clinical competence.

What makes the difference in achieving clinical competence for nurses is the identification of different influential factors for its development. Hence, one must be trying to recognize these factors in order to be able to offer an appropriate approach for the evaluation of clinical competences (Memarian et al, 2006).

Regarding the fact that nurses are the main operators in hospital departments, and that they have a major role in patient care at the hospital, evaluation of their clinical competence is considered as one of the priorities in development and improvement of hospitals (Hosseini et al., 2006).

Moreover, regarding the role of the nurse in patient care, enhancing the job satisfaction of this healthcare team can lead to a better patient care and an improvement in the level of patient satisfaction with the health care system. Job satisfaction has an effect on the quality of the care offered by the nurses (Asghari et al, 2010).

Although numerous studies have been done with the aim of investigating the factors related to job satisfaction among nurses, findings have revealed that the aforementioned studies have not completely covered all the aspects of job satisfaction. Most of the studies were focused on the nurses' job satisfaction in the case of organizational variables and professional independence, and little attention has been paid to individual factors (Ruggiero, 2005).

Therefore, the current study has been designed and carried out with the purpose of determining the relationship between nurses' clinical competence and their job satisfaction.

## **METHODE**

This study, which is a quantitative correlation research, studies the relationship between clinical competence and job satisfaction among nurses. In this study, all the nurses employed at Shahid Mohammad Monatazeri hospital in Najaf Abad city have been considered as the research population and census method was used as the sampling approach.

123 nurses were considered as the research sample. Inclusion criteria included at least a bachelor's degree in nursing and consensual agreement to enter the study. In order to collect the data, a three-section questionnaire was applied. The first section of the questionnaire included demographic information (gender, age, marital status, the last educational certificate, and position in the organization) and the second part included Mertoja's "Nurse Competence Scale", while the last part involved questions from the job satisfaction questionnaire by Smith et al., referred to as Job Descriptive Index.

Mertoja's Nurse Competence Scale evaluates 73 nursing skills in seven different areas including "Roles and Assistance" (7 skills), "Diagnostic Skills" (7 skills), "Training and guidance" (16 skills), "Management issues" (8 skills), "Medical Interventions" (10 skills), "Quality Assurance" (6 skills), and "Organizational and Career Duties" (19 skills).

Smith's et al Job Descriptive Index (JDI) evaluates job satisfaction in five career areas

including the type of work, salary, promotion opportunities, management, and colleagues. The questionnaire of this study was taken as a self-evaluation, and the validity of the questionnaire was verified through contextual validity by the faculty members of Islamic Azad University (Isfahan Branch), as well as Bushehr and Shiraz universities. The reliability of the questionnaire was achieved by Cronbach's alpha of equal to 0.97.

In this study, descriptive statistics of frequency, mean, standard deviation, minimum and maximum score were used. Moreover, in order to analyze the data, Pearson Correlation Coefficient and multivariate regression analysis were applied in the current research.

## RESULTS

Results show that the age average of the sample population is 31.07 (standard deviation 7.74). Most of the population included female with 118 people (95.94%), and 65.9% of the population were married. The average total work experience of the sample population was 88.82 months (standard deviation 7.5).

Table 1 is arranged in order to show the level of clinical competence for the studied population.

**Table 1: Scores for the Study Groups in 7 Fields of Clinical competence**

Standard Deviation	Mean	Max	Min	Number of skills	Areas
13.39	71.36	100.00	41.43	7	Patient Assistance
14.67	70.58	97.50	36.88	16	Training and Guidance
10.99	71.74	95.71	48.00	7	Diagnostic Skills
14.59	73.61	98.75	37.50	8	Medical Interventions
17.95	69.80	94.00	23.00	10	Management Issues
19.73	62.80	96.67	23.33	6	Quality Assurance
18.07	70.75	95.79	22.63	19	Organizational and Career Duties
14.09	70.09	95.70	37.02		Mean

Table 1 shows that the range of scores in different areas of clinical competence rests between the minimum of 22.63% to the maximum of 100%. The lowest average is for the area of quality assurance with 62.8%, and the highest average is for the area of medical interventions with 73.61%. In total, the average score for the clinical competence of the research sample is equal to 70.09%.

In addition, table 2 shows data on job satisfaction among the studied units in the five mentioned areas.

**Table 2: Scores for the Study Groups in 5 Fields of Job Satisfaction**

Standard Deviation	Mean	Max	Min	Number of Items	Areas
0.68	3.55	4.7	2.2	10	Satisfaction with the type of work
0.62	4.13	5.0	2.88	8	Satisfaction with the management
0.72	3.64	4.9	1.2	10	Satisfaction with the colleagues
1.01	3.01	4.0	1.0	5	Satisfaction with career promotions
0.85	2.30	4.5	1.0	6	Satisfaction with the salary
0.54	3.33	4.31	1.91	-	Mean

Table 2 shows that the range of scores for the areas of job satisfaction in the studied population starts from 1 and ends with 5. The lowest area is the salary, with the score of 2.30, and the highest average is dedicated to satisfaction from the management with 4.13%. In general, the average score of job satisfaction for the studied population was 3.33.

In order to identify the relationship between the clinical competence and the job satisfaction, table 3 is arranged as follows:

**Table 3: The correlation between different components of Job Satisfaction and Clinical Competence**

Job Satisfaction							
Satisfaction with the	Satisfaction with career promotion	Satisfaction with the colleagues	Satisfaction with the management	Satisfaction with the type of work			
082/0-609/0	124/0-440/0	042/0-793/0	248/0-119/0	133/0-408/0	Correlation Level Significance Level	Patient Assistance	Clinical Competence
199/0-213/0	144/0-369/0	046/0-775/0	244/0-124/0	111/0-490/0	Correlation Level Significance Level	Training and Guidance	
014/0-932/0	067/0-675/0	142/0-376/0	223/0-161/0	093/0-562/0	Correlation Level Significance Level	Diagnostic skills	
072/0-655/0	000/0-998/0	098/0-543/0	297/0-060/0	276/0-081/0	Correlation Level Significance Level	Medical Interventions	
150/0-350/0	035/0-830/0	037/0-817/0	304/0-053/0	174/0-277/0	Correlation Level Significance Level	Management Issues	
028/0-861/0	119/0-458/1	053/0-741/0	176/0-272/0	042/0-796/0	Correlation Level Significance Level	Quality Assurance	
015/0-925/0	196/0-220/0	258/0-104/0	330/0-035/0	290/0-066/0	Correlation Level Significance Level	Organizational and Career Duties	
074/0-644/0	023/0-888/0	290/0-066/0	082/0-609/0	179/0-263/0	Correlation Level Significance Level	Clinical Competence	

Findings which are presented in table 3 reveal that there is no significant relationship between the areas of job satisfaction and clinical competence ( $P > 0.05$ ). However, there is a correlation in the area of organizational and career duties, and satisfaction from management ( $P < 0.05$  with Pearson Correlation Coefficient equal to 0.330).

## DISCUSSION AND CONCLUSIONS

The level of clinical competence for the studied groups in the seven respective areas is shown in table 1. Regarding the clinical competence, the average score for the research groups was calculated to be 70.09. Considering the categorization of scores into 4 groups of low level (0 to 25 scores), fair (26 to 50 scores), good (51 to 75 scores), and very good (76 to 100 scores), the mentioned score means that the clinical competence is in a good level. In addition, the average score of the studied groups in the field of the five job satisfaction areas, revealed that the lowest level of job satisfaction is related to salary with the score of 2.30. Meanwhile, the highest score for job satisfaction was related to the area of satisfaction with the management, with the score of 4.13. Generally, the average score for job satisfaction for the study population was equal to 3.33.

Based on table 3, among the seven fields of clinical qualification, organizational and career duties and the satisfaction with the management are the only areas presenting a positive correlation ( $P < 0.05$ , and correlation coefficient of 0.33). The positive relationship between the satisfaction with the management and the organizational and career duties is due to the effect of satisfaction with the management on improving the knowledge and enhancing the individual performance of the nurses, which eventually results in an improvement in the efficiency and effectiveness of the organization. In other words, the type of relationship between nurse managers and the clinical nurses had an influence on their career competence and performing organizational duties.

## **SUGGESTIONS**

One may suggest that clinical competence evaluation of nurses must be done as a documented annual program, and its results must be referred to as a basis for granting certificates of career qualification, setting praise and punishment policies, planning of regular educational courses for nurses based on their educational needs, and finally placement of the nurses based on their clinical competence with the aim of better allocation in general and specialized clinical settings.

In addition, nurse managers are advised to realize a higher level of nurse care service through providing nurses with better career and welfare conditions and eventually ensuring higher job satisfaction among them.

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# WORKAHOLISM IN HEALTHCARE PROFESSIONALS

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## ABSTRACT

**Objective:** The objective of this study is to determine the excessive working and compulsive working levels of healthcare professionals, which are among the lower dimensions of workaholism.

**Method:** The study applied the questionnaire method. This field study is aimed at determining the approaches of hospital workers in the city of Konya towards workaholic problems. In statistical analyses of the study, we used the normal distribution test for all groups, t-test in independent groups for paired comparisons and one way anova test for multiple comparisons.

**Findings and Conclusion:** Examining the excessive working rates of individuals who were included in the study according to their gender, we observed a significant difference between women and men. Women were determined to have higher averages of excessive working. On the other hand, no significant difference was observed between the compulsive working rates according to gender. Both genders had moderate levels of compulsive working. Examining the results of the study, it was observed that female workers showed a higher tendency of excessive working compared to male workers. Examining the excessive and compulsive working levels according to the marital status on the basis of findings, no significant difference was observed. Excessive and compulsive working rates of all age groups were determined to be moderate.

**Keywords:** Workaholism, Healthcare Professionals, Excessive Working, Compulsive Working

## 1. INTRODuCTION

Over the course of more than three decades, workaholism has become a well-known term used to describe individuals who are “addicted” to work (Aziz and Cunningham, 2008:553). The term work holism was coined by Oates to stress the fact that people have strong urge for working compulsively on the job (Oates,1971: cited by Metin, 2010:5). Although workaholism in organizations has received considerable attention in the popular press, our understanding of it remains quite limited (Burke, 2000:21).Workaholism involves a personal reluctance to disengage from work and a tendency to work or think about work anytime, anywhere (McMillan et al., 2003, cited by Lynley et al., 2004:511). The hard working employee is often considered a value do organizational asset and workaholics widely perceived as the hardest workers of all. Workaholism is commonly used to describe those people who work any hours

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and/or work very hard, contributing high levels of discretionary work effort (Douglas and Morris, 2006:394). Although work hours used to be a way of measuring workaholism, the field has moved beyond this perspective. Hours spent on work-related activities are not a perfect indicator in itself, although it remains a correlate of workaholism (Aziz and Cunningham, 2008:554).

Nowadays; the will of workers' prove themselves, the fear of becoming unemployed as a result of global competition and economic crisis, and the obligation of updating information as a result of developing communication and information caused workaholism to be perceived as an important attitude model for workers and businesses (Akdağ, 2010:49). Besides offering better conditions compared to the past, modern working life lead to results that affect workers in a negative way. Workers are expected to work more, produce more, and make the maximum contribution to the productivity of the organisation (Akın and Oğuz, 2010:311). Some workers try to give more to the organisation than the expectancy of the organisation. These workers prefer to keep lunch breaks short or skip them, work late almost everyday of the week. The condition seen in these workers is workaholism (Morgan, 1998:cited by Akın and Oğuz, 2010:313).

Workaholism is defined as continuous and unrestrained need of working which causes an individual to lose her control mechanism, affects her health and social life in a negative way (Bardakçı and Baloğlu, 2012:48). Workaholism can be expressed as "the situation of working long hours, continuously being busy with work, being addicted to work" (Temel, 2006:106).

- We can say a person as workaholic when (Garson, 2005: 16):
- A person takes work with him to home and is engage in work during weekends and vacation.
- The only activity that he likes to and talks about is their work.
- Workaholics work more than 40 hours a week.
- Work makes them happier than anything else in their life.
- Their attitude and actions make a statement that they feel sleep and playtime is a big waste.
- They frequently find themselves "problem solving" work situations in their mind during their "time off".
- Normally workaholics take complete responsibility for the outcome of their work efforts.
- Their family or friends given up expecting them on time.
- They believe that it is okay to work long hours and make no difference for them.
- They get impatient with people who have other priorities besides work.
- Many workaholics afraid that if they don't work hard they will lose their job or be a failure.
- Normally they found worried even when things are going very well.
- They get irritated when people ask them to stop doing their work in order to do



something else.

- They do not care about their long hours hurt their family or other relationships.
- They always think about their work while driving, falling asleep or when others are talking.
- Some workaholics have a tendency to work or read during meals.

## **2. METHOD**

The aim of this study is to determine the workaholism attitude of personnel working at hospitals. The study, which is identified as descriptive, was conducted with 250 personnel who are the employees of several hospitals in Konya, and accepted to attend the study. Face-to-Face questionnaire technique was used to gather data.

During the study, “DUWAS (Dutch Work Addiction Scale)”, developed by Schaufeli et al. (2006), and credibility/effectivity in Turkish was ensured by Doğan and Tel (2011), was used to evaluate the workaholic manner of personnel. In original scale there are 17 question, however Doğan and Tel (2011) lowered the question number to 14 in the Turkish version of the scale. DUWAS has two parts. First part is the excessive working part consists of 8 questions, and second part is the compulsive working part consists of 6 questions (Doğan and Tel, 2011: 64). “Excessive working” subdimension consists of items state that the individual spares more time for working than other activities in her life, and works more than she should”. “Compulsive working” subdimension consists of statements that can cause the individual to feel an obligation to work (Libano et al., 2010; Schaufeli et al., 2006; cited by Doğan and Tel, 2011:64). The scale was five point likert scale and the answers were: 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), 5 (Strongly Agree).

In the analysis of surveys, SPSS 20.0 statistical programme was used, and in paired comparisons, t test was used in independent samples, and in multiple comparisons, one way analysis of variance test was used. The Cronbach Alpha reliability coefficient of the scale used in the study was calculated as 0,91.



### 3. FINDINGS

The data gathered from the study is presented in the table below.

**Table 1: SocioDemographic Information of Participants**

Gender	Number	Percent	Age	Number	Percent
Male	108	43,2	18-25	43	17,2
Female	142	56,8	26-35	130	52,0
Marital Status	Number	Percent	aged 36 and above	77	30.8
Single	82	32.8	Department	Number	Percent
Married	168	67.2	Administrative Units	119	47.6
Educational Background	Number	Percent	Medical Units	131	52.4
Elementary and Highschool	76	30.4	Job	Number	Percent
Associate Degree	69	27.6	Administrative personnel	174	69.6
Bachelor's and Master's Degree	105	42	Medical Personnel	76	30.4
Organisation	Number	Percent	Work Experience in Organisation	Number	Percent
Selçuklu Medical Faculty Hospital	37	14.8	1-5 years	153	61.2
Private Medicana Hospital	39	15.6	6-10 years	55	22.0
Central State Hospital	121	48.4	aged 11 and above	42	16.8
Provincial State Hospitals	53	21.2	TOTAL	250	100

Demographic findings of participants at the study are given in Table 1. 108 of study participants (43,2%) are male, and 142 of them (56,8%) are female. 32,8% of them are single, and 67,2% of them are married. Big majority of workers (52%) are between 26 and 35 age group. While 42% (n=105) of the participants are graduates of Bachelor's and Master's Degree, 65,2% (n=145) of them graduated from Elementary School, Highschool and Associate Degree. 14,8% (n=37) of people evaluated in this study work for Selçuklu Medical Faculty, 15,6% (n=39) of them work for Medicana Hospital, 48,4% of them (n=121) work for Central State Hospitals, and 21,2% of them (n=53) work for Provincial State Hospitals. When work experiences of participants in the organisation are examined, it is seen that 61,2% of them (n=153) have between 1 and 5 years of working experience. While 52,4% n=131) of participants work directly in the departments providing health services, 47,6% (n=119) of them work in administrative units.

In the study, to test if total points of workaholism scale vary across sociodemographic characteristics, analyses were carried out by using independent samples t test in dual groups, and by using one way analysis of variance in multiple groups. The data obtained is presented in Table 2 and Table 3.

**Table 2 Participants' Levels of Workaholism**

Gender	Mean	Sd	t	p	Organisation	Mean	sd	F	p
Male	2,95	,841	2,10	,036	Selcuk Medical Faculty	3,36	,669	8,25	,00
Female	3,18	,38			Central State Hospital	2,83	,751		
Marital Status		Mean	Sd	t	p	Medicana Hospital	3,44		
Single	3,12	,852	,53	,594	Provincial State Hospi- tals	3,19	,871		
Married	3,06	,833			Work Experience in Or- ganisation	Mean	sd	F	p
Age	Mean	Sd	F	p	1-5 years	3,16	,823	2,40	0,92
18-25	3,17	,790	1,13	,322	6-10 years	3,01	,770		
26-35	3,12	,836			aged 11 and above	2,86	,941		
aged 36-45 and above	2,96	,846			Department	Mean	sd	t	p
Educational Ba- ckground	Mean	Sd	F	p	Medical Units	3,06	,862	-,29	,77
Elementary and Highschool	3,04	,770	,36	,697	Administrative Units	3,10	,814		
Associate Degree	3,15	,971			Job	Mean	sd	t	P
Bachelor's and Master's Degree	3,06	,794			Medical Personnel	3,05	,837	,39	,69
					Administrative Person	3,09	,840		

**Table 3: level of Workaholism- Findings Regarding the Determination of Differences Among Multiplex Groups**

Level of Workaholism				
Parameter	F	P	Group that has the difference (Scheffe test)	P
Organisation	8.255	,000	Selcuk Medical Faculty- Central State Hospitals Central State Hospitals- Medicana Hospital	,008 ,001

As is seen in Table 2, it is determined that workaholism scale total points of men and women differ from each other ( $p < 0,05$ ), and workaholism level of women is higher than men's. When workaholism levels are examined according to the marital status, age, and educational background, it is seen that the groups have medium level of workaholism, and it is concluded that there is no meaningful difference among groups ( $p > 0,05$ ). When level of workaholism is examined according to the organisations that participants work, it is seen that there is a meaningful difference among organisations ( $p = ,000$ ), and it is concluded that this results from the difference between Selcuk Medical Faculty- Central State Hospital ( $p = 0,008$ ) and Central State Hospitals- Medicana Hospital ( $p = 0,001$ ) according to the Scheffe test result. It is seen that there is not a meaningful difference in workaholism levels of participants in terms of the work experience in organisation, department or participant's job, and it is also determined that general workaholism level is mediocre ( $p > 0,05$ ).

In the study, to determine the variance level of workaholism scale's subdimensions, excessive working and compulsive working, according to sociodemographic characteristics, calculations are made by using independent samples t-test in dual groups, and one way analysis of variance in multiple groups.

The data obtained is presented in Table 4 and Table 5.

**Table 4: Findings Regarding the Averages of Excessive Working and Compulsive Working**

Parameters	Excessive Working				Compulsive Working			
Gender	Mean	sd	t	p	Mean	sd	t	p
Male	2.89	,83	-2,3	0,02	2,60	0,92	-1,6	0,09
Female	3.14	,86			2,76	0,86		
Marital Status	Mean	sd	t	p	Mean	sd	t	p
Single	3,08	,90	,65	,52	3,17	,86	,34	,73
Married	3,01	,83			3,13	,90		
Age	Mean	sd	F	p	Mean	sd	F	p
18-25 years	3.09	,837	1,94	,14	3,27	,82	,58	,56
26-35 years	3.10	,853			3,14	,88		
aged 36 and above	2.87	,871			3,09	,95		
Educational Background	Mean	sd	F	p	Mean	sd	F	p
Elementary and Highschool	3.00	,83	,24	,78	3,09	,82	,48	,62
Associate Degree	3.09	,98			3,23	1,0		
Bachelor's and Master's Degree	3.01	,79			3,13	,89		
Organisation	Mean	sd	F	p	Mean	sd	F	p
Selcuk Medical Faculty	3.30	,71	6,3	,00	3,44	,72	9,46	,00
Central State Hospital	2.81	,77			2,86	,80		
Medicana Hospital	3.36	1,0			3,54	1,0		
Provincial State Hospitals	3,10	,90			3,30	,90		
Work Experience in Organisation	Mean	sd	F	p	Mean	sd	F	p
1-5 years	3,10	,85	1,5	,21	3,26	,85	3,3	,04
6-10 years	2,99	,76			3,03	,84		
aged 11 and above	2.84	,95			2,90	1,0		
Department	Mean	sd	t	p	Mean	sd	t	p
Medical Units	3,03	,89	-,293	,77	3,11	,89	-,67	,50
Administrative Units	3,03	,82			3,19	,89		
Job	Mean	sd	t	p	Mean	sd	t	p
Medical Personnel	3,02	,85	,125	,90	3,17	,90	,70	,48
Administrative personnel	3,03	,87			3,09	,87		

**Table 5: Findings Regarding the Determination of Differences Among Multiplex Groups of Excessive Working and Compulsive Working**

Excessive Working				
Parameter	F	p	Group that has the difference (Scheffe test)	p
Organisation	6,261	,000	Selcuk Medical Faculty- Central State Hospitals	,023
			Central State Hospitals - Medicana Hospital	,006
Compulsive Working				
Parameter	F	p	Group that has the difference (Scheffe test)	p
Organisation	9,460	,000	Selcuk Medical Faculty	,005
			Central State Hospitals - Medicana Hospital	,000
			Central State Hospitals - Provincial State Hospitals	,020
Work Experience in Organisation	3.300	,038	1-5 years and aged 11 and above	,049

As is seen in Table 4, excessive working points of participants are significant in terms of statistical analysis ( $p < 0,05$ ), and women have higher points than men. It is determined that compulsive working points are not meaningful in terms of gender. ( $p > 0,05$ ) In the same way, it is seen that there is not a meaningful difference among groups in terms of marital status, age, educational background, department, and job ( $p > 0,05$ ). To test whether there is a meaningful difference between subdimensions of scale regarding the organisation, one way analysis of variance is made, and it is determined that there is a meaningful difference with regard to the both subdimensions ( $p < 0,05$ ). The results of Scheffe test, which is made in an attempt to check which group causes the difference, are presented in Table 5.

There is a meaningful difference among compulsive working levels with regard to work experience in organisations ( $p < 0,05$ ). According to the Scheffe test result, compulsive working level of the participants who have between 1 and 5 years of working experience in organisation is higher than the ones who have 11 years and above working experience in organisation.

#### 4. CONCLUSION

Nowadays, organisations are under the influence of workaholism due to workaholic employees. In some organisations, employees who show excessive working attitude are rewarded; but in other organisations, various practices are developed to lower the tendency of excessive working. It is observed that workaholic employees are seen as a benefit for organisations in the short term, but in the long term they are seen to produce negative results. Workaholism affects physical and psychological health of employees in a negative way. Besides it is seen that workaholic employees have problems with their colleagues and superiors. In addition to this; workaholic employees generally neglect their families because of their addiction to their work. Workaholics, who can not have a balance between work and family life, have problems both at work and in family life. After a period of time, the productivity of workaholic employees is affected in a negative way, and this causes attitudes such as coming work late, wanting to leave the job which affect the organisation negatively.

(Temel, 2006:104).

When the results of the study are examined within this context, it is seen that female employees show more tendency of excessive working than male employees. It is determined that private hospital workers have higher levels of excessive and compulsive working than levels of state hospital workers among the hospitals included in the scope of the study. When workaholism is examined in terms of working experience in organisation, it is came in sight that workers who have between 1 and 5 years of experience have higher compulsive working levels than the other workers who have more working experience in organisation. There is not found a meaningful difference among comparisons with regard to marital status, age, educational background, department, and job.

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# RELATIONSHIP ORGANIZATIONAL CULTURE AND ORGANIZATIONAL COMMITMENT IN HEALTH INSTITUTIONS

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## ABSTRACT

Shared and learned values, norms, beliefs, behaviors and symbols which are known as organization culture; is a holistic element that describes organizational aims and helps organization members to understand organizational objectives within and beyond the organizational environment. From this point of view, successful firms have to establish an organization which is powerful and unique in their organizational cultures. One of the critical factors for the organizations to be consistent or to expand its existence to the long term in a competitive environment, is that; for the each individual to adopt organization as an independent phenomenon and to feel commitment to the identity, policy and the vision of the organization for which they work. At this stage, it would not be wrong to perceive the organizational commitment which is the basic determinant of the identity, the mission and the vision of the organization. From this point purpose of this study of relationship between organizational culture and organizational commitment to determine the effects in the health sector. The study, conducted in the Aegean and Black Sea region has tried to work in this sector. Applied to the field research and statistical analysis of the data obtained in tests, the levels of organizational culture on organizational commitment has revealed the extent.

**Key Words:** Organizational culture, Organizational commitment, organizational

## INTRODUCTION

### 1. THE CONCEPT OF ORGANIZATIONAL CULTURE

#### 1.1 The Concept of the Organization

Many different definitions of the organization are made. Barnard describes organization as “a system of two or more individuals to consciously coordinated activities or forces and suggests that an organization is willing to contribute to action in order to achieve a common goal and they are individuals that communicate with each other (Barnard,1938). According to Hasanoğlu, “the organization is expressed as an organic system that constantly renovated of regulation and functioning of human material resources in order to resolve one or more requirements of individuals. In this system, supplying the goals and needs of the organization of those who govern and management purposes (Hasanoğlu,2004,44).

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## **1.2 The Conception of Culture**

The first time, the meaning of lifestyle human has been installed in 1750s. According to definition of Tylor, "culture is a whole that include knowledge, belief, art and ethics, customs and traditions, habits that individual connects(Aktaran,Nişancı,2012,128).As a concept, culture is a word that not agreed definition of it, having a wide area and range. The culture which is a concept related to the human is expressed a meaning system that formed in date.

## **1.3 The Concept of Organizational Culture**

The concept of organizational culture; is one the working area under organizational behavior and consisting of behavioral disciplines such as Psychology, sociology, social psychology, anthropology and political science. The organizational behavior in business is indicative of the business culture. Organizational culture can be regarded as valued and encouraged the kind of behavior in organization.

Deal and Kennedy define organizational culture as "doing business and the execution format and state values of the elements of the organizational culture, practices in the workplace, heroes and the stories told with more indirect communication channels (Kaya,2008:122;Tiryaki:2005,24).

## **2. THE CONCEPT OF ORGANIZATIONAL COMMITMENT**

### **2.1 The Definition of Organizational Commitment**

It is the sum of internalized normative pressures to move to meet organizational interests (Wiener,1982,418). As an attitude, devotion is identification with organization. As the behavior, devotion is the change in the direction of joining the organization to benefit from organizations such as pensions or wages (Shaw and Reyes,1992,297).

The organizational commitment is an important issue for organizations and according to managers, always is seen as giving rise to significant consequences such as being late, poor performance and absenteeism (Ceylan and Şenyüz,2003,s.57). Researches showed that employee has organizational commitment have high share more effort in fulfilling their responsibilities, they stay longer in the organization and the person who seeing the positive aspects of communication with organizations and continue to contribute to the organizations increased efficiency.

## **3. ORGANIZATIONAL CULTURE AND THE RELATIONSHIP OF ORGANIZATIONAL CULTURE**

The organizations have a strong organizational culture an increase the organizational commitment of employees by knowing what is the organizational commitment, the reasons behind and how to develop. This situation is very important for organizations (Tiryaki,2005,136). In today, the most important factors will create a competitive advantage for organizations is that members of the organization have high organizational commitment. In this context, the contribution of the organizational culture cannot be ignored in the creation of organizational commitment of employees by establishing a link between employees goals and organization objectives. In that it contributes to the formation of a sense of belonging among members of the organization.



## **RESEARCH**

This scientific research is made in random by selected 200 people from the employees of KTU Medical School Farabi hospital and Nazilli state Hospital. As the data collection method, the survey methods were applied. In front of the questionnaire used to gather data, there are gender, education level, work time and demographic questions showing of the living. There are 26 questions about organizational culture and commitment on the other side of survey.

### **4.1 Status of Problem**

The main problem of the research investigates the question “do the organizational culture and the organizational cultural dimensions of Hofstede have an impact on the organizational commitment factors? The survey was aimed to investigate this problem.

### **4.2 Importance and Aim of The Issue**

In today’s rapidly changing conditions, it is stated that should give importance to the concept of organizational culture and organizational commitment in order to the realization goals of the organization, maintain their survival and development. Because, the most important factor that will create a competitive advantage over other organizations “employees” are accepted to organizations. As the reason of this, the technology, products and other similar factors can be easily imitated, but the human element cannot be imitated opinion is showed.

### **4.3 Assumptions**

There must be an investigation that may affect the assumptions and for the cases excluded in the study. Situations which may affect our research and the situations excluded in the study: It is considered that KTU and Nazilli State Hospital have the organizational culture. It was admitted that research method appropriates to subject and its aim. The responses received to the questionnaire is one of the another assumptions that reflect the actual views of the **respondents**.

### **4.4 Limitations of The Research**

The research that made to determine the impact of organizational culture of KTU Farabi Hospital and Nazilli State Hospital on organizational commitment is limited to personnel who servet during the period surveyed. Another thing that limits me in research is that I have only been able to apply in two provinces due to the difficult accessibility.

### **4.5 universe and Sample**

The feature of the source of data collection is to be important for the results of the research is available, reliable and to be available. The most accurate result is results obtained from all of the sources obtained the information sought. However, this is not always possible. Especially, when the source is very large and widespread to make it extremely is difficult and rigorous. Therefore, instead examine all of the resource will be required to work on a specific example. While some examples is adequate to fully represent the universe, this representation is not available in some examples. The sample must be selected smoothly for it. In the Aegean and Blacksea, health workers constitutes he universe of the research. On the other hand, in Trabzon and Aydin, in a total, 200 health care workers in hospitals I chose consist the resampling.



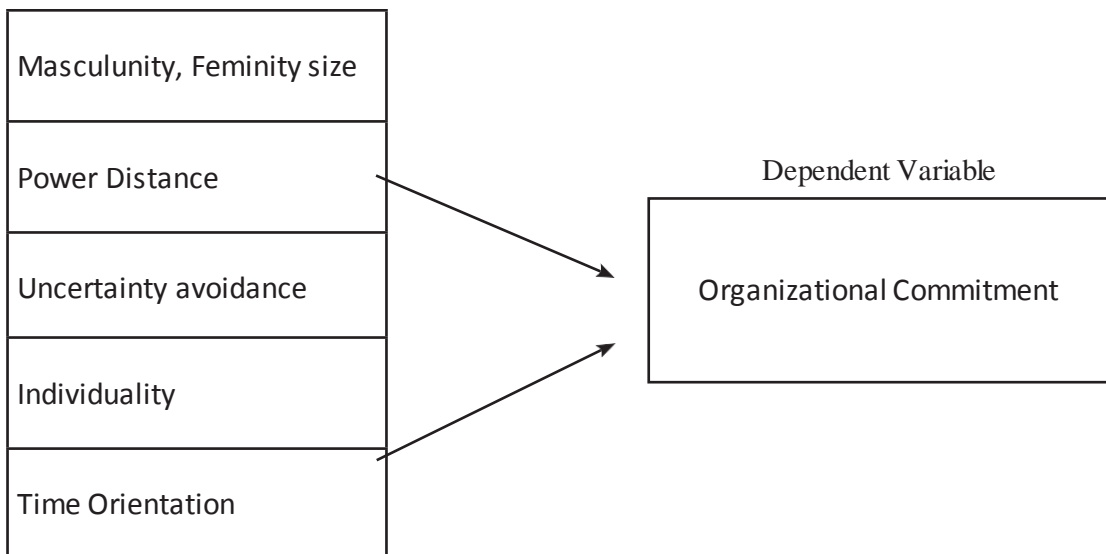
#### 4.6 Data Collection Facility and Methods

Firstly, literature search have been related to the organizational culture and organizational commitment issues, secondly, the survey was conducted in two hospitals in the two cities of Blacksea and the Aegean Region. The all data's for research have been tried to collect with the questionnaire method. Taşkın Kılıç's individual and collective qualification process survey was used for the survey questions.

The survey was applied to 200 patients. A total of 26 questions were asked in the survey. Questions are 5 choices (strongly disagree, disagree, unstable, agree, strongly agree) and answers were asked according to likert scale. SPSS 16 package was utilized during the evaluation of results. All of the participants respond to all questions in the survey were made. Reliability analysis, correlation analysis, regression analysis, frequency analysis, T-test and anova analysis were made in the evaluation of data obtained in the research.

#### 4.7 Hypothesis

Independent Variable



*Chart:4.7 Hypothesis*

The survey questions are resulted to organizational culture and commitment issues and organizational culture questions are adapted to questions with the shape that Hostede separated the dimensions of organizational culture. In here, between 1. And 5. Questions masculinity and feminity size; between 6. And 10. Questions power distance; between 11. and 15. Questions uncertainty avoidance; between 16. And 19. Questions individuality; between 20. and 23. Questions to measure of size of time orientation were prepared questions.

## FINDINGS AND COMMENT

### 5.1 Reliability Test

	Number of questions	Number of Participation	Reliability degree
Organizational culture and organizational commitment	26	200	0,91

*Chart:5.1 Reliability Test*

Before interpreting the survey stage the level of reliability was measured. Confidence level was measured as 91 in the 26-question survey that applied to 200 people. The survey was considered as reliable because of exceeding 70 level.

### 5.2 H1 Hypothesis Analysis and Correlation and Regression Analysis

	Masculinity-	Power Distance	Uncertainty avoidance	Individualism Approach	The Orientation
Commitment	0,016	0,00	0,00	0,00	0,00

*Chart:5.2 H1 hypothesis, correlation analysis*

It is determined to understand whether there is a significant relationship between the dimensions of the culture and commitment. There is a significant relationship between culture and commitment because of  $0,016 < 0,05$ . The significant value of another 5 size was found as 0,00. Another 5 size have a strong significance relationship with comment due to increase the level of relations when approaching to "O". Our H1 hypothesis was admitted 5 dimensions of culture affects the commitment.

	Masculinity Femininity	Power Distance	Uncertainty avoidance	Individualism Approach	The Orientation
	0,24	0,64	0,283	0,318	0,422

*Chart:5.2 H2 hypothesis regression analysis*

The five dimensions of culture creates a positive effect on the commitment was seen with the above regression analysis. To increase 1 unit the commitment, how much value should be on the chart. 0,422 time orientation commitment is the highest value is the most affecting size.

### 5.3 H2 Hypothesis analysis and t-test

	Masculinity Femininity	Power Distance	Uncertainty avoidance	Individualism Approach	Time Orientation
Aegean	2,79	2,78	3,59	3,52	3,67
Blacksea	2,78	2,61	3,43	3,38	3,52

*Chart5.3 H2 hypothesis analysis and t-test*

T-test was used to see whether five dimensions of culture has significantly changed according to region and the significance levels were found as the values on the chart. As it can be

seen from this, we determines that the organizational culture has not change according to geographic region and no significant relationship because all values are great from 0,05. Our H2 hypothesis was rejected.

#### 54 : H3 Hypothesis analysis and t-test

	Number of person	Number of percent	Significant Degree	The average of the answers
Aegean	100	50	0,151	3,25
Blacksea	100	50	0,151	3,11
Total	200	100	0,151	3,18

*Chart:5.4 H3 hypothesis analysis and t-test*

As it can be seen from this chart, 100 person from Aegean Region an 100 person from Blacksea Region participate to survey. The significance level was found 0,151. Nonetheless, there is no a significant relationship between living geographical area and the commitment.

#### 55 : H4 Hypothesis analysis and t-test

	Number of person	Number of Percent	Significant Degree	The average of the answers
Female	102	51	0,005	3,04
Male	98	49	0,005	3,32
Total	200	100	0,005	3,18

*Chart:5.5 H4 hypothesis analysis and t-test*

As it can be seen above chart, 102 is female and 98 is male from 200 person who participate to survey. The significance level among the genders is 0,005. There is a significant diversity due to  $0,005 < 0,05$ . Dependence of men are more different significantly than women. Consequently organizational commitment is changing according to gender and our H4 hypothesis was admitted.

## CONCLUSIONS AND FuTuRE PROJECTIONS

The organization culture that shaping on organization is an important factor which may have a chance to be noticed among her competitors. As institutions that collect the people who come from different cultures, organizations have an important mission in understanding the importance of organizations culture and ensuring emphasis on people in organizations issues. The success rate of a foundation created by the people who raised the level of commitment with the foundation of a strong organizational culture will be high compared to other organizations undoubtedly. A strong organization structure that reflected will occur reception culture commitment in institutions.

This study has been made to explain whether the relationship between organizational culture and commitment in health institutions what it is. Literature review, various studies have benefited from Works written about it. Various questions were posed by choosing two provinces over two regions by the survey method to hospitals in here. The answers were analyzed with SPSS and reached the following conclusions.

- There is a relationship between the organization culture and the commitment.
- There is no significant relationship between organization culture and living geographical region.
- There is no significant relationship between organizational commitment and living geographical region.
- The organizational commitment is significantly changing according to gender.

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# THE LEVELS OF BURNOUT OF HEALTH EMPLOYEES: AN EXAMPLE OF SOCIETY HEALTY FOUNDATION

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## ABSTRACT

Burnout is observed as a result of unable to cope with life stress and a situation that to be sensed physiological, mental and emotional fields. Burnout has three dimensions that come into existence emotional exhaustion, depersonalization and Diminished personal accomplishment. The aim of this study is to examine burnout levels of employees that works in a state public hospital according to various characteristics. 60 health employees have participated in the study.

Research results have been observed to the health employees' titles and the period of work in this organization is not of an impact on exhaustion levels, but such as sexuality, age, and education, other identifying features influence the levels of exhaustion. There is burnout syndrome between health employees' different dimensions and levels. As a result, contribute directly to better patient services will be, it is suggested pay attention to improve working conditions and welfare of health employees, highlight the importance the employees in terms of institutions and community and development of social status of employees.

**Key Words:** Burnout Syndrome, Health Staff, , Burnout Dimensions

## INTRODuCTION

**2. The Conceptual Framework:** Burnout can be seen in all sectors of society and almost every occupational group is one of this age's invisible epidemic (Kervancı 2013). Freunberger used the concept of burnout is defined as "fail, deprecation, energy and power reduction or it's accounting individual's internal resources that are unable to satisfy demands (Polatçı 2007). Other hand burnout is defined as " a professional person break from the original meaning and purpose of profession, person really don't take care of the people who are served by this person no longer." by Maslach (1976) (Arı ve Bal 2008). Burnout of employees emerges as a significant problem in terms of human resources units. We think that employees who are feel burnout mentally and physically have a team serious illnesses, it's expected these people will show negative attitudes towards people who get services by they and serve under the standard, it wouldn't be wrong to say that people will harm own as well as across people and the organization where he works (Turhan and Helvacı 2013; Tunç 2013). Today burnout syndrome is known that is a big problem particularly among health services (Hatipoğlu 2009).

The concept of burnout is addressed under three headings as emotional exhaustion, the fear of low success by tend to become depressed and feel insufficient senses. Burnout concept is discussed with various dimensions. One of the most accepted theories about burnout is Maslach

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and Jackson's three-dimensional model of burnout. (Ergin 1999). Maslach and Jackson define burnout as emotional exhaustion, lack of individual success and depersonalization (Ari and Bal 2008). Emotional exhaustion emerges as a reaction against forcing yourself who are on the hard work and the oppression of people's emotional demands. Emotional exhaustion leads to results as employees can't give themselves to their job and never mind the job or they don't feel responsible towards to the people who served. This situation arises in a very decisive form in health care workers (Bolat, 2012). Depersonalization, refers to the interpersonal dimensions of burnout. Person who live emotional exhausting, feel powerless in solving the problems of other people. Relationships with people are reduced to a minimum. Desensitization is a sign to behave like an object to people (Erçevik 2010). Low personal success is the third dimension of the Maslach burnout model is the most form, refers to the tendency of people in his negative assessment (Basilgan 2013). In this context the quality of the health services depends on as a priority the healthy care workers are happy with their work and have highly motivated. Therefore it isn't possible to provide effective service, workers who don't ready the work they do, haven't sufficient motivation, have low energy and exhausted.

In this study it's aimed that determine the burnout health care workers of K.Maraş Health Department in some demographic variables and determine these have constitute whether a difference in terms of their level of burnout and statistical analysis was performed to determine in terms of some demographic variables.

### 3. RESEARCH

**3.1. The Purpose and Scope of the Study:** With this study to determine the burnout level of barriers to making healthcare worker's work more effective and as well as demographic factors such as gender, age, marital status, number of children and education level; to produce as part of work loads, the number of cared patients, years of service and wage levels whether impact on burnout.

**3.2. Research Sample:** The sample of the research constitute 60 health employees who work in the Department of K.Maraş Public Health.

**3.3. Method of Study:** Survey method is used and to measure burnout according to some demographic variables of participants "Maslach Burnout Inventory" that is developed by Maslach and Jackson (1981) is used and "Personal Information Form" is used for demographic informations. Burnout Inventory is used in the study was translated into Turkish by Ergin (1992). The survey consists of three dimensions and 22 items. Accordingly, it was measured Emotional Exhaustion (EE) subscale with 9 items, depersonalization (D) subscales with 5 items and Individual Success (İS) with 8 items (Çam 1992; Avşaroğlu et al. 2005; 119-120). When the scores were evaluated that were determined as (according to the Maslach Scale), EE (10-16 low, 17-26 normal, 27 and up high), D (0-6 low, 7-12 normal, 13 and up high) and PS (39 and up low, 32-38 normal and 0-31 high). EE, D and İS sub-dimension points for each item are obtained that were evaluated by 5s Likert Type grading as 1: no time, 5: always. The validity and reliability study in Turkey, Ergin (1992) made by the scale, reliability coefficients of subscales made in this study are calculated as, respectively; .84 for emotional exhaustion, depersonalization .82 to .77 for individual success. These levels are in acceptable levels of reliability ( $0.60 \leq \alpha \leq 0.83$  = fairly reliable) (Akgül and Çevik 2003; 435). The survey consists of 2 sections and 34 questions. Survey data were analyzed using SPSS 20 software

package. The t-test, one-way analysis of variance (ANOVA) test was used to analyse data. .05 significance level was taken into consideration in the interpretation of results.

## 4. RESULTS

**4.1. Demographic Results:** It was determined that %51,7 of respondents were male, %56,7 in the age range of 26-39, %76,7 married, %70 are university graduates, %35 have between 1-5 years of professional experience and %76,7 have an income of 2000-2500£.

**4.2 The General Average For Burnout Subdimensions:** The general average is analyzed, individuals participating in the study in terms of emotional exhaustion “normal” level for in the range of exhaustion (mean = 21.7); Terms of depersonalization “normal” for have an insensitivity (mean = 8.4); in terms of individual success “high” burnout level (mean = 29.1) were observed.

### 4.3. Investigation of Some Demographic variables of Burnout levels of Health Care Workers

**4.3.1 Result of analysis of survey group according to gender** (test of t) it's examined in terms of subdimensions. Considering the **emotional exhaustion** dimension was observed that according to the findings of the emotional exhaustion of men (mean:  $20.32 \pm 7.23$ ) and this level lies in the range of normal levels. Again, women's points (mean:  $23.24 \pm 5.04$ ) are observed that are higher than normal levels of burnout and male points. This disparity between women's and men's point hadn't significant difference in terms of statistically significant ( $t = -1.80$ ,  $p = 0.051$ ) were determined. According to the results it can said that women's emotional burnout level is more meaningful statistics than men. When the **individual success** dimension, according to the findings, men of individual success points average (mean:  $28.87 \pm 7.37$ ), where there is a high burnout level, according to the women as well as less (mean:  $29.34 \pm 3.75$ ) and it is important in terms of lack of statistically significant ( $t = -, 310$ ,  $p = 0.020$ ) is seen. However, individual success points of women have been observed in the range of high burnout level. When the **depersonalization** dimension, according to the findings, men depersonalization levels within a normal range (mean:  $8.77 \pm 4.10$ ) and compared to women (mean:  $8.17 \pm 2.94$ ) was higher, and this excess is not significant in terms of statistics ( $t = , 649$ ,  $p = 0.196$ ) is observed. However, for women the normal levels desensitization was observed.

**4.3.2. Analyzed according to the marital status of the survey group** according to results (ANOVA) when the research group P values examined emotional exhaustion according to marital status variables ( $F = 1.456$ ,  $p = 0.242$ ) and depersonalization ( $F = 1.313$ ,  $p = 0.277$ ) was not statistically significant difference between the sub-dimensions, personal accomplishment ( $F = 3.688$ ,  $p = 0.031$ ) significantly different on the lower size were founded. In his case it can be concluded a relationship burnout between individuals are married or single.

**4.3.3 Analyzed according to the age variable of survey groups** according to results (ANOVA) by emotional exhaustion ( $F = 3.936$ ,  $p = 0.013$ ) was a significant difference in the lower size, insensitivity ( $F = 905$ ,  $p = 0.445$ ) and Individual Success ( $F = 1.122$ ,  $p = 0.348$ ), while the lower size statistically it was determined that there was no significant difference. Considering the average points in each age group, the emotional exhaustion (mean:  $23.82 \pm 5.94$ ) is seen in most age range 26-39, desensitization (mean:  $9.05 \pm 3.77$ ), while most 26-39 age range and the personal accomplishment (mean:  $29.55 \pm 4.35$ ) shows most in the 26-39 age range.



**4.3.4 Analyzed according to the professional experience variable of survey groups** when the results of the variance (ANOVA) are viewed, emotional burnout ( $F = 1.27$ ,  $p = 0.292$ ), insensitivity ( $F = 1.35$ ,  $p = 0.262$ ) and individual success ( $F = 467$ ,  $p = 0.760$ ), significant differences in terms of statistically.

According to these results, the level of emotional burnout among employees 6-10 years (mean:  $24.00 \pm 6.10$ ), it is observed that other groups of professional experience at a high level. When it's viewed in terms of depersonalization groups who have professional experience it appears to at normal levels. It's viewed in terms of the individual success points groups appear to at a high level between professional experience groups.

**4.3.5 Analyzed according to the education status variable of survey group** when results are viewed (ANOVA) level of education of individuals increases, burnout can be seen from the average point of all training situations where an increase in cases of emotional exhaustion. Emotional burnout ( $F = 1.88$ ,  $p = 0.161$ ), insensitivity ( $F = 1.58$ ,  $p = 0.213$ ) and individual success ( $F = 2.13$ ,  $p = 0.128$ ) statistically significant differences in terms was observed. When emotional exhaustion points were examined, it was found on normal emotional exhaustion scores according to education level. The insensitivity scores are examined, it was found to normal apathy scores according to education level. In comparison in terms of individual success cases that are in the highest degree ( $30.02 \pm 4.75$ ) (increase of the points are displayed on a low burnout condition), it was observed.

**4.3.6 Analyzed according to the income variable of survey group** when results are viewed (ANOVA) monthly wage is caused by a normal emotional exhaustion and a statistically that doesn't lead to significant difference ( $F = 259$ ,  $p = .855$ ) is determined. Desensitization is caused significant differences in terms of statistical compilations monthly wage ( $F = 2.86$ ,  $p = .044$ ) is determined. According to the results of 4000 and higher monthly wages desensitization (mean:  $12.5 \pm 3.53$ ) in the group and desensitization that seems to be at a high level. It can be said that success does not affect the monthly wage and which lead to a statistically insignificant difference ( $F = 1.75$ ,  $p = 0.166$ ).

## 5. RESULTS

Burnout has been done survey subject with results as emergence of physical disorders of individual and prevent effectively study of organization in recent years. At the beginning of living burnout organisations come healthcare organisation health care workers who provide services with the risk of research with health professionals between the minimum security employees have been identified as burnout.

In this context the results of the survey, demographic variables, burnout sub-dimensions in comparison with the angle of the variable that is the source of differences in such as gender, age, education, profession, demographic variables as well as such as income, workload, years of service variables for occupation were observed. In this context, when research findings are evaluated, women's emotional exhaustion and personal accomplishment points in the more contrast of men depersonalization level of men was higher than women, individuals with married or single, to a relationship between burnout, emotional exhaustion and desensitization up to 26-39 years old can be seen in the range of, among other professional experience group of emotional burnout levels of employees between 6-10 years to be at a high level, it was determined that the highest personal success that the license of the state and a monthly wage

of 4,000 and a maximum of desensitization in patients with them.

Business life and especially in health organizations burnout can cause physical and emotional collapse such as poor management, time pressure, the negative of workplace conditions, non-compliance, economic problems, personal problems, conflicts, structures and systems resulting from disorders. For this reason employees are both physiological, psychological and social health effected by burnout, take up their employment, organization and individual in terms of severe and serious consequences to be considered in prevention.

Employee individual of symptoms that leads to burnout and easy to understand by the shortest possible way and recognition of individual and organizational level will be determined in coping with burnout; burnout isn't only living individuals, served by the person, organisation, family and friends and lived within the community will have a positive impact. Individually, in order to cope with burnout it must be known that what is the concept of burnout. Thus, employees; putting in cases where the diagnosis is negative, the thing what do to get rid of it, will have the distinction. After it is comes that the diagnosis person relate to ability and capacity with the self-questioning. Thus people can do and what you want to do in fact, what you want to be where will find the answer. To work to reduce which may put pressure on their factors, to establish a balance between work life and private life, it will be relieved hobbies such as obtaining physically to relieve himself, too much force to tennis, swimming, do trekking the diversification of social life may be suggested. On the other hand the implementation of coping with burnout developed to encompass the whole of the organization will give more effective results than individual efforts

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# PSYCHOLOGICAL VIOLENCE (BULLYING): RESEARCH ON EMPLOYEE HEALTH PROFESSIONALS IN THE EMERGENCY DEPARTMENT IN MUŞ STATE HOSPITAL

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## ABSTRACT

This study aims to analyze the level of psychological violence perception on healthcare staff in Muş State Hospital and examine effects of the demographic variables on psychological violence perception. In 2014 in December 54 personnel working in emergency department in Muş State Hospital participated in the study. Studies were analyzed by SPSS. The effects of the demographic variables (age, gender, occupation, marital status, educational status) on psychological violence perception were analyzed by One Way ANOVA and t test. In conclusion, this study found a significant difference between psychological violence and two demographic variables; age and marital status. There is no significant difference with other demographic variables like gender, educational status and occupation.

**Key words:** Violence, Psychological Violence, Healthcare staff

## INTRODUCTION

**21. The Conceptual Framework:** Violence in our globalized world, it is an extremely complex phenomenon. No matter what form of violence, it is important for management and employees (www.isguvenligi.net, 2015). Violence is defined by WorkSafe British Columbia as: “the attempted or actual exercise by a person, other than a worker, of any physical force so as to cause injury to a worker, and includes any threatening statement or behaviour which gives a worker reasonable cause to believe that he or she is at risk of injury” (Back et al, 2010: 50). Mobbing is one of the most important acts of violence. Mobbing is also known as psychological violence. Psychological violence (mobbing), is also known as intimidation, suppression, ignore, psycho-terrorism applications. Concept of Psychological violence (mobbing) is seen as the source of organizational conflict, inefficiency and the demotivation (Tutar, 2004).

Healthcare professionals are increasingly confronted with opposition, verbal abuse or even physical force, both by patients and colleagues (Widdershoven, 2010: 36). Statistics strongly show that violence in the health care sector is growing. Some groups among healthcare professionals have a higher probability of violence encounter. These groups; Nurses, GPs and psychiatrists working in clinics; Those who work in emergency services and 112 emergency service. Bu gruplar, acil müdahale gerektiren vakaların yol açtığı gerilimler ve çalışılan hastanenin ve genellikle o birimlerin “çömez” olmaları nedeniyle daha sık şiddet mağduru olmaktadırlar (Turhan ve diğerleri, 2014:2). Yet statistics show us that 72% of nurses do not feel safe from assault at work (Zeijden, 2010: 42).

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**22. Psychological violence (Mobbing):** According to Leymann, the mobbing in the work place is unethical and unkind communication way. This communication way is generally applied to one person by one or several persons in a systematical and direct way. The mobbing behaviors, to which a person is exposed, cause to stay in helpless and undefended position. Those unkind behaviors which are taking a long time and repeated frequently are concluded with psychological, psychosomatic and social misery (Yüksel ve Tunçsiper, 2011: 55).

Mobbing practices have recently been increasing in organizations. Mobbing occurs when someone at work is systematically subjected to aggressive behaviour from one or more colleagues or supervisors over a period of time, in a situation where the targets find it difficult to defend himself or herself to escape the situation (Çay, 2008:8; Özdemir, 2013:183; Özcan, 2011:108). Such treatment tends to stigmatise the target and may cause severe psychological trauma. Mobbing which means oppression and coercion exercised on employees may result in negative consequences both for the organization and its employees. In organizations which mobbing occurs a desire to leave work, a decrease in organizational commitment and dependently a rise in employee turnover are frequently seen. Having serious unfavorable effects both on an individual and organizational even on a social basis; realizing the mobbing behavior, identifying its reasons and taking the necessary caution are essentially important (Tetik, 2010: 81).

**23. Psychological violence in Healthcare:** In recent years that healthcare workers is the group who seriously have the risk of being exposed to psychological violence behaviors (Karakaş ve Okanlı, 2013: 562; Kılıç, 2013:16). Many studies have noted that health and education areas within service sector and public organizations are particularly at risk. In this sense, Rowell states that, at present, workplace bullying and mobbing has particularly increased in the health and community care sectors and that such behavior is four times more prevalent in this sector than sexual harassment (Montes and etc., 2013: 3122). Kingma (2001) reported that the risk of health care employees experiencing workplace bullying is 16 times greater than the risk for other service employees. In this context, most researchers have drawn attention to challenging work environments of hospitals in health care. Hospitals have complex organizational structures and at least two parallel hierarchies. Particularly nurses and junior doctors are relatively more affected by this matrix structure. In addition, some factors such as long working hours, irregular work schedules and heavy workloads create pressure on health care employees (Akar, 2013: 249). Emergency services, especially in this context, of cases that require immediate intervention, injury, there are places of high risk patients. Emergency services are stressful places (Can ve Beydağ, 2013:422; Vural ve diğerleri, 2013)

In line with these findings, DuHart reports that physicians and nurses are occasionally victims of workplace hostility. The physical violence rates against doctors and nurses are 16.2 per 1,000 and 21.9 per 1,000, respectively (Montes and etc., 2013: 3122). It is estimated that between 35% and 80% of hospital staff have been physically assaulted at least once and between 65% and 82% of nursing staff have experienced verbal abuse. In a study with the aim to describe the epidemiology of violence in Turkish emergency departments, by Ayranci (2005), most of the respondents stated that they had experienced verbal /emotional abuse (69.5%), most of the aggressors (89%) were patients' relatives (52%) as compared with patients' themselves (Korhan and etc., 2014: 643).

Psychological violence is an increasing worldwide problem which is still largely unknown

and underestimated. It can produce serious negative consequences on the quality of life, and on individuals' health, mainly in the emotional, psychosomatic and behavioural areas. In this sense, Mobbing in healthcare not only diminishes the quality of service but also causes the health personnel to work in unpleasant environments. The reduction of mobbing activities in healthcare yields patient and health personnel satisfaction at the same time and ensures that the healthcare can provide the high quality services which are expected from them (Yiğitbaş ve Deveci, 2011: 23).

### 3. RESEARCH

**3.1. The Purpose and Scope of the Study:** This study aims to analyze the level of psychological violence perception on healthcare staff in Muş State Hospital and examine effects of the demographic variables on psychological violence perception.

**3.2. Method, Scale and Sample:** Research, Muş State Hospital was conducted on 54 health workers as permanent staff in the emergency department. In the research was reached to all employees. The universe nurse, midwife, doctor, constitute medical secretaries and other health workers. The survey which is performed in 54 employees during face to face interviews. The data collection for the study was conducted with emergency personnel in December, 2014. The measure developed by Leymann (1996) has been used in order to measure the level of the mobbing to which employees are exposed. The questionnaire have been measured by the measures prepared according to the five Likert type between 1= never and 5= always. Data obtained were assessed by using SPSS for Windows 22.0 (statistical Package for Social Science for Windows) package program on the computer after coded by the researcher. Data were analyzed using one-way ANOVA and t-test. The data obtained in this study is limited to the questions in the questionnaire. Questionnaire was applied only to health care workers in emergency services of Muş State Hospital.

### 4. FINDINGS

**4.1. Findings related to the demographic of the participants:** Findings; % 50 of the sample is female and % 50 of the sample is male. % 31.5 of the participants is between 23-27 years old and education level of % 31.5 is undergraduate and graduate degree. The marital status of employees is % 57.4 married.

**4.2. The relationship between mobbing and demographic variables:** The coefficient of Cronbach Alpha is 0.87. The based values are proper for the reliability of the measure.

The effect on the dependent variables (mobbing) of the independent variables (age, gender, marital status, educational level, professional status) in the study were determined. Four hypotheses were determined.

**4.2.1. Age variable:** Hypotheses regarding the age variable;

H1: The working personnel in the emergency services in Mus State Hospital is different according to age variable in mobbing perceptions.

Answers to the questions were analyzed according to the age condition that is independent variables with one-way analysis of variance (ANOVA). Attacks size on social relations of the participants ( $F = 7.69$ ,  $p .000$ ) , attack size to show itself ( $F = 7.44$ ,  $p < .000$ ) and attacks size on quality of working life ( $F = 10.10$ ,  $P < .000$ ) the relationship between these sizes and



age variables  $p < 0.05$  level said to be statistically significant. So the relationship mobbing participants with three of the four dimensions between the age variable is determined to show a statistically significant difference. According to these data H1 hypothesis was accepted.

In this study it can be said that participants in the 18-22 age group in the significance values in the column exposed to according to participants in all other age groups more attacks on social relations, attacks on the show itself and attacks on the quality of business life .

#### **4.2.2. Gender variable:** Hypotheses regarding the gender variable;

H2: The working personnel in the emergency services in Mus State Hospital is different according to gender variable in mobbing perceptions.

In this study on the t test comparison, according to the gender of employees, when it was investigated whether important is the difference in mobbing perception .05 level of significance attack perceptions towards social relationship ( $t = 1.59$ ,  $p > .116$ ), as for on the attacks perceptions of the reputation ( $t = .856$ ,  $p > .085$ ), the perception of self-attacks to show ( $t = 1.84$ ,  $p > .071$ ), while no significant difference according to gender, but attacks perceptions of quality of life ( $F = 2.44$ ,  $p < .018$ ) is an important difference according to gender was observed.

According to these results; .05 level of significance; gender of employees of Mus State Hospital emergency department, mobbing perceptions that don't lead to differences in average (except attack perceptions of quality of life) and therefore can be said that H2 hypothesis is rejection as an important form. In this case, Considering the average size of women according to men in all mobbing to more bullying behavior is located in the poll were exposed.

#### **4.2.3. Educational status:** Hypotheses regarding the educational status;

H3: The working personnel in the emergency services in Mus State Hospital is different according to educational status in mobbing perceptions.

In this study on the ANOVA comparison When it was investigated according to employees of education, whether significant is the difference in mobbing perception .05 level of significance of the attack awareness of the social relationship ( $F = .966$ ,  $p > .448$ ), as for the attacks perceptions of the reputation ( $F = .477$ ,  $p > .792$ ), self-perception of attack perception ( $F = 1.572$ ,  $p > .186$ ) and attacks against the perception of quality of life ( $F = 1.104$ ,  $p > .371$ ) was showed any significant difference according to educational attainment.

According to these results; .05 level of significance; education level of employees of Mus State Hospital emergency department , mobbing perceptions don't lead to significant differences therefore can be said that the rejection of the hypothesis H3. Considering the average in the mobbing of all sizes employees have vocational and bachelor graduates are expressed that exposed mobbing more than according to education employees at other levels .

#### **4.2.4. Marital status:** Hypotheses regarding the marital status;

H4: The working personnel in the emergency services in Mus State Hospital is different according to marital status in mobbing perceptions.

In this study on the t test comparison, according to the marital status of employees, when it was investigated whether important is the difference in mobbing perception .05 level of significance of the attacks perceptions of the reputation ( $t = -1.26$ ,  $p > .213$ ), as for on the, the perception of self-attacks to show ( $t = -1.31$ ,  $p > .194$ ) while no significant difference

according to the marital status, attack perceptions towards social relationship ( $t = -2.13$ ,  $p > .038$ ) and attacks perceptions of quality of life ( $F = -2.52$ ,  $p < .015$ ) is an important difference according to the marital status was observed.

According to these results; .05 level of significance; education level of employees of Mus State Hospital emergency department, mobbing perceptions lead to significant differences therefore can be said that the hypothesis H4 is partially accepted. Considering the average in the mobbing of all sizes employees have singels are expressed that exposed mobbing more than according to married employees at other levels.

#### **4.2.5. vocational status:** Hypotheses regarding the vocational status;

H5: The working personnel in the emergency services in Mus State Hospital is different according to vocational status in mobbing perceptions.

In this study on the ANOVA comparison When it was investigated according to professional situation of employee, whether significant is the difference in mobbing perception .05 level of significance of the attack awareness of the social relationship ( $F = 1.21$ ,  $p > .318$ ), the attacks perceptions of the reputation ( $F = .331$ ,  $p > .856$ ), attacks perception to show itself ( $F = .890$ ,  $p > .477$ ), when determining the difference isn't significant according to professional situation and attacks against the perception of quality of life ( $F = 2.82$ ,  $p < .034$ ) was showed significant difference according to professional situation.

According to these results; .05 level of significance; professional situations of employees of Mus State Hospital emergency department, mobbing perceptions don't lead to significant differences (except attack perceptions of quality of life) therefore can be said that the rejection of the hypothesis H5. Considering the average in the mobbing of all sizes employees who work as nurse expressed that exposed mobbing more than according to employees at other situations.

## **5.RESULT**

This study aims to analyze the level of psychological violence perception on healthcare staff in Muş State Hospital and examine effects of the demographic variables on psychological violence perception.

As a result of comparison and research, it was seen that the healthcare staff in Muş State Hospital

are not high the level of psychological violence perception. It was determined that the workers below the age of 22, unmarried, nurses and vocational and bachelor graduates are exposed to mobbing at higher rate. Female workers were found to be exposed to mobbing more than male workers.

Exposure to mobbing at workplace among health professionals leads depression and, this results in negative evaluation of one's life quality. If we consider this result with respect to the individual and health service, we can argue that individual's life satisfaction decreases, his/her job performance declines, and the person feels boredom and reluctance to his/her job, and efficiency of the health institution decreases. Thus, seminars can be organized to increase the awareness of the victim, other workers and manager related to the problem of mobbing and victims can be upskilled to cope with mobbing.



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# UTILIZATION OF HEALTH SERVICES IN TURKEY:ANALYSIS OF TURKSTAT SURVEYS BETWEEN 2010-2012

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## ABSTRACT

**The Problem of The Study:** In developing countries like Turkey, it is very important to investigate the health care needs of the community so that equal and qualified services can be provided adequately to meet those needs. Also life satisfaction of individual is very related to satisfaction about health.

**The Purpose of The Study:** This study has been done in order to examine the utilization of health services like visiting family doctors, specialists, emergency services, taking services like homecare, receiving tests like blood pressure, cholesterol, blood sugar, mammography, smear and prostate. Also it was very important to realize the satisfaction levels of individuals from health institutes.

**Methods:** Data was gained from TurkStat by special permission. It included health research in Turkey done by households between 2008-2012. There was reports of 2010 and 2012. Results of two surveys have been compared.

**Findings and Results:** Sample included 20200 people for 2010 , and 37979 for 2012. There was an increase in health status of individuals in two years. A meaningful increase have been found when visiting family doctors was compared during two periods. Utilization of the other services hasn't changed. This can also be seen from health satisfaction levels.

**Key words:** Healthcare services, health satisfaction, Turkstat

## INTRODuCTION

It is becoming increasingly important in the health care assuming patients as consumers and measure their satisfaction with medical services given. As such, patient satisfaction should be considered an important output of a country's healthcare system, basically reflecting the stage of its development (Scenic, 2013). Market rules today referring to medicine as a product make patients simply clients. Nowadays institutions must improve their standard to survive on the market. The best way for them to estimate the Standard of their services is patient's satisfaction understood as meeting one's need in relation to one's expectations (Bojar,2002).

atient care, satisfaction and service quality in health care

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Hospitals and other health institutes as today are increasingly realizing the need to focus on service quality as a measure to improve their competitive position. Customer based determinants and perceptions of service quality, therefore, play an important role when choosing a hospital (Arjun,2013; Lazarevik,2015).

The provision of equity and efficiency and sustainable improvement of patient satisfaction is an important indicator in the measurement of health services. Professional organizations, labor unions, health workers, politicians and the public are discussing how to increase the patient satisfaction and utilization of health services( Bostan, 2013). This study attempts to identify the determinants of patient satisfaction with health institutions in Turkey between 2010-2012. In order to identify this situation, data of Turkstat has been used by a special permission taken from institute. We have compared health status of patients during these two periods according to gender and age. Utilization of health care centers and changes about it became the major problem of the study. At last we have found the satisfaction levels of patients from health services.

## RESEARCH METHOD

In this study, we tried to investigate, health status and utilization of health services and satisfaction levels from health institutions by Turkish citizens between years 2010-2012. We used data of Turkstat. Some of these data was published but some of them were taken by a special permission from institute. Data was gained from 20200 households living in Turkey for 2010 and 37979 for 2012.

**Table 1. Sociodemographic characteristics of individuals**

N		2010		2012	
		%	n	%	
Age	>15	8420	41.7	15043	39.6
	25-54	8226	40.8	16081	42.4
	55+	3554	17.5	6855	18.0
Gender	Female	9122	45.2	18015	47.4
	Male	11078	54.8	19964	52.6
Residence	Urban	14273	70.7	27901	73.5
	Rural	5927	29.3	10078	26.5
Marital Status	No Marriage/Widow	3163	21.9	8835	31.5
	Married	11284	78.1	19220	68.5
Working Status	Working	5243	36.3	10445	37.2
	Not Working	9204	63.7	17610	62.8
Social Security Status	SSI*	14617	72.4	30968	81.5
	GSS**	3221	15.9	4134	10.9
	Private Insurance	2362	11.7	2877	7.6
Total		20200	100	37979	100

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\*\* Included Green Card.

In order to interpret the health status of individuals we defined the health status according to age and gender. This data can be seen from Table 2.

**Table 2. Percentage of individuals' general health status by sex and age group.**

Age	Female			Male		
	Very Good / Good %	Bad / Very Bad %	Other %	Very Good / Good %	Bad / Very Bad %	Other %
15-24	91.5	1.4	7.1	93.5	1.3	5.2
25-34	82.5	2.3	15.2	88.1	2.0	9.9
35-44	67.3	5.0	27.7	80.0	3.4	16.6
45-54	49.7	10.6	39.7	71.2	5.3	23.5
55-64	35.6	19.7	44.7	55.6	10.1	34.3
65-74	22.1	28.3	49.6	43.7	16.9	39.4
75 +	13.6	41.4	45	24.3	32.0	43.7

We tried to investigate the utilization of some health services by elderly and so we used the data about visiting healthcare institutes during past 12 months. Table 3 shows this data.

**Table 3. Number of visits of healthcare services and receiving tests by households during last 12 months**

	2010		2012	
	N	%	N	%
Family Doctor	3282	82.4	18552	87.0
Specialist	8649	59.9	16667	59.4
Blood pressure	7364	75.5	14503	75.9
Cholesterol	4604	71.2	9529	71.9
Blood Sugar	4801	71.1	10230	72.1
Prostate	342	45.1	794	47.9
Mammography	487	35.7	1159	38.1
Smear	577	41.4	1234	39.9
Staying at Hospital	1341	9.3	2542	9.1
Homecare Services	177	1.2	364	1.3
Emergency Service	2414	16.7	4975	17.8

At last, a very important point for us was satisfaction levels from health institutes by individuals older than 15 years. Results can be seen from Table 4 for years 2010 and 2012.

**Table 4. Percentage of satisfaction levels from health institutions( 15+ age )**

	Good / Very Good		Not Good / Bad / Neutral	
	2010 %	2012 %	2010 %	2012 %
Health Centers and MCH/FP Centers	74.9	85	25.1	15
Public Hospitals (Including Emergency Dep.s)	74.8	76.7	25.2	23.3
Private Health Institution	66.2	82.2	33.8	17.8
Homecare Services	80.5	82.3	19.5	17.7
Family Doctors	73.2	86.3	26.8	13.7
Specialists	83.3	85.9	16.7	14.1
Health Professionals Other Than Doctors	75.5	79.4	24.5	20.6

## CONCLUSION

When we look at results, there is an increase in satisfaction from health centers and MCH/FP centers. Also satisfaction about private health institutions, and family doctors is increased too. In a study done by Tezcan and friends in the majority (78.4%), patients were satisfied with the health care services (Tezcan,2014). A study done by Caha, it seems that patients prefer private hospitals due to their belief that private hospitals provide qualitative health service in Turkey (Caha, 2007) . In particular, the fact that the low education and income groups evaluate matters more positively than other groups suggests improvements in overcoming injustice in the provision of access to health services(Bostan,2013)

In another study income level, marital and occupational status of patient's sociodemographic features had significant influence on satisfaction levels in the Turkish population (Baltacı, 2013)

One of the most important part of primary health is family doctors. In the new approach which is becoming increasingly popular worldwide , the concept of "basic health care services" is used to mean the services involving preventive health care, in which family doctors assume the key role (Internet,Saglik). In our country family medicine is accessible for all citizens. Every patient has a family doctor near of his/her home. This why satisfaction in terms of family doctors increased.

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# INVESTIGATION OF SOCIOTROPIC AND AUTONOMIC PERSONALITY TRAITS OF HEALTHCARE MANAGEMENT STUDENTS IN TERMS OF SOME SOCIO-DEMOGRAPHIC VARIABLES

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## ABSTRACT

**The Problem of the Study:** Personality is a kind of structured and consistent relationship established by a person with the internal and external environment which distinguishes him/her from other individuals. By determining sociotropic and autonomic personality traits of healthcare management students, it might be possible to provide counseling for them to develop their autonomic personality characteristics in the training process.

**Purpose of the Study:** This study aims to determine sociotropic and autonomic personality characteristics of the students studying at the Department of health management. The study also investigated the relationship between some socio-demographic characteristics and personality traits of the students.

**Method:** The population of this descriptive study comprised 397 students attending the Department of Health Management of Cumhuriyet University Sivas, between February 16, 2015 and February 27, 2015. In the study, no sample was selected. The study aimed to reach the whole population.

To conduct the study, necessary permissions were obtained. Before the data collection forms were administered to the students, they were informed about the study and their verbal consents were obtained. Of the 397 students, 227 accepted to participate in the study. The participation rate was 57.2%.

Data were collected via a 15-item “Personal Information Form” prepared by the researchers and the Sociotropy-Autonomy Scale (SAS) The Sociotropy-Autonomy Scale (SAS) developed by Beck et al. is used to assess sociotropic personality traits which attach importance to interpersonal relationships and autonomic personality traits which attach importance to independence and freedom.

Data were analyzed using the SPSS 15 program, and t, Chi-square, ANOVA tests were used.

**Findings:** Of the 227 students participated in the study, 65.6% were female, 44.1% were the first-grade students, and 65.6% were in the age group of 20-22 years. All the students’ families’ mean monthly income was 1512 TL. The percentage of the students who perceived their socio-economic level as “medium” was 81.5%.

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The mean scores the students obtained from the sociotropy and autonomy subscales were  $68.5 \pm 16.25$  (5-105) and  $79.25 \pm 14.65$  (34-112) respectively. There was a statistically significant relationship between the mean scores the students obtained from the SAS and its subscales and their sociodemographic characteristics such as age groups and the geographic regions in which they lived before attending the university ( $p < 0.05$ ).

**Conclusion:** The students' sociotropic personality traits were found to be at a moderate level whereas their autonomic personality traits were found to be above the moderate.

Key Words: sociotropy, autonomy, healthcare management students

## INTRODuCTION

Personality is a kind of structured and consistent relationship established by a person with the internal and external environment which distinguishes him/her from other individuals (Cüceloğlu, 2000). According to Beck's cognitive theory, personality has two dimensions: sociotropy and autonomy. Sociotropic individuals try to obtain other people's opinions while making decisions because they seek the approval of other people. For highly sociotropic individuals, views of people they consider important are of value, and thus it is important for them to be accepted by those people while making decisions (Kabakçı, 2001). On the other hand, autonomy is a personality trait through which the person can make independent decisions and control events. Highly autonomous people enjoy making decisions by themselves, shaping events and being independent. Unlike other people, they attach importance to personal success, individual excellence and ability to affect the environment (Kaya et al 2006).

By determining sociotropic and autonomic personality traits of healthcare management students, it might be possible to provide counseling for them to develop their autonomic personality characteristics in the training process.

## 2. METHOD

### 2.1 Purpose of the Study

This study aims to determine sociotropic and autonomic personality characteristics of the students studying at the school of healthcare management. The study also investigated the relationship between some socio-demographic characteristics and personality traits of the students.

### 2.2 Study Population and Sample

The population of this descriptive study comprised 397 students attending the school of Healthcare Management of Cumhuriyet University between February 16, 2015 and February 27, 2015. In the study, no sample was selected. The study aimed to reach the whole population.

To conduct the study, necessary permissions were obtained. Before the data collection forms were administered to the students, they were informed about the purpose and method of the study through face-to-face interviews, their questions were answered, it was emphasized that participation was completely voluntary, and their verbal consents were obtained. Of the 397 students, 227 accepted to participate in the study. The participation rate was 57.2%.

### 2.3 Data Collection Tool

The 15-item "Personal Information Form" prepared by the researchers and the Sociotropy-

Autonomy Scale (SAS) were used as the data collection tools in the study. The “Personal Information Form” questioned the students’ sociodemographic characteristics such as age, gender, academic success, etc.

The Sociotropy-Autonomy Scale (SAS) developed by Beck et al. is used to assess sociotropic personality traits which attach importance to interpersonal relationships and autonomic personality traits which attach importance to independence and freedom.

Turkish validity and reliability study of the scale was conducted by Şahin, and Ulusoy and Şahin (1993). The SAS consists of two subscales: sociotropy and autonomy. Each subscale of the SAS includes 30 questions. The scale is a 5-point Likert-type scale ranging from 0 (not describing at all) to 4 (describing quite well). The lowest and highest possible scores to be obtained from each subscale of the SAS are 0 and 120 respectively. High scores indicate high sociotropic and autonomic personality traits.

The sociotropy subscale has 3 sub-subscales: Concern About Disapproval [10 questions (11, 17, 18, 24, 27, 29, 33, 38, 44, 50)], Concern About Separation [13 questions (4, 8, 19, 26, 31, 34, 35, 40, 47, 49, 53, 58, 59)], and Pleasing Others [7 questions (1, 5, 7, 15, 46, 52, 56)].

The Autonomy subscale also has 3 sub-subscales: Individualistic Achievement [12 questions (2, 3, 9, 12, 14, 20, 30, 32, 39, 45, 48, 60)], Freedom [12 questions (6, 13, 21, 22, 23, 28, 36, 41, 43, 54, 55, 57)] and Preference for Solitude [6 questions (10, 16, 25, 37, 42, 51)] (Savaşır and Şahin 1997).

## 2.4 Data Analysis:

Data were analyzed using the SPSS 15 program, and t, Chi-square, ANOVA tests were used.

## 3. RESULTS

Table 1. Socio-Demographical Features of the Students (N=227)

CLASS	N	%
1	100	44,1
2	62	27,3
3	48	21,1
4	17	7,5
TYPE OF THE EDUCATION		
Day	132	58,1
Night	95	41,9
AGE BAND		
19 and below	39	17,2
20-22	149	65,6
23-24	30	13,2
25 and above	9	4,0
GENDER		
Male	78	34,4

Female	149	65,6
SOCIO-ECONOMIC LEVEL		
Low	32	14,1
Medium	185	81,5
High	10	4,4
Total	227	100,0

Of the 227 students participated in the study, 65.6% were female, 44.1% were the first grade students, 58.1% were day time students and 65.6% were in the age group of 20-22 years. The students' families' mean monthly income was 1512 TL (min:0 max: 5000); The percentage of the students who perceived their socio-economic level as "medium" was 81.5% (Table 1).

**Table 2: The Mean Scores of The Students Obtained From The Sociotropy And Autonomy Scale and the Subscales**

	N	Range	Min	Max	Mean	SD
<b>Sociotropy Scale</b>	226	100,00	5,00	105,00	68,50	16,254
Concern about Disapproval	227	60,00	1,00	61,00	20,11	7,270
Concern about Separation	226	52,00	,00	52,00	32,98	8,659
Pleasing Others	227	24,00	4,00	28,00	15,59	4,153
<b>Autonomy Scale</b>	227	78,00	34,00	112,00	79,25	14,654
Individualistic Achievement	227	38,00	10,00	48,00	33,24	6,884
Freedom	227	32,00	14,00	46,00	31,81	6,274
Preference for Solitude	227	21,00	3,00	24,00	14,19	4,806

The mean scores the students obtained from the sociotropy and autonomy subscales were  $68.5 \pm 16.25$  and  $79.25 \pm 14.65$  respectively. Considering the range of the scores to be obtained from the scales was between 0 and 120, it can be said that the students' levels of displaying sociotrophic personality traits was moderate whereas it was above the moderate level for autonomic personality traits.

The mean scores the students obtained from the subscales of the sociotropy subscale were as follows:  $20.11 \pm 7.27$  for the "Concern about Disapproval" subscale of on average  $32.98 \pm 8.65$  for the "Concern about Separation" and  $15.59 \pm 4.15$  for the "Pleasing Others"

The mean scores they obtained from the subscales of the autonomy subscale were as follows:  $33.24 \pm 6.88$  for the "Individualistic Achievement"  $31.81 \pm 6.27$  for the "Freedom" and  $14.19 \pm 4.80$  for the "Preference for Solitude" (Table 2)

In the study there was a statistically significant relationship between the mean scores the students obtained from the Sociotropy Scale and the working period of the student's in any job during or before the university life ( $p < 0.05$ ).

Again there was a statistically significant relationship between the mean scores the students obtained from the Autonomy Scale and their socio-demographic characteristics such

as the type of the education, type of TV programs they watch and the working period of the student's in any job, As their working experiences increased their autonomy level increased as well ( $p<0.05$ ).

However, the relationship between the mean scores the students obtained from the SAS and its subscales and their sociodemographic features such as gender, the year at school, whether they chose the profession of their own free will, family income, the number of siblings, perceived socio-economic status, parents' education and occupation, and grade point averages was not statistically significant ( $p>0.05$ ).

## **CONCLUSION**

In this study carried out to investigate the healthcare management students' sociotropy-autonomy personality traits in terms of some socio-demographic variables, the students' sociotropic personality traits were found to be at a moderate level whereas their autonomic personality traits were found to be above the moderate.

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# ATTITUDES TOWARD PHYSICIAN-NURSE COLLABORATION IN PEDIATRIC ONCOLOGY HOSPITAL

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## ABSTRACT

**The Problem of the Study:** Team work and collaboration between physicians and nurses is crucial for patient care. In hospital, lack of nurse-physician collaboration has indicated the reason for poor patient outcomes and low job satisfaction. However, number of the studies in this issue is very limited in Turkey.

**The Purpose of the Study:** The study aims to identify the attitudes of collaboration between nurses and physicians and whether or not such attitudes display significance in reference to personal and professional features.

**Method:** This is an institution based cross-sectional study with a staff survey. The study was carried out in the Children's Health and Diseases Hematology Oncology Training and Research Hospital in Ankara, public hospital which is a tertiary referral academic medical center with 302 beds. Physicians and nurses were informed about the aim of the study and among 435 physicians and nurses, 379 staff (224 nurses-155 physicians) volunteered to complete the survey instrument. The data for the study were collected by using Jefferson Scale of Attitudes toward Nurse-Physician Collaboration. It includes 15 statements, which were grouped under four subscales as shared education and teamwork (7 statements), caring versus curing (3 statements), nurses' autonomy (3 statements) and physicians' dominance (2 statements). In addition to this, personal data (gender, specialty, age and years of experience, departments) of nurses and physicians were collected. Reliability of the scale was done using cronbach's alpha with value for nurses  $r = 0,715$  and for physicians was  $r = 0,716$ .

**Findings and Results:** Depending on the total scores, the results revealed that nurses have more positive attitudes toward nurse- physician collaboration than physicians. Scores also indicated that male and female nurses have more positive attitudes toward than male and female physicians. The nurses at administrative positions have higher scores than those of physicians at the same position. It was found that nurses employed at emergency services have lower scores than those nurses who work at other wards. Moreover, physician satisfactory levels did not affect their collaboration scores. However, it was found that nurses at higher and medium satisfactory level have higher collaboration scores than those of nurses with lower satisfactory level. Recommendations of the present study can be directed towards three groups of nurses, physicians and hospital managers. Nurses and physicians should attend training programs about coordination and cooperation, nurse-physician relationships, working environment and conflict. Hospital managers should organize regular multidisciplinary staff meetings at the wards and management level, allow representatives of all levels to meet and discuss communication problems, and also meet with the physician manager and other senior

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staff to discuss policy, issues of care and management issues.

**Key Words:** Health Services Management, Jefferson's Attitude Scale, Turkey.

## INTRODuCTION

The complex structure of health services makes the team approach and the collaboration between different professional groups necessary. In addition, the collaboration between the health professions and team work is of great importance in terms of the quality of the health services (Amsalu et al., 2014; Chang, 2009; Taylor, 2009). In this content, physician and nurse collaboration could be defined as working together efficiently, sharing the responsibility in order to solve a problem, making decisions on patient care together and producing formulas (Ward et al., 2008). It is pointed out that physicians and nurses should come together and produce common ways of solutions in order to solve the problems concerning the patient (Hojat et al., 1997; Hojat et al, 1998; Hojat et al., 2003). It was found that physician and nurse collaboration has a positive impact on patients and service providers (Baggs, 1999; Corser, 1998; Elithy et al., 2011; Stichler, 1995; Tija et al., 2009; Thuente, 2011; Zwarenstein and Reeves, 2002). It was also suggested that drug errors that is an important problem in providing patient safety could be reduced with the collaboration of physicians and nurses (Messmer, 2008).

## MATERIALS AND METHODS

**Scope of Research:** The population of the research was comprised of 179 physicians and 256 nurses, 435 in total, working in Ankara Hematology, Oncology Educational and Research Hospital for Child Health and Diseases. No sampling was chosen for the research and so all the population was aimed to reach. A total sum of 379 people, 155 physicians and 224 nurses, volunteered in the study. In the end, 87.1% of the population was reached.

**Scale:** Data collection instrument was made of two parts. In the first part, the personal data of the participants and the features of the institution they worked for were investigated. In the second part, "Jefferson Physician and Nurse Collaboration Attitude Scale" developed by Hojat and Herman (1985) was used. The original scale was developed by Hojat and Herman (1985) in order to measure nurse collaboration attitudes. In the following years, the scale was modified and the items were reduced from 20 to 15 with psychometric analyses. In this form, the scale was used to measure the collaboration attitudes of physicians and nurses. The scale has been used in different countries depending on different socio-cultural features (Hojat et al, 2003). The studies of Turkish adaptation, validity and reliability were carried out by Yıldırım et al., (2005). The scale was made up of 4 sub-dimensions as physician-nurse collaboration, physician-nurse relations, common education, the role of nurse in health care and the accountability and responsibilities of nurses, with 15 items in total. The scale was scored as "I absolutely agree -5", "I agree -3", "I disagree-2", "I absolutely disagree-1". The lowest score to be obtained in the scale was 15 while the highest was 60".

**Data Analyses:** In the evaluation of whether the score medians of the physician-nurse collaboration in the research group was statistically significant in terms of gender, administrative position, the department worked and the level of satisfaction, Mann-Whitney U (MWU) and Kruskal Wallis (KWX) tests were used.

**Reliability Analysis.** The cronbach alpha value of the scale in this study was determined as 0.761. The cronbach alpha value for physicians were 0.716, while it was 0.715 for nurses.

## RESuITS

In this part, the descriptive findings of the research group in the first place and then the findings with regard to the attitudes towards physician and nurse collaborations were given.

Of the nurses included in the study, 9.4% worked in the administrative position and 79% were women. In terms of the services, 17% of the nurses worked in intensive care unit, 18.3% worked in the older children, 17.9% worked in hematology department and 11.2% worked in the emergency department. Again, 56.7% of the nurses expressed that they were satisfied with their profession at high level, 30.8% at medium level and 12.5% at low level. Given the characteristics of physician, 36.8% of the physicians included in the study were specialist physician, 40% were assistant physicians, 9% were administrators and 71.6% were women. As for the departments, 34.2 of them worked in polyclinic, 18.1% in older child, 17.4% in hematology, and 8.4% in surgery and operation theatre. In terms of satisfaction, 56.1% of them expressed that they were satisfied at high level, 34.2% at medium level and 9.7% at low level.

Total score medians of physician-nurse collaboration in the research group and their sub-dimension score distributions were given in Table 1. The highest score to be obtained in the scale is 60. In this sense, the score median of the physicians was 48 while that of nurses was 53. In comparison with the collaboration scores of physicians and nurses, it was found that the score medians of the physicians were higher than that of the nurses in every dimension. It was found that the difference was statistically significant ( $p=0.000$ ).

Table 1. Distribution of Collaboration Scores in terms of Research group

	Occupation	N= 379	Median	%	MWU	P
Physician-Nurse Relations	Physician	155	15,00	40,9	8430,000	,000
	Nurse	224	17,00	59,1		
	Total	379	16,00	100		
Common Training	Physician	155	14,00	40,9	13344,500	,000
	Nurse	224	15,00	59,1		
	Total	379	15,00	100		
The role of Nurse in Patient Case	Physician	155	9,00	40,9	10423,500	,000
	Nurse	224	10,00	59,1		
	Total	379	9,00	100		
The Accountability and Responsibilities of Nurses	Physician	155	10,00	40,9	13550,500	,000
	Nurse	224	11,00	59,1		
	Total	379	10,00	100		
The Scale of Physician Nurse Collaboration	Physician	155	48,00	40,9	8469,000	,000
	Nurse	224	53,00	59,1		
	Total	379	51,00	100		

The comparison of the collaboration scores in the research group in terms of male gender was given. In the statistical analysis, it was found that the medians of the male physicians (40.9) was significantly lower than those of male nurses (53.00). In addition, a statistically significant at the level of  $p < 0.05$  between the dimensions of physician-nurse relations, the role of nurse in patient care, physician-nurse scale. The comparison of the collaboration scores in the research group in terms of female gender was given. In the statistical analysis, it was found that the medians of the female physicians (49.00) was significantly lower than those of female nurses (51.00). In addition, a statistically significant at the level of  $p < 0.05$  between the dimensions of physician-nurse relations, the role of nurse in patient care, common training, nurse accountability and responsibilities and physician-nurse scale.

A total sum of 35 people, 21 nurses and 14 physicians, worked as an administrator in the research group. The collaboration scores of the administrator physicians and nurses were compared. It was found in the statistical analysis that score medians of the administrator (47.00) were statistically lower than those of the nurse (53.00).

The collaboration scores of physicians and nurses and their sub-dimension scores of them in terms of the department they worked were compared. It was found that the sub-dimension scores of nurses for physician-nurse relations were different at a significant level compared to the departments they worked. It was found in the statistical analysis that the score medians of those working in emergency service were lower compared to those of the ones working in other departments. With the comparison of collaboration scores of physicians in terms of the departments they worked, no statistically significant difference was found. However, it was found that the collaboration score medians of the ones working in surgery – operating theatre, emergency and administrative departments were lower.

The collaboration scores of the research group in terms of satisfaction levels were compared. It was found in the statistical analysis that the collaboration score medians of the nurses with low satisfaction (51.00) were lower compared to the nurses with high level satisfaction (53.00) and medium level satisfaction (52.00) and that this difference was statistically significant. On the other hand, it was found that the collaboration scores of the physicians with different level of satisfaction were not statistically significant.

## DISCUSSION

In the study, the attitudes of 155 physicians and 224 nurses, 379 health professionals in total, with regard to physician-nurse collaboration were determined. Nurses prone to collaboration as a member of a team. It is likely to see this finding in both national and international studies (Amsalu, 2014; Chang, 2009; Hansson, 2010; Hojat et al., 2002; Natan et al., 2015; Özkaraca, 2009; Taylor, 2009). Yıldırım et al., (2006a) found in their study that nurses approached collaboration positively more compared to the physicians. In another similar study carried out with medicine and nursing students, the collaboration scores of faculty of medicine students and nursing college students were found significantly different. It was also found that the students of faculty of medicine were lower than those of nursing college students (Yıldırım et al., 2006b). In a study by El Sayedr and Sleem (2011), mean scores of nurses were found statistically higher than those of physicians. In a study by Amsalu et al. (2014), total mean scores of nurses was found  $49.63 \pm 6.20$  and those of physicians were found  $47.49 \pm 6.80$ . Hojat et al (2003) showed that total mean scores of physicians were 46.3, while those of nurses were

51.5. Sterchi (2007) found that total mean scores of physicians were  $54.01 \pm 3.59$ , while those of nurses were  $50.29 \pm 4.71$ . In a study by Gillen (2007), total mean scores of physicians were found  $50.74 \pm 4.24$  and those of nurses were determined as  $55.10 \pm 3.39$ .

## CONCLUSION AND RECOMMENDATION

This study has increased some important points that will be of interest to managers and researchers including the evolution of collaborative practice. The dynamic established between professionals is as important as the context of collaboration. Collaboration needs to be understood not only as a professional exertion, but also as a human resources process.

Recommendations of the present study can be directed towards three groups of nurses, physicians and hospital managers. Nurses and physicians should attend training programs about coordination and cooperation, nurse-physician relationships, working environment and conflict.

In particular, physicians need these training programs more. It is recommended that male physicians and nurses attend these programs more. There is a need of collaboration for those working in emergency service and the ones with a lower job satisfaction more.

Finally, hospital managers should organize regular multidisciplinary staff meetings at the wards and management level, allow representatives of all levels to meet and discuss communication problems, and also meet with the physician manager and other senior staff to discuss policy, issues of care and management issues.

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# ANALYZING SELF-EFFICACY-COMPETENCE LEVELS OF NURSING STUDENTS AND VARIABLES THAT EFFECTS THESE LEVELS

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## INTRODuCTION

The term Self-Efficacy- Competence was first used by famous psychologist Albert Bandura in 1977, within the context of ‘Cognitive Behavior Change’. This term is used in various fields like, school achievement, affective disorders, mental and physical health, career choice and socio-political change (Schwarzer and Fuchs, 1995). Self-Efficacy is one of the main variables in Social-Cognitive Theory (Aşkar and Umay, 2001:1). According to the social learning theory; individuals seek for performing behavior patterns they desire and try to form themselves according to this, not according to the events out of their will. At this point, self-efficacy belief has an important role for individual to determine his/her aims and create proper environments in order to achieve these aims (Saka, 2011: 44). Self-efficacy beliefs identifies how people feel, think, and motivate themselves and their behaviors. These kind of beliefs make these different kind of influences in four main processes. Cognitive, motivational, affective and electoral process are these processes (Bandura, 1994). People sometimes feel themselves incompetent and think they cannot overcome rough times. It is thought that these emotions and mindscapes might result from perceived self-competence levels and family functioning levels (İkiz and Yörük, 2013:229). Human behavior depends not on what they are competent to achieve but rather on their believes about self-capacity/competence. This helps to explain why human’s behavior are not consistent with their real capacities and the difference in their performance levels even though they have same skills and knowledge. There is a difference between having a skill and ability to use this skill in different areas/conditions (Kurbanoğlu, 2004:139).

## 2. THE CONCEPTuAl FRAMEWORK

**2.1. Self-Efficacy:** Self-efficacy is a person’s own belief that he has required skills in order to achieve a work. Self-efficacy belief effects human behavior. Human behavior does not depend on what is right but rather depends on the belief about what is right (Kurbanoğlu, 2004:139).

Bandura emphasizes that self-efficacy belief depends on four related resource and this belief has an important place in a human life. He summarizes them as follows (Bandura akt Azar, 1997):

- 1) *Performance Experiences:* It is directly related with a person’s own experiences and effects success in all his works, forms reward effect and also influences future works
- 2) *Emotional State:* Being mentally and physically healthy at start of a behavior, increase the probability of performing that behavior.
- 3) *Indirect Experiences:* Experiencing others’ success provides a positive effect about a

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person's belief of his own success.

4) *Verbal Convincing (Outsourcing)*: Comments and advices about beliefs that a behavior will be performed successfully by others encourages a person and may cause changes in self-efficacy (Bandura, 1997:3).

Workers' quality is one of the important fact that determines Medical Service's quality. Previous researches showed that people with high self-efficacy and competence are more successful in their social and Professional lives (Yentur Doni et. al., 2008:33). It is important that nurses, who tries people to get positive behaviors that develops their health in order to prevent from negative behaviors, have knowledge about this cognitive-perceptual factor which is effective by controlling behavior process (Gözüm and Aksayan, 1999:21). The purpose of nursing and midwifery education is; making student to gain basic Professional knowledge, skills and attitudes in cognitive, affective and psychomotor aspects. Determining Self Efficacy and Competence levels of the students will provide important information about protections in order to increase the success and will guide development of the learning strategies in order to make it easy (Karadağ et al., 2011:15). Showing the effects of the self-efficacy on student success and other variables' effect on self-efficacy will be able to make a starting point for intervention programmers that will be planned for increasing the success (Yılmaz et. al., 2012:373).

Bandura's thought about that perception of efficacy effects an individual's a) activity preferences b) patience in rough times c) effort levels and d) performance is a topic for many researchers (Aşkar and Umay, 2001:1). Previous researches showed that, individuals with high self-efficacy perception about a situation show great efforts to succeed, do not quit easily when face with difficulties, are patient and insistent, because of all these reasons self-efficacy is seen as an important factor that have to be emphasized in educational area (Aşkar and Umay, 2001:1).

Individuals with strong self-efficacy perception are disposed to get involved in more difficult works and set bigger purposes, try to reach them (Karadağ et al., 2012:87). It is a possible situation where individuals with lower self-efficacy perception run away from new experiences, are away from novelty. Individuals with high self-efficacy overcome difficulties, cope with problems and so do not afraid of trying new things because they can control their environment more (Yılmaz et al., 2012:381). The stronger self-efficacy feelings the more exertive, insistent and resistant a person is. At the same time self-efficacy beliefs effect thinking ways, problem solving abilities and emotional reactions of an individual. People who do not have enough self-efficacy think events are more difficult that they seem and are closed minded about everything and cannot solve their problems. But people with high self-efficacy are powerful and confident about difficult works and events easefully (Kaptan and Korkmaz, 2002).

### 3. RESEARCH

**3.1. Research Model:** This research is done in order to find self-efficacy levels identify situations that effect these levels of nursing students in vocational school of health.

**3.2. Scale:** Two types of data collection tool 'Information Form about Students' and 'Self-Efficacy- Competence Scale' was used during research. Self-Efficacy-Competence Scale is a data collection tool developed by Sherer et all. (1982) and adapted to Turkish by Gözüml and

Aksayan (1999)

**Table1. Sub Groups, Item Number and Score Scales of SEC Scale**

Sub Group Items	Item Number	Score Scales
Behavior Beginning (BB)	8	8-40
Behavior Maintenance (BM)	7	7-35
Behavior Completion (BC)	5	5-25
Fighting with Difficulties (FD)	3	3-15
TOTAL (SEC)	23	23-115

Resource : Gözümlü and Aksayan, 1999.

**3.3. Sample:** Research contains 634 students from 10th 11th, and 12ty Grades in Isparta Anatolian Vocational School of Health, Eğirdir Akşemseddin Anatolian Vocational Technical High School, Yalvaç İbni Sina Anatolian High School, Şarkıkaraağaç Asım and Sıddika Selçuk Anatolian Vocational Technical High School and Senirkent Dr. Tahsin Tola Anatolian Vocational School of Health. Sample was not determined before and reaching to the whole environment was the aim. Except 49 students who were absent during survey dates, 585 students attended to the research.

**3.4. Demographical Features:** 74, 5 % of the students are female. 35,9 % of the students were in 10th Grade. 84, 4 % of the students have nuclear family structure and 70, 1 % of their mothers and %52, 1 of their fathers are graduated from primary school. Nearly half of the families have 0-1500 TL income, %39,8 of the students have a sibling. When school success was assessed, 53 % of the students are successful. When students asked if this school is their own choice 77, 4 % of them said ‘Yes’.

**Table 2. Total Self Efficacy Scores and Sub Group Averages of Students (n:585)**

Scale/Sub Scale	Score Scale	Mean	Standard Deviation	Standard Error	Min.	Max.
BB	8-40	17,4	5,45	0,23	8	40
BM	7-35	15,6	4,91	0,20	7	35
BC	5-25	19,2	3,89	0,16	5	25
FD	3-15	8,8	2,50	0,10	3	15
Total	23-115	61,0	8,41	0,36	23	115

Students’ total self-efficacy score average was found as  $61,0 \pm 8,41$ . When Table 2 is viewed it can be said that total self-efficacy and sub scale scores are equated.

#### 4 CONCLUSIONS AND FUTURE PROJECTIONS

As a result of findings from this research, it is observed that students’ SEC levels are average. In the study ‘Viewing Academics Self-Efficacy Perceptions of Science Teacher Candidates’ by Yalmanlı and Aydın (2014), it is found that science teacher candidates have high academic self-efficacies. They predicted that, for candidate teachers having high academic self-efficacy shows they believe themselves in academics point and will have a successful professional life. When we look from the same perspective we might think that nursing candidates’ self-efficacy levels will not be enough for Professional life (Çetin and Basım, 2010).



There is a statistically significant difference between grade and self-efficacy levels of students that attended to the research. Any kind of difference couldn't be found between grade and self-efficacy in Aktürk and Aylaz's (2013) study. We would have found difference because as the education level increases, students' their SEC levels increase too. Again, Students in senior class took much more responsibility during internships in hospitals that may increase their self-confidence and efficacy too. When we focus on the age groups, SEC and Sub groups, we can see that 18 year old students have higher Behavior Beginning and SEC scores. This might be effected by being a senior class student and having more occupational experience.

When success averages are viewed, it is seen that more successful students have lower self-efficacy levels. Yentür et all. (2008) couldn't find any statistically significant relation between gender, self-efficacy, and sub scale score. Having mixed sex education and as a result of this developing same academicals self-concept might have effect on not differentiating in self-efficacy levels. Accordingly, it is seen that gender is not an important factor for differentiation in self-efficacy levels (Akbaş and Çelikkaleli, 2006:106).

When we look at average SEC scores and family structures of students, we can see that students with single parent or extended family have higher average score than general SEC scores. Students in these kind of families take more responsibility that might make self-efficacy levels increase.

It is found that there is not any significant difference between student's permanent address and self-efficacy scores. In the study of Sezer et all (2006), with high school students, it was found that the ones living in cities have higher self-efficacy levels than the ones living in county and village, the ones living in county have higher levels than the ones living in the villages. Future anxiety is experienced more intense in cities. Future anxiety can be lowered because our attended students are going a vocational high school. What is more there isn't statistically significant differences between gender, permanent address, family income level and self-efficacy levels.

In parallel with the developing Health Industry in Turkey, it is one of the main duties of Vocational Health Schools to train informed, self-confident and self-improved personnel. For this reason, in order to increase self-efficacy levels of the nursing students who will provide health service?

Support from teachers and families when students are successful is important.

Besides health training courses, courses about communication skills, self-improvement, dealing with the stress must be added.

Teachers must be supported with in service educations in order to increase students' self-efficacy levels.

During internships, by doing cooperation with healthcare organizations, students have to be made more communication with patients who might help increasing their self-efficacy levels, and students' responsibilities must be increased at lwq.

Rewarding programmers for students must be developed.

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# RISK MANAGEMENT IN EMPLOYEE SAFETY

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## ABSTRACT

**Purpose of the work:** In our day, working life has become containing more risks gradually depending on the developments and changes that we live rapidly. In this direction, the precautions taken to abolish the risks also increase, but fall short most of the time.

Health services provided in health sector that we analyzed within the context of our study are labor-intensive services requiring cooperation of quite different occupational groups or fields of expertise (Meydanoğlu, 2013:198) and carry several risks different from other fields of operation with it (Hasuder, 2012:1). For this reason, health staff gets sick, injured, become disabled or die. Health and safety risks of health sector staff are more than all other sectors (Beyzadeoğlu and Cengiz, www.sdplatform.com, 22.03.2015). For instance, a health staff can be exposed to biological, chemical and physical risks at the same time and be exposed to both psycho-social risks and violence as well. Despite existence of these risks, health staff are perceived by society, including themselves as accepted to be as staff “required to sacrifice themselves and as they do not have any health problems or will not have ever” (Hasuder, 2012:1).

As a result, it is a fact that the risks that the staff working in health sector is exposed to are more than other sectors. And it is a human right to work in healthy and safe environment required to be possessed by each worker in our day (Beyzadeoğlu and Cengiz, www.sdplatform.com, 22.03.2015). In this direction, performance of risk management implementations in full, minimizing the damages that staff may be exposed to because of aforementioned risks and even abolishing these shall be the basic purpose.

**Method:** This work is a theoretical one and domestic and foreign literatures have been analyzed in detail regarding the subject. It is targeted to support the literature work in question with an implementation in the following studies.

**Results and Conclusions:** Factor shall continuously be evaluated and improved as there is a positive and powerful relation between risk management and employee safety factors and for more successful service providing of hospitals, employees not facing with risks and feel more safe during the submission of health services (Hisar, 2013:95). Employee safety fields affect private and occupational lives of health professionals to a great extent. Although the studies on patient safety are more common in our country, the studies concerning employee safety are limited or only handle an aspect of it (Aldem et.al., 2013:61). As delivering safe, qualified and productive health services depends on health, capacity and performance of the health staff at the same time, it is a subject depends on providing health and safety of health staff (Meydanoğlu, 2013:198). These situations bring forward the issue of risk management in

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health and safety of health staff. This study was carried out with the purpose of determining the significance of risk management in employee safety of health professionals and supporting these being implemented.

**Keywords:** Risk management, Employee Safety

## **INTRODuCTION**

Health institutions are organizations which are active in a complex structure in labor-intensive way to fulfil society's health services requirements and where a several health professionals work together. Together with this complex structure in the sector, health professionals' being obliged to race against time and provide diagnosis, treatment and care services to more people in less time may result in their feeling suppressed and thus their falling into errors or mistakes in decisions and implementations. Furthermore, health services include high incidence of risk by its nature even not any fault is in question (Aksay et. al., 2012: 123).

Investment element in health services is human (Kocasoy, 2014: 9). In our day when human lives gain importance nonetheless patient and number of sicknesses increase, each new item, machine, system offered by health services and each new treatment method emerge may cause threats for patient safety, employees' health, working ambient safety, environmental health and safety at the same time (Usta, 2009: 54). Facing with risks increasingly, human beings have embarked on a quest for a method that will predict the risks that may affect themselves in advance and will minimize these risks. Yet, it may be resulted in not performing any work in the event that avoiding from all risks in the performance of a service (Aksay and Orhan, 2013: 14).

The fact that health of health staff's is a variable affecting the health of the society at the same time as well as working ambient of health staff's containing more risks according to other fields of businesses increases the significance of the issue further. The problems of health staff may prevent delivery of services efficiently in both quantitative and qualitative sense and more importantly, it may negatively contribute to spread of biologic factors within society (Hasuder, 2012:1).

The damages suffered by patient and personnel during the delivery of health services may result in injury, extension of the period of hospital stay, disability and even deaths in terms of patients and being exposed to more sicknesses and injury in the perspective of health staff. As this case may end up with serious crisis for a health institution, it has a strategic significance by its aspects affecting corporate reputation and sustainable success. Financial and environmental risks also constitute another risk aspect threatening health institutions besides the risks faced with in terms of human health in recent years. For his reason, many risks may cause financial damages of health institution or health staff substantially and also damage of environment in some cases as well (Aksay et. al., 2012:123).

### **1. Concept of Employee Safety**

The concept of "Patient and Employee Safety" defined as activities aimed at improvement applications and precautions to be taken related to each kind of processes and operations that may result in damage of patient and employees in health service delivery was tried to be guaranteed in our country by some laws and directives ([www.saglik.gov.tr](http://www.saglik.gov.tr))

“Directive on Providing Patient and Employee Safety” published in Official Gazette on 6<sup>th</sup> of April, 2011 by Ministry of Health and then “Occupational Health and Safety Code” published in 30 June 2012 dated Official Gazette by Ministry of Labor and Social Security make it possible for health staff working in public sector to benefit from occupational health and safety services. Moreover, 14.05.2012 dated circular and 03.08.2012 dated notice of Ministry of Health caused in confusion in name in this field. “Workplace Health and Security Units” have become a tradition for many years were named as “Employee Rights and Security Units” in the notice of the Ministry (Hasuder, 2012:1).

The followings were mentioned in the article under the tile of risk assessment and safety precautions in 2012 dated and 6665 numbered circular of Ministry of Health on employee safety:

- Health institutions shall carry out risk assessments in terms of violence again and service processes shall be reviewed in the departments with high risk and the number of health staff in the related department shall be made sufficient. Physical areas shall be reorganized in terms of qualification and better working conditions, if necessary.
- There shall be more safety personnel available in waiting areas of the departments with high violence risk such as emergency service, intense care and surgery room by increasing the number of the staff if necessary.
- Security cameras shall be placed in a way that these will observe all areas of the institutions and footages shall continuously be monitored on condition that paying attention to patient privacy. Private safety staff, specially trained on this issue will interfere in suspicious cases and persons immediately.
- The persons trained in the issues of communication skills, and management of definition-conflict of problematic patient/patient relatives shall be assigned in waiting rooms and they shall provide works as “problem solver”.
- Physical areas shall be illuminated and ventilated at adequate level for 24 hours.
- There shall be alternative exit ways available for personnel.

Within the direction of “Directive on Providing Patient and Employee Safety” published with the aim of providing a safe ambient for served and health staff in this circular in all health institutions;

- Foundation of employee safety committee,
- Preparation of employee safety program,
- Performance of medical screening oriented to staff,
- Providing personnel’s taking personal protective precautions,
- Making regulations for preventing violence against the staff,
- Preparation of programs directed to the control and prevention of infections,
- Carrying white code into action,
- Giving trainings to the personnel on employee safety.

Lastly, 6331 numbered occupational Health and Safety Code published in 30<sup>th</sup> of June 2012

dated and 28339 numbered Official Gazette was entered into force on 01<sup>st</sup> of January, 2013.

## **2. The Concept of Risk and Risk Management**

Risk is the possibility of occurrence of a certain and undesired event (threat) in a certain period of time. Risk defines the possibility of actualization of any damage depending on a threat. Effectiveness of the risks covers the number of affected person and the result occurred. Control of the risks is assessment of the precautions to be taken in a definite hierarchy for each risk (Ceylan and Başhelvacı, 2011:26).

Risk management is the process of taking necessary measurements and making preparations starting with the identification of the risks and continuing with the analysis of these. Risk management is a management work in principle. Therefore, all functions of the management are also valid here. In other words, risk management includes planning, organization, execution, coordination and audit functions in itself. Of course managing the risks also has some costs as risks have. The important thing is that the cost of reducing or controlling risks shall stay under the cost that may be generated by aforementioned risks. Otherwise, benefit of risk management will exceed its cost and this is not a desired case (Güleç and Gökmen, 2009:170).

Risk management is an early warning system having a purpose to identify the potential reasons for liability (that may arise from law suits) and prevention of emerging of these. Primary functions of risk management are a coordination covering whole of the hospital, loss prevention activity and corrective activities. To put it in different way, this system will reduce the liabilities of health institution over patients, visitors and employees. Another plus of the system is providing reporting of the case and/or accidents that may take place in the institution in a reliable way. Event reports used in the system have been used in definition of a risky case as a primary purpose (Aksay and Orhan, 2013:15).

### **2.1. Risk management in health services and its process**

Every enterprise faces with risks. Health institutions are also enterprises and have some risks to be managed. Risk management is the process of taking precautions for potential risks and making preparations starting with the identification of the risks and continuing with the analysis of these (Gökmen and Güleç, 2010:12).

Risk management in hospitals is to determine, analyze and take precautions for each kind of potential risks that may threaten properties of the hospital, its good reputation and earnings as well as providing safety of patients and personnel in each sense. For this reason, risk management in hospitals is an issue in which all personnel including senior management shall be engaged in (Güleç and Gökmen, 2009:166). It is necessary to actualize the following phases specified in the following for the performance of risk analysis (Ceylan and Başhelvacı, 2011:28-29).

- **Identification of threat:** Identification of the basic source of the damage and what could result in sicknesses and disablements shall be identified (Özkılıç, 2005:26).
- **Determination of the risks emerged:** Risks are analyzed in terms of possibility and result within the frame of current controls. A set of results can be taken into consideration and possibility and result estimation is carried out to generate a risk level. A number of methodologies are available for carrying out risk analysis. The most proper one of these is selected (Özkılıç, 2005:26).



- **Determination of control precautions:** The precautions to be taken related to the risks assessed are discussed. Cost analysis of prevention of or reducing the possibility of emergence of the risk or decreasing the potential volume of the damage or transfer of the danger is carried out. Risks may be reduced with one or more safety measurement normally. Decrease in risks is either about the result or possibility of actualization (Özkılıç, 2005:63).
- **Completion of control precautions:** The determined control precautions are put into force but it is necessary to try and determine its effects before applying the alterations in association with the determined control precautions (Hisar, 2013:14)
- **Monitoring and repetition**

## 2.2. Risks and Threats Threatening Employee Safety in Health Services

Primary elements that are under risk in health institutions can be sorted as in the following (Güleç and Gökmen, 2009:172);

- Humans: Patients, health personnel or employees, visitors and public
- Physical and financial assets: properties, capital and each kind of financial assets
- Legal issues: judicial law suits initiated as a result of the faults made
- The issues related to the institution: corporate reputation

Primary risk elements in health institutions are as (Güleç and Gökmen, 2009:172);

- Microorganisms: infection
- Humans: assault, theft, forgery, arson
- System/technology: infrastructure and the technology used
- Macroeconomic/political: foreign exchange, prices, interest rate, legislation, political uncertainty, political decisions
- Natural disasters: earthquake, flood, drought, hurricane

5 threats that health staff are frequently subjected to can be classified as biological risks, chemical risks, physical risks, environmental risks, psycho-social risks.

- **Biological Risks:** These are risks affecting health staff by means of methods as blood and blood products that are mode of transmission of diseases such as Hepatitis B, C, Tbc, Herpes virus, body fluids, air and other methods.
- **Chemical Risks:** There are several chemical substances such as anesthetic gases, medicines, sterilizer substances (glutaraldehyde, formaldehyde, ethylene oxide) and other (latex, nickel, mercury, disinfectant substances etc..) as dust, vapor, gas, liquid form in working ambient of health staff (Bayhan, 2005: 9).
- **Physical Risks:** Health personnel, especially radiotherapy, nuclear medicine and radiology staff are exposed to ionizing and non-ionizing radiation risks. These have several cancerogenic and teratogen, and mutagen effects. Furthermore, constant presence in risky working ambient such as ultraviolet, laser, microwave, ultrasound, photocopiers may cause some cumulative damages (<http://www.sbn.gov.tr>, 11.05.2015)



- **Environmental Risks:** Easily contaminant and uncleansed material usage, dirtiness of working ambient, risk of body liquid splashing during the transactions to be carried out, air-borne diseases risks are among environmental risks.
- **Psycho-social Risks:** Health staffs are always interaction with human by nature of their jobs. It has been observed that the psychology and attitudes of the people they interacted with or their relatives may not be positive all the while and as a result of that health staffs are under more risk of being exposed to violence compared to the staff working in other fields (<http://www.sdplatform.com>, 11.05.2015).

According to mutual study of Joint Commission and ASHRM, risks in health institutions can be defined under this title (Hisar, 2013: 18);

- **Business risks:** It contains issues such as a care system which determines the relations of patient and doctor and a health institution or health insurance agency, antitrust, insurance, enterprise entrepreneurship, conflict of interest, employment applications, coherency programs of institutions and contract management.
- **Operational Risks:** It includes the titles such as knowledge management, quality development, information, confirmation of training and experiences of health personnel, safety, security, building management, protection of fixtures and fittings, new project and services, construction and renovation.
- **Clinical Risks:** It covers communication with person receiving care, medical records, confidentiality, pre-notified decision making processes, telephone protocols, monitoring diagnosis information, observation, monitoring and surveillance of primary care services, satisfaction or complaint of served, referral of patients and consultancies, insurance coverage, telemedicine, intense care, medicine safety, emergency case, extinguishing dangerous wastes, training of patient and employees.

## CONCLUSION

Health services are labor-intensive services requiring working together of several health professionals or fields of expertise and health staff encounter with wide range of health problems such as needle stick injuries, infectious diseases, back and low back problems, latex allergy, violence and stress. As delivering safe, qualified and productive health services depends on health, capacity and performance of the health staff at the same time, health and safety of health staff are issues on which emphasize should be put. Particularly in our country, country-wide regulations shall urgently be provided including both public and private sector the framework of which was determined with national laws and procedures as the difference between regions is too high in terms of technical equipment, personnel and service quality of hospitals and exposure of health staff to occupational risks shall be reduced (Meydanoğlu, 2013:198).

It is right of all employees to work in healthy and safe environment. It is necessary to inform, provide trainings and take precautions that are required for the abolishment of negativities for employees in hospitals constituting high risk ambient. The negativities in the ambient shall be determined by virtue of risk management and planning shall be carried out.

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# PATIENT RIGHT AND SAFETY



# A STUDY ON PATIENT-PHYSICIAN RELATIONS WITH THE FRAMEWORK OF AGENCY THEORY: THE SAMPLE OF ISPARTA PROVINCE CENTER HOSPITALS

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\*This study is adapted from the same name thesis which was published in 2012.

## ABSTRACT

**The Problem of the Study:** In the markets which information asymmetry exists, relationship of power of attorney occurs when the seller use this information on behalf of the association. In healthcare market, which is one of the the knowledge-intensive markets, relationship at power of attorney appears in the relationship of patient and physician. Physicians, who have one of the most important tasks to protect and upgrade the health of society, are competent at making decisions on behalf of patients by using their knowledge of medicine. Time to time ethical violations and abuse of authority occurs by using this competency and the moral hazard raise. Within the imperfect agency relationship, medical errors, unnecessary demand-creation behavior of physicians and efforts to obtain financial benefit, which are known as a kind of market failure, thought to be the reason of the decrease in confidence to physicians.

**The Purpose of the Study:** In this study, it is aimed to investigate the reasons of negative perceptions towards the physicians within the framework of agency theory. For this purpose, perceptions of patients and their physicians under these problems were evaluated.

**Method:** Population of the research, composed of physicians who are working in hospitals in Isparta province center, and patients in these hospitals. In this context, 124 physicians and 303 patients were reached. As a data collection tool the questionnaire namely “Patient-Physician Relationship in the Framework of the Agency Theory” is used which is developed by the researcher. In questionnaire, there are 43 statements to measure the dimensions such as “lack of confidence to the physician”, “ethical problems”, “financial benefit”, “unnecessary demand”, “bad medical practice.”

**Findings and Results:** According to the survey results, there is a significant difference between the physicians’ perspective to their colleagues and the view of patients to the physicians. It is found that, patients’ confidence to their physicians is lower than the physicians’ confidence to their colleagues. Negative perceptions of patients about the physicians based on the behavior of physicians to obtain financial benefit, tendencies to take informal payments, being source of ethical problems and bad medical practices. Also, perception of physician-patient relationship differs according to age, education and income level of the patients; and seniority and income level of physicians and the ownership of the hospital in which the physician works.

**Key Words:** Patient-physician relations, agency theory, asymmetric information, trust in patient-physician relationship

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## **1. INTRODUCTION**

In health care services the physician is in the leading position as determiner thanks to the information he/she has and can often takes unquestionable decisions within the frame of clinical independence. Agency theory, in the market in which there is information asymmetry, is a theory which explains the relationship between the principal and the agent who makes a decision on behalf of principal. In this concept, Mooney and Ryan (1993) define agency theory as a relationship that is characterized by two people, one is representative and the other is represented, both of whom try to maximize their own independent benefit function (Transferred:Şahin, 2004: 213). The relation between patient and physician is principal-agent relation and includes asymmetric information problem.

## **2. CONCEPTUAL FRAMEWORK**

Clinic is a place where physician and patient meet willingly. (Foucault, 2002:70). This willing is a result of agency theory. Most health economists examined the topic of patient relations in health sector under the theory of agency (Vick and Scott, 1997: 587). physician-patient relation is based upon the relation of agent-client in health services (Vick and Scott, 1999: 111). Agency theory in the relationship between parties is fictionalized to make the best decision for servers in the name of service claimers. Nevertheless, as the servers do not perform this ethical behaviour, there are problems in agency theory. Most of the problems generated during agency relation are associated to asymmetric information between physician and patient. This is fairly efficient in terms of patient-physician relationship and the maintenance of health service organizations (Follandvd, 2010: 24; Adams, 1994:8)

Agency theory thinks to do the best treatment for the patient of physician. But in real the physician does not always behave like this. Perfect physician is a physician who puts himself/herself in patient's shoes and chooses the best choice for the patient. This, as a medical ethic means that the physician focuses on patient's health, mainly benefit of patient. In this case if there was any conflict, this conflict would be due to patient's own choice (Follandvd., 2010:219)

This theory appears in two kinds, one is perfect agency relationship and the other is imperfect agency relationship. However, agency theory argues a perfect relationship would not be between physician and patient; a perfect relationship would be in theory. As Mooney and Ryan (1993) defined perfect agency relationship is a relationship which the physician in forms the patient completely and a relationship when the patient joins decision making process as well. However, as a more widely appearing model the most common output of imperfect agency is moral hazard which results in the patient's guidance of unnecessary demand.

## **3. RESEARCH**

### **3.1. Population, Sample and Method**

The patients and physicians who are principal and agency part of agency theory are determined to be applied as a population for the research. The population of research consists of 6 hospital's physician from governmental and private sectors operated in Isparta city centre and mature patients who take health service from these hospitals. The population of research, according to data taken from Ministry of Health, is 606 for physicians and 195 000 (Isparta

city centre population) for the patients. Fault tolerance for population is %5, and if the reliability considered %95, a population of approximately 424 patients and 281 physicians can be sufficient (Kan, 1998). For the research mentioned above, the permission is received and we reached 124 physicians and 303 patients with the convenience sampling method.

The data was analyzed by using SPSS 16.0 program. For the defining information and open ended questions, frequency and percentage calculation was made. In the questionnaire, the frequency of measurement in physicians' behaviours size and the importance of these behaviors were calculated with 5 point Likert scale by using arithmetic mean and standard deviation and statistical evaluations were made by average score.

In the cases where there are physicians' behaviours and parametric assumptions, the comparison of demographic variables of these statements' size is carried out, the difference of two average score (t test) is used to make a comparison of two groups; the analysis of variance is used (F test) to compare more than two groups. At the variance analysis result it is commented which group is different by examining Turkey's-b test. If parametric assumptions are not carried out, Mann-Whitney U test is used to compare two groups and Kruskal Wallis variance analysis is used to compare more than two groups. In the group in which it is determined a difference, it is applied Tamhane's T2 test to find the source of this difference.

### 3.2. Findings

Table 1: Psychometric Characteristics of physician and patient questionnaire in terms of perception of physicians

Perception size		Statement number	Max-Min	Cronbach Alfa		Patient		Physician	
				Patient	Physician	X	S	X	S
1.	HekiUnreliability to Physician	12	1-5	0.727	0.851	3.093	0.606	2.382	0.651
2.	Ethical Problems	8	1-5	0.726	0.836	2.881	0.729	2.407	0.765
3.	Pecuniary Advantage	9	1-5	0.811	0.910	3.039	0.812	2.430	0.902
4.	Unnecessary Demand	5	1-5	0.656	0.782	3.055	0.825	2.546	0.837
5.	Bad Medical Treatment	9	1-5	0.826	0.879	3.083	0.983	2.416	0.733

The content of statements is not same and it is asked in different ways according to physician and patient. The five dimensions are:

- *The size of Unreliability to physicians:* Each statement is formed to put forward the reliability of patients to physicians and the reliability of physicians to their colleagues. (12 statements)
- *Ethical Problems Size:* It is formed to determine the perceptions of ethical problems of physicians work in Turkey. (8 statements)
- *Pecuniary Advantage Size:* Expressions are for questioning negative trends that show the intention of financial interests of physicians. (9 statements).
- *Unnecessary Demand Size:* It will be for various purposes such as providing material benefits to gain experience or sometimes considered unnecessary demand resulting from the creation of professional incompetence. (5 statements)
- *Bad Medical Treatment:* The perception of physicians and patients towards physicians resulted in medical faults' prevalence and species. (9 statements)



The statements for physicians and patients are evaluated with 5 Likert scale. Besides it is applied different questionnaire to patient and physicians, the sizes to measure perceptions towards physicians and the statements in these sizes are made up parallel, so that both the physicians' and patients' independent views are determined and it is tried to be understood the difference between the perceptions and the comparison of physicians and patients

Cronbach Alfa values which show the reliability in physician and patient questionnaires size change between 0.656 and 0.910. These results show that there isn't reliability problem in the questionnaire and sub-dimension used in research.

When it is examined the distribution of 124 physician according to their working institution, it is seen more than half of them work in university hospital. When it is examined whether physicians expert on surgical clinic or not, it is confirmed %47,6 of them work in surgical clinic, and %52,4 of them work in other clinics. When it is examined the distribution of physicians in terms of age, %27,0 of them are 29 years old and younger; %35,1 of them are between 30-39 ages and %23,1 of them are 40 years old and older. In terms of total working period, the most percentile is about 9 years and less workers of physicians (%39,4). From the physicians of research, %71,8 of them are married and %71,7 is male. Nearly half of them (%49,4) have 3001-5000 income

From the patients which are reached %54,7 of them are female and %45,7 are married. It is seen %26,0 are 40 years old and above. In the research the patients whom the questionnaire applied to, more than half of them (%59,7) are graduated from university. In this concept, it is studied a highly educated patient group. More than half of patients (%55,6) have income below 1000 TL.

The patients, in the perception of physicians, is defined to participate in these size of problems in medium level by getting nearly 3 points from Unreliability to Physicians, Pecuniary Advantage, Unnecessary Demand and Bad Medical Treatment size. The patients only got points below average from Ethical Problems size, they agreed with experiencing ethical problems less other than the other problems.

As to physicians in the perception of their colleagues by getting points below the average 3 from Unreliability to Physicians, Ethical Problems, Pecuniary Advantage, Unnecessary Demand, Bad Medical Treatment size, they showed a tendency not to join these kind of problems. Physicians got the highest point in Unnecessary Demand Size ( $2.546 \pm 0.837$ ).

#### **4. RESULTS AND SUGGESTIONS**

Points handled in all respects have been compared in terms of patients and physicians, and all differences have been found statistically meaningful. It was determined that perceptions related to the negative situations which appear as part of counsel relation are above at patients compared to physicians.

In research, patients showed reason physical dissatisfaction and drug companies' promotions, but the physicians showed reason lack of experience and professional illiteracy as an excuse for suggestions of unnecessary observation and treatment. It was expressed by patients and physicians that professional abuses are much more in surgical clinics than in other clinics.

It was determined that patients' age and education, but physicians' just income cause differences in perceptions related to the negations in patient-surgeon relations, and apart from

that patients' income and the hospital's ownership that physicians work in and the clinic they work in is surgical or not don't cause any differences in perceptions.

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# MALPRACTICE AMONG NURSES: TREND TO ERROR AND ITS CAUSES

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## ABSTRACT

**Objective:** This study aims to determine the medical error proneness among nurses and its causes descriptively.

**Material-Method:** The population of the study includes (277) nurses employed in Public Hospitals (Bingöl State Hospital and Maternity and Children Hospital) in Bingöl city center. (131) Nurses who all accepted to participate were selected for this study without carrying out any sampling method. The data were collected between November – December 2014 by using Nurse Identification Form consisting of questions to determine descriptive and professional characteristics of nurses and “Malpractice Trend Scale in Nursing”, whose validity and reliability were tested, developed by Özata and Altunkan (2010). To perform the study, ethics committee approval and permissions from organization were obtained. The data were evaluated using statistical packages in computer environment.

**Results:** It was determined that most of the nurses participating in the study were between 23-27 age (26.7%), female (75.6%), married (56.5%), associate degree graduate (35.1%) and bachelor degree graduate (32.8%), employed in service nurse (89.3%) in internal units (42.7%) and special units (intensive care, operating theatre, etc.), having 0-5 year professional experience (37.4%) and working maximum 40 hours a week (70.2%).

It was found that nurses did not find ‘the number of nurses in services’ sufficient to give proper care to patients (77.1%) and thought that they did not have favorable environment in the units they work in order to give a safe care to their patients (77.1%). It also became evident that most of the nurses did not perform any malpractice before (77.9%), those who performed did not report this error (44.4%) “as they thought it would not give any harm to patient” (50%), they did not witness any malpractice by the other nurses (63.4%), and those who witnessed did not report this error (63.6%) “as they thought it would not give any harm to patient” (53.6%).

Furthermore, nurses reported that major causes of malpractices were fatigue (78.6%), workload density (75.6%), long working hours (74.8%), inexperience (72.5%), stress (71%) and inadequate professional knowledge (69.5%). They also reported that the factors which caused malpractice least were lack of protocol and procedure or their incomprehensibility (29.8%), records that was not kept regularly (33.6%) and inattention to shift hours (31.3%).

It was also determined that nurses reported that they always paid attention to drug applications and transfusion (60.3% - 94.7%), falls of patients (61.1% - 79.4%), nosocomial infections (74.0% - 87.8%) and patient follow-up/material safety (64.1% - 80.9%) during their professional practices. This situation suggests that nurses are attentive not to make medical errors and their tendency to make medical error is low.

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**Conclusion:** In the study, it became evident from the nurses' statements that nurses are attentive not to perform malpractice, and their tendency to make medical error is low during their professional practices.

**Key Words:** Nurse, malpractice

## **1. INTRODuCTION**

Malpractice is defined as an unexpected condition caused by an unintended disruption during the medical care provided to patient (Cebeci, Gürsoy, Tekingündüz 2012; Işık, Akbolat, Çetin, Çimen 2012). The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) defines the term of malpractice as "improper and unethical behaviour by a healthcare professional, and causing damage to patient due to inadequate and negligent conduct by healthcare professional" (JCAHO 2006). However, the dimensions of malpractice in our country are not exactly known, but it is indicated to show parallelism with the world countries (Cebeci, Gürsoy, Tekingündüz 2012; Ersun et al. 2013). Medical error is an important issue for all healthcare staff; however, it is suggested as a more important matter for nurses as they are more likely to encounter the risk of malpractice than the other health professional groups due to their high number and diversity of dependent and independent tasks, and their direct engagement in patient care (Ersun et al. 2013; Öztürk and Özata 2013). The heavy workload and shift system of nurses, and their difficult work conditions increase the possibility of malpractice (Dikmen, Yorgun and Yeşilçam 2014; Ersun et al. 2013). To prevent these medical errors, it is essential to determine how prone to malpractice the nurses are, to detect the causes of it and to take necessary measures for the malpractice.

## **2. MATERIAL AND METHOD**

### **2. 1. The Objective and Type of the Study**

This study was descriptively carried out with the aim of determining the medical error proneness among nurses and its causes.

### **2. 2. The Population and Sample of the Study**

The population of the study includes (277) nurses employed in Public Hospitals (Bingöl State Hospital and Maternity and Children Hospital) in Bingöl city center. (131) Nurses who all accepted to participate were selected for this study without carrying out any sampling method.

### **2. 3. Data Collection Tools**

The data were collected (between November – December 2014) by using Nurse Identification Form consisting of questions to determine descriptive and professional characteristics of nurses and "Malpractice Trend Scale in Nursing", whose validity and reliability were tested, developed by Özata and Altunkan (2010). In the scale, the subjects including daily routine activities were gathered in 5 sub-scales and 49 items. The authors calculated the internal consistency reliability coefficient (Cronbach Alpha) as 0,95.

To perform the study, ethics committee approval and permissions from organization were obtained. The data were evaluated using statistical packages in computer environment.

### 3. RESULTS

It was determined that most of the nurses participating in the study were between 23-27 age (26.7%), female (75.6%), married (56.5%), associate degree graduate (35.1%) and bachelor degree graduate (32.8%), employed in service nurse (89.3%) in internal units (42.7%) and special units (intensive care, operating theatre, etc.), having 0-5 year professional experience (37.4%) and working maximum 40 hours a week (70.2%).

**Table 1.**The Evaluation of Nurses related to Malpractice (n=131)

Evaluation of Medical Errors	n	%
Is the number of nurses adequate for proper healthcare in your service?		
Yes	30	22.9
No	101	77.1
Do you have proper environment to give safe healthcare?		
Yes	30	22.9
No	101	77.1
Have you ever made any medical errors?		
Yes	18	13.7
No	102	77.9
Unanswered	11	8.4
Did you inform the error?		
Yes	10	55.6
No	8	44.4
Why didn't you inform the error?		
I thought the error was not vital	2	25
I thought I wouldn't give harm to patient	4	50
I feared I would be excluded by my friends	1	12.5
Other	1	12.5
Have you witnessed that the other nurses made any medical error?		
Yes	44	33.6
No	83	63.4
Unanswered	4	3.0
Did you inform the error?		
Yes	16	36.4
No	28	63.6
Why didn't you inform the error?		
I feared the person making error would be penalized	3	10.7
I feared the person making error would be criticized	1	3.6
I thought the error was not vital	5	17.9
I thought it wouldn't give harm to patient	15	53.6
Other	4	14.2

It was found that nurses did not find 'the number of nurses in services' sufficient to give proper care to patients (77.1%) and thought that they did not have favorable environment in the units

they work in order to give a safe care to their patients (77.1%). It also became evident that most of the nurses did not perform any malpractice before (77.9%), those who performed did not report this error (44.4%) “as they thought it would not give any harm to patient” (50%), they did not witness any malpractice by the other nurses (63.4%), and those who witnessed did not report this error (63.6%) “as they thought it would not give any harm to patient” (53.6%) (Table 1).

When analyzed the causes of medical errors, nurses reported that major causes of malpractices were fatigue (78.6%), workload density (75.6%), long working hours (74.8%), inexperience (72.5%), stress (71%) and inadequate professional knowledge (69.5%). They also reported that the factors which caused malpractice least were lack of protocol and procedure or their incomprehensibility (29.8%), records that was not kept regularly (33.6%) and inattention to shift hours (31.3%).

It was also determined that nurses reported that they always paid attention to drug applications and transfusion (60.3% - 94.7%), falls of patients (61.1% - 79.4%), nosocomial infections (74.0% - 87.8%) and patient follow-up/material safety (64.1% - 80.9%) during their professional practices. This situation suggests that nurses are attentive not to make medical errors and their tendency to make medical error is low.

## DISCUSSION

In this study carried to determine the medical error proneness among nurses and its causes, 74.8% of the nurses attributed the long working hours to the cause of medical error. The excessive working hours are thought to contribute to the malpractice because they cause such conditions as fatigue, sleeplessness, etc. in nurses. Similar results were found in another study. 88.2% of the participating nurses reported that long working hours would affect the proneness to medical error (Cebeci, Gürsoy and Tekingündüz 2012).

The nurses who participated in the study were found to be always attentive especially in drug administrations and transfusion practice during their professional practices (60.3% and 94.7%, respectively). In another similar study, nurses responded to drug and transfusion practices subscale, and the highest score was for the item “In IV, IM and SC injections, I pay attention to administer the medicine in the right area” (Cebeci, Gürsoy and Tekingündüz 2012).

## CONCLUSION

In this study, it was found from the nurses’ own statements that they are attentive not to make medical errors while carrying out professional practice, and their tendency to make medical error is low.

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# DETERMINE THE ATTITUDES OF NURSES WHO ARE WORKING ON PATIENT SAFETY IN THE EMERGENCY ROOM

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Şura ALAN<sup>2</sup>

## 1. INTRODUCTION

One of the basic principles of healthcare sciences is “*first, do not harm*”. In the direction of principle; Serving presentation must focus on the safety of patients and employees (Kurutkan MN, 2009). According to National Patient Safety Agency, patient safety is to devise plans which avoid simple mistakes to show up so as to harm patients and healthcare employees in process and take precautions which provide them to be determined, reported and corrected before they reach to patients and healthcare employees (Kurutkan MN, 2009). It is so important that not only the directors but also the nurses who are nested with patient safety in all areas of healthcare service must be included to the system for forming patient safety consciousness. According to *United States Of America Patient Safety Consensus Report*, the basic strategies for patient safety are collected under 4 major topics. These strategies are that (Güven R, 2007);

- 1) Patient safety issue must play a part in priorities of management, management must internalize the patient safety and management must be able to undertake the responsibility if a problem shows up, in medical establishment.
- 2) It must adjust the processes about investigating mistakes and develop the culture of patient safety in health facilities.
- 3) It must place and generalize the safe applications.
- 4) It must increase the numbers of educations about patient safety, determine occupational false steps and correct them.

The objective of patient safety is to provide security by creating an environment which affects patients, patient's relatives and healthcare employees psychologically positive and to take precautions to reform mistakes before reaching to patients. Patient safety is a global health issue.

Joint Commission on Accreditation of Healthcare Organisation (JCAHO) stated “International Patient Safety Objectives” for emergency departments in 2014 and indicated these objectives as;

Authentication of IDs of patients properly, Developing effective communication of employee, Using high risk medicines properly, Using safe alarm systems, Preventing infections, Detecting situations which place patient safe in jeopardy, Preventing surgical mistakes

Patient safety culture is so important for preventing mistakes and reform them. But, healthcare employees cause hiding mistakes and not being reported in fear of being interrogated and

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being punished. In fact, speaking up, discussing about mistakes, revealing main reasons and taking a lesson from mistakes are the requirements of modern approach to patient safety and developing culture of patient safety (Ovalı, 2010). The mistakes those could be made during performing a medicine can cause unintended consequences up to false treatments and even death Cüceloğlu 2005; Üstün 2005; Kumcağz ve ark. 2011; T Şen ve ark. 2013). Communication is miscellaneous process which includes understanding each other by sharing their own feelings, opinions and knowledge; needs to become productive and effective in the institution; forms a frame for superior subordinate relationship; brings success, understanding, an healthy teamwork with its wake (Savcı ve ark. 2009). Protecting patient from second traumatization is legal and ethical responsibility of nurse with having and maintaining a safe place in hospitals. Falling has a place in the secondary most frequent injury reasons in hospitals (Çeçen ve Özbayır 2011). Falling is defined as becoming immobile to lower grade from the level before inadvertently without an inflictor force, syncope or stroke Hendrich ve ark. 1995).

## 2. APPLIANCE AND METHOD

201 nurses who serve in emergency departments of all hospitals in center of Konya comprise the research area. And 104 nurses who serve in emergency departments of hospitals connected with *University Hospitals and Public Hospitals Association* stated in center of Konya comprise the samples group.

### 2.2. Collecting Research Datas

*Information Form and Patient Safety Attitude Scale* have been used as collecting data tool in research. Information Form : In form reformed in the light of literature (Filiz 2009; Tanrikulu 2010; Bayar 2013; Tunçel 2013), there are 14 questions including the characteristics and opinions about patient safety of nurses. Questions include age, sex, marital status, educational background, total working hours on profession and in emergency department, having certificate of emergency nursing, being received education about patient safety, finding herself/himself qualified about patient safety, certificate of quality of hospital, certificate of quality of department working in. Also, opinions of nurses about importance of patient safety have been summed up by using NRS (Numerical Rating Scale). In scale, "0" states that the patient safety is no important and "10" states opposite. Patient Safety Attitude Scale: This scale's different versions have been developed, in the first instance, by Sexton and his friends (2006) for different departments (intensive care, pharmacy and field of obstetrics and gynecology). The scale has been converted to practicable system in all fields by adapting to Turkish language by Baykal and his friends. The scale is consisting of 6 dimensions and 46 articles as work satisfaction, (11 articles), teamwork (12 articles), security climate (5 articles), administrative mentality (7 articles), describing stress (5 articles) and working conditions (6 articles). Fivefold Likert type scale is being graded as "5- agree strongly", "4- agree", "3- agree partially", "2- disagree", "1- strongly disagree". Some articles of scale (21., 36., 37., 38., 39., 40., 41., 42., 43. ve 45. articles) are being graded negatively. Total article points correlation value of scale converted to practicable system in all fields by adapting to Turkish language by Baykal and his friends is between 0.35 and 0.58 and total Cronbach's alpha value is 0.93 and sub-dimension Cronbach's alpha values occupational satisfaction is 0.85, teamwork – 0.86, security climate – 0.83, management understanding – 0.77, describing stress – 0.74 and working conditions – 0.72. total points received from scale show nurses' attitudes relating to patient safety. Point, can be received from scale, can be 46 maximum and 230 minimum. The more points get, the more

the attitudes relating to patient safety increase. In study, Cronbach's alpha value is defined as 0.92 and sub-dimensional Cronbach's alpha values are defined as occupational satisfaction – 0.91, teamwork – 0.80, security climate – 0.81, management understanding – 0.86, describing stress – 0.71 and working conditions – 0.67.

### 3. FINDINGS

**Table 3-1-1: Nurses' Socio-Demographic (N=104)**

AGE	N	%	SERVICE LIFE AS A NURSE	N	%
18-22	23	22,1	1 Yıl veya Daha Az	17	16,3
23-27	32	30,8	2-4 Year	24	23,1
28-32	23	22,1	5-7 Year	21	20,2
33-37	20	19,2	8-10 Year	20	19,2
38-42	5	4,8	11+ Year	22	21,2
43+	1	1	<b>SERVICE LIFE IN EMERGENCY</b>	<b>N</b>	<b>%</b>
<b>SEX</b>	<b>N</b>	<b>%</b>	1 year or least	29	27,9
Female	57	54,8	2-4 Year	31	29,8
Mail	47	45,2	5-7 Year	30	28,8
<b>MARİTAL STATUS</b>	<b>N</b>	<b>%</b>	8-10 Year	10	9,6
Married	56	53,8	11+ Year	4	3,8
Single	48	46,2	Total	104	100
<b>EĞİTİM DURUMU</b>	<b>N</b>	<b>%</b>			
High school	49	47,1			
Pre-licance	18	17,3			
Licance	31	29,8			
Postgraduate	2	1,9			
Doktorate	2	1,9			
Total	104	100			

As seen on Chart 3-1-1, it has been observed that % 30,8 of nurses attendant to research is between 23-27 age group and % 5,8 are over the age of 38. % 54,8 of attendants are women, % 45,2 are men. % 53,8 of attendants are married, % 46,2 are unmarried. Near-half of attendants (% 47,1) are high school graduates. % 16,3 of attendants has been working as a nurse for 1 year or less, % 21,2 of attendants have been working as a nurse for 11 years or more. % 29,8 of nurses have been working for 2-4 years in emergency department, % 3,8 of them have been working for 11 years or more in emergency department.

## 4. ANALYSES

### 4.3. Nurses' Socio-Demographic Attitudes Relating to Patient Safety

**Chart 4-3-1: Patient Safety Attitudes Scale According to Nurses' Age Group**

Lower Dimension	18-22 (n=23)		23-27 (n=32)		28-32 (n=23)		33-37 (n=20)		38-42 (n=5)		T ve P Value
	Ort	Ss	Ort	Ss	Ort	Ss	Ort	Ss	Ort	Ss	
Job satisfaction	3,45	0,90	3,43	0,98	3,25	0,66	3,21	1,07	3,50	0,96	F=0,351 P=0,843
Team Work	3,65	0,92	3,57	0,77	3,48	0,42	3,55	0,93	3,43	0,59	F=0,179 P=0,949
Security Environment	3,80	0,69	3,85	0,71	3,69	0,66	3,51	0,95	3,53	0,43	F=0,818 P=0,517
Management Mentality	3,60	0,71	3,86	0,91	3,59	0,53	3,61	1,20	3,45	0,37	F=0,623 P=0,647
Stress Description	3,33	0,78	2,78	1,02	2,83	0,55	3,13	0,96	3,16	0,93	F=1,718 p=0,152
Working Conditions	3,12	0,66	2,85	0,58	2,89	0,32	3,10	0,61	3,08	0,40	F=1,263 P=0,290

As seen on Chart 4-3-1, in comparison with the sum of patient safety attitudes scale and sub-dimension averages by using single direction variance analysis according to age group of attending nurses to research in independent groups, a significant difference could not be determined.

**Chart 4-3-2: Patient Safety Attitude Scale Total Points and Sub-Dimensional Point Averages According to Sexes of Nurses (N=104)**

Lower Dimension	Women (n=57)		Man (n=47)		t ve p value
	Ort	Ss	Ort	Ss	
Job Satisfaction	3,28	0,85	3,45	0,97	t=-0,96 p=0,33
Team Work	3,42	0,78	3,81	0,78	t=-2,61 p=0,01
Security Environment	3,66	0,78	3,79	0,68	t=-0,92 p=0,35
Management Mentality	3,5	0,83	3,89	0,82	t=-2,41 p=0,01
Stress Description	2,9	0,88	3,13	0,87	t=-1,3 p=0,19
Working Conditions	2,9	0,5	3,08	0,6	t=-1,69 p=0,09

When examined Chart 4-3-2; a significant difference appeared between patient safety attitude scale teamwork sub-dimension and sexes of emergency nurses attendant to research. It has been observed that male nurses answered more positively to teamwork questions than female ones.

A significant difference has appeared between the sexes of nurses and patient safety attitude scale management understanding sub-dimension, male nurses responded more positively to management questions than female ones.

**Chart 4-3-3. Patient Safety Attitude Scale Sub-Dimensional Averages According to Total Working Hours**

Lower Dimension	1 year or least (n=17)		2-4 year (n=24)		5-7 year (n=21)		8-10 year (n=20)		11+ year (n=22)		P Value
	Ort	Ss	Ort	Ss	Ort	Ss	Ort	Ss	Ort	Ss	
Job Satisfaction	3,77	0,58	3,15	0,98	3,08	0,91	3,56	1,00	3,35	0,86	F=1,973 P=0,104
Team Work	3,87	0,50	3,53	0,85	3,54	0,84	3,66	0,65	3,44	0,83	F=0,885 P=0,476
Security Environment	4,02	0,66	3,70	0,79	3,55	0,74	3,85	0,76	3,59	0,89	F=1,457 P=0,221
Management Mentality	4,26	0,49	3,61	0,89	3,38	0,62	3,71	0,93	3,53	0,94	F=3,119 P=0,018
Stress Description	3,37	0,91	3,05	0,80	2,69	0,85	2,97	0,93	3	0,88	F=1,437 P=0,227
Working Conditions	2,92	0,57	3,14	0,63	2,75	0,53	3,08	0,45	2,97	0,53	F=1,649 P=0,168

When examined Chart 4-3-3, according to the factor of patient safety attitude scale sub-dimensional averages difference has been observed total working hours, in comparison with single direction variance analysis; a significant difference has been observed between management sub-dimension and total working years. The ones who served 1 year or less answered more positively. Except working conditions sub-dimension, nurses responded positively to other dimensions out of 3 points.

**Chart 4-3-4. Patient Safety Attitude Scale Sub-Dimension Point Averages According to Working Periods in Emergency Department of Nurses (N=104)**

Lower Dimension	1 year or least (n=17)		2-4 year (n=24)		5-7 year (n=21)		8-10 year (n=20)		11+ year (n=22)		p Value
	Ort	Ss	Ort	Ss	Ort	Ss	Ort	Ss	Ort	Ss	
Job Satisfaction	3,32	0,96	3,44	0,98	3,17	0,85	3,58	0,74	3,86	0,79	F=0,850 P=0,497
Team Work	3,64	0,77	3,65	0,80	3,40	0,76	3,93	0,63	3,58	0,58	F=1,042 P=0,389
Security Environment	3,73	0,76	3,69	0,66	3,60	0,77	4,22	0,82	3,55	0,37	F=1,416 P=0,234
Management Mentality	3,73	0,83	3,72	0,85	3,35	0,70	4,45	0,97	3,39	0,07	F=3,712 P=0,007
Stress Description	3,16	0,97	2,90	0,70	2,70	0,80	3,80	0,77	3	1,13	F=3,551 P=0,009
Working Conditions	2,99	0,75	3,04	0,46	2,81	0,42	3,26	0,52	3	0,13	F=1,462 P=0,220

Lower Dimension		Certificated (n=49)	Unsertificated (n=18)	t ve p value
Job Saftsfaction	Ortalama	3,42	3,32	t=0,52
	S.Sapma	0,89	0,92	P=0,60
Team Work	Ortalama	3,53	3,64	t=0,68
	S.Sapma	0,89	0,68	P=0,49
Security Environment	Ortalama	3,79	3,67	t=0,74
	S.Sapma	0,77	0,71	P=0,46
Management Mentality	Ortalama	3,75	3,63	t=0,68
	S.Sapma	0,97	0,75	P=0,49
Stress Description	Ortalama	2,90	3,07	t=0,94
	S.Sapma	0,82	0,91	P=0,34
Working Conditions	Ortalama	2,95	2,99	t=0,36
	S.Sapma	0,51	0,58	P=0,71

In comparison with the sum of patient safety attitudes scale and sub-dimension averages by using single direction variance analysis according to periods of working in emergency department in independent groups; a significant difference appeared between management sub-dimension and working period in emergency department. It has been observed that the nurses who worked 8-10 years in emergency department responded more positively to management questions. There is a significant connection between describing stress sub-dimension and period of working in emergency department. The ones who have worked in emergency department for 8-10 years responded more positively to describing stress questions.

**Chart 4-3-5. Safety Attitude Scale Sub-Dimension Point Averages According to Education level of Nurses (N=104)**

Lower dimesion		High School (n=49)	Pre - Licance (n=18)	Licance (n=31)	Post - Li- cance (n=6)	F ve p value
Job Satisfaction	Average	3,19	3,54	3,40	4,19	F=2,84
	S.D	0,92	0,89	0,83	0,80	P=0,04
Team Work	Average	3,48	3,67	3,69	3,86	F=0,82
	S.D	0,93	0,54	0,54	0,81	P=0,48
Security Environ- ment	Average	3,63	3,85	3,70	4,1	F=0,94
	S.D	0,81	0,75	0,60	0,65	P=0,42
Management Mentality	Average	3,49	3,71	3,81	4,38	F=2,57
	S.D	0,97	0,61	0,70	0,54	P=0,05
Stress Description	Average	3,01	2,80	3,19	2,60	F=1,23
	S.D	0,94	0,75	0,78	1,05	P=0,30
Working Condi- tions	Average	2,99	3,05	2,92	2,97	F=0,23
	S.D	0,68	0,28	0,51	0,22	P=0,87

As seen on Chart 4-3-5, according to the factor of receiving points averages from sum of patient

safety attitude scale and of sub-dimension, in comparison with Kruskal Wallis analysis, an actuarially significant difference was not appointed in scale and sub-dimensional scales, in groups.

**Chart 4-3-6. Patient Safety Attitude Scale Sub-Dimension Point Averages According to Situations of Being Had Certificate of Emergency Maintenance Nursing Care (N=104)**

On Chart 4-3-6, as comparing the sum and sub-dimension of nurses' receiving points averages from *Patient Safety Attitude Scale* with t-test in independent groups according to being had certificate of emergency maintenance nursing care education; it has been stated that there is no statistically significant difference between scale sum and sub-dimension in groups.

**Chart 4-3-7: Patient Safety Attitude Scale Sub-Dimensional Point Averages According to Educational Status on Patient Safety of Nurses (N=104)**

Lower Dimension		Get Training (n=71)	No get training (n=33)	t ve p value
Job Saftsfacfton	Average	3,40	3,32	t=0,72
	S.D	0,94	0,84	P=0,47
Team Work	Average	3,61	3,57	t=0,20
	S.D	0,74	0,81	P=0,83
Security environment	Average	3,69	3,78	t=0,63
	S.D	0,75	0,72	P=0,52
Management Mentality	Average	3,72	3,63	t=0,68
	S.D	0,88	0,75	P=0,49
Stress Descripfton	Average	2,90	3,57	t=1,14
	S.D	0,82	0,75	P=0,25
Working Conditional	Average	2,96	3,01	t=0,44
	S.D	0,53	0,61	P=0,65

On Chart 4-3-7, as comparing the sum and sub-dimension of nurses' receiving points averages from *Patient Safety Attitude Scale* with t-test in independent groups according to educational status on patient safety; it has been stated that there is no statistically significant difference between scale sum and sub-dimension in groups ( $p<0,05$ ).



**Chart 4-3-8: Patient Safety Attitude Scale Sub-Dimensional Point Averages According to Finding of Nurses Themselves Qualified (N=104)**

Lower Dimension		Feeling Enough (n=81)	Feeling insufficient (n=23)	t ve p value
Job Saftsfacfton	Average	3,40	3,26	t=0,72 P=0,47
	S.D	0,61	0,84	
Team Work	Average	3,61	3,57	t=0,75 P=0,45
	S.D	0,74	0,81	
Secur,ty Environment	Average	3,69	3,78	t=0,63 P=0,52
	S.D	0,75	0,72	
Management Mentality	Average	3,72	3,63	t=0,88 P=0,37
	S.D	0,88	0,75	
Stress Description	Average	2,95	3,15	t=1,14 P=0,25
	S.D	0,85	0,93	
Working Conditionals	Average	2,96	3,01	t=0,44 P=0,65

On Chart 4-3-8, as comparing the sum and sub-dimension of nurses' receiving points averages from *Patient Safety Attitude Scale* with t-test in independent groups according to finding of nurses themselves qualified; it has been stated that there is no statistically significant difference between scale sum and sub-dimension in group.

Lower Dimension	Get Training n=80		No Get Training n=22		t ve p değeri
	Ort	Ss	Ort	Ss	
Job Saftsfacfton	3,43	0,95	3,04	0,73	t=1,77 p=0,07
Team Work	3,71	0,71	3,17	0,83	t=2,99 p=0,03
Secur,ty Environment	3,75	0,77	3,59	0,63	t=0,88 p=0,37
Management Mentality	3,66	0,85	3,71	0,88	t=-0,23 p=0,81
Stress Description	3,02	0,86	3,03	0,98	t=-0,06 p=0,94
Working Conditions	3,04	0,50	2,78	0,69	t=2,0 p=0,04

**Chart 4-3-9: Patient Safety Attitude Scale Total and Sub-Dimensional Point Averages According to Situations of Being Had Certificate of Quality (N=104)**

On Chart 4-3-9, as comparing the sum and sub-dimension of nurses' receiving points averages from *Patient Safety Attitude Scale* with t-test in independent groups according to educational status of nurses; it has been stated that significant difference was observed between educational practice and quality education in groups. It has been observed that the emergency nurses who

had quality certificates answered more positively to teamwork sub-dimension questions. There is a significant difference between working conditions sub-dimension and situation of being had quality certificate. The ones who had quality education answered more positively to working conditions sub-dimension questions.

## 5. DISCUSSION AND RESULT

% 30,8 of nurses having attended to the research are between 23-27 years old; % 5,8 of them are over the age of 38. % 54,8 of attendants are women, % 45,2 are men. % 53,8 of attendants are married and % 46,2 of attendants are unmarried. Near half of attendants are high school graduates. % 16,3 of attendants have been working for 1 year or less, % 21,2 of them have been working for 11 years or more. % 29,8 of nurses have been working for 2-4 years in emergency service, % 3,8 of them have been working 11 years or more in emergency service. % 38,5 of attendants have certificate of emergency maintenance but % 61,5 of them do not. % 68,3 of nurses have had patient safety education and % 77,9 of them find themselves qualified about patient safety. % 76,9 of attendants have had education on quality, % 21,2 of them did not have education about quality. % 52,9 of the ones between 18-22 years old have been working as a nurse for 1 year or less. When examined attending nurses' patient safety attitude scale sub-dimensional averages, Positive responses have been received by receiving 3,36 from job satisfaction sub-dimension, 3,60 from teamwork sub-dimension, 3,72 from security climate, 3,67 from management understanding. They gave a response near "neutral" as describing stress sub-dimensions average is 3,00 and working conditions sub-dimensions average is 2,98. The attendant nurses answered as "I agree" with % 48,1 rate to in this department medical equipments-documents are sufficient question and answered as "I agree" with % 48,1 rate to I feel proud of working in this hospital question. Pursuant thereto, it can be seen that nurses answered more positively to job satisfaction questions. It is mentioned that there is a significant difference between public and private hospital doctors about if the equipments and hardwares are enough/well-kept. In study Şengül (2008), It has come in view that % 64 of doctors of public hospitals and % 12 of doctors of private hospitals do not think that the equipments and hardwares are enough/well-kept. In consequence of research, emergency nurses responded as "I agree" with % 47,1 rate to hospital management is skilled question. They responded as "I agree" with % 40,4 rate to they recognize the value of nurses in this department. As seen on Chart 4-2-3, the emergency nurses mentioned that they respond as "I agree" with % 45,2 rate to while caring about a patient, if i need other employees help me questions. They answered as "I agree" with % 44,2 rate to employees working in this department can ask me easily anything if they think they can't handle it. They responded as "I agree" with % 42,3 rate to ethical values are high in this department question. They responded as "I agree" with % 47,1 rate to diversity of views are solved by taking account of on behalf of the patient (what is better for patients - more than who is right) question in this department. It has been answered as "I agree" with % 42,3 rate to doctors and nurses work in a harmony. Emergency nurses agree with % 51,9 rate on information about statement of facts are used for providing patient safety question of safety climate sub-dimensional questions. In this department, they answered as "I agree" with % 49 rate to it is taken advantage of safe reporting system to develop safety of patient question; only they answered as "I disagree" with % 1 rate. In this department, they answered as "I agree" with % 44,2 rate to it is complied with relating clinical guides and evidence-based criterions question. In this department, they responded as

“I agree” with % 49 rate to I know how to report medical errors if needed question. While taking stock of management understanding of nurses attending to research, in this department, it is seen that they answered as “I agree” with % 48,1 rate to medical errors is tackled properly question. It has been seen that they answered positively to the question of all employees take responsibility about patient safety with “% 49” rate. They responded as “I agree” with % 44,2 rate to the question of hospital management supports me to perform my works towards patient safety. On article of our executives take serious the employees’ offers to develop patient safety, it has been determined that % 35,5 of attendants were waited that they are in an negative perception as saying “I disagree at all” and “I agree so little”; they responded as “I agree much” and “I agree at all” with % 32,2 rate. When looking at the emergency nurses’ responses to working conditions sub-dimension, it can be seen that they answered as “I agree” with % 52,9” rate to communicative disorders those are common which cause disruption of service in this department. It can be seen that they answered as “I agree” with % 52,9” rate to employees frequently pay no mind to rules and procedures (washing hands, treatment protocols/clinical ways etc.) question. A significant difference appeared between sexes of emergency nurses attending to research and patient safety attitude scale teamwork sub-dimension. Male nurses answered more positively to teamwork questions than female ones. A significant difference appeared between sexes of nurses and patient safety attitude scale sub-dimension. Male nurses answered more positively to management understanding questions than female ones. When compared educational level independent factor according to sum of patient safety attitude scale and sub-dimension averages, a significant difference did not appear between sum of scale and sub-dimensions. In Akman study (2010), % 44,4 of nurses has associate degree, % 35,8 has bachelor’s degree and % 12,8 of them haster or doctorate degree. In our research, we reached the information that patient safety culture total points of nurses with bachelor’s degree are higher than others. A significant difference did not appear as comparing the patient safety attitude scale sub-dimension averages towards age groups. In Balık study (2014), it has been stated that there is not a significant difference among nurses’ age group, patient safety attitude scale point averages and describing stress off site dimesions of sub-dimension. It has been determined that the attendant nurses on 21 years old and under 21 has lower point averages on describing stress than the nurses between 22-30 years old.b When compared patient safety attitude scale sub-dimension averages and total working period, the ones who has 1 or less service period answered more positively to management understanding questions. In the study executed by Önlér(2010) on the purpose of taking stock of attitudes of operation room employees relating to patient safety, it has been seen that more and more nurses’ work periods go up, their attitude to patient safety increase. Akman (2010) the organizational learning, error assessment, hospital management support and total patient safety culture points of the nurses who took patient safety education are more statistically and significantly than the ones did not. bWhen compared the patient safety attitude scale sub-dimension averages and working period in emergency department of nurses on Chart 4-3-4, it has been seen that the nurses working in emergency for 8-10 years answered more positively to management understanding questions. B When compared patient safety attitude scale sub-dimension averages, a significant difference appeared between management understanding sub-dimension and working period in emergency department. The nurses working in emergency for 8-10 years answered more positively to management understanding questions. When reviewing the nurses’ responses to describing stress sub-dimension of the question, it has been seen that they answered as “I am uncertain” with % 36,5 rate to when I am tired, i will be less active on my work question. It is seen that

they answered as ‘‘I agree’’ with % 42,3 rate to if i notice a problem about care of patient, it is hard to mention question. The ones working in emergency department for 8-10 years answered more positively. Erdađı (2013) In research on nurses workiin in clinics, it has been mentioned that the % 94,1 rate of reasons of medical errors are long working hours, tiredness and stress. According to the research made byÖzata and Altunkan (2010); among 5 of the reasons which causes errors mostly by healthcare employees are excess workload, few numbers of nurses to work, loading with charges out of duty, stress/tiredness. When compared nurses’ point averages of patient safety attitude scale sum and sub-dimension with the situation of having had patient safety education on Chart 4-3-7, it has been determined that there is not a significant difference statistically between scale sum and sub-dimensions between goup. On Bayar (2010) study, it can be seen that % 91,5 rate of nurses mentioned that they have knowledge about patient safety. On nurses’ patient safety attitude scale sum and sub-dimension averages, on Chart 4-3-9, a significant difference appeared between teamwork and quality education. It has been seen that the emergency nurses who took quality education answered more positively to working conditions sub-dimension questions and the educated ones answered more positively to working conditions sub-dimension questions. A significant difference has appeared between the sub-dimension of management understanding of nurses and number of years worked. It is seen that the nurses worked for 8-10 years in emergency answered more positively to management understanding questions. A significant relation appeared between describing stress sub-dimension and number of years worked in emergency. The ones who worked for 8-10 years in emergency answered more positively. The nurses who participated to the research answered ‘‘I agree’’ with % 47,0 rate to ‘‘in this department, I know how to report errors/ mistakes if needed’’ question which is stated in security climate sub-dimension. It has been seen that they answered as ‘‘I agree’’ with % 52,9 rate to ‘‘Employees pay no mind to rules and procedures (washing hands, treatment protocols/clinical ways etc.) those had constituted in this department. In Bayar (2013) study it has been appointed that the rate of nurses’ opinions -about the precautions made for patient safety by the institution- are lke that % 12,3 of them (N=16) think that these precautions are good, % 76,9 of them (N=100) think that the precautions are medium and % 10,8 of them (N=14) think that the precautions are so low.

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# OCCUPATIONAL RISKS IN HEALTH CARE WORKERS AND EMPLOYEE SAFETY CONCEPT

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## ABSTRACT

One of the current issues in health sector is occupational risks faced by employees and employee safety concept. Occupational risk factors are grouped as biological, physical, chemical, ergonomic and psycho-social factors. These risk factors cause an increase in occupational diseases, work related accidents and health problems especially in recent years. As a natural result of this, it is seen that there are some planned activities related with improving the health of employees and prevention of diseases. The starting point of this activity is identifying occupational risks in health sector, taking necessary precautions and adopting of an effective risk management, whereby it is considered that safety of employees will be provided and high quality and safe health care will be presented.

Based on these ideas, this study will present some information related with occupational risks in health sector, concept of employee safety and precautions to be taken. It is expected that this study will provide important contributions to other studies in this field.

**Key Words: Occupational Risk and Health Sector, Employee Safety in Health Sector.**

## INTRODuCTION

The concepts of occupational risks and employee safety have gained an increasing significance as a result of various factors including the increasingly more complex structure of health services, the developments in health technologies, emergence of different disease groups, presence of risk factors that cause diseases by the very nature of the sector etc. While the health service aims to protect, cure, and avoid damages, it is also possible that the health of the employees may be adversely affected by the possible risks that may appear during this serving process. This results in adopting the concept of risk management, improving patient care quality while at the same time keeping employee safety at the highest level, increasing the awareness of the employees for occupational risks and taking the necessary precautions (Korkmaz et al. 2014).

A recent increase in the prevalence of particularly occupational diseases, occupational accidents and health problems connected to occupation among the health care workers has made hospital administrators interested in the employee safety and health and have more sensitive approaches to improve employee health and to prevent diseases (Aksay et al., 2012). The main reason for this is the decrease in the life quality of workers with higher occupational risks and the big damage of the labour loss because of occupational diseases and occupational accidents for not only the hospitals, but also national economy (Göktaş and Ateş, 2011).

This study will include the concept of employee safety and occupational risks as one of the most important problems encountered by the health workers and will focus on the precautions to be taken.

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## 2. OCCuPATIONAL RISKS IN HEATH SECTOR

It is observed that the employees encounter many risks such as occupational accidents and occupational diseases during their work life. The reasons for occupational accidents are classified as human-related reasons such as personal characteristics leading to dangerous behaviours, age, seniority, family issues, sleeplessness, exhaustion, imprudence, carelessness etc. and physical and mechanical atmosphere driven reasons (Say,2013).

Occupational disease is defined as the deterioration of health of an employee because of the nature of an occupation and working conditions when conducting a job (Göktaş and Ateş,2011). From this perspective, it is seen that employees at health sector are exposed to some occupational risks and consequently come down with occupational diseases (Çalışkan and Akdur,2001). The occupational risks which adversely affect the health of health workers and increase their incapacity is categorized as biological, ergonomic, physical, chemical, and psycho-social factors (Özkan and Emiroğlu, 2006; European Commission, 2010).

**Biological risks** include stab wound (Çiftlik, 2014), infections, bacteria, viruses, parasites, and diseases such as Hepatitis B or tuberculosis which appear in cases of contact with contagious body fluids (Hakan, 2014).

**Chemical Risks** emerge as a result of exposure to chemicals such as formaldehyde or ethylene dioxide (Çiftlik, 2014). It is stated that such chemicals and medicines harm the body system or poison it (Hakan,2014).

**Psycho-social risks** include heavy working conditions and burn-out syndrome (Çiftlik, 2014) and they cause stress related to job or working atmosphere, emotional strain in employees resulting from shift system and heavy work load, and interpersonal problems(Hakan,2014).

**Ergonomic risks** cover the injuries and malformations that may appear during such activities as carrying the patient and lifting the patient (Çiftlik, 2014).

**Physical risks** arise as a result of such practices as radiation or laser which may cause tissue trauma at work (Hakan, 2014). Health care workers' being subjected to violence is also a subtitle of physical risks (Çiftlik,2014).

## 3. THE CONCEPT OF EMPLOYEE SAFETY AND PRECAuTIONS

Individuals work for many reasons including to continue their lives, to have a career or to make a good service for the society etc. From this point of view, it is an incontestable right of an individual to wish a safe working atmosphere. Creating a safe working environment is physically, socially, psychologically and ergonomically highly important to increase the productivity and performance of the workers, as it causes to build organizational attachment and confidence in the organization (Say, 2013). This has caused organizations to undertake more and increasingly more activities related to employee safety. When the structural changes in health sector are taken into consideration, International Labour Organisation (ILO), Occupational Safety and Health Administration (OSHA), National Institute of Occupational Safety and Health (NIOSH), American Hospital Association and health unions stressed the right of health workers to have the right to work in a reliable atmosphere and to be healthy, as do all other workers. International Occupational Health Commission suggested to evaluate regulations on the health of health care workers through labour health approach. In the early



1990s, Accreditation Commission of Health Organisations in USA stated the necessity of a health and safety committee in hospitals. NIOSH and OSHA figured the main purpose of this committee as elimination of all kinds of physical, chemical, psychological, biological and ergonomic risks and dangers that are harmful to health and creating a healthy and safe hospital atmosphere in which no occupational diseases or accidents occur. The services of this committee can be categorized under three subtitles: services for health care workers, services for hospital atmosphere and production process, and other services (Özkan and Emiroğlu, 2013).

**The services for Health Care Workers are:**

- creation of programs to improve health,
- informing the health care workers about occupational risks and dangers,
- provision of health training on health and safety matters,
- provision of consultancy service on health,
- monitoring the adaptation of the employees to the established health and safety standards,
- to have periodical examinations,
- immunization (e.g. Hepatitis B),
- paying attention to health care workers to have a healthy and balanced diet,
- increasing the usage of personal protective by health care workers,
- keeping the necessary records of occupational diseases and accidents and informing whom it may concern (health care worker, unions, administration etc.),
- caring and treating the health care workers when injured or sick.

**Services for Hospital Atmosphere and Production Process:**

- Involving the committee in constructing the hospital,
- drawing a workflow diagram for each occupational group and describing the production process,
- identifying and monitoring the risks for health and safety,
- monitoring the efficiency of the regulations on occupational risks and dangers.

**Other Services** are listed as

- Establishing a procedure and policy for health and safety in hospital,
- developing a recording system for health and safety,
- coordinating with hospital units,
- making preparatory plans for emergency cases,
- getting the support of the hospital management (Özkan and Emiroğlu, 2013).

As for Turkey, the necessity to establish an employee safety committee is stated in the Guidelines for Hospital Service Quality Standards issued by the Directorate of Performance



and Quality Improvement and Department of the Ministry of Health in 2011. In this way, it is expressed that it would be possible to protect the health of the employees and to enable them to work in a safe atmosphere (HKS[SQS],2011). The Code of Providing the Safety of Patients and Employees, which was issued by the Ministry of Health in the same year, included similar regulations. Accordingly, the Article 7 of the Code specified the regulations on preparing an employee safety program, conducting health check-ups for the employees, making necessary amendments for the disabled employees, enabling the employees to personally take protective precautions, and taking the necessary precautions to avoid physical harassments to employees. Article 8 of the Code includes regulations on the control and prevention of infections, laboratory and radiation safety, conducting colored coding practice, performing a safe reporting system, training on patient and employee safety, and establishing patient and employee safety committees. Besides, in order to protect the health of the employees, to prevent occupational diseases and accidents, to conduct planning, researching, and auditing services, and to take necessary precautions in collaboration, The Department of Patient-Employee Rights and Safety was established under Turkish State Hospitals Authority (Say,2013).

The precautions to be taken related to the occupational risks as frequently encountered in health sector are listed as follows: Sterilization should be emphasized to eliminate biological risks; sanitation standards should be identified, pointed tools should be placed in protective containers; hands should be washed after contacting with patients; gloves, masks, aprons, eyewear should be used; and periodic audits should be performed for health units. When combating with chemical risks, high amounts of disinfectants should be avoided and ventilation should be done with care. The precautions to eliminate ergonomic risks can be summarized as creating a suitable working atmosphere, establishing awareness for muscle-skeleton injuries among employees, or preferring to use ergonomic furniture. For psycho-social risks, what would help is to use effective communication techniques, to encourage team mentality, to organize social activities and entertainments to decrease monotony, and to reinforce trust and solidarity feelings. It is also stated that to prevent violence towards employees (white code practice), to act in accordance with the Radiation Safety Code, to extend the use of appropriate safety eyeglasses and panels may help to eliminate the physical risks (Say, 2013).

It is highly significant to identify the risks and practice an effective risk management to cope with these risk factors each of which has a distinct nature and many negative effects (Çiftlik, 2014: European Commission, 2010). It is stated that, in this way, it would be possible to minimize occupational diseases and accidents, to create a healthy and safe working atmosphere, to enable employee safety, to increase the productivity, performance and satisfaction of the employees, to avoid labour and work day loss, and to eliminate financial losses in the organisation resulting from accidents (Çiftlik, 2014).

#### **4. RESULTS AND PROJECTIONS FOR FUTURE**

In our country, from the perspective of health care workers in particular, it is observed that there is a dramatic increase in the number of occupational accidents and diseases resulting from the working atmosphere and relationships in that atmosphere. It is thought that in order to overcome this problem, it would be helpful to give importance to the concept of employee safety, to take precautions to eliminate the risks, and to create a safe working atmosphere. It would only be possible in this way to enable the consistency in health services and to present a high quality, effective, and accessible health service. The precautions have distinctly positive effects

not only on the employees in an organisation, but also on the national economy and society. Therefore, it should be the main aim of all the employees including particularly executives to create an awareness of employee safety; risk factors should be defined; an awareness of the precautions to be taken for occupational risks and accidents should be created; the employees should be trained; hospital infections should be combated; the use of protective equipments should be encouraged; periodical check-ups of the employees should be conducted; and efforts should be made to create a positive organisational atmosphere. It is thought that all these attempts will help to solve the problems easily and to have a healthier future.

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# TENDENCY OF THE NURSES WORKING IN ERZURUM TOWARDS MEDICAL ERROR

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Serap ALTUNTAŞ<sup>2</sup>

## Introduction

Medical error is damage or an injury which develops in accordance with health care professionals rather than management of illness or the underlying disease (Işık et al, 2012). The Joint Commission on Accreditation of Healthcare Organization defined medical error as “patient’s damage as a result of inappropriate and unethical attitude of a healthcare professional, his/her inadequate and negligent attitude in occupational applications.” (JCAHO, 2006)

Medical errors, which have recently become a significant issue, cause a great amount of damage for individual/acquaintances who get service, healthcare staff who provides service, and the country and institution which provides service (Polat, 2005).

The issue of medical errors is an important topic for all healthcare professionals, and it is much more important for the nurses who are directly assigned in health care service. Medical errors of those nurses who are directly assigned in healthcare as a result of various reasons can put people’s lives in danger (Öztunç, 2012). These errors generally arise as a result of imprudence, carelessness, inexperience and incapability at occupation, lack of attention and not obeying the rules and regulations; and they may end up in some unintended consequences such as the death of the patient, becoming permanently disabled, staying in hospital for a long time. (Bilge and Geçim, 2012; Weingart et al, 2000)

As nurses are directly assigned in healthcare, misapplications could threat patients’ safety, and their awareness of the misapplications and preventing them provides the security of the patients. There are many factors which increase nurses’ risk of making a medical mistake; however, there are few studies in literature on nurses’ tendency towards making a medical mistake.

## The Purpose of the Study

The study has been carried out as a descriptive and cross-sectional design with the purpose of determining the tendency of nurses working in Erzurum towards medical error.

**Material and Method:** This study has been carried out in 4 hospitals in Erzurum city center, where general diagnosis and treatment and nursing services are provided, between September 2013 and January 2014. The study has been completed with 459 nurses who were accessible and accepted to participate in the research. Ethical committee approval and institution permission have been taken for the research and as a data collection tool a questionnaire form including ‘Individual Information Form’ and ‘Tendency to Medical Error Scale’ has been used for the collection of the data. Collected data have been computerized and evaluated with SPSS 20.0 statistical package programs. The data have been analysed with frequency and percentage calculation, definitive statistics and ANOVA tests.

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**The Scale of Tendency Towards Medical Error at Nursing :** I has been developed to measure nurses' levels of tendency, who are involved in direct patient care, towards medical error by Altunkan in 2009 and validity and reliability were tested (Altunkan, 2009). Consisting of five sub-dimensions and 49 items (Medicine and Transfusion Applications- 18 items, Cross Infection- 12 items, Patient Monitoring and Material Safety- 9 items, Falls- 5 items, Communication-5 items) the scale is answered in the form of Likert scale (1-Never, 2-Scarcely, 3-Sometimes, 4-Usually, 5-Always)(Athacment-6). Evaluation bases on the points of each item. The scale is evaluated according to the each item points to the total score of responses and sub-dimension points. It is accepted that the higher total score from the scale, nurses reduce tendency towards medical errors and the lower total score increase tendency towards medical errors (Altunkan, 2009). While in the studies of Altunkaya TSTTMEN's Cronbach alpha coefficient is defined as 0,95 in this study Cronbach alpha coefficient is totally defined as 0,97 and for sub-dimensions; communication dimension 0,79, falls dimension 0,87, patient monitoring and material safety 0,89, cross infection dimension 0,93 and medicine and transfusion applications (Altunkan, 2009).

## INDICATIONS

It has been mentioned that % 38.3 of the nurses participated the survey between 23-27 years old, % 81.7 of them female, % 51 unmarried, % 66.0 of them haven't got children, also those with children % 43.6 of them have 1 and % 43.6 have 2 children. Also it has been mentioned that % 65.8 of the nurses work at hospitals affiliated Unity Of Public Hospital, % 62.5 of them work at internal units and % 92.4 of internal unit workers work as a service nurse, % 51.2 of the nurses have a undergraduate degree education. Furthermore it has been determined that % 61.2 of the nurses have a professional experience between 0-5 years, % 82.4 of them work as a permanent staff, % 54.2 of the nurses generally, works sometimes the day sometimes the night, they work about 43 hours per week and care about 19 patients per day.

It has been determined that %21.1 of the nurses have already done medical error and %78.9 of them haven't. % 50.5 of the nurses stated that they witnessed medical errors made by nurses they work with and % 49.5 of them stated that they haven't witnessed any medical error by nurses they work with.

Nurses participated the research suggested the most causes of medical errors as "too much workload" (% 36.6), "inexperience" (% 36.2), "tiredness" (35.9%) and "the small number of nurses working" (34%), and the least causes of medical errors as with % 8.5 percent "the lack of protocols and procedures or lack of clarity" and with %3.5 percent "lack of attention / ignoring the nursing profession"

**Chart 1.** Scores of Nurses from the Scale of Tendency towards Medical Error at Nursing

## PATIENT RIGHT AND SAFETY

		n	Min.	Max.		S.S
The Scale of Tendency towards Medical Error at Nursing	Medicine and Transfusion Applications	459	22	90	84.73	9.16
	Falls	458	3	25	21.61	3.79
	Cross Infection	459	15	60	54.54	7.49
	Patient Monitoring and Material Safety	459	16	45	40.42	5.60
	Communication	459	11	25	21.99	2.60
	Total Score	459	97	245	223.24	25.28

When the marks of nurses of participants of the survey which they got from TSTTMEN evaluated it was determined that they got in average  $=223.24 \pm 25.28$  points from TSTTMEN.

It was confirmed that the highest point average in TSTTMEN's sub-dimensions is "drug and transfusion applications" ( $=84.73 \pm 9.16$ ) and the lowest point average is in "fallings" ( $=21.61 \pm 3.79$ ) and in "communication" ( $=21.99 \pm 2.60$ ).

These findings show that nurses prone to making medical errors at the most in sense of falling and communication and at the least, prone to making medical errors in sense of drug and transfusion applications.

When nurses' medical error tendency compared according to their personal and occupational characteristics, it was determined that those working in internal services, working as service nurses, those at the age of between 23-27, male ones, single ones, those who haven't got children, and those having less than five years professional experience, and those working at night shifts have more tendency towards making medical errors and there is a considerable difference ( $p < 0.05$ ) between groups.. It is understood that there isn't a considerable difference among nurses' medical error making tendency ( $p > 0.05$ ) according to hospital type they work and their training level and their working style.

## DISCUSSION

It has been determined from the results obtained from researches that nurses who attended to the research are young, single females and they don't have children in terms of personal characteristics. In regard to their occupational characteristics it has been determined that most of the nurses have a level of bachelor degree education and have less than five year occupation experience, work in hospitals affiliated to union of public hospitals of Erzurum, work as internal nurses and service nurses, work in average 43 hours weekly, usually at night shifts and sometimes at morning shifts, and they look after in average 19 patients in a day (table 2).

When nurses' Medical Error Tendency evaluated it is understood that their tendency toward medical error is low (table 3). Also in other studies evaluating nurses' medical error tendency, it has been revealed that their medical error tendency is low (Altunkan, 2009; Cebeci, 2012; Öztürk and Özata, 2013). Stated that %78.9 of nurses haven't made a medical error before (table 3) support the findings that their medical error tendency is low. It was revealed that in Altunkan's study (2009) %93.8 of nurses haven't made a medical error which jeopardise patients safety throughout their working life and this shows similarities with the existing research findings. (Altunkan, 2009).

Nurses participating in the survey claimed that reason of the medical error is mostly because of heavy work load, inexperience, fatigue, and limited number of working nurses. In accordance with this survey, in Aştı and Kıvanç's study which aimed to determine the reason of nurses' making error, it is determined that %23.3 of nurses purported excess working hours, %16 of them purported limited number of working nurses and workload as reasons of making error. Göktaş determined that nurses whose daily working time exceeds 12 hours face more adverse events ( Göktaş, 2007). Chang and Mark determined that with increasing number of working nurses in services drug errors has decreased ( Chang and Mark , 2009).

It was determined that nurses make errors at the least in drug and transfusion applications and at the most in fallings and communication. It has been thought that the reason of nurses' making less error in drug and transfusion applications, one of the professional practices which nurses do most frequently, stems from their having much knowledge and experience due to their high level of education. These findings are comply with other researches results, and it is determined that in these surveys nurses have made less errors in sense of drug and transfusion applications, with the increasing in nurses training level, drug errors has lessened and nurses who have bachelor's degree and postgraduate degree know more about drug effect and its dosage (Altunkan, 2009; Öztunç, 2012; Aştı and Kıvanç , 2003; Chang and Mark , 2009)

That nurses more prone to making errors in fallings and communication is also complying with litterateur. When surveys in recent years being analysed it is revealed that the primary errors encountered most frequently with regard to patients safety are fallings and communications problems and that nurses are prone to making medical errors in sense of fallings and communication and among the error reporting's the highest rate is about fallings (Altunkan, 2009; Öztunç, 2012; Zencirci, 2010; Meurier et al, 1997; Gökdoğan and Yorgun, 2010; Göktaş, 2007).

## CONCLUSION AND RECOMMENDATIONS

As a result of the survey it has been revealed that nurses have less tendency towards medical error , and they show tendency towards making errors at the least in drug and transfusion applications and at the most in fallings and communication. In line with these results, it might be recommended to be engaged in activities that can reduce the nurses' tendency towards medical error especially ones in sense of fallings and communication.

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# EXAMINING THE EMPLOYEE SATISFACTION AND QUALITY ASSESSMENT SCORES OF PUBLIC HOSPITALS

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Serap Taşkaya<sup>4</sup>

## ABSTRACT

Satisfaction is one of the main objectives of health care delivery. The concept of patient and employee satisfaction represents the extent to which patients and employees' needs and expectations can be met. In addition, the views of patients and staff, experience and feedback will be guiding the work of the quality of institutions (Ministry of Health, 2015b). The purpose of this study is examining the employee satisfaction and quality assessment scores of Public Hospitals in Konya region in Turkey. For this purpose, 6 public hospitals and 1 Oral and Dental Health Center were included in the study. The data were obtained from the Konya General Secretariat of the Public Hospitals Union. The results of this study indicate that quality score trends of Konya Training and Research Hospital and Konya Beyhekim State Hospital are similar to employee satisfaction score trends. The 5 year average hospital employee satisfaction scores for these seven hospitals were as follows; 70.8% in 2010, 76.6% in 2011, 80.9% in 2012, 84.9% in 2013 and 84.9% in 2014. From the results, the highest employee satisfaction score was in 2014. For all hospitals, employee satisfaction has shown a continuous rise during the five year period. In these five years, average scores for employee satisfaction Ereğli State Hospital Consequently had the highest score of 94%.

**Key Words:** Employee Satisfaction, Quality Assessment, Public Hospitals

## 1. INTRODUCTION

Health sector is a labour-intensive service sector, along with being a sector in which technology is used intensively. Therefore, provision of quality and productivity in health services is not possible with modern technology alone. Qualified employees are always needed as well as modern technology. In the health sector where the human role plays a very important role in the provided quality of service due the provision of services to people directly, the satisfaction employees get from their job also has an important place in terms of the sustainability of quality (Kamber et. al, 2010: 121-124). In other words, the satisfaction level of the patient is directly related to the employee satisfaction (Çetin et. al, 2010: 150; Kılıç and Tunç, 2004: 40). Therefore, satisfaction surveys were created by the Ministry of Health to evaluate employee satisfaction and a guide containing the survey implementation principles was prepared to instruct institutions. These surveys are implemented to hospitals in certain periods within the framework of this guide (Ministry of Health, 2012: 1).

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Another issue which the Ministry of Health measures periodically is service quality. The quality criteria created with this purpose and which used to consist of 100 items became a set of 150 questions with the revision carried out in 2007. The quality criteria which were revised again 2008 became a set of 354 standards and approximately 900 sub-components and were named “Service Quality Standards” (Ministry of Health, 2015a). Hospitals are inspected in certain periods in terms of meeting the service quality standards and score a point between 0 and 100 at the end of inspection.

The aim of this study is to examine the employee satisfaction points and quality evaluation points of health institutions rendering services in Konya (Turkey) and are associated with the General Secretariat of the Public Hospitals Union between 2010-2014.

## 2. MATERIAL AND METHOD

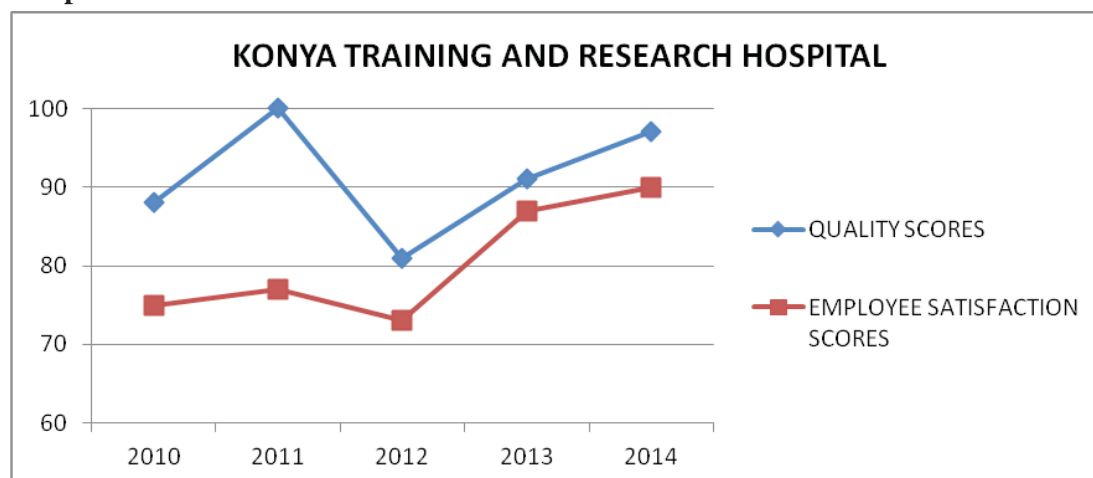
The data required to realize the aim of the research were obtained from Konya General Secretariat of the Public Hospitals Union. Due to the availability of data belonging to the year of 2014 as of the date of data obtainment from 7 health institutions including Konya Training and Research Hospital, Beyhekim State Hospital, Ereğli State Hospital, Seydişehir State Hospital, Beyşehir State Hospital, Akşehir State Hospital and Konya Oral and Dental Health Center, the health institutions in question were included in the scope of the research.

Hospitals use the “Employee Satisfaction Survey” created by the Ministry of Health, Department of Quality and Accreditation in Health to measure the satisfaction levels of employees. Quality evaluation scores are determined as a result of the evaluation of hospitals by the authorities assigned by the Ministry of Health, Department of Quality and Accreditation in Health. The graphical displays of the statistics related to the employee satisfaction scores and quality evaluation scores of the aforementioned health institutions between 2010-2014 were obtained by transferring them to the Excel medium and were interpreted accordingly.

## 3. FINDINGS

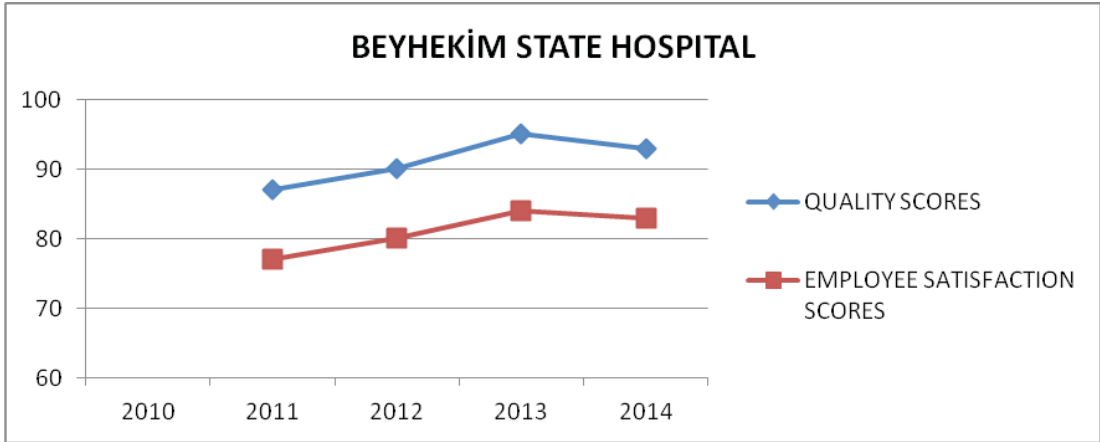
In this section, findings related to the employee satisfaction scores and quality evaluation scores of the hospitals included within the scope of the study between 2010-2014.

**Figure 1. Employee Satisfaction and Quality Scores of Konya Training and Research Hospital**



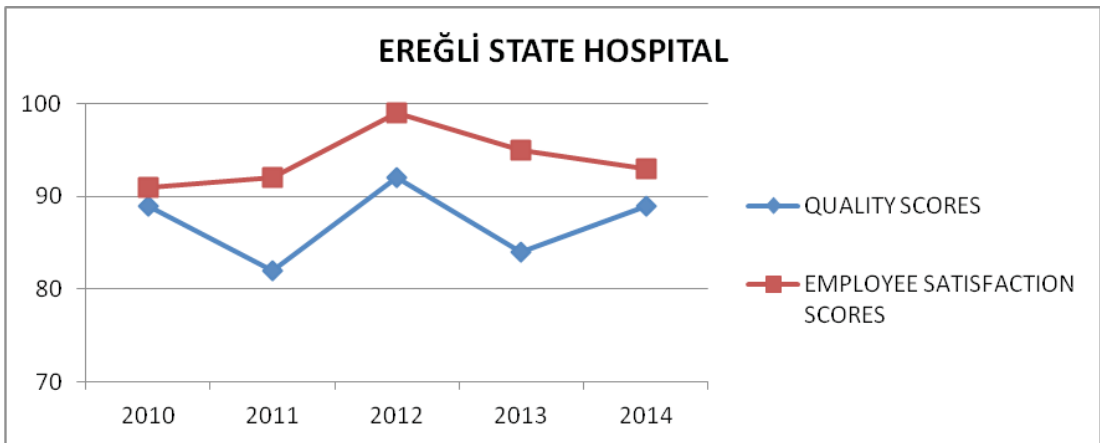
The employee satisfaction scores (ESS) of Konya Training and Research Hospital vary between 73 and 90 while its quality scores (QS) vary between 81 and 100. Average ESS of 5 years is 80,4 and average QS is 91,4. QS were found to be higher than ESS for all years. While the difference between ESS and QS is high in 2010 and 2011, this difference decreased in later years. 2012 has been the only year in which a decrease has been reported for both scores (Figure 1).

**Figure 2. Employee Satisfaction and Quality Scores of Beyhekim State Hospital**

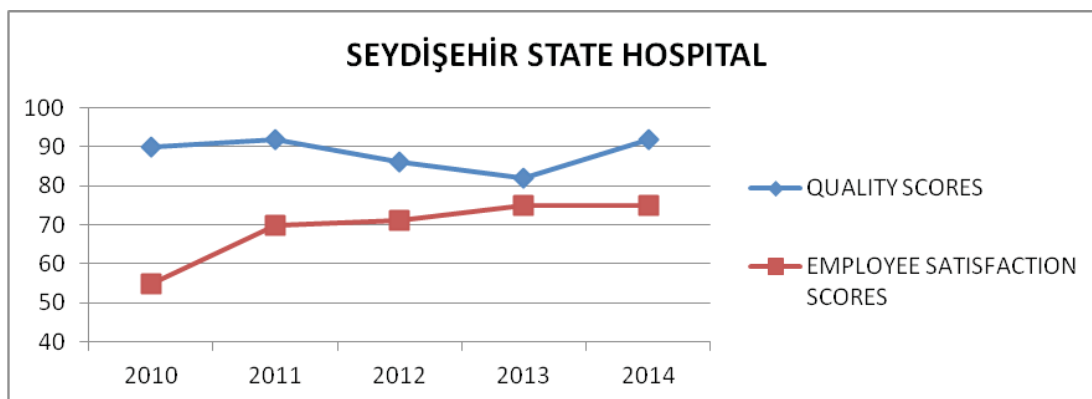


ESS of Beyhekim State Hospital vary between 77 and 84 while its QS vary between 87 and 95. Average ESS of 4 years is 81 and average QS is 91,3. QS were found to be higher than ESS for all years. Due to the recent opening of Beyhekim State Hospital and its exemption from the 2010 evaluationsi statistics related to this year have not been presented (Figure 2).

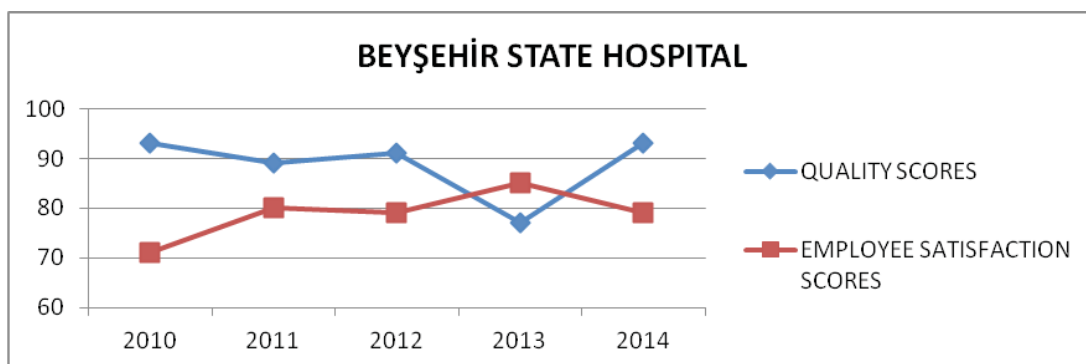
**Figure 3. Employee Satisfaction and Quality Scores of Ereğli State Hospital**



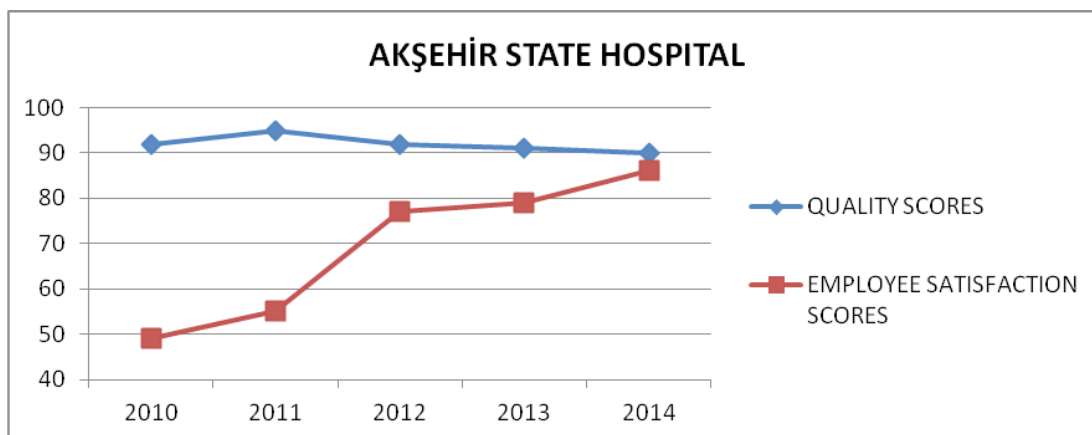
ESS of Ereğli State Hospital vary between 91 and 99 while its QS vary between 82 and 92 and have been fluctuating in this process. Average ESS of 5 years is 94 and average QS is 88,2. Ereğli State Hospital is the only hospital whose ESS are higher than its QS during the 5-year period (Figure 3).

**Figure 4. Employee Satisfaction and Quality Scores of Seydişehir State Hospital**

ESS of Seydişehir State Hospital vary between 55 and 75 while its QS vary between 82 and 92. Average ESS of 5 years is 69,2 and average QS is 88,4. QS were found to be higher than ESS for all years. Even though ESS of Seydişehir State Hospital was quite low (55) in 2010, it has increased in this process (Figure 4).

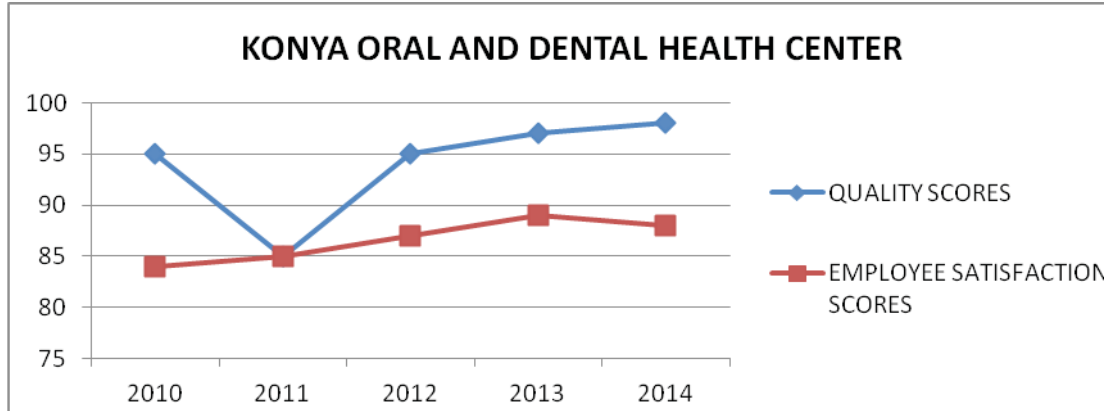
**Figure 5. Employee Satisfaction and Quality Scores of Beyşehir State Hospital**

ESS of Beyşehir State Hospital vary between 71 and 85 while its QS vary between 77 and 93. Average ESS of 5 years is 78,8 and average QS is 88,6. Only in 2013, was QS found to be lower than ESS. Because in the same year, QS experiences its biggest decrease (Figure 5).

**Figure 6. Employee Satisfaction and Quality Scores of Akşehir State Hospital**

ESS of Akşehir State Hospital vary between 49 and 86 while its QS vary between 90 and 95. Average ESS of 5 years is 69,2 and average QS is 92. Akşehir State Hospital is the hospital with the lowest average ESS of 5 years along with Seydişehir State Hospital. Nonetheless, ESS has increased steadily within the 5-year period and it was measured as 86 while it was 49 in 2010. Whereas the different between QS and ESS was 43 in 2010, this dropped to 4 in 2014. QS were found to be higher than ESS for all years (Figure 6).

**Figure 7. Employee Satisfaction and Quality Scores of Konya Oral and Dental Health Center**



ESS of Konya Oral and Dental Health Center vary between 84 and 89 while its QS vary between 85 and 97. Average ESS of 5 years is 86,6. Average QS is 94 and is the highest QS among the examined health institutions. While they were the same in 2011, QS were found to be higher than ESS for other all years (Figure 7).

#### 4. CONCLUSION AND RECOMMENDATIONS

Employee satisfaction and quality standards in hospitals are measured by the Ministry of Health periodically. According to this study conducted with the aim of examining the employee satisfaction scores and quality scores of health institutions rendering services in Konya (Turkey) and are associated with the General Secretariat of the Public Hospitals Union between 2010-2014, the health institution with the highest average employee satisfaction score (94) is Ereğli State Hospital and the health institutions with the lowest average employee satisfaction scores (69,2) are Seydişehir and Akşehir State Hospitals. The health institution with the highest average quality evaluation score (94) is Konya Oral and Dental Health Center and the health institution with the lowest average quality evaluation score (87,2) is Ereğli State Hospital. As is seen, the health institution with the highest average employee satisfaction score and the health institution with the highest average quality evaluation score are different. In fact, while Ereğli Hospital rank as 1st in terms of the employee satisfaction score average, it ranked as last in terms of the quality evaluation score average. This conclusion demonstrates that high employee satisfaction does not always mean high quality evaluation score.

When considered from the perspective of all health institutions, quality scores generally have higher averages. In spite of being generally low in 2010, employee satisfaction scores have shown increase in the later years. In other words, satisfaction levels of employees have increased in time.

The principle of impartiality has to be complied with during the data collection and evaluation related to both employee satisfaction and quality scores. Even though quality scores are determined by the evaluators coming from outside the Province, measurements on the employee satisfaction are carried out by the authorities in the hospital. Therefore, it will be more appropriate for the evaluators coming from outside the Province to conduct the surveys and evaluations related to employee satisfaction

In general, it is understood that employee satisfaction scores of the examined hospitals are lower even though their quality scores are high. Thus, the factors which increase the satisfaction of employees need to be identified and required initiatives need to be made accordingly.

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# THE EVALUATION OF THE AWARENESS IN OCCUPATIONAL HEALTH AND SAFETY: A FIELD STUDY FOR HEALTHCARE PROFESSIONALS

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## ABSTRACT

**The Problem Of the Study:** Some problems about occupational health and safety of the professionals have come out in parallel with the industrialisation in both our country and the world. These problems, which weren't taken into account at first, have gained importance and become issues to be thought upon after causing some troubles in labor productivity (Sabancı 2001). Especially in developing countries, human health is underestimated as a result of this fast development and therefore human life is endangered accordingly. Employee's having a healthy and a safe working environment in accordance with new technological developments, innovation and globalisation rate, have turned out to be one of the most essential issues in the field of human resources (Tozkoparan, Taşoğlu: 2011)

**The aim of the study:** The main object of this study is to obtain information about working accidents and occupational illnesses that workers encounter, to measure their awareness about occupational health and safety and especially to detect their attitudes and level of knowledge about the new law no 6331 upon OHAS.

**Method:** The main space of this study is the public health institution, The Public Health Laboratory and workers in Public Health Center in the city of Gümüşhane. The survey consists of 23 main questions 2 of which have 5 sub-questions while 1 of which has 4 sub-questions. At the end of the reliability analysis which was measured via SPSS, the Cronbach ALpha rate was 0,630. The data was obtained by Simple (random) sampling method.

**Findings and Results:** It has been understood that healthcare professionals' knowledge about occupational health and safety is not sufficient and they are not completely aware of the risks of their job and they know their rights in case of an accident in an intermediate level. A great majority of the employees (%50) state that working accidents occur because of not using protective gloves and long working hours. The rate of their opinion that there is an occupational safety in their working environment is %42.9. On the other hand, %37.8 of the participants say that they knew the risks of their profession. Workers have the opinion that working accidents are the responsibility of the employer and state that they know what the law no 6331 OHAS is.

**Key words:** Healthcare professional, Occupational Health, Health, Hospital

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## INTRODUCTION

Some problems about occupational health and safety of the professionals have come out in parallel with the industrialisation in both our country and the world. These problems, which weren't taken into account at first, have gained importance and become issues to be thought upon after causing some troubles in labor productivity (Sabancı 2001). Occupational Health and safety with its perpetually changing and dynamic structure is in the agenda of the society in developed industrial countries as well as developing countries. According to the experts of the International Labour Organisation and World Health Organisation "Occupational Health and Safety"; is the studies to keep physical, mental and social well-beings of workers in all professions at the highest level, to pursue this level and develop it (Bilir 1997). Protecting physical and mental health of the workers from negative effects of the working environment, taking precautions against working accidents and occupational illnesses and make them work in a healthy and a safety place are main objectives of the studies of worker's health and occupational safety (Yüksel 1998). Each renewal put forward to make human's life easier, creates some health and safety problems for working individuals in the meantime (Sevinç and others 2004).

Especially in developing countries, human health is underestimated as a result of this fast development and therefore human life is endangered accordingly. Employee's having a healthy and a safe working environment in accordance with new technological developments, innovation and globalisation rate, have turned out to be one of the most essential issues in the field of human resources. The organised and systematized studies save workers' future and therefore that of the companies; also they have an important role in companies' having an advantage in competition as they contribute to the productivity of healthy professionals. (Tozkoparan, Taşoğlu: 2011)

The aim of Occupational health and safety studies is to protect workers from working accidents and occupational illnesses and enable them to work in a healthy environment. (Demircioğlu ve Centel, 2007: 152-153) This is ,however, not possible in our world and country at all. According to ILO's data;

- Everyday, nearly 6.000 people die due to working accidents and occupational diseases. Annually, 350.000 people die of working accidents, and 1.700.000 people die of occupational illnesses.
- Each year 270 million working accidents take place and 160 million people come down with occupational illnesses. ([www.sosyalhaklar.org](http://www.sosyalhaklar.org))

Turkey comes first in terms of deadly working accidents among European countries and third in the world. The number of workers who died of working accidents between 1946 and 2011 has already reached 59.300. Each year in our country, 74000 accidents take place in average; as a result 1152 workers die annually while 1888 others turn out to be disabled. The cost of these working accidents for our country is nearly 40 billions Turkish Liras. %98 of these working accident and all of the occupational illnesses are preventable (Ceylan 2012). Working accidents are still important for Turkey because of both their social and economical results.

Health has been one of the most irreplaceable concepts since the beginning of human history. Today as well , according to the modern understanding of health, protecting health before it gets corrupted and enhancing it are among the main goals. Because of this reason, reforms

in health field, complaints and expectations of healthcare professionals are getting more important day by day (Biçer and others 2001). Since there many other staffs like hotel management and restaurant services etc. in hospitals as well as patients and their relatives, visitors and students, the intention of creating a healthy and a safety environment, n hospitals is getting more popular rapidly. (Nac and others 2009). National Institute for Occupational Safety and Health in America (NIOSH) defines the healthy and safety hospital environment as “the unavailability of the physical, chemical,biological, ergonomic, mechanic dangers that come out related to the conducting business and give harm to humans’ health as well as occupational illnesses related with these dangers and risks and working accidents”.(Khorshid 2006;Özkan 2001).

In fact, healthcare professionals encounter with many dangers, risks of accidents and illnesses in hospitals due to many reasons like infections, medicines, dangers of equipments, wastes, deficiency in ergonomic design, working conditions, insufficient equipments,work load density, careless behaviours of workers etc. (Bektaş and others 2005; Bahçecik 2009). In recent researches, it has been concluded that the costs of working acidents and illnesses are really high in healthcare field, and hospitals are the most costly environments with %52 of all costs. (Waehrer 2005). Healthcare professionals have a great importance for Health Instutions to conduct fully and effectively, thus economic and social loses as a result of working accidents and occupational illnesses arising from working environment affect both the healthcare professional,his dependants and the employer himself. Healthcare professionals face with physical, biological, chemical, psycho-social and ergonomic risk factors because of the characteristic of their work while working for those who lost their health. (Karaca 2013). In our country, healthcare professionals are mostly employed in hospitals but they donothave health and safety services and even their working accidents and occupational illnesses are not recorded. (Öcal 2010). On the basis of these problems, we aimed to detect working accidents and occupational illnesses that workers encounter in their working environment, to measure their awareness level in terms of occupational health and safety and to create a source in this field.

## RESEARCH

The main space of this study is the public health institution, The Public Health Laboratory and workers in Public Health Center in the city of Gümüşhane. The survey consists of 23 main questions 2 of which have 5 sub-questions while 1 of which has 4 sub-questions. Questions in the survey are dikototom (two choices; yes/no) and multiple choice (5 point Likert Scale) questions. In multiple choice questions the choice of “Always, I completely agree/ Great” are ranked as 5 while those of “Never/ I completely disagree/ Too little” are ranked as 1. At the end of the validity and reliability analysis, the Cronbach Alfa rate is 0,630.

**Table 1. Demographic data of the participants**

Educational Status	N	%	Working Condition	n	%
Primary school	4	2,6	Daytime	93	59,6
High school	30	19,2	Night	63	40,4
Upper secondary	48	30,8	Experience	n	%
Graduate	65	41,7	Less than 1 year	30	19,2
Postgraduate	9	5,8	1-5 Years	51	32,7
Age	N	%	6-10 Years	40	25,6
18-25	47	30,1	Over 11 Years	35	22,4
26-30	39	25	Mission	n	%
31-40	49	31,4	Health technician	56	35,9
Over 41	21	13,5	Medical Assistant	28	17,9
Sex	N	%	Nurse	59	37,8
Female	97	62,2	Doctor	4	2,6
Male	59	37,8	Other	9	5,8
Total	156	100	Total	156	100

**Table 2. Information levels upon Occupational Health and Safety of the Participants**

	Too Little		Little		Medium		Good		Great	
	N	%	N	%	N	%	N	%	N	%
What is your information level about occupational health and safety?	11	7,3	27	17,3	60	38,5	51	32,7	7	4,5
What do you think about occupational safety in your working environment?	18	11,5	30	19,2	67	42,9	37	23,7	4	2,6
To what extent do you know the risks in your work?	4	2,6	18	11,5	59	37,8	49	31,4	26	16,7
To what extent do you know your rights in case of a working accident?	14	9,0	36	23,1	55	35,3	45	28,8	6	3,8

**Table 3. Answers given to the questions about the reasons of working accidents**

	Never		Seldom		Sometimes		Usually		Always	
	N	%	N	%	N	%	N	%	N	%
Inexperience	30	19,2	83	53,2	27	17,3	16	10,3	0	0
Carelessness	47	30,1	52	33,3	39	25,0	17	10,9	1	0,6
Not using protectives	31	19,9	78	50,0	28	17,9	17	10,9	2	1,3
Long working hours	31	19,9	64	41,0	36	23,1	20	12,8	5	3,2
Intense work pressure	36	23,1	66	42,3	34	21,8	17	10,9	3	1,9

**Table 4. Participation levels of the participants to the questions about Occupational health and safety.**

	I completely disagree		I disagree		I am hesitant		I agree		I completely agree	
	N	%	N	%	N	%	N	%	N	%
Most of the working accidents and occupational illnesses are preventable.	5	3,2	20	12,8	21	13,5	73	46,8	37	23,7
Obeying occupational health and safety rules is a waste of time.	75	48,1	60	38,5	9	5,8	8	5,1	4	2,6
Preventing working accidents and occupational illnesses is the responsibility of the employer.	5	3,2	23	14,7	33	21,2	66	42,3	29	18,6
Preventing working accidents and occupational illnesses is the responsibility of employees.	19	12,2	39	25,0	31	19,9	56	35,9	11	7,1
Preventing working accidents and occupational illnesses is the responsibility of the state.	4	2,6	22	14,1	51	32,7	63	40,4	16	10,3

**Table 5. Questions about the knowledge level of participants about the law no 6331**

	Yes		No	
	N	%	N	%
Do you know the law no 6331 about the occupational health and safety?	87	55,8	69	44,2
Do you know the right to avoid a hazardous work as part of the law no 6331?	103	66,0	53	34,0

**Table 6. Questions about the things that participants will do in case of a hazardous work**

	I completely disagree		I disagree		I am hesitant		I agree		I completely agree	
	N	%	N	%	N	%	N	%	N	%
My priority is my work	37	23,7	60	38,5	30	19,2	26	16,7	3	1,9
My priority is my own health	1	0,6	7	4,5	12	7,7	57	36,5	79	50,6
All precautions have already been taken in our company	24	15,4	43	27,6	57	36,5	28	17,9	4	2,6
Precautions aren't enough in our company	6	3,8	32	20,5	54	34,6	47	30,1	17	10,2

## CONCLUSIONS AND FUTURE PROJECTIONS

Employees' having a healthy and a safety working environment has become important for companies in parallel with the technological developments of industrialisation and the rate of globalisation and the idea of protecting health has come into prominence. The risky and dangerous situations in a working place create physical and mental disorders in workers, increase occupational illnesses and working accidents and therefore decrease the labour productivity and cause economic loss. In order to protect workers, who are among the actors of working life, from these situations, they should be supported physically, mentally and socially and a safety working environment should be created. At this point, precautions for occupational health and safety are discussed to vanish these negations or at least minimize them.

It has been a necessity in our globalised world to make the working environment appropriate for human beings in terms of health and safety as well as the education about occupational health and safety, informing and taking necessary precautions, and to adopt this awareness raising about occupational health and generalize it.

When we analyse the participants of the research that was done to detect the awareness levels of healthcare professionals about occupational health and safety it can be said that %62.2 of them are females and %37.8 of them are males; on the other hand %41.7 of them have bachelor's degree while %2.6 of them are primary school graduates. It can be said that, %37.8 of the employees are nurses, %35.9 of them are health technicians and %2.6 of them are doctors; furthermore, %59.6 of them are in daytime shift while %40.4 of them are in night shift. It is seen that %32.7 of healthcare professionals have 1-5 years of experience while %19.2 of those have less than a year experience. When we examine the knowledge levels of employees about occupational health and safety, it is concluded that healthcare professionals have an intermediate level with the rate of %38.5 about occupational health and safety. Bayılmış (2013) has found in his/her research that %33.1 of the employees know something about OHAS. It is seen that the rate of the participants' opinions that there is an occupational safety in their works is %42.9. Participants state that they know the risks of their missions with the rate of %37.8; this rate is %62.1 in Bayılmış's (2013) work. Also, %35.3 of the participants state that they know their rights in an intermediate level in case of an accident.

%53.2 of the participants say that working accidents seldom occur because of inexperience, this rate is %26.4 in Bayılmış's (2013) study. %33.3 of them think that working accidents happen because of carelessness and %50.0 of healthcare professionals who take part in the study say that working accidents seldom occur because of not using protectives. %41.0 of the participants think that working accidents seldom take place because of long working hours while %3.2 of them think that these accidents always happen due to long working hours and %42.3 of the participants think that working accidents seldom occur due to intense work pressure.

It is detected that %46.8 of healthcare professionals agree with the idea that most of the working accidents and occupational illnesses are preventable; %55.8 of them are hesitant about the idea that obeying occupational health and safety rules is a waste of time while %38.5 of them disagree with the latter idea. It is seen that %42.3 of the participants think that preventing accidents and illnesses is the responsibility of the employer while %35.9 of them think it is the responsibility of employees and %40.4 of them think that it is the responsibility of the state.

%55.8 of the participants state that they have knowledge about the law no 6331 about occupational health and safety while %66.0 of them state that they have knowledge about the right to avoid a hazardous work as part of the law no 6331.

%38.5 of the participants state that their priority is not their work when they face with a hazardous work while %50.6 of them say that their health is their priority. It is seen that most of the participants (%36.5) are hesitant about the question that all and possible precautions are taken in their companies.

In our study, it is detected that the knowledge level of healthcare professionals about occupational health and safety is not sufficient and they don't completely know the risks of their works; also, they know their rights in case of a working accident in an intermediate level. Most of the employees (%50.0) state that working accidents take place because of not using protective gloves and long working hours. Employees think that it is the employer's responsibility to prevent working accidents and state that they have knowledge about the law no 6331 about occupational health and safety.

The education of OHAS should be attached importance in terms of both employer and employees about occupational health and safety, the information should be kept alive, necessary observations ought to be made and the deficiencies should be made up. The investments in the field of OHAS should not be seen as a waste but an investment for future. When the rules of occupational health and safety are applied correctly, the rates of working accidents and occupational illnesses will decrease. The control mechanism should be used actively to detect whether the rules of occupational health and safety are completely applied or not. In current

conditions the number of occupational health and safety specialists is not enough to satisfy the need. This deficiency can be overcome through courses and certificates given by the related institutions.

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# THE ATTITUDE SURVEY OF NURSES AND TECHNICIANS FOR WORK SAFETY

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Çetin BEBE<sup>3</sup>

## ABSTRACT

**Aim:** This survey was designed to get statistical data about the attitude of nurses and medical technicians in how far they take their work safety seriously.

**Material and Method:** This survey was realized at the Necmettin Erbakan University, Meram Medical Faculty Hospital in Konya. The total amount of survey participants was about 156 professionally educated staff. The Cronbach Alpha calculation was used in order to get the specific pieces of data about how frequently the employees use protective equipment and how their attitude towards is like.

The results are as following 0,89 and 0,87 which shows that the internal consistency (0,60) is given. The survey questionnaire, which was designed by Gülnür Akkaya, was applied on 12 nurses with a time interval of ten days. According to the test-retest-reliability coefficients, the results changed about 0,89 to 0,96 leaving out the participants' demographic background. In the research, the units frequency, percentage and arithmetic average test were

**Intermediate Results:** The majority of participants (87,2%) stated that they did not have experienced any accidents at work which means that only the minority of participants (12,8%) expressed the opposite case. While evaluating the survey results, it is seen that the participants are mainly worried about the risks of formaldehyde (O=4,16) and ethyl oxide (O=3,69). The main reasons for accidents at work are inexperience (3,55) and inattention (3,03), while the rarely mentioned reasons are long working hours (O=2,97), the non-use of protective equipment (O=2,99), stress (O=2,08) and intensive working speed (O=1,08).

**Results:** As the results show, nurses and medical technicians have to work under pressure most of the time. The usage of protective equipment rate is low and this fact also refers to the number of the employees who do not obtain a medical report after having a work accident.

**Key words:** Nurse, Health Care Technicians, Safety at Work, Occupational Illness

## 1. INTRODUCTION

At present conditions in which the globalisation is being lived, negative working conditions threaten the health and security of employees with the ever-growing technology and industrialisation. On the purpose of avoiding this, it can be said that for many years, multiple applications have been actualized and that those applications have been differed from country to country and sector to sector. Working in an healthy and secured environment is a right that each employee needs to have and enterprises must respect to the law which has been

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specified about this subject. In terms of human resources management, it can be said that one of the main purposes of human resources management is using the resource effectively and increasing productivity and enhancing quality. Health is one of the important criteria about productivity of work-force. The function of protection including the subjects of work health and safety aims providing necessary personal behavior, removing the causes of occupational accidents and diseases by determining them, also increasing productivity by decreasing non-productive time which has been caused by these problems.

Necessary workings on juridical, technical and medical provisions against physical and mental harms which occur while working on workplace composes occupational safety. It is aimed to protect employees from negative effects of workplace and diseases those may be occurred, and for the employees, it is aimed to provide them to work in comfortable, safe and peaceful environment (Dizdar, 2006: 98). Providing an safe and healthy environment for, in hospitals which is a workplace and which inholds, so many health employees, other employees like who serve in hotels or restaurants etc., patients and patient relatives, visitors, students is so important. For this reason, *National Institute for Occupational Safety and Health* describes a safe and healthy hospital environment as ‘‘nonhaving physical, chemical, biological, ergonomical, mechanical dangers concerning performing a work and harming health dangers; and occupational illness and occupational accidents dependant on danger and risks situation’’ (Khorshid ve Emir, 2006: 69). Because of infections, medicines, dangers which medical materials caused, waste, lack of ergonomical design, working conditions, insufficiency of material, excess of work-load, inattention of employees, etc.; medical staff comes up against lots of danger, accident and illness risks (Bektaş vd., 2005: 26, Bahçecik ve Öztürk, 2009: 1205, Uğurlu vd., 2010: 20). In many researches, it has been determined that doctors, nurses and other medical employees got mechanic (lumbago, extremity, backache etc.), physical (pinprick, noise etc.), chemical (disinfectant, antiseptics etc.), biologic (viruses, mycetes etc.), psychological (stress etc.) traumatizations or occupational accidents (Yılmaz, 2003: 30, Dindar vd., 2004: 61-62, Dindar vd., 2005: 20, Zontek, 2006: 1, Khorshid ve Demir, 2006: 69-71, Owens, 2007: 92, Clarke et al., 2007: 473) and caught infectious diseases like AIDS, hepatitis; dermatological diseases like dermatitis; vascular diseases like varicosity; occupational diseases like cancer because of not providing the safety of workplace (Kaçmaz, 1999: 98-99, Aslan vd., 2009: 44-45, Atasoy ve Aksoy, 2009: 118-121, Bi et al., 2006: 465-466, Bahçecik ve Öztürk, 2009: 1208, Rios et al., 2010: 413). Besides, in ***occupational accidents and diseases costs in health service sector*** titled study, it’s mentioned that the costs of occupational accidents and diseases are high, that hospitals are the highest cost place of all health facilities with 52 percent of all costs (Waehrer et al., 2005: 343). The programs of sanitation for healthcare employees and legal structuring which provides these programs to be constituted and to be executed are needed in our country. In the complexed organizational structure which hospitals holds in their system, the number and the types of the dangers with those healthcare employees are faced are known -based on healthcare employees have so many and various works and tasks- that the dangers are so many and various, too. The risks and dangers like -first things come to mind- infection, sharp object injuries as well as radiation, toxin chemicals, biological agents, heat, noise, without excepting physical agents, ergonomic issues, stress, violence and maltreating are the circumstances which employees coul come across. At the statements they made recently, syndicates in business in healthcare sector state that healthcare employees are exposed to various risks and the rate of the risks of catching disease in our country is so high

(Kaçar, 2008). Therefore, it can be contributed to take precaution for work/workplace risk and danger of healthcare employees, thus, to avoid or to decrease occurrence of occupational accident or disease, to avoid healthcare workforce loss and the problems which can be occurred in family or social environment because of this loss. It can be an adviser to hospital managements to provide work safety for healthcare employees. It can be provided employees to work safely, tranquilly, happpily, satisfactorily and accordingly it can be provided safety of the patients which are being served. The costs those are caused by dangers and loss which the deficiency of work safety brings about can be retrenched. Besides, with reformed scale factor, it can be confirmed easily if the work safety has been provided and in which departments have difficulties. On the other hand, it is obvious that the service is continuing on the basis of 7/24 in public and private healthcare businesses which are active on presentation of healthcare. In this sense, probable problems will be foreseen and solution recommendations will be improvable.

## **2. METHOD**

### **2.1. Research Objective**

This research was executed so as to state the work safety attitudes of healthcare employees working in Konya Necmettin Erbakan University Meram Medical Faculty Hospital.

### **2.3. Research Sample**

Research Samples are constituted by 156 personnel working in Necmettin Erbakan University Meram Medical Faculty Hospital which is stated in Konya. In the questionnaire study which has been applied to personnel within the research scope was had started in 2 December 2013 and had completed in 16 December 2013. In the research, some of questionnaires which was applied to nurses and health technicians was received back by talking face to face at same day and some of them was received back after some time. Before starting to research, the information of number and position of nurses and technicians has been provided from personnel branch office of hospital. In the research, the questionnaire number was 160 and the questionnaire number which has been received back was 156. The questionnaire research has not been applied to 4 personnel because attendants in question did not want to participate.

### **2.4. Data Collection Tools used In Research**

To collect data in research, it has been benefitted from questionnaire application. Form of questionnaire includes the questions relating to be exposed to occupational accidents and to catch occupational disease and includes various statements to designate the attitudes about these situations. The forms of questionnaire have been filled out by nurses and health technicians in hospital. In research, there are 2 parts in the forms which are to evaluate exposures of catching occupational diseases and accidents of healthcare employees. At first part of questionnaire, there is demographic information; at second there are questions about situations of exposure occupational disease and accidents of healthcare employees, frequency of using protecters, attitudes for using protecters, frequency and reasons of exposure of occupational accidents. The ststements have been organized in fivefold Likert scale. Options has ‘always’, ‘usually’, ‘sometimes’, ‘rarely’, ‘never’ points and ‘always’ is 5 points; ‘never’ is 1 point. The Cronbach ^ (in order of 0,89 and 0,87) values, which have been used for calculation of measure of frequency and attitudes of using protection, reveals that

measures have internal consistency ( $\alpha > 0,60$ ). So as to determine reliability of the forms used towards employees, relevant forms have been applied on 12 nurses every ten days and it has been appointed that the coefficients acquired from all questions and statements except the questions applied for demographic information and that test-retest coefficients were varied between 0,89 and 0,96.

## 2.5. Data Analysis In Research

After gathering forms, the datas obtained were posted to the database of Statical Package for Social Science for Windows (SPSS 20.0). On assessment of attitudes for occupational safety of nurses and healthcare technicians, descriptive statics have been used (average, frequency, standart deviation, Chi-Square test).

## 2.6. Limitedness of Research

The results of research which has been made in Necmettin erbakan University Meram Medical University Hospital are reflected.

## 3. FINDINGS

According to the research, charts about demographic information of nurses and healthcare technicians, and also charts about answers for the questions mentioned below:

**Chart 3.1. Demographic Information of Attendants**

n=156		Frequency	%
Sex	Male	98	62,8
	Female	58	37,2
Age	Between 18-25	55	35,3
	Between 26-35	74	47,4
	35+	27	17,3
Education	Highschool	51	32,7
	Pre-Licance	77	49,4
	Licance	28	17,9
Job	Nurse	61	39,1
	Teknician	95	60,9
Working hour	Least 45 hours	44	28,2
	45hours	87	55,8
	More 45hours	25	16,0
Working system	Daytime	53	34,0
	Shift	84	53,8
	Other	19	12,2
The year of Work	1year or least	11	7,1
	Between 1-5	58	37,2
	Between 5-10	58	37,2
	10+	29	18,6
Work Experience	1year or least	9	5,8
	Between 1-5	52	33,3
	Between 5-10	61	39,1
	10+	34	21,8

It is seen that the most of employees as part of research (%62,8) are men; Close to half of employees(%47,4) are between 26 – 35 years old; close to half of employees (%47,4) are associate graduates; more than half of employees (%60,9) are technicians; more than half of employees (%55,8) have 45 hours of working hour; %58,8 of employees work shifts; %37,2 of employees continues working in same hospital where they have been working for 1-5 and 5-10 years; %39,1 of employees have occupational experience who have been working between 5-10 years.

**Chart 3.2. The Beeing Exposed Attitudes and Situations of Employees**

	Frequency	%
Yes	20	12,8
No	136	87,2
Total	156	100,0

It was asked that if hospital employees had an accident in their hospital. According to the responses received, most of employees (87,2) stated that they did not have an accident. The rate of employees stated they had an accident is %12,8.

**Chart 3.3. using Medical Report After Occupational Accident**

	Frequency	%
No	20	90
Yes	2	10
Total	22	100,0

After examining the situations of using medical reports after occupational accident, it comes forward that most of employees (%90) did not receive medical report after accident. The rate of employees used medical report is %10.

**Chart 3.4. The Occupational Risks According To Employees**

	Average	S.D
Radiation	2,05	1,33
Disinfectant	3,01	1,33
Narcosis	3,57	1,50
The risky of descent	2,74	1,22
Formaldehyde	4,16	3,09
Needle stick injury	2,75	1,49
Sharp object injury	2,71	4,05
Ethyl oxide	3,69	1,27
Electric shock	3,36	1,51

When analyzed the attitudes in reference of risks of exposure to occupational accidents, it can be seen that they think they face the risk of formaldehyde (R=4,16) and of ethylen oxide (R=3,69). Employees states that they think they rarely face the risk of anaesthesia gas (R=3,57), falling on slippery ground (R=2,74), radiation (R=2,05), pinprick accidently (R=2,75), being wounded by sharp object (R=2,71), disinfectants (R=3,01) and electric shock (R=3,36).

**Chart 3.5. The Reasons Of Exposure of Occupational Accidents According To Employees' Perceptions**

	Average	S.D.
Long Working Hours	2,97	1,61
Intensive pace of work	1,08	1,07
Stress	2,08	1,17
Don't use protective	2,99	1,53
Carelessness	3,03	1,42
Inexperience	3,35	1,37

When analyzed the remarks of reasons of occupational accidents occurred in the employees' hospitals, it can be seen that the rate of the accidents are connected with inattention(3,03) and inexperience (3,55). It can be seen that employees state that working long hours (R=2,97), non-use protector (R=2,99), stress (R=2,08), intense work pressure (R=1,08) are rare reasons.

**Chart 3.6. Catching Occupational Disease**

	Frequency	Percent
Yes	38	24,4
No	118	75,6
Total	156	100,0

It was asked that if hospital employees had an accident in their hospital. According to the responses received, more than half of employees (% 75,6) stated that they did not catch an occupational disease. The rate of employees caught disease is 24,4.

**Chart 3.7. Occupational Diseases Employees Caught**

n=87	Frequency	Percent
Varicosis	34	73,6
Backache	23	64,4
Stress	21	62,1
Allergy from Latex	3	16,1
Panic Attack	5	6,9
Other	1	1,1

When analyzed the kinds of diseases employees have, employees catch varicose vein, mostly (73,6). The backache (% 64,4) and stress (% 62,1) follow this respectively. At least articulated occupational diseases are latex allergy (% 16,1) and panic attack (% 6,9).

**Chart 3.8. Frequency Of using Protector Of Employees**

	Average	S.D
The frequency of protective glasses	1,65	1,36
The frequency of protective gloves	3,71	1,04
The frequency of lead aprons	2,79	1,62
The frequency of mask	3,08	1,43

When analyzed the frequency of using protector to avoid occupational diseases, employees stated that they usually use protective gloves (R=3,71) and protective mask (R=3,08); sometimes lead aprons (R=2,79) and protective glasses.

**Chart 3.9. Attitudes Of Employees Against using Protector**

	Average	S.D
Protective is prevent my job	3,04	1,53
Protective is not necessary	4,33	1,01
I don't like to use protective	3,83	1,40
Average	3,73	0,89

When examined the attitudes of employees against using protector, it has been observed that employees have a negative attitude against using protector ( $R=3,73$ ). Hereunder, the rate of not considering protectors necessary to use ( $R=4,33$ ), the rate of considering protector as an obstacle which keeps them behind their works ( $R=3,04$ ), the rate of disliking of using protector ( $R=3,83$ ).

#### 4. THE RESULT AND RECOMMENDATIONS

Because of most of healthcare employees who had an accident did not use medical report, and because of not allowing them benefit from additional payments coming from the days they got medical reports, healthcare employees prefer working for these days. Legislative regulations affect of making re-shape this situation can be seen obviously. The risk of exposure of chemicals, especially formaldehyde of healthcare employees, is seen high. It is needed to catch attention to the utilization chemicals and examining problem points detailly relating to exposures and applications to precautions. Stress has an extensive coverage on health problems of which employees had high incidence. Inefficiency of application extents of attitudes and applications towards stress is a matter that needs to be examined. It was stated that healthcare employees who are in charge of presentation of healthcare service do not use usually protectors. It is understood clearly that employees' levels of perceiving risks which can cause occupational accidents and diseases are highly low. Nurses and healthcare technicians, who have a big role on presentation of health service, need to become skilful at perceiving occupational accidents and diseases and the risks of these points. It must take action to reduce effects of situations which can be under assumption of a problem and convenience of legislative regulation and internal or external educational activities.

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# EVALUATION OF PHYSICAL RISK FACTORS BIOCHEMISTRY LABORATORY STAFF SUFFER WITH FMEA ANALYSE

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## SuMMARY

**Aim:** The aim of this study is to determine and analyse the physical risk factors laboratory staff could suffer.

**Importance:** Laboratory staff is in high risk group for blood-borne diseases among all healthcare staff. Beginning from bloodletting, there is risk of getting wounded, workforce loss and being infected because of the physical risk factors during all phases of tests. It has great importance to raise awareness of staff, take protective and preventive measures, reduce the risk of accidents with evaluation of risk for protection of staff's health.

**Method:** FMEA is a proactive and systematic method to determine causes and factors of each mistake, to find out priority of mistakes depending on possibility, severity and determinability, to provide following the problems and performing corrective activities. This study's been performed at Central Biochemistry Laboratory of Meram Faculty of Medicine with 895 beds, having quality of district hospital, and physical risk factors've been evaluated with FMEA analyse. During the practice, those parameter components as "possibility" determining the frequency of mistake, "severity" determining the seriousness of the mistake and "detection (percebtibility)" determining the mistake before it reaches to patients have been utilized. Calculating and evaluating tables determined by Reid (2005) were based on during determining and evaluating Risk Priority Number (RPN). 6 physical risk factors were determined related to laboratory process, risk priority number was calculated about this and the new risk priority number was calculated after the suggested activities and preventive measures.

**Conclusion:** As result of the study, the effects of physical risk factors on staff's health were determined and some significant significant progress has been provided following measures taken and progress activities.

**Key Words:** Safety of Staff, Physical Risk, Risk Analyse, FMEA

## 1.Introduction

The damages the healthcare staff would suffer during the presentation of health services mostly end up with exposing to disease and getting wounded. As this circumstance could end up with serious crisis for a healthcare instuty, it has strategical importance in that corporate reputation and sustainable succes. There is requirement of proactive methods towards analysing and evaluating of risks within the context of control of physical risks we could come across in a laboratory at a health instuty. Those methods should be built on preventive activities more than corrective ones. One of the preventive approaches to be used is Failure Mode and Effects

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Analysis (FMEA). FMEA, which can be translated in Turkish as Hata Türleri ve Etkileri Analizi (HTEA), is an available method to be used in detecting the danger during activities, evaluating it and arranging control and preventing activities in general manner (Aydın, 2010: 15).

The aim of risk management at hospitals is to generate a secure and effective health service environment for patients, visitors and healthcare staff, thus, to prevent or to reduce possible losses of the organization (Carroll, 2001: 18). At present time when human life has gained importance, on the other hand the number of patients and diseases has significantly increased, each new subjects offered in health services, machines, systems and every single treatment methods can also become a threat against patient safety, staff's health, work environment safety, environmental health and safety (Usta, 2009: 54). Within this context, today, one of the most important criterias of the presentation of health services is safety presentation of health services. The main objective of risk management at a hospital is to take all measures in order to minimise every kind of harm and to minimise the effects of possible harm as much as possible. There is no standard description of risk to be accepted by everybody. According to a description, the possibility of any damage or loss is called risk. Another one tells that risk is the variation on expected results (Williams et al, 1998: 4). Risk management is the process of taking required measures and getting prepared beginning from describing risks and going on by analysing them (Rejda 2005). Failure Mode and Effects Analysis is a technique that priorly focuses on abolishing risk of mistakes on developing products and processes and certifying the activities with this aim. This analyse deals with preventive activities (Özkılıç 2005: 138). Mistake kinds and effects analysis first determines the factors and causes of each mistake, describes potential mistakes, finds out the priority of mistakes depending on severity and determinability and provides the problems to be watched and corrective activities to be done (Özkılıç, 2005: 139).

Physical risk elements are the physical factors having the possibility of disordering laboratory staff. These are factors significantly affecting staff's health such as physical features of the work or living environment like temperature, humid, lighting, noise and ventilation, injuries by stabbing, injuries because of slipping or falling down and temperature and electricity based danger. The point is to abolish the physical problems we could come across at laboratories at its source and to protect the staff by this way.

Unexpected and disturbing voice is described as noise. Depending on intensity, exposure time and exposure frequency, it causes hearing loss, psychological disorders, reducing productivity and other health disorders. Besides tonus, stress, increasing in blood pressure, breathe speeding because of high level noise, its main long term effect is that it causes temporary and permanent hearing loss. Many tools used in laboratories are highly noisy. Autoanalysers, freezers and centrifuges can be minded as source of noise. It can be observed that the higher the level of noise is, the more hearing loss occurs and even more time to recover increases.

Healthcare staff have the risk of getting wounded by stabbing tools in every area they work. Laboratory staff can expose to bloodborne infections in daily practices frequently during the pricking of needle used in blood gas, ammonia, and urine samples, getting wounded by sharp objects covered in blood, infection of blood on disintegrated skin and splashing of infected blood or other liquids on mucosa. Avoiding using unnecessary stabbing tools, safer working practices and adapting and training of safer stabbing tools, preventing using of needles'

covers again, using of secure tools and devices, using of protective personal tools such as gloves and eye glasses, getting samples to laboratory in unique containers and injectors with plastic caps decrease the risk of injury.

Danger because of slipping or falling down can cause serious injuries for laboratory staff. Sources of such danger are wet floor, uneven floor, cabinets shelves and devices that haven't been mounted regularly, or cables, pipes, open drawers etc. The risk of slipping or falling down increases in environments which are not lightened well. Thus, it should be made sure that every points in a laboratory are lightened enough. By taking into consideration that Turkey is a country on seismic belt, all passages and exits should be provided to be open for emergency. Devices and furnitures like freezers, autoanalyzers, and cabinets for consumption materials should be prevented to topple and block up exits during an earthquake by fastening them.

The equipments working with electricity are dangerous as they cause both fire and electric shock. The main risk is electric shock. In case laboratory staff are wet or sweaty or the floor is wet, the risk is even higher. High or low temperature causes damage on skins touching it. High temperature can cause burn on skin. Frostbite and freezing depending on low temperature can show up as a result of the use of especially liquid nitrogen, dry ice and freezers in temperature of 10 Celsius degrees below zero.

Lighting is one of the main physical conditions required for protecting staff's health. Eye health of staff is protected with available lighting in laboratories, cumulative muscle and skeleton traumas and many working accident are prevented, and positive psychological effect is provided. So, it's necessary to provide the available lighting the practices requires in laboratories. The risk of slipping or falling down increases in the areas where good lighting doesn't exist. So, all areas in laboratories should be made sure to be lightened enough. Following insufficient or unavailable lighting, disorders in seeing function, eye strain, suffusion, sting and burn in eyes occur and eyesight is deteriorated to the highest degree. Lighting should be monotonic, or else, eyes would get tired easily as they try to adapt to various lighting levels. In order to provide monotony, it's required to use sources of light giving widespread light and to mount them close to each other. Painting surfaces of windows, columns, ceilings, walls and sections light colours and mounting sources of light by not shading should be provided.

Thermal comfort expresses the comfort of the majority of staff in an office while performing both their physical and mental activities in terms of climate conditions such as temperature, humid and ventilation in general terms. If thermal comfort circumstances are not present, first they are annoyed, then they feel discomfort. Temperature interaction at working environment and discomfort working conditions cause working accidents to increase. The main factor to control body temperature is environment temperature. As the temperature goes by, muscular force goes down, pulse rhythm increases, tiredness increases, painful muscle cramp occurs, disorders like headache, stomach upset, inappetency and sleeplessness can occur. Low temperature causes disorders like foot swelling, suffusion, burn, articular rheumatism especially with inactivity in humid environment. Productivity decreases because of slower working and rate of working accidents increase in unavailable thermal comfort conditions. Circulatory disorders, reduces in manipulative skills, catching cold, chilling, myopathy and arthropathy, common tedium and lose of enthusiasm can occur. Increase in environmental temperature and humid increases duty of hearts of staff. Low temperature values, on the other hand, decreases the rate of flexibility and sensibility of fingers. Thermal comfort district shows the ideal temperature and humid

conditions for working. It's the number one priority to heat a laboratory on expected level with the help of an available heating system. Even while building a laboratory, North side wall and roof of it should be insulated with some quality insulator stuff. The main objective of ventilating systems is to provide the fresh air containing sufficient relative humidity and purified from pollutants.

## 2. Method

Type and effects of mistake analysis prepared towards risk factors seen at laboratories is to be presented in the stage about practising FMEA system and laboratory process. This study was carried out by FMEA Risk Evaluation Crew consisted of biochemistry assistants, laborants, occupational safety specialists, biologists, and laboratory technicians working at Central Biochemistry Laboratory of Konya University Faculty of Medicine 895-bed hospital having the quality of district hospital on 20<sup>th</sup> of April, 2015 and the possible physical risk factors were evaluated via FMEA analyse. The data obtained has been presented in tables below. FMEA is a proactive and systematic method to determine causes and factors of each mistake, to find out priority of mistakes depending on possibility, severity and determinability, to provide following the problems and performing corrective activities. During the practice, parameter components as "possibility" determining the frequency of mistake, "severity" determining the seriousness of the mistake and "detection (perceptibility)" determining the mistake before it reaches to patients have been utilized. During the determination and evaluation of Risk Priority Number (RPN), the calculating and evaluating tables stated by Reim (2005) were utilized. The meanings of symbols showed with letters P, S, D, RPN with the aim of determining the effect of damages on operation caused by possible situations have been given below (Özkılıç, 2005: 140). **P:** Possible value of generation of each damage mode; **S:** Value, severe, seriousness how important the damage is. **T:** Difficulty range of exploring the circumstance to cause damage, **RPN:** Risk priority number is obtained with multiplication of RPN value, P, S and T.

$$\text{RPN} = \text{P (possibility)} \times \text{S (Severe)} \times \text{Determine (T) (perceptibility)}$$

With the help of FMEA analyse, measures are developed by intuiting circumstances to cause possible damage before, thus, possibility of increasing of possible damage is eliminated.

## 3. Findings

Following the risk evaluation performed, 6 main potential mistakes have been detected related to physical risk factors within laboratory working process by FMEA Risk Evaluation Crew. These are injuries by stubbing tools, injuries because of slipping and falling down, danger because of temperature and electricity, noise, thermal comfort and lighting. In the evaluation process, it was seen that the biggest RPN multiplication belonged to injuries by stubbing tools (240). The risk has been reduced to acceptable level with the study and measures taken (80). RPN values obtained are respectively danger from electricity and heat (216), noise (210), injuries because of slipping or falling down (120), thermal comfort (100) and lighting (100). For risk factors, the significant difference as a result of measures and developing activities has been observed, and the risk evaluation analyse performed have contributed positively.

**Table 1.** FMEA Table Towards Wounds By Stubbing Tools

Process	Potential Mistake	Potential effects of mistake	S	Potential reasons of mistake	P	D	RPN	Suggested activities	Faaliyet sonuçları	Operating results			
									S	P	D	RPN	
Laboratory working process	Getting wounded by stubbing tools	pricking of needle used in blood gas, ammonia, and urine samples, getting wounded by sharp objects covered in blood, infection of blood on disintegrated skin and splashing of infected blood or other liquids on mucosa	8	Insensitivity of staff about this	6	5	240	Avoiding unnecessary stubbing tools	8	2	5	80	
				The fact that samples are randomly sent in Pneumatics system which are required to be delivered in hand because of insufficient staff				More secure working practices and more secure training for stubbing tools and adaptation					
								Preventing re-use of needles and their covers					
								Securely using tools and devices					
								Using personal protective equipments like gloves and glasses					
		Sending blood gas, ammonia and urine samples without required protection measures		Delivering samples at laboratories in unique covers									

Getting wounded by stubbing tools we examined in Table 1 has been detected as risk evaluation with highest RPN multiplication with high severe point (240). Besides being easy to determine and recognizable in fact, not taking protective and preventative precautions and staff's insensible behaviours and attitudes increases the severe point (8) of the mentioned risk and it can become hurtful or even deadly in view of its results. Pricking which is a serious risk for laboratory staff and wounds because of sharp objects have been decreased to an acceptable level (80) with preventative measures, with the conscious use of personal protective equipments, and training the staff about this, and by this way, staff safety has been contributed.

**Table 2.** FMEA Table Towards Noise Factor Among Physical Risk Factors

Process	Potential Mistake	Potential effects of mistake	S	Potential reasons of mistake	P	D	RPN	Suggested activities	Activity results	Operating results		
									S	P	D	RPN
Laboratory working process	Noise	Hearing loss, tiredness, stress, tonus, increasing in blood pressure, breathe speeding	5	Loud tools, exposure for long time, neglected devices, laboratories unstructured for noise	6	7	210	Isolating voice, using ear plug, putting barriers between staff and source of noise, decreasing exposure time, rebuilding roof and walls to absorb noise	5	2	7	70

The risk factor we examined in Table 2 is noise. We come across noise in laboratories particularly with high technology. As many devices work simultaneously and because of intense work pressure, we observe that it's a risk which is hard to determine but causes critical problems for staff's health. Volume up to 73 db was observed in our measurement in the laboratory. Exposing to noise particularly over 80 db causes permanent hearing loss. Exposing to noise under 80 db can also cause troubles. As this risk factor and its effects are hard to determine and long term exposure occurs indoor, its determination and possibility points has been kept up and eventually, a high RPN multiplication point has been obtained (210). It has been available to minimise the risk by increasing the distance between source of noise and staff, keeping their covers closed and generating a kind of barrier between noise and staff and with personal protective equipment and RPN multiplier has been taken to a reasonable level (70).

**Table 3.** FMEA Table Towards Injuries Because Of Slipping and Falling Down

Process	Potential Mistake	Potential effects of mistake	S	Potential reasons of mistake	P	D	RPN	Suggested activities	Activity results	Operating results		
									S	P	D	RPN
Laboratory working process	Injuries because of slipping and falling down	Danger causing slipping and falling down can cause serious injury for laboratory staff Workforce loss Infection risk because of falling down or touching	5	wet floor, uneven floor, cabinets shelves and devices that haven't been mounted regularly, or cables, pipes, open drawers etc	4	6	120	Wiping everything poured on floor Warning the staff, using warning signals for wet floor, Taping and fastening cables on the floor, Keeping all passages and exits open. Keeping all passages and exits open	5	1	6	30

Risk factor of slipping and falling down has been evaluated in Table 3, the high RPN value obtained (120) has been minimalised with the help of arrangements in the laboratory and warning signs. Untidy floor and a badly designed laboratory prevents comfortably and productive work. A narrow and uncomfort environment to restrict staff's ability to move prevents productivity and causes injuries because of slipping and falling down.

**Table 4.** FMEA Table Towards Danger Caused By Electricity And Temperature

Process	Potential Mistake	Potential effects of mistake	S	Potential reasons of mistake	P	D	RPN	Suggested activities	Acti- vity result	Operating results		
									S	P	D	RPN
Laboratory working process	Danger caused by electricity and temperature	As result of possible burn and electricity shock, injury, workforce loss, death	9	Assumption over capacity, misuse of tools and machines,, Insufficient/ inconvenient care, Insecure installment	4	6	216	The required measures should be taken for secure installment, there should be restriction of access to the high energy areas, The devices should be plugged out while repairing. Duties like repairing should be performed by only authorized personel. Personal protective equipment should be used in much obligatory situations	9	2	6	108

In table 4, risk factor because of temperature and electricity has been mentioned. As it has the highest severe point (9) and because of its RPN (216), it is one of the most dangerous risk causing workforce loss most for staff. Staff working in an environment with improper installation and improper arrangement have serious troubles. Particularly the leakage in electrical equipments, untidy laboratory, and electrical contact mistakes generate a great amount of risk for staff. In order to minimise the risk, the engineering studies in laboratories have great importance. With regulatory activities and planned and cautious approach towards the risk has led the risk to decrease to a reasonable level of RPN (108). However, risks of danger caused by electricity and temperature for laboratory staff is still a sudden and devastating matter of question.

**Table 5.** FMEA Table Towards Lighting Among Physical Risk Factors

Process	Potential Mistake	Potential effects of mistake	S	Potential reasons of mistake	P	D	RPN	Suggested activities	Activity results	Operating results		
									S	P	D	RPN
Laboratory working process	Lighting	As result of insufficient or inconvenient lighting, disorders in seeing function, tiredness of eyes, suffusion, sting and burn in eyes, getting advancedly affected, seeing disorders, workforce loss	5	Inconveniently and insufficiently or extortionately installing lighting systems, not organising laboratory according to this	5	4	100	Lighting should be monotonic. In order to provide monotony, it's required to use sources of light giving widespread light and mount them close to each other. Painting surfaces of windows, columns, ceilings, walls and sections light colours and mounting sources of light by not shading should be provided.	5	1	4	20

In Table 5, risk analyse has been performed related to lighting factor, and even though its sever point has been detected as 5 and RPN multiplier as 100, it shouldn't be ruled out that it can cause health problems for staff in long term. With simple engineering studies and arrangements in laboratory, the risk has been decreased to a pretty low level and its RPN multiplier has been decreased down to 20.

**Table 6.** FMEA Table Towards Thermal Comfort Among Physical Risk Factors

Process	Potential Mistake	Potential effects of	S	Potential reasons of mistake	P	D	RPN	Suggested activities	Activity results	Operating results		
									S	P	D	RPN
Laboratory working process	Thermal Comfort	Boredom, stress, work-force loss depending on thermal comfort	4	Temperature interaction at working environment and discomfort circumstances	4	5	100	Heating the office on expected level with an available heating system,  North side wall and roof of laboratory should be insulated with some quality insulator stuff Providing ventilation system and fresh air containing sufficient relative humidity and defecated from contaminating	4	2	4	32

In Table 6, thermal comfort factor which affects us in every areas of life and has effect on our work pace and productivity has been examined and its severe point has been calculated (4) and RPN value has been calculated 100. No matter how low the obtained values are low, its long term effects cannot be underestimated. Thermal comfort risk, having significant effects on staff's health has been minimalised (RPN 32) with some arrangements in the laboratory, measures for interior and exterior walls, routine inspection of devices and by generating a health and comfort environment. Keeping devices healthy and productive could be possible with keeping the temperature in laboratory in a certain level. High or low temperature both prevents devices work properly and causes staff to sicken because of sudden temperature changes.

**4.Conclusion and Suggestions:** In addition of being an important step for health services, laboratories are among main processes having various risks for both patients and staff. So, it would be reasonable to utilize from some risk control mechanisms for both patient and staff health and decreasing infections in hospitals. In this study, it's stated that FMEA method, which is a proactive programme, could be utilized as a risk control mechanism to be performed in every processes of hospitals. In order to support this idea, an example FMEA study towards laboratory has been performed, physical danger and its possible reasons have been detected and suggestions of improving have been offered. As result of pretentive measures, physical risk factors laboratory staff could come across have been dragged to lowest degree, the possible reasons of getting wounded have been minimalised with measures taken and improving activities. Determining possible mistakes hard to estimate on system is the most important



advantage of FMEA. It's seen that such a study could be a preventative method in approaching and evaluating the risks.

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# THE NEEDLESTICK AND SHARPS INJURY ENCOUNTERING SITUATIONS OF NURSES AND THE METHODS THEY FOLLOWED AFTER ENCOUNTER

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## ABSTRACT

**Objective:** In a public hospital nurses on duty cutter-penetrating injuries to encounter with their status, the cause of the injury and after the encounter the methods used to determine these accidents and accident as a result of diseases transmitted by the way of attention.

**Materials and Methods:** Research in Konya, Beyhekim nurses working in the state hospital has been applied to. The intensive care unit and services, working in 146 nurse, who accepted to participate in the survey, 120 research nurse completed. The research is in the collection of the data (Dişbudak, 2013) developed by the survey were used. Data analysis descriptive statistics for the frequency analysis, to determine the relationship between variables and chi-square test was used

**Findings:** After the study, the nurses to %60,8 at least once in his professional life, cutting-piercing instruments were injured ( $p < 0,05$ ). Cutter-penetrating injuries of the relationship with sex, and marital status is not detected ( $p > 0,05$ ). Nurses with a total running time of the cutter-penetrating injury has been determined a significant relationship between ( $p < 0,05$ ). In this case, the cutter-penetrating injuries to the maximum of 10 years and above of working nurses is seen to occur. Cutter-penetrating injury to the process causing the needle to the tip of the separation from the injector, the injector body of the needle is detected ( $p < 0,05$ ). Cutter-penetrating injury with working shifts were found to be a significant relationship between and Cutting-piercing tool, most of the injuries were on the night shift ( $p < 0,05$ ).

**Result:** Nurses, cutting-penetrating injuries with quite a lot of encounter. Nurses, cutting-penetrating injuries, and the importance of this protection from injury after injury with the initiatives that need to be made in the notification and raise awareness of the importance may be recommended.

**Key Words:** Nurses, needlestick and sharps injury, blood-borne infections

## Introduction

Health services is a very complex term and it contains several subordinate parts such as preventing and medicinal services. In order to provide the best service, there is need of other supportive techniques which are offered by a professional staff called health care workers (Piyal, 2004; Önder ve ark, 2011: 31). Hospitals are locations where health care is the most important, nevertheless it is an area with infectious factors. The health care workers get in touch with those factors while providing their services, but this can cause serious infectious

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diseases. By carrying out daily routines, they can get in touch with blood or other body fluids which means that the risk of contracting with a disease by blood contact (Aygün,2007: 385). Sharp and pointed tools are meant to be used in medical or laboratory environment and can injure the skin penetrantly while handling it. These are for instance injections, intravenous tools, scalpels, lancets or also broken pieces of materials like syringes (Korkmaz,2008: 20). Having a work accident could have severe consequences like contracting with serious diseases.

American health care workers who are responsible for national surveillance carried out a research on the main reasons for injury. The percentage results for injury are as given: under skin injections 32%, suture injection 19%, seldinger needles 12%, scalpels 7%, IV catheter injections 6%, injections for taking blood samples 3% (Korkmaz,2008: 20). There are many situations in a hospital which can cause an injury such as covering the syringe, (44%), breaking the ampoule or opening the vial (27%), obtaining a vein access (14%), disconnecting the injections (13%) and the procedure of cleaning medical tools (2%) (Ergör,1998 akt; Dişbudak,2013: 31). In the literature, there it is tried to found a interrelation between age group and accidents at work. The younger the health care worker is, the higher is the possibility that he/she gets injured. The percentage of young and unexperienced workers who have an accident with sharp and pointed tools is about 25% -80% (Uçak,2009: 74). Long working hours, night watches and at work ending affect the risk of getting injured additively. Every year, 3 million health care workers get injured by blood contact percutaneously all around the world. Out of this number, 2 million people contract Hepatitis B, 900.000 people contract Hepatitis C and 170.000 people contract HIV. These injuries resulted in infections with an order of 15.000, 70.000 and 1000. More than 90% is to see in developping countries. These are avoidable just by few protective measures (World Health Organization; 2006 akt; Gülay,2010: 21). These injuries can be avoided for 80% when using protective materials. If there is a training added, this rate can even decrease up to 90%. The Center of Disease Control (CDC) first launched programmes in order to reduce the number of injuries at work, for instance the prohibition of following work steps: Covering the top of the syringes, making the syringe unuseable and the further use of contaminated sharp and pointed tools (CDC, 2004 akt; Akgür,2010: 14). The applied trainings were successful in order to reduce the number of injuries and to increase the number of feedback (Aygen,2003: 159). Latex gloves are very good protective gloves. While the injection squeezes through the latex material of the glove, the amount of inoculum decreases rapidly from 10-100 times (Aygün,2007: 386). The gloves do not interrupt the total blood contact, but they reduce the possibility of getting in touch with it immensely. Especially being in touch with risky infectious patient, it is to advice to wear double pairs of gloves because this definitely can protect the health care worker from a blood contact (Cardo,1997 akt; Usluer, 2002: 6). The surface of injury should be cleaned with water and soap, moreover a disinfecting antiseptic should be used. The surface of injury should not be squeezed, as this leads to a traumatizing experience. No more measures need to be taken. After that, the serologic profile is important because on that base, specific treatment is introduced (Usluer, 2002: 7). The first step after getting injured, is the report. This report should include information about time, matter, degree, the type of injuring material, its amount and self-protective vaccinations of the injured health care worker(CDC,2001 akt; Aygen,2003: 159).

The aim of the research is make people pay attention to this topic.

## 2. Research Method

The research was carried out at the Beyhekim hospital in Konya. The involved branches were the emergency service and the general department. Out of total 169 nurses, 120 of them accepted to take part in the research. Literature sources were searched and the data was analyzed. The questionnaire, which was originally developed by Dişbudak, consisted of 27 questions and was used for this research.

## 3. Results

**Table 1: Demographical Results**

Age Group	N	%	Total Working Time	N	%
20-24	26	21,7	0-3 years	29	24,2
25-29	39	32,5	4-6 years	35	29,2
30-34	28	23,3	7-9 years	24	20
35-39	22	18,3	10+ years	32	26,6
40-44	5	4,2	0-3 years	29	24,2
<b>Sex</b>			<b>Education</b>		
Female	85	70,8	Highschool	20	16,7
Male	35	29,2	Associate	33	27,5
<b>Marital Status</b>			Undergraduate	64	53,3
Merried	78	65	Graduate	3	2,5
Single	42	35			
<b>Total</b>	<b>120</b>	<b>%100</b>	<b>Total</b>	<b>120</b>	<b>%100</b>

When analyzing table 1, it can be seen that the majority of participants were in the age group of 25-29 (32.5%). A number 70.8% of the participants were female, 65% of them were married. Looking at the participants' educational state, a number of 53.3% were university graduates.

**Table 2: The rates of witness nurses who observed the injury of their friend**

Have you ever got injured by a sharp tool?	N	%	Have you ever witnessed a colleague of yours get injured by a sharp tool?	N	%
Yes	89	74,2			
No	31	25,8	Yes	92	76,7
Total	120	100	No	28	23,3
Since the last injury			Total	120	100
0-1 month	45	50,6	What did your friend do after the injury?		
2-3 months	17	19,1	Informed	51	55,4
4-5 months	4	4,5	Cleaned with soap	18	19,6
6+ months	23	25,8	Checked the patient's serological tests	7	7,6
Total	89	100	Did dressing	14	15,2
Work shift of the injury			Infection diseases polyclinic control	2	2,2
Day	21	23,6	Did you got hurt more than once?		

Night	55	61,8	Yes	75	84,3
Can't remember	13	14,6	No	14	15,7
Total	89	100	Total	120	100

When looking at table 2, the majority of nurses observed such an injury and informed other staff. A number 74.2% of all participating nurses could verify that they injured themselves with sharp and pointed tools while they were doing their job. Asking the question when the injury happened the nurses answered as following: 50.6% got injured within 0-1 months, 19.1% got injured within 2-3 months, 4.5% got injured within 4-5 months and 25,8% got injured after 6 months and later. To find out at what time of work the injury happened, it was differentiated between two working shifts. 23.6% got injured at day time shift while 61.8% got injured at night time shift. A number of 14.6% answered with 'I do not remember when it happened.' The question 'Did you get injured more than once?' was answered by 84.3% with 'Yes, I got injured more often', besides that 15.7% said 'No, I got injured only once.' Generally said, the majority of participants got injured. They were mainly injured within 0-1 months while being at night time shift. They got injured at least once.

**Table 3: The situations and sharp/pointed tools which caused the injury – Results**

During which procedure	N	%	Which object caused the injury?	N	%
Seperating needle from injector	17	19,1	Injector needle	72	80,9
Putting the needle cap on	16	18	Branule needle	10	11,2
Extracting medicine from vial	13	14,6	Glass pieces	7	7,9
Bending the needle	2	2,2	<b>Was the object contaminated?</b>		
Taking blood	8	9	Yes	56	62,9
Depleting the blood to the blood tube	6	6,7	Not	33	37,1
İntavenous sets and branül placement	8	9	<b>Total</b>	<b>89</b>	<b>100</b>
IV medicine applications	10	11,2			
İntramuscular/subkutan v.b drug administration	9	10,1			
<b>Total</b>	<b>89</b>	<b>100</b>			

As seen in table 3, the research found out that the most injuring tool is the injection syringe with a percentage of 80.9. Further, the majority of participants confirmed that the tools were contaminated.

**Table 4: The injury surface and the kinds of protective material which were used while getting injured- Results**

Injured area	N	%	Were you wearing gloves when you injured?	N	%
Finger	72	80,9	Yes	66	74,2
Hand	17	19,1	No	23	25,8
<b>Did you got Hep B shot?</b>	<b>N</b>	<b>%</b>	Total	89	100
Yes	88	98,9			
No	1	1,1			
Total	89	100			

When analyzing table 4, the participants mentioned that the most injured surface as body part was the finger. Moreover, the injured people added that they had protective gloves on while providing their service and that they were safe because they had already vaccinated hepatitis B themselves.

**Table 5: After getting injured with a sharp and pointed tool – information procedure and training opportunities – Results**

Did you know what to do after a sharp injury?	N	%	Did you inform about the injury?	N	%
Yes	85	95,5	Yes	29	32,6
No	4	4,5	No	60	67,4
Which prosedures done after the injury?	N	%	Where did you inform about the injury to?	N	%
Cleaned with soap	49	55,1	Infection nurse	27	93,1
Did dressing	20	22,5	Nurse in charge	2	6,9
Checked the patient's serological tests	13	14,6	Total	29	100
Cleaned with alcohol	1	1,1	Did you get training?	N	%
Infection diseases polyclinic control	1	1,1	Yes	120	100
Did nothing	5	5,6	No	0	0
Total	89	100	Who did you get the training from?	N	%
When did yo get the training?	N	%	Infection nurse	67	55,8
0-1 years	112	93,3	Training nurse	48	40,0
2-3 years	6	5,0	Infection siseases doctor	2	1,7
Can't remember	2	1,7	TOTAL	120	100
TOTAL	120	100			

When looking at table 5, on the one hand the majority of injured participants confirmed that they knew about the legal procedure. Most of the time, the injury surface was washed with water and soap (55.1%). On the other hand, the majority of nurses, which is about a number of 67.4%, who said that they did not report about their injury. If a report was given, it was mainly about contacting the resonsible nurse for infections. The table generally reflects that all nurses ran through a training. In the majority of cases the traning was done within year 0-1.



**Table 6: The number of nurses who checked the serologic test results of their patients**

Is the patient's serologic tests being checked regularly?	N	%
Yes	87	72,5
No	33	27,5
Total	120	100

A nurse percentage of 72,5% checked their patients' tests, while 27,5% is not familiar with looking at the test results.

#### 4. Research Analysis

Sex	N	%	P
Female	65	73,0	0,370
Male	24	27,0	
Marital status			
Married	62	69,7	0,083
Single	27	30,3	
Total working time			
0-3 years	16	18	0,023
4-6 years	25	28,1	
7-9 years	21	23,6	
10+ years	27	30,3	
Total	89	100	

A number of 73% of all female participants who were involved in the research said that they got injured by sharp and pointed tools, the number of men with the same problem was just about 27%. To figure out a relation between the participants' sexes and the injury rate caused by sharp and pointed tools, the Chi square test  $p:0,370$  was applied to allow a deeper analysis. In that case, there was no significant statistical connection found between the sharp and pointed tools and participants' sexes. Besides that, there is a difference remarkable when taking the marital status in consideration. 69,7% of all injury cases marked that they are married while the other 30,3% are single people. The relation between the marital status criteria and the injury cases reflect that, in analysis the Chi square test is  $p:0,083$ . Thus, there was no significant statistical connection found between the sharp and pointed tools and the marital status of the nurses ( $p>0,05$ ). To figure out a relation between the total working time and the sharp and pointed tools the Chi Square test  $p:0,023$  was applied. This analysis part showed a significant statistical connection ( $p<0,05$ ). The participants shared following injury information caused by sharp and pointed tools: 18% got injured within 0-3 years, 28,1% got injured within 4-6 years, 23,6% got injured within 7-9 years and 30,3% got injured after working 10 years or more.

**Table 8: The Chi Square test which was applied to figure out the relation between the working shift and the sharp and pointed tools**

Work shift which injury occurred	N	%	P
Day	21	23,6	0,000
Night	55	61,8	
Can't remember	13	14,6	
Total	89	100	

To get more precise information about this issue, the Chi Square test  $p:0,000$  was applied. In that case, there was definitely a significant relation found ( $p<0,05$ ). About 14,6% of the participants do actually not remember when the injury happened, 23,6% got injured at day time shift while 61,8% got injured at night time shift. Then, it is possible to assume that most of the injury cases happened at night time shift.

## 5. Discussion and Consequence

Injuries caused by sharp and pointed tools are to be taken seriously because they can have severe consequences and bad prognosis for people, since there are many infectious diseases which can be contracted with when having blood contact. Moreover, there are biological risks, too. This research was operated by including facts like how nurses handle an injury caused by sharp and pointed tools and which way nurses proceed after having experienced this kind of injury at work. The results mirror that nurses are very often confronted with injuries of that kind. In the most cases, the nurses know how to react and what to do after getting injured. There was no significant relation found between the sharp and pointed tools and the nurses' marital status or sexes. However, between the issue and other sociodemographic data (age, state of education, working experience in a clinical environment and the total working period), there was a significant statistical connection found. Even the working shift and the number of injuries show a certain connection. The injuries mostly came up at night time shift while trying to remove the needle from the injection syringe. The protective materials which are used at the moment of injury were partly enough, so the participants who got injured washed the surface of injury with water and soap. This is also coherent with the literature content which gives advices about what to do in such cases. Yet, 5,6% pointed out that they did absolutely nothing after they got injured, they even did not report anything. This result exactly shows that the trainings have to be reviewed. A number of 74,2% participants mentioned that they got injured at least once in their profession. Dişbudak's research contained the piece of information that 60,8% got injured at least once while their whole career time. In order to give some detailed information, a distinguishing view on the different kinds of injuries is necessary: in 50,9% of cases are about the contact with syringes, 42,6% are about the cut by a broken ampoule, 5,9% are about an injury caused by a surgery tool, 2,4% is about other tools (Dişbudak, 2013: 43). Aygün's research reflected that from 391 nurses, 51,9% were injured by a pointed tool, actually in 80,4% of those cases, an injection syringe caused it. Akgür's research proved that 68,21% of participant nurses got injured by sharp and pointed tools. The frequency of injury was reported as 28,16% of nurses got injured 1-2 times, 33,98% of nurses got injured 3-6 times and 37,86% of nurses got injured more than 7 times. According to Akgür, the specific tool, which injured the nurses, were in 79,61% of cases the tip of syringe, in 23,30% of cases scalpels and in 15,53% of cases ampoules (Akgür, 2010: 47). Ceylan's research figured out that 79,3% of nurses got

injured 1-2 times in the last one month while handling sharp and pointed tools (Ceylan,2009: 25). The research of Bozkurt and fellows showed that the injuries were caused by a number of 90% by a contracting injection, 5% by sharp tools and 5% by the contact with mucousal fluids (Bozkurt ve ark,2013: 450). Önder and his fellows differentiated between the injury varieties the victims experienced, such as 18,6% were cut at the finger, 6,4% were a burn patient, 21,6% were trapped or crushed, 13,8% faced a contract with injection (Önder ve ark,2011: 41). Further categorisation was made in terms of the handling with an injection. Injury cases occurred with following actions and percentages: 19,1% while removing the tip of the syringe, 18% while trying to put the cover on the tip of the syringe, 14,6% while withdrawing fluid medicine from the vial or ampoule, 2,2% while trying to make the syringe unuseable, 9% while taking a blood sample, 6,7% while filling the blood in the injection into a tube, 9% while inserting a branule or intravascular set, 11,2% while applying medical treatment, 10,1% while applying medical treatment intramuscularly or subcutaneously etc. In fact, it was remarkable that the injection syringe is the most injuring tool with a percentage of 80,9%. The research of Dişbudak marked that the causes of an sharp and pointed tool injury mostly happens when the staff tries to put the cover on the tip of the syringe 45,3%, even the injection syringe was identified to be the most injuring tool (Dişbudak,2013: 44). In this research, the injured nurses verified that 62,9% of the injuring tools were contaminated already. The injury cases in Akgür's research were reported to be caused by 71,84% contaminated sharp and pointed tools. The percentage of injured nurses including the frequency by contaminated tools is as following: 36,49% got injured 1-2 times, 31,08% got injured 3-6 times and 32,4% got injured more than 7 times (Akgür,2010: 29). It was found out that the injury cases happened at night time shift for 61,8%. In contrast to this, Dişbudak proves that the injuries in his research mostly happened at day time shift with a percentage of 47,4% (Dişbudak,2013: 58). The research of Ceylan shows that 79,3% of nurses have to keep a night watch. The highest number of work accidents was figured out for nurses who kept night watch for 9 or more times (Ceylan,2009: 57). In Dişbudak's research, it was found out that 76,5% were injured at their finger (Dişbudak,2013: 49). However, the research of Uçak gives a percentage of 60,4% for hand-finger-injuries (Uçak,2009: 61). In our research, the most injured surface as body part was the finger with a percentage of 80,9%. The nurses in the working team, who got injured by sharp and pointed tools, told that they had gloves on for 74,2% and in 98,9% of the cases, they also had their self-protection as they were injected the Hepatitis B.

In Dişbudak's research, two-thirds of the nurses (68,0%) had already cared about pre-protective measures before they got injured. The left part of one third did not care about pre-protective measures (Dişbudak, 2013: 50). As seen in Gülay's research, 55,2% used medical gloves in order to be protected against blood or body fluid contact (Gülay, 2010). According to Uçak, there are several percentages reported in terms of using protective materials: 41,4% used medical gloves, 0,6% used protective glasses, 7,1% used medical masks, 5,3% used protective shirts (Uçak,2009: 61). The majority of nurses (95,5%) knew how to deal with the situation. A number of 55,1% washed the injured surface with water and soap. In Dişbudak's research, there are several steps aftermath the injury: 1. Sterilizing with disinfecting antiseptic, 2. Washing it with water and soap, 3. Bandaging the injured surface, 4. Running through a blood test. The nurses mentioned that they witnessed the same procedure at their friends (Dişbudak,2013: 50,51). In the research of Uçak, the first aid was about washing the injured surface with water and soap and after that disinfecting the injury (Uçak,2009: 78). In our research, 67,4% of the nurses did not report the injury. If the report was told to staff, this was mainly the infection

nurse. All nurses who took part in our research mentioned that they ran through a training, actually 93,3% of them passed it in the last year. 55,8% were trained by a infection nurse. On the contrary, the research of Dişbudak proved that there were 72,2% of nurses who ran through a training (Dişbudak,2013: 61). The nurses who were a part of our research underlined that they routinely check the serologic test results of their patients. While providing health services, every health care worker should be aware of the fact that every patient represent a potential infection which can be spread, so they always have to know how and when to use protective materials and that those are necessary.

To prevent infectious contract, there is need of a special staff training. The standard protective materials have to be used before getting in touch with any potential dangers. Moreover, it is of the same importance to know about how to deal with the situation just aftermath the injury happened.

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# PSYCHOLOGICAL, SOCIAL AND ECONOMIC EFFECTS OF MEDICAL MALPRACTICE ON PATIENTS AND THEIR RELATIVES

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## ABSTRACT

According to a research conducted recent years in our country, a noteworthy increase related to health expenditures has been observed. This study includes the answers of following questions; Is all of the spending on health expenditure necessary? Are applied treatment methods accurate? Or how accurate is the diagnosis? Is prescribed medicine really necessary? By asking these questions to patients, relevant data is aimed to be obtained. In this context, malpractice cases filed under the name of the case has been examined, what the socio-economic loss of the patients who are exposed to incorrect application is has been tried to be identified by asking the patient, and literature review of the data obtained is given. The effects of malpractice on health economics have been death in a broad perspective.

This study contains important information and experiences of malpractice, to be more precise, it has crucial information for service related loss to be prevented and to be compensated properly.

## INTRODuCTION

The emergence of human life is a natural right, and wanting to maintain a healthy way of life is the most natural right. However, this ideal situation may not always happen. During certain times of every human life, there may be some deterioration not only on mental but also on physical health. Any kind of the disruption that occur confront the patient with health care providers. Patients may consent to giving physicians the right to interfere with the physical integrity to the inactivation of factors threatening the health. Here is a kind of contractual relationship resulting from the meeting of the patient and the physician. That is, when the patient is accepted to healthcare organization, contract is established between the physician and the patient. Accordingly, doctors should give patients the expected standard diagnostic and treatment services, must demonstrate due diligence and loyalty. Although the intervention to life, health and body completeness is against the rights and is basically forbidden, laws gave physicians the right to intervene for improvement over the body (Yenerer, 2003).

Medical interventions cover a wide range of operation from simple to the most severe diagnosis and treatment medicine. However, although the ultimate result is to cure the patient completely, sometimes undesirable results may occur (Ayan, 1991). This undesirable result is called defective medical practice. In the declaration of 44. General Assembly of World Medical Association conducted in 1992, malpractice (malpractice) has been defined as “during treatment, the physician’s not following standard practice, damage caused by not treating of the lack of skills”; and the cases which are experienced through medical care and treatment

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and not physician's fault's being distinguished is emphasized. Additionally, it has been stated that the deficient actions of physicians are not simply limited to diagnosis and treatment, but it is also about any kind of acts and behavior in their profession. That is, a physician has important responsibilities not only in terms of the diagnosis and treatment defects; also in terms of the relationship with their patients and colleagues (Koç, 2006).

## **1. MALPRACTICE AND MEDICAL MALPRACTICE CONCEPTS**

Malpractice literally, is derived from Latin for "Male" and "Praxis" and its route is the word "bad, incorrect application" . That is, it can occur in any profession. Widely, it is used as imperfect movements that emerge when the profession is implemented incorrectly. If malpractice applications occur in health care professions, it is called "Medical Malpractice". World Association of Medical defines malpractice as; "the physicians' not implementing the current practice standards during treatment, damage caused by lack of skills or not treating the patient."

In the United States, "The Joint Commission on Accreditation of Healthcare Organizations (JCAHO)" has defined malpractice as follows; "It is frequently in the public health service centers, professions' not behaving in a professional and appropriate way and is inadequate and negligent acts in the masked application (Hancı, 2002).

## **2. MEDICAL MALPRACTICE DATA**

Malpractice has shown a noticeable increase recently. It has become a multi-faced, multi-dimensional issue discussed within its ethical, legal, medical, educational and administrative aspects especially in some developed countries and all over the world in recent years. Despite this; in official institutions or organizations, the studies determining the rates of malpractice are still inaccessible.

Malpractice applications related news has increasingly come to the fore and has drawn the attention of the community. Lately, the cases related to medical malpractice penalty and compensation has increased significantly.

In the US in 2000, according to a detailed report published by "the Harvard Medical Practice Study" and a research based on two retrospective studies in Utah and Colorado, in hospitals in the United States, it is confirmed that per year 98000 people are reported to die directly because of the medical mistakes. In Japan in March 2002 - March 2003, it was found that because of medical errors 900 cases were sued (Birgen, 2006).

According to the results of the limited studies conducted the largest part of the malpractice lawsuits are filed for physicians.

Birgöl Tüzün, Faruk Aşıcıoğlu, Emergency Diamond, Haluk Slim "Defective Medical Application Related Deaths" Istanbul University Medical Faculty Journal of 4.1997 compared to the incidence in this study and the frequency medical defect causes are;

Inadequate monitoring,

- delays in medical interventions,
- delays in patient referral, referral without taking adequate measures,
- Infection resulted in inadequate treatment and inadequate measures,
- improper or careless treatment



- Inadequate diagnosis
- incapable persons' interfering medical interventions

According to a research, 805 malpractice cases out of 1458 have been sued. In second rank, there are cases involving teams who are found guilty. It is noteworthy that assistants are sued the least.

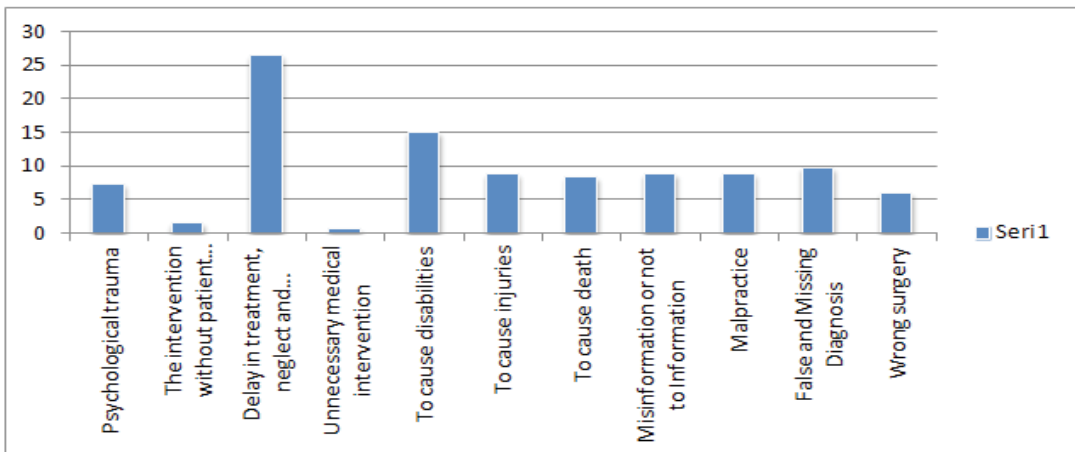
Medical malpractice, is rarely thought to occur due to a single cause. Generally, there are human factors (ignorance, carelessness, such as mental reasoning errors), environmental factors and some other factors such as medical devices that increase the risk of failure. However, because medical care is a team work, those factors causing failure are generally overlapped (Çetin, 2006).

In one study; When the patients were evaluated according to expertise and tasks; it is observed that the highest proportion is on Obstetrics and Gynecology specialist area (19.04%) and 21.8% of them are deficient, it is followed by nurses and midwives (11.48%) and they are thought to be defective at the rate of 36.5%, and 21.6% Children's Right. And Hosp. Experts (6.02%) are thought to be defective (Özkaya, 2008).

Also there are limited number of studies in medical malpractice that are related to the judiciary action. In light of debates on the subject in our country, there is a need for research with regard to the review of all cases of medical malpractice.

Even though a part of the malpractice lawsuits are not considered as medical errors, when the cases accepted as malpractice are observed, there has been a dramatic increase compared in different years. But these are the data of cases that resulted in the error pop-up applications and medicine case, not only accurate data. Of course, there was and there has been some cases where the patients who were-have been exposed to many malpractice, are silenced off the books, it is very difficult to reach these data.

### **Litigation Causes:**



*Grafik.1. Causes of legal cases*

The maximum number of cases that the physicians were sued has been on delay in treatment, negligence, misdiagnosis and mistreatment.

Increasing problems in the health system; medical malpractice and criminal cases and civil



cases in this context; has led to the increase of the everyday professional insurance. These results in a vicious cycle and doctors are exposed to unjustified medical malpractice charges.

### 3. FINDINGS

Demographic Variables	n	%
Age (Years)		
20-30	65	65
31-40	18	18
41-50	11	11
51-60	6	6
Gender		
Male	48	48
Female	52	52
Marital Status		
Single	55	55
Married	43	43
Other	2	2
Educational Status		
Primary School	5	5
Secondary School	8	8
High School	18	18
University	59	59
Other	10	10
Total	100	100.0

Exposure Rate to Malpractice	n	%
Patients Are Exposed Malpractice		
Yes	33	33
No	67	67
Whose Familiar Exposed Malpractice		
Yes	58	58
No	42	42
Total	100	100.0

According to the survey data obtained 100 people of 33 itself exposed to malpractice. The 58 were subjected to a close malpractice. As it can be seen from the data 25 people have been exposed to both himself and a close malpractice. The total is fluent in 91 of 100 people close to malpractice or self.

NO	Survey Data	$\bar{X}$	S
1.	Wrong treatment changed my life in a negative way.	4,256	1,060
2.	My social relationships were negatively influenced due to wrong treatment.	3,756	1,497
3.	My exposure to malpractice has affected those around me.	4,189	1,178
4.	Wrong treatment caused me to move away from the community.	3,297	1,619
5.	Exposure to malpractice reduced my social activities.	3,824	1,520
6.	My social environment stopped going to the doctor who practiced malpractice.	4,135	1,388
7.	Wrong treatment has changed the perspective of the society towards me.	2,797	1,543
8.	Wrong treatment reduced my frequency of going to the doctor.	3,500	1,563
9.	Wrong treatment reduced my confidence towards people.	3,364	1,429
10.	Experience of side effects of the drug has reduced my frequency of attending social environment.	2,905	1,623
11.	Misdiagnosis has caused people around me pity me.	3,229	1,684
12.	Unnecessary tests caused me not to prefer that hospital.	3,878	1,470
13.	Wrong treatment I have experienced reduced my confidence towards doctors.	4,283	1,079
14.	I've had great tension because of wrong treatment.	4,135	1,197
15.	Wrong treatment has changed my view of the world.	3,243	1,478
16.	Wrong treatment made my life upside down.	3,473	1,528
17.	Wrong treatment made me a pessimistic person.	3,378	1,486
18.	Wrong diagnosis caused me to undergo a stressful period.	4,270	1,173
19.	My tendency of violence increased towards doctors applying wrong treatment.	2,918	1,505
20.	Wrong treatment caused my family to misbehave the doctor.	3,067	1,607
21.	Being exposed to wrong treatment caused some problems in my job and daily life.	3,702	1,362
22.	I began to be prejudiced against all doctors.	3,797	1,344
23.	Wrong treatment resulted in self-esteem.	2,864	1,564
24.	Drugs prescribed wrong caused psychological side effects.	3,135	1,674
25.	I thought I would die because of the wrong diagnosis.	2,837	1,680
26.	I worried about my future due to the misdiagnosis result.	3,689	1,461
27.	I had some economical losses I hadn't expected.	3,837	1,526
28.	I spent a lot of money to fix the wrong treatment.	3,675	1,614
29.	I had a difficulty in overcoming the economical consequences resulted from wrong treatment.	3,675	1,553
30.	Wrong treatment caused me to lose time.	4,310	1,237

31.	I wasn't able to meet the costs of suing for malpractice.	3,067	1,777
32.	I can not afford to sue for a malpractice.	2,554	1,664
33.	I paid a lot of money to lawyers for malpractice lawsuits.	1,810	1,449
34.	It was a financial burden for me having been examined by more than one doctor.	4,108	1,330
35.	I believe that the wrong diagnosis and treatment harms the country's economy.	4,229	1,309
36.	I believe that misdiagnosis is increasing health expenses.	4,662	0,848
37.	Wrong treatment may lead to unnecessary expenses.	4,729	0,708
38.	Wrong treatment increases the workload of doctors.	4,734	1,161
39.	Unnecessary tests requested may result in negative effects on patients with urgency.	4,608	0,824
40.	Prescribing unnecessary and wrong medication can cause economic losses.	4,716	0,767
41.	Unnecessary tests requested are a burden both for the individual and the government economy.	4,635	0,900

	n	%
Exposure To Wrong Treatment Type		
Placing misdiagnosis	29	39,2
Prescribing the wrong drug	22	29,7
Demanding unnecessary tests	16	21,6
Exposure to the wrong surgery	3	4,1
Doctors abusing their tasks.	1	1,4
Doctors causing death	3	4,1
Total	74	100.0

Out of 74 people getting the survey, 29 of them were misdiagnosed. 3 of them resulted in death due to malpractice.

	n	%
Where Exposed to malpractice		
Public Hospital	55	74,3
Private Hospital	15	20,3
Family Health Center	4	5,4
Total	74	100.0

As can be seen from the survey data, malpractice in public hospitals are more prevalent.

	n	%
Why exposed to malpractice		
Doctor Error	12	15,8
Careless doctors	24	31,6
Insufficient control	2	2,6
Insufficient training	10	13,2
The indifference of the doctor	12	15,8
Inexperience	7	9,2
Doctors not knowing current information	2	2,6
Overloading the doctor	3	3,9
Giving Priority to family members	1	1,3
Profit making	3	3,9
Total	76	100.0

Most of the people taking part in the survey stated that they were exposed to malpractice due to the carelessness of doctors.

Variables	n	%
Confidence in the Health Care System		
Yes	8	8
No	42	42
Partially	50	50
Total	100	100.0

Only 8 of the respondents rely on the health care system in Turkey.

#### 4. CONCLUSION

Today, in an environment where the rights of patients are assessed as a consumer protection, health sector is seen as the service sector. Medical malpractice allegations have been seated on the agenda and have come forward in the recent years because of the medical care system's being evaluated in the aspect of a relationship like client- service provider, and because of patients' rights' being thought as a media material (Baydar, 2002; Donaldson, 1975; Akt.: ÖZKAYA ÖZYURT, 2002-2006)

Malpractice concept appears to be multi-dimensional and multi-faceted concept. It occurs as a result of negligence, carelessness, ignorance, inexperience and patient. Increase in medical information, the development of the technology used in the medical field, increasing the number of physicians using technology directs doctors to make some applications they do in the past and these often increase malpractice complaints and lawsuits. This increase brings medical care costs not only to patients exposed to malpractice , but also to physicians found guilty.

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# SATISFACTION OF PATIENT



# SEASONAL AND MIGRANT FARMWORKERS' SATISFACTION LEVEL OF HEALTH CARE SERVICES IN SEMI-RURAL AREAS OF ESKISEHIR

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## INTRODUCTION

Seasonal and Migrant Farmworkers and their family members (SMF) are individuals who had to travel to another city or region to meet the needs of the agricultural workforce so that he/she was unable to return to his/her permanent residence within the same date (1). According to the data of Turkish Statistical Institute 2011, in Turkey, 25 millions people have known as main workforce. Of them, 26% worked as agriculture workforce and about 13% was called as SMF (2).

Although Eskisehir has so wide and arable rural areas for agricultural activities, it needs agricultural workforce due to the intensive external migration. Every year approximately 1500 SMF comes to Eskisehir from Southeastern and Eastern Anatolian region for agriculture activities.

SMF has known as disadvantaged risk groups all around the world due to some specific characteristics; unsuitable living and housing conditions, malnutrition, industrial accident and injuries, reproductive health problems, pesticide exposure, the risk of heatstroke, frostbite, and inadequate access to health care services, infectious diseases and premature child deaths (3). The factors which effect the satisfaction level of SMF were determined as; factors related the patient (their expectations, age, gender, educational level, health status, the perceptions about their health conditions etc.), factors about health care services providers (personel characteristics of health staff, status of shown kindness and care, scientific knowledge levels

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of health staff etc.) and environmental and institutional factors (closeness of hospital, income status, working duration etc.) (4). For that reason to provide quality and accessible health care services to this disadvantaged risk groups is so critical.

In light of this, the aim of the study was evaluating the status of applications to the health care services and satisfaction level from received health care services of SMF.

## **METHODS**

The cross sectional study was conducted in 7 tent cities (Alpu, Sevinc-1 ve 2, Karacahoyuk, Bozan, Sakintepe ve Osmaniye) in semirural areas where located in Public Health Department of Eskisehir Osmangazi University Medical School Education and Research Regions in Eskisehir. Eskisehir is located in Central Anatolia, Turkey. In there the majority of people are engaged in agriculture especially in rural areas Therefore Eskisehir is one of the most preferable cities by SMF for agricultural activities. The study was reviewed and approved by the relevant institutions. We aimed to reach all people that sheltered in the tent cities.

A three part questionnaire was constituted to collect the data. First part included the socio-demographic characteristics of SMF, second part included applications of SMF to health care services due to their health problems and third part included satisfaction level of SMF of health care services. All the tent cities were reached by researches. All participants gave informed consent. We used the face to face conversation method to collect data. Data of people less than 15 years was obtained from their parents.

Data were analyzed using the SPSS 20.0 (IBM). We used descriptive statistics to evaluate socio-demographic characteristics and satisfaction level of SMF from health care services. Then we conducted multivariate logistic regression to identify the socio-demographic and other factors that related with good satisfaction level of SMF. A value of  $p < 0.05$  was considered statistically significant.

## **RESULTS**

In the study days, we reached total of 1041 (76%) SMF and their family members. A total of 482 (46.3%) SMF, who applied at least one time to health care services due to their health problems, responded the questionnaire. No difference was found between the tent cities in means of the number of responded SMF ( $p > 0.05$ ). The average number of application to health care services was  $0.96 \pm 1.61$  and ranged between 0 and 22. The mean and standard deviation of age were  $24.9 \pm 16.4$  years and ranged between 0 and 87 years. Table 1 shows socio-demographic characteristics of SMF and their family members.

**Table 1.** Socio-demographic characteristics

Socio-demographic characteristics	n	%
<b>Gender</b>		
Male	190	39.4
Female	292	60.6
<b>Age</b>		
14 and less	136	28.2
15-24	116	24.1
25-34	107	22.2
35-44	53	11.0
45-54	46	9.5
55-64	18	3.7
65 and older	6	1.2
<b>Educational level</b>		
Illiterate	304	63.1
Literate	62	12.9
Primary school and above	116	24.1
<b>Marital status</b>		
Single	197	40.9
Married	285	59.1
<b>Is He/She Working?</b>		
No	233	48.3
Yes	249	51.7
<b>Social Insurance</b>		
No	116	24.1
Yes	366	75.9
<b>When did you come here?</b>		
March	115	3.1
April	267	55.4
May	190	39.4
June	6	1.2
July	4	0.8
Total	482	100.0

Among the SMF 39.4% were male; 63.1% were illiterate, 39.9% were single, 51.7% had a regular income, 75.9% had a social insurance. Table 2 summarizes the characteristics of applications of SMF to health care services due to their health problems.

**Table 2.** The characteristics of applications of Seasonal and Migrant Farmworkers to health care services due to their health problems

Characteristics of applications	n	%
<b>Institution applied</b>		
Family Medicine Center	56	11.6
Integrated District Hospital	157	32.6
State Hospital	256	53.1
University Hospital	13	2.7
<b>Who did you apply for?</b>		
For me	326	67.6
For my children	139	28.8
For my wife/husband	9	1.9
Other	8	1.7
<b>Cause of application</b>		
Emergency	79	16.4
Examination	306	63.5
Control	14	2.9
General body control	1	0.2
Surgery	6	1.2
Mouth and teeth health	12	2.5
Pregnancy	37	7.7
Family planning	2	0.4
Prescription	1	0.2
Other	24	5.0
<b>Cause of preferences</b>		
Obligation	95	19.7
Closeness	319	66.2
Satisfaction of services	40	8.3
Advise	13	2.7
To have a familiar person	1	0.2
Habit	3	0.6
Other	11	2.3
<b>Total</b>	<b>482</b>	<b>100.0</b>

Among the SMF; 11.6% applied to the family medicine center, 32.6% applied to the local hospital, 53.1% applied to the public hospitals 2.7% applied to the university hospital, 16.4% applied for the emergency services, 63.5% applied for the examination. The predictive factors among the applications to the health care services were reported as closeness of hospital (66.2%), obligation (19.4%), and satisfaction from the health care services (8.3%). Table 3 shows satisfaction level of SMF of health care services.

**Table 3.** The satisfaction level of Seasonal and Migrant Farmworkers of health care services.

	n	%
<u>Did you satisfied with the health care services?</u>		
No	49	10.2
Yes	433	89.8
<u>Will you prefer the same doctor in each application?</u>		
No	246	51.0
Yes	236	49.0
<u>Can you share your complaints with your doctor clearly?</u>		
No	24	5.0
Yes	445	92.3
Partially	13	2.7
<u>Were you informed adequately about your health conditions by the doctor?</u>		
No	37	7.7
Yes	417	86.5
Partially	28	5.8
<u>Were you satisfied with the treatment?</u>		
No	32	6.6
Yes	424	88.0
Partially	26	5.4
<u>Were you satisfied from auxiliaries staf</u>	f	
No	13	2.7
Yes	444	92.1
Partially	25	5.2
<u>Time of wait for examination</u>		
Long	68	14.1
Normal	414	85.9
Short	0	0.0
<u>Were you satisfied from cleaning of hospital</u>		
No	0	0.0
Yes	467	96.9
Partially	15	3.1
<u>Will you recommend the health care services institution to your relatives</u>		
No	23	4.8
Yes	414	85.9
Partially	45	9.3
<u>Can you assess quality of health care services compared to where you came from?</u>		
Where I come from is better	78	16.2
Here is better	271	56.2
No difference	133	27.6
Total	482	100.0

Of the SMF, 89.8% were satisfied with health care services, 49% chase the same doctor in another application, 92.3% had a good communication with the their doctors, 86.5% were

informed adequately about their health conditions, 88% were satisfied with their treatment. Table 4 shows the related socio-demographic characteristics regarding the satisfaction level of SMF according to logistic regression analyses.

**Table 4.** The related socio-demographic characteristics regarding the satisfaction level of Seasonal Migrant Farmworkers according to logistic regression analyses

	p value	Exp (B)	95% Confidence Interval	
			Lower	Upper
Age	0.280	0.865	0.666	1.125
Gender	0.171	0.617	0.309	1.231
Distance from the tent cities to city center	0.037	0.495	0.255	0.960
Educational level	0.046	0.682	0.468	0.993
Marital status	0.276	1.576	0.696	3.569
Who did you apply for to the health care services	0.603	1.169	0.650	2.102

According to the logistic regression analyses, some socio-demographic characteristics (distance from the tent cities to the city center and educational level) were associated with from received health care services of SMF and their family members.

## DISCUSSION

In present study evaluating the status of applications to the health care services and satisfaction level from received health services of SMF was aimed. In this study approximately half of the SMF reported that they oftenly prefer the state hospital in Eskisehir City Center. The SMF may consider that the state hospital provides high quality and comprehensive health care services to them and the state hospital locates nearly to their tent cities.

The majority of SMF and their family members applied to the health care services for the examination. These consequences may be connected with SMF's inability to find suitable time for primary preventive health care services due to their hard working conditions.

In present study most of the SMF applied the nearest health institution because of the following reasons; inability to find time, loss of income, inability to let and lack of vehicles. Furthermore when the distance between tent cities and hospital had increased, the satisfaction level of SMF decreased. We suggested that the primary health institutions should be located at the near areas to the tent cities. Because closeness of health institution to the people's places is one of the most effective factors for determining their preferences to receive health care services (5).

Of the SMF 89.9% reported that they had a good satisfaction level from the health care services. The factors; taking more quality health care services compared to their homelands, cleaning of hospital in Eskisehir, attitudes and behaviors of hospital staff, good communication between SMF and doctors, may be associated with the satisfaction level of SMF. Ozcan et al told that 76 percent of individuals, who applied to Silvan State Hospital, had a good satisfaction level of health care services (6).

On the other hand individuals, who had higher educational level, had low satisfaction level from health care services ( $p=0.037$ ). The lower expectations of SMF and their family members from the health care services might be resulted with the higher level of satisfaction. Ercan

et al. told that when the educational level had increased, the satisfaction level of individuals decreased (7).

## CONCLUSION

Finally, SMF preferred the secondary and tertiary health care services rather than primary health care services. It burdened to secondary and tertiary health care services unnecessarily. The SMF' lower expectations from the health care services might be resulted with higher level of satisfaction.

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# COMPARISON BETWEEN THE QUEUING SYSTEM AND APPOINTMENT SYSTEM IN HOSPITALS WITH PATIENT SATISFACTION: GUMUSHANE STATE HOSPITAL

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## ABSTRACT

**The Problem of the Study:** Despite the globalization in health services and technological integrations, patients still face with uncalled-for waiting times in service encounter process. This waiting time can not be limited to not only waiting physicians but also waiting for treatment, waiting for an emergency or waiting for an accident case. It is aimed in this study to understand the effects of these waiting times on psychological effects on patient satisfaction.

**The Purpose of the Study:** It is aimed in this study to evaluate the level of patient satisfaction by analyzing and evaluating waiting in queues and appointment system in polyclinical units of Gumushane State Hospital.

**Method:** This study mainly consists of the patients that are provided services from Gumushane State Hospital. The study was conducted based on a survey system with 150 patients in 4 polyclinics between 28.04.2014 and 09.05.2014.

**Findings and Results :** Even though waiting periods change in each polyclinics, the most intense times of queues are between 08:00-11:00 and 13:00 and 15:00. Generally waiting periods in Otorhinolaryngology is 62 minutes, 45 minutes in General Surgery , 47 minutes in Ophthalmologic clinic and 68 minutes in Internal Diseases clinic. The highest contentedness level in appointment system is in Ophthalmologic clinic. Periods in waiting in queues are much more than those in appointment system. At the end of the study, it is determined that appointment system is more efficient than waiting in the queues.

**Key Words:** Queue and Appointment System, Hospital, Appointment System

## INTRODUCTION

Rapid developments in information and communication technologies, technological integrations and globalization process have created significant changes in health sector as in others. Hospitals are providing service in an integrated manner with technology by raising their quality of service, increasing accessibility to health services and enhancing level of health standards.

‘Today, it is a reality that the number of health institutions can not supply the needs of this raising population despite the positive developments in this sector. As a result of increasing level of income, a demand of more qualified service has emerged.’ (Tekin, 484) Lack of sources, ineffective use of the system, problems while providing service especially in polyclinics

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and long queues become inevitable. (Fedai et al, 2000:49)

One of the sectors that queue problems are mostly encountered is the health sector. Within this aspect, hospitals are thought as a system comprised of queuing networks.( Luck1972) According to a research done by Ministry of Health , patients wait approximately 70 minutes after arriving to the hospitals to meet the doctor and this period reaches nearly two hours in university hospitals.( Ministry of Health,1994) Patients are waiting on phones and on internet as well as in front of patient admission office. To solve this waiting problems in hospitals, patients are provided health services spreaded in time periods.( Alagöz,2003:2) However, ineffective planning of sources and the imbalances in supply and demand of services cause long waiting times.’ Determining the number of patients to be treated without an analytical model and serialising at the beginning of the clinic hours are the main reasons of long queues in hospitals. Under this circumstance, patients have to arrive hospitals early to get a sequence. Therefore there becomes stampede in lounges especially during these moments because these patients have to wait in queues. (Gürpınar and Karahan, 2009:156) In order to reach health services in more active and productive ways, one of the most important projects studied by Ministry of Health within scope of Health Transformation Project is Central Appointment System.(www.sisoft.com) Appointment system is a system used for planning the sources, effective and efficient workforce, increasing patient contedness,shortening the long queues. (mlrs.gov.tr) The two main performance indicators of an appointment system are waiting times and doctors’ leisure times.( Brahimi, 1991).

The purpose of appointment is minimizing the loss of time and extending the flow of patients in periods to regularize the work load. On condition that appointment system is carried out in an efficient way, undemanded waiting periods can be decsreased to minimum level.In this context, the effectiveness of queue and appointemtn systems will be examined and these two systemts will be compared and the contributions to patient contendness and supplying service will be discussed in this study.

## **MATERIAL AND METHOD**

The universe of the study is comprised of patients who are provided service by Gumushane State Hospital. The study is carried out on 150 patients in four polyclinics between 28.04.2014 and 09.05.2104 based on quessionaire system.Datas are collected with a sampling method through a survey and an enrollment form. Four polyclinics (interior diseases, opthalmic, otorhinolaryngology, general surgery) are analyzised related to the efficieny of queue and appointment system in hospital.

The questions in the survey are about the treatment time, minumim waiting time, maximum waiting time, approximate waiting time (time spent), patient contendness and awareness of patieas of appointment system. All the information about the number of appointed patient number, the number of patients in queue, the number of appointed patients that do not come,the number of queuing system patient that do not come, the number of treated appointed patient and the number of patient waiting in queue in each polyclinics are situated in the study. Besides, average waiting times and times for changing queues’ periods are observed during the day in each polyclinic.

## RESEARCH

The findings are given below obtained from the queuing system and appointment system applications of the study.

**Table 1: Outpatient patient flow**

Polyclinics	The number of Patients Appointment	The number of Patients Queue	The number of patients coming by appointment	The number of patients coming queuing system	The number of patients cared for appointment	The number of patients cared for queuing
INTERNAL MEDICINE	38	87	6	9	32	78
GENERAL SURGERY	12	51	3	8	9	44
OTORHINOLARYNGOLOGY	25	95	4	15	21	80
EYE P.	11	71	3	6	8	58

When studied outpatients flow statement with the number of patients coming from the queuing system it was found to be more than twice the number of patients the appointment system.

**Table 2: Queue system indicators**

QUEUE SYSTEM INDICATORS	INTERNAL MEDICINE	GENERAL SURGERY	OTORHINOLARYNGOLOGY	EYE P.
AVERAGE DURATION OF INSPECTION.	4.5 dk	5 dk	4.5 dk	8.5 dk
AVERAGE DURATION OF QUEUE.	180 dk	105 dk	180 dk	150 dk
NUMBER OF DOCTORS	2	2	2	1
WAITING PERIOD AT LEAST	15 dk	15 dk	15 dk	15 dk
THE MAXIMUM WAIT TIME	150 dk	75 dk	120 dk	120 dk
THE AVERAGE WAITING TIME	68 dk	45 dk	62 dk	47 dk

The waiting time of the patients who want to be examined according to the queuing system service has been found to vary between 45-68 minutes.

**Table 3: Appointment system indicators**

APPOINTMENT SYSTEM INDICATOR	INTERNAL MEDICINE	GENERAL SURGERY	OTORHINOLARYNGOLOGY	EYE P.
AVERAGE DURATION OF INSPECTION.	4 dk	4,5 dk	3.5 dk	8 dk
AVERAGE DURATION OF QUEUE.	–	–	–	–
NUMBER OF DOCTORS	2	2	2	1
WAITING PERIOD AT LEAST	10 dk	5 dk	5 dk	5 dk
THE MAXIMUM WAIT TIME	20 dk	15 dk	15 dk	15 dk
THE AVERAGE WAITING TIME	13 dk	8 dk	11 dk	10 dk

According to the patients' waiting time for service appointments system it has been shown to vary between 8-13 minutes.

**Table 4: The effectiveness of queuing systems**

Polyclinics	Spent time	The number of examination	Satisfaction%
INTERNAL MEDICINE	68 dk	87	40%
GENERAL SURGERY	45 dk	51	60%
OTORHINOLARYNGOLOGY	62 dk	95	50%
EYE P.	47 dk	71	59%

The level of satisfaction of patients from the queue after the inspection system has been found to occur between 40-60%.

**Table 5: The effectiveness of appointment systems**

Polyclinics	Spent time	The number of examination	Satisfaction%
INTERNAL MEDICINE	13 dk	38	75%
GENERAL SURGERY	8 dk	12	80%
OTORHINOLARYNGOLOGY	11 dk	25	80%
EYE P.	10 dk	11	84%

After examination of the patients examined satisfaction with the appointment system has been found to vary between 75-84%.

## CONCluSIONS AND FuTuRE PROJECTIONS

The level of patient contedness mostly based on not only to the treatment time but also to the time spent. The less time a patient spends for a treatment, the more contend s/he is. Although, waiting times change in each polyclinic, the most intense times are between 08:00-11:00 and 13:00-15:00. While the highest level of contedness is in genel surgery (% 60) , the least level of contedness is in interior diseases( %40) which is the most time-consuming clinic. While the level of patient contedness is % 80 in genel surgery which is in the bets position of appointment system, in interior diseases which is the most time-comsuming clinic the level is % 75. While the waiting time in appoinement system is mostly 20 minutes, it is 120 minutes in queuing system. Evaluated in approximate waiting time, one can wait mostly 13 minutes in appointment system, this period can rise to 68 minutes. When we consider the degree of satisfaction between these systems, the level of satifaction in appointment system is higher than in queing system. To shorten the queue and waiting times, patients should be encourgaed to use appointment system. By means of this system, personal convergance will be decreased.

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# AN EVALUATION OF CALLS MADE TO SABIM (MINISTRY OF HEALTH COMMUNICATION CENTER) LINE BETWEEN THE YEARS 2004 AND 2009

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## ABSTRACT

**The Objective of the Study:** The objective of this study was to analyze and evaluate the complaint calls made between the years of 2004 and 2009 to the *Communication Center of The Ministry of Health* that was founded within the framework of “The Transformation in Healthcare Project” and thus to make a contribution by providing an introducing general view of the functionality of the feedback mechanism.

**The Method:** The sample of the study consists of 686.397 appeal calls made to the Ministry of Health’s Communication Center between the years 2004 and 2009. The complaints have been studied in relation to a range of factors like the months of the complaints, the hour of the day, the days of the week, the age groups of the complainers, gender, type of the complaint and the reason of complaint.

**Findings:** By answering not only to health related appeals, but also to virtually any issue of interest for the citizens, SABIM achieved a plural involvement of the stakeholders and an “interactive administration”. It realized feedback mechanisms that enabled the real-time assessment of services as they were being supplied, thus eliminating many problems that arise from lack of communication.

## INTRODUCTION

SABIM, the *Ministry of Health Communication Center* is one of the e-health initiatives that The Ministry of Health has established with the aims of providing direct information in healthcare issues to patients and their relatives, receiving their complaints and views related to the healthcare system and practices and so establishing an elaborate feedback system. In accordance to the aims and goals of the system, teams of healthcare professionals who are well informed on the workings of the healthcare system, is answering and recording 24 hours and 7 days to any answer, problem, critic, suggestion, and request in relation to the healthcare system.

In short, by establishing effective communication between planners/administrators and service providers and service receivers, SABIM aims to establish a cooperative platform that the nature of the healthcare system requires. Reaching the people would enable the instant detection of malfunctions that might emerge at any level of the system and thus would enable fast and conclusive solutions.

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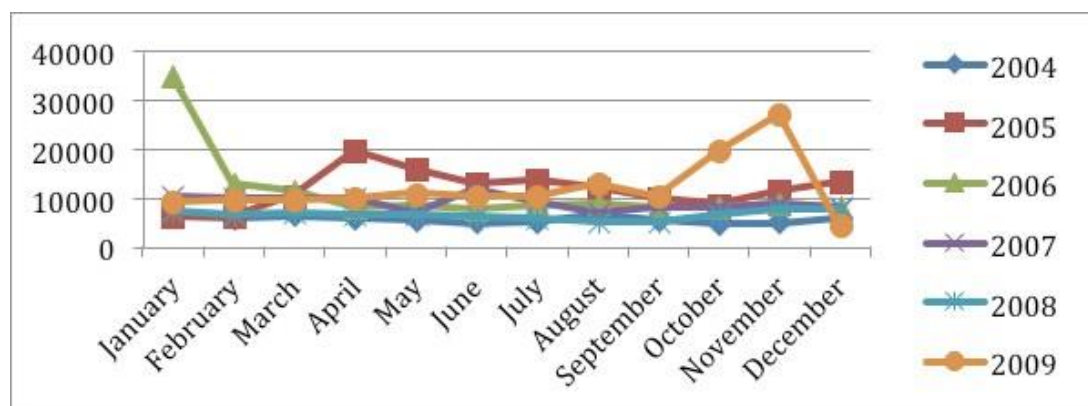
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A fundamental goal is to ensure a plural involvement of the stakeholders and to lay the foundation for an “interactive administration”. An ineffective public administration bureaucracy inevitably accumulates unsolved problems to a heritage of unsolvable problems, thus real-time feedback mechanisms that could monitor the services as they are being provided are of definitive importance for any system efficiency (Sağlık Bakanlığı, 2014).

## THE STuDY

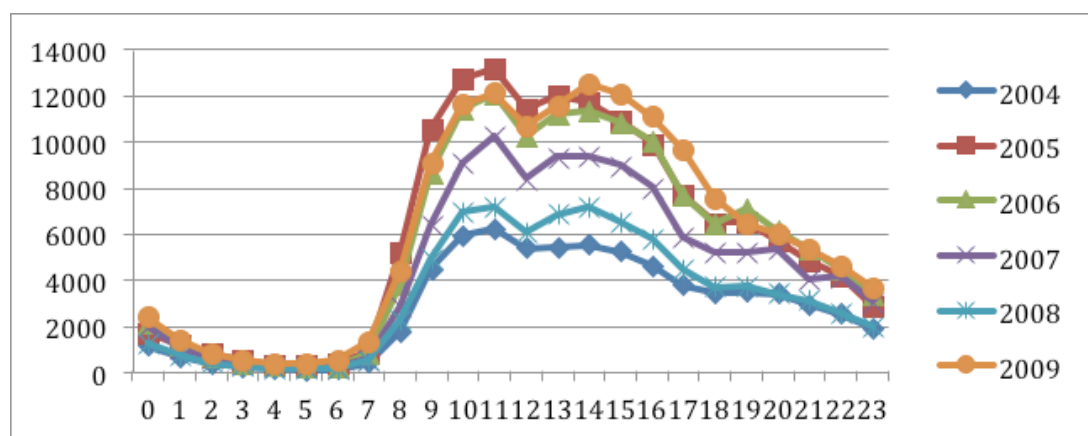
The study aims to provide an overall view of the functionality of the analysis, evaluation and feedback mechanism of the calls to SABIM Information Center as an important component of the Transformation in Healthcare Program and so to provide a critical contribution. A total of 686.397 calls for information between 2004 and 2009 have been subjected to frequency analysis.

## FINDINGS



**Table 1: Distribution of complaints according to months**

A complaint distribution in relation to months show that in these years, most appeals were made during the month November with 10.3 %, followed by October with 10.1 % while least appeal was made in February with 6.5 %.

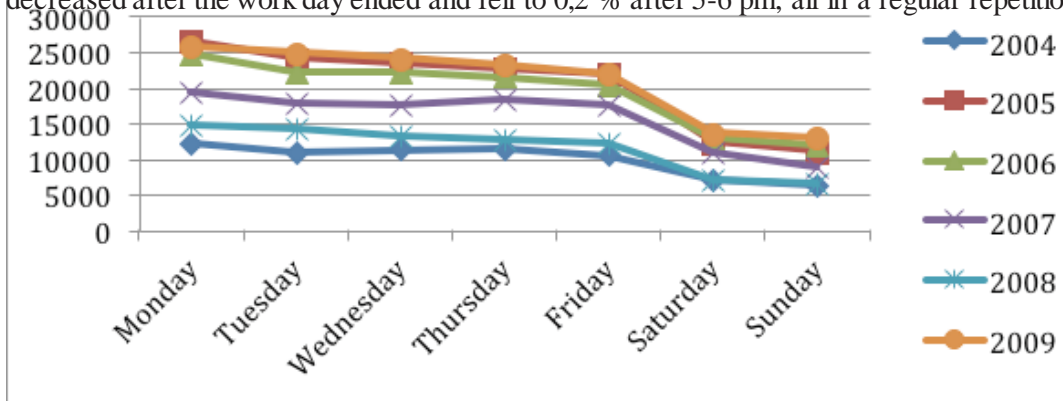


**Table 2: Complaint distribution in relation to the hours of the day**

The calls increased with the beginning of the work hours and reached a peak at circa 11 a.m.,

## SATISFACTION OF PATIENT

decreased after the work day ended and fell to 0,2 % after 5-6 pm, all in a regular repetition.



**Table 3: Call distribution according to the days of the week.**

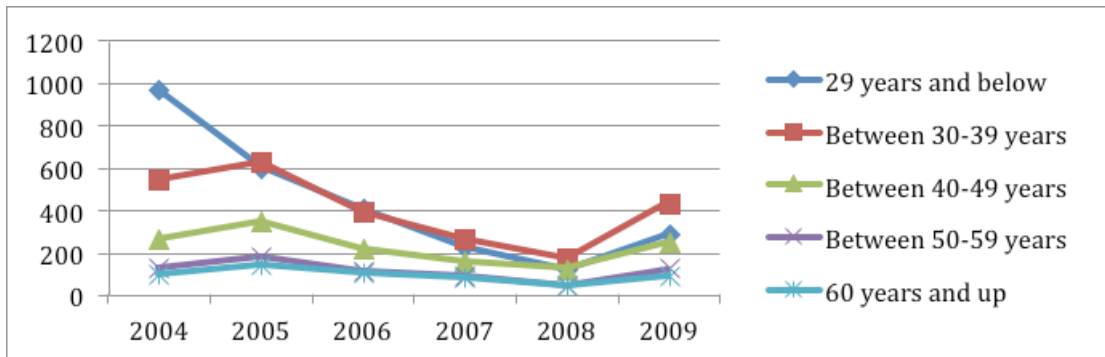
Most calls were made on Mondays and Tuesdays while the least calls were made on Sundays. Weekday calls were at 17-18 % and weekend calls were 5-6 %.

**Table 4: Call distribution in relation to gender**

	2004	2005	2006	2007	2008	2009
Female	35441	69103	62560	36247	31222	42415
Male	31689	71179	69270	54171	43788	59839
Undefined	2947		4579	20206	5886	44133
Total	70077	142004	136409	110624	80896	146387

With unrecorded data included, men contacted to more units by 66.3 %.

**Table 5: Call distribution in relation to age groups**



The age group of 30-39 made the most calls with 21 % and call frequency decreased with increasing age with only 3 % of the age group of 60 years and beyond decided to appeal.

**Table 6: Distribution according to call type**

	2004	2005	2006	2007	2008	2008
Concept	43454	98278	86494	75340	50965	121792
Person	933	130	305	555	40	46
Organization	25690	43588	49580	34700	29845	24543
TOTAL	70077	142004	136409	110623	80896	146387



Information request in relation to a unit consisted 77,1 % of all calls, appeals related to persons amounted to 13.1 % and information requests about a health related concept were 7.9 %.

**Table 7: Call distribution according to appeal reason**

Subject	2004	2005	2006	2007	2008	2009
Information request in relation to healthcare workers	393	9572	31682	15376	4865	3144
Information request about vaccination	1559	1292	539	258	305	1238
Information request about health problems	13114	20562	13823	7777	6974	7789
Information request about the functioning of the healthcare system	10259	49073	19576	16990	10823	12197
Information request about bird flu			7940	8065	142	9361
Information requests about KKK fever						961
UKM Information request about tissue-organ transplantation					764	382
Information request about contract personnel	1115	10059	4884	3961	1787	9655
Information request about revolving fund practices	3574	2395	5555	9806	10774	8731
Information request about Social Insurance protocols	438	405	467	870	60	3498
Drugstore phone number request		5569	10445	12190	5533	738
Healthcare phone number request	10796	16062	11500	7685	6870	7981
Information request about SABIM	14738	8581	15860	16184	21166	47984
Other phone number requests	11935	14821	9973	8783	8605	24813

The table above shows the information request topics of the SABIM line that gives not only information about health problems but it also gives us cues about the problems that emerged during the implementation of *The Transformation in Healthcare* program.

## CONCLUSION AND DISCUSSION

SABIM (Ministry of Health Information and Communication Center) was founded in 2003; commenced work in 2004 and by 2010 it was established as a healthcare related citizen appeal point for information request on health related issues, making complaints, critics and requests, and also for thanking. The more than 6 million calls and 844.000 appeals that accumulated in the center during this period proved a most valuable feedback data-bank for guiding the reforms and implementations of the Ministry of Health.

In general, the appeals began with about 70.000 in the first year and stabilized above 100.000 the subsequent years, they showed no important difference according to the months of the year and also not for the days of the week. While Mondays peaked in health related appeals, the ratios stabilized at 15-18 % for the week days, to fall to weekend lows of 7-9 %. The calls started to increase with the beginning hours of the work day, reached its peak about 11 a.m. with 9 %, to decrease slowly during the afternoon, that trend continued until reaching the lowest point of 0.1 % at circa 4-6 o'clock in the morning.

From a gender related viewpoint -aside complaint appeals where men complained more- there was no meaningful difference between men and women in calls. As of age groups, the calls began increasing with the 29-and-below group, reached peak with the 30-39 age group, increased with further aging and fell to lowest point with 60 years and above.

Naturally, the metropolis of Istanbul is leading as place of call with great margin followed by the other big cities Ankara, Izmir and Bursa while the smallest cities like Ardahan, Artvin and Hakkari produced low call numbers.

Among the wide range of various informational call subjects, the general issue about the procedural functioning of the healthcare system is the most frequent requested information topic, followed by personal health issues, information about health institutions, about drugstores and other institutions, healthcare workers' actions, information about revolving fund practices.

At the present situation, SABIM has established itself both as a help and information request center for the citizens and also as an indispensable source of information for the Ministry of Health. The most important need for the completion of this important service unit is perhaps an appropriate legal definition of the organizational framework. Another important suggestion might be a software application function that would output the input data directly to analysis-friendly statistical data. It is very important that the SABIM system is maintained by further enhancement and that this enormous data is exhaustively used through proper analysis at the decision mechanisms. Only so will SABIM be able to sustain it's positive contribution to the healthcare system and will guide administrators and policy enactors.

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# ELDERLY AND THEIR ATTITUDES, SATISFACTION AND USAGE ABOUT HEALTH SERVICES IN TURKEY

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Arif ŞAHİN<sup>2</sup>

## ABSTRACT

**The Problem of The Study:**As the population of elderly people is expected to increase gradually , enchancing their physical and mental health has become one of the most crucial goals today. Life satisfaction of the elderly whose health is not in a good condition or who perceive his or her health as bad is less than those whose health is better. So utilization of health services by elderly becomes the most important problem in their life satisfaction.

**The Purpose of The Study:** The aim of this study is to investigate elderly people's attitudes, satisfaction and usage about health services in Turkey.

**Methods:** Data was gained from TurkStat by special permission. It included health research in Turkey done by households between 2008-2012. There was report of 2010 and 2012. Results of two surveys have been compared. Some of data were published but detailed data especially about elderly was gained by permission from institute.

**Findings and results:** Sample included 1800 people for 2010 , and 3396 for 2012. There were very important indicators for us like measurement of blood pressure, cholesterol, blood sugar, gaita test, medical laboratory tests, smear, mammography and prostate controls. Receiving these tests during last 12 months, and visiting family doctors, specialists, emergency services taken into account in order to find utilization of health services by elderly. Taking homecare was also very important.

**Findings and results:** There was a significant difference between two years on behalf of utilization of family doctors ( $t=-17,182$ ,  $p<0,001$ ) and home care services ( $t=2,441$ ,  $p<0,01$ ). There was no significance when the other services have been compared. When results of two periods were compared, a meaningful increase was seen in satisfaction of elderly by health services on behalf of family doctors, private health institutes and homecare services.

**Key words:** Elderly, health care, satisfaction, utilization

## INTRODuCTION:

People everywhere are living longer according to the “World health Statistics 2014” published by WHO. Based on global averages, a girl who was born in 2012 can expect to live to around 73 years, and a boy to the age of 68. This is six years longer than the average global life expectancy for a child born in 1990 (Internet,WHO) When we look at European countries, life expectancy in the EU-28 is generally higher than in most regions of the world and continues to increase; In 2012, life expectancy at birth in EU-28 was 80,3 years (Internet,EU) On the other hand, it is shorter in Turkey, 76,3 according to Turkish Statistical Institute Life Tables 2013 but this number is increasing every year. (Internet, TUIK)

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As the elderly population is expected to increase gradually, enhancing their physical and mental health has become one of the most crucial goals today (Güven, 2010). In developing countries like Turkey, it is extremely important to completely and accurately determine the health care needs of the community so that equal and qualified services can be provided adequately to meet those needs. (12) Services given to elderly people are affected by sociocultural structure of the society, changes in attitude and behaviours, individual's and society's perception of aging (Çınar, 2007). Decreasing of income and increasing health problems are among the central problems faced during the old age, because it is becoming gradually harder for the state and the individuals to allocate resources for the existing health services (Çelebioğlu, 2013).

Utilization of health services are affected by some factors. Leading ones are age, gender, marital status, education level, socioeconomic variables such as working status, perceived income status, health insurance, etc. of elder people. The aim of this study is to investigate the changes in utilization of health services in elder people between 2008-2012 and the factors influencing them.

## RESEARCH METHOD

The sociodemographic characteristics of elderly included in the study is represented by Table 1. There are 1798 individuals for year 2008-2010 and 3396 for 2010-2012.

**Table 1. Sociodemographic Characteristics of Elder People.**

N		2010		2012	
		%	N	%	
Age	65-75	1115	62.0	2116	62.3
	75+	685	38.0	1280	37.7
Residence	Urban	1038	57.7	1957	57.6
	Rural	760	42.3	1439	42.4
Marital Status	No Marriage	7	0.4	41	1.2
	Widow	626	34.8	1220	35.9
	Married	1165	64.8	2135	64.9
Working Status	Working	216	12	240	7.1
	Not Working	1582	88	3156	92.6
Education Status	Primary School	1595	88.7	2951	86.8
	High School	139	7.7	274	8
	University	64	3.6	163	4.8
Social Security Status	SSI*	1422	79.0	2793	82.0
	GSS**	238	13.0	418	12.0
	Private Insurance	15	0.0	34	1.0
	By Himself/Herself	111	6.0	147	4.0
Income Status	-500 TL	524	29.1	608	17.8
	500-900 TL	682	37.8	1273	37.5
	900-2300 TL	483	26.8	1159	34.1
	2300 +	109	6.0	360	10.6
Total		1800	100	3396	100

\* Public Institution, Retired Civil Servant, SII, Bagkur.

\*\* Included Green Card.

In order to find utilization of healthcare services by elderly, between 2008-2010 and 2010-2012, we used data of Turkstat. Some of these data was published but some of them was taken by a special permission from institute. As it is seen, frequencies of visiting health institutes (family doctors, public hospitals, private hospitals, etc.) and having made some test (blood pressure, cholesterol, blood sugar, etc.) have been included in order to investigate the utilization of these services. All data is given in Table 2.

**Table 2. Percentage of elder's receiving some kind of health care services during last 12 months.**

	2010		2012	
	N	%	N	%
Blood pressure	1376	76.5	2710	79.8
Cholesterol	979	54.4	2038	60
Blood sugar	977	54.3	2091	61.6
Gaita test	96	5.3	294	8.7
Med. Lab.tests	805	44.8	1684	49.6
Radiology	594	33.0	1355	39.9
Mammography	44	0	132	0
Smear	22	0	50	0
Prostate	159	8.8	331	9.7
Family Doctors	537	29.9	2407	70.9
Specialist	1750	97.3	3286	96
Emergency Services	313	17.4	717	21.7
Homecare Services (nurse)	34	1.9	113	3.3
Homecare Services (other)	36	2.0	76	2.2

After interpreting Student's t test by SPSS 21.0 we have found that there was a meaningful increase in visiting family doctors in two periods ( $t=-17,182$ ,  $p<0,001$ ). Also there was a meaningful difference in homecare services given by nurses ( $t=2,441$ ,  $p<0,01$ ). Although increasing ratios can be seen in Table 2 in behalf of all kinds of health care services, any statistical significance has been found except two of them.

At last we tried to evaluate satisfaction of elderly from health institutes . We have showed the differences between 2010 and 2012 on behalf of health institutes. Data can be seen in Table 3.

**Table 3. Percentage of satisfaction levels of elder's from health institutions**

	Good / Very Good		Not Good / Bad / Neutral	
	2010 %	2012 %	2010 %	2012 %
Health Centers and MCH/FP Centers	80.4	83.4	19.6	16.6
Public Hospitals (Including Emergency Dep.s)	80.8	80.2	19.2	19.8
Private Health Institutions	68.8	74.7	31.2	25.3
Homecare Services	19.6	45.7	80.4	54.3
Family Doctors	71.5	83.0	28.5	17.0

As it can be seen from Table 3, there is a big increase in satisfaction on behalf of Private health institutions, homecare Services and family doctors.

## CONCLUSION

In our study we evaluated both utilization of health services and satisfaction from them by elderly in 2008-2012 in Turkey.

Based on outcomes of this study, it is observed that there is not a big difference in usage of some tests( blood tests, smear, prostate, mammography, etc.) The only remarkable increase is that: visiting family doctors was 30% in 2010, but it has increased to 71% in 2012. One of the most important part of primary health is family doctors. In the new approach which is becoming increasingly popular worldwide , the concept of “basic health care services” is used to mean the services involving preventive health care, in which family doctors assume the key role (Internet, Saglik). In our country family medicine is accessible for all citizens especially for elderly. Every patient has a family doctor near of his/her home. This why its utilization became two times of previous years.

Also satisfaction and utilization of homecare services have increased in that period. It is because government’s supports as money or etc. to patient’s family. So after these right policies elderly began to use this service more.

When we look at satisfaction level of elder’s from health institutes, there is a meaningful increase in services given by family doctors and homecare services. These results are compatible with our other findings.

Elder are our dears. We will be old one day also. We must think health of them. Their life satisfaction comes from their health satisfaction and health satisfaction comes from efficient utilization of health services. As we have seen from our results right policies executed by governments lead to improvements in field of health.

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# PATIENT SAFETY CONCEPT AND ITS IMPORTANCE

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## ABSTRACT

Nowadays, it is seen that health services have become increasingly complex. The main reasons of this situation are classified as changing environmental conditions, stressful work environments, the risk of incorrect decisions, different patient expectations, the level of advanced technologies. The concept of patient safety in health sector is accepted as an important topic, especially in recent years. Medical errors, surgical injury, drugs, hospital infections, falls, burns and etc. all have negative effects on patient safety. The main objective of the patient safety is to prevent harmful effects of health services, to protect the health of the patients and their relatives and to take some precautions related with patient safety.

This study will discuss the concept of patient safety and its importance, the factors that affect patient safety and precautions. It is expected that this study will provide useful information related with a current topic

**Key words:** Health Sector, Patient Safety, Quality, Medical Damage, Health Sector.

## INTRODuCTION

Although the patient safety concept is one of the most frequently heard matters of recent days, it is stated that its origin goes back to the presentation process of health services and “ the principle of not giving damage in the first place”. Besides, the concept of patient safety has gained more and more attention as a result of some regulations such as patient rights, establishing the procedures to serve for the patients, improvement of quality and accreditation works. When the recent studies on patient safety are reviewed, it is reported that the patients going to hospitals to be cured sometimes have had false treatment, been injured, given false medication, and consequently had death risks. All these unfavourable situations have necessitated to focus on the studies on patient safety and prevention of medical mistakes and to make some medical amendments (Sur et al. 2013).

This study aims to cover patient safety concept which is one of the contemporary topics of recent years. Within this context, emphasis will be given to patient safety concept, its significance, and the factors which have an influence on patient safety and the precautions to be taken to protect the health of the patients and their family.

## 2. PATIENT SAFETY CONCEPT AND ITS SIGNIFICANCE

Patient safety, in the most general terms, is defined as a patient’s being free from possibly dangerous situations for health (Yalçın and Acar, 2010). If we analyze the definition of patient safety by National Patient Safety Foundation, it is seen to be defined as preventing and reducing mistakes done during the health care process and undesirable outcomes of the health service received. Another definition says that patient safety includes all kinds of precautions taken to prevent possible damages of the health service provided by health organisations and their staff (Sur et al.,2013). From another point of view, patient safety is defined as making designs to prevent damages of possible mistakes when providing the health service for both the patients and the workers (Tengilimoğlu et al. 2012).

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The main objective of patient safety is to provide safety by creating an environment which can have physically and psychologically positive effects on not only the patients and their families, but also the workers. In this way it will be possible to avoid mistakes when providing the service and to protect the patient from the possible damages resulting from those mistakes (Güleç and Gökmen, 2009). In achieving such a goal, to have a culture of patient safety has an important role. In order to create a patient safety culture, we should keep in mind that the respect of the health workers for patients' rights and their efforts to protect patients' rights has a strong effect. Among the key steps towards this process are to keep the patient away from all kinds of complications including false treatment, hospital infections, and false medication, to respect the privacy of patients and their right to be informed, and to form the basis for the fiduciary and collaborative communication with the health professionals (Yalçın and Acar, 2010) .

As the mistakes in health sector result in losses of human lives and are impossible to compensate for, the significance of having a patient safety culture and to have studies on patient safety are of paramount significance. As a result of conscious studies on patient safety, it will be possible to determine the possible risks and mistakes, to reduce death and injuries resulting from these, and to provide a safe health service in a more healthy atmosphere (Özmen and Başol, 2010).

### **3. THE FACTORS AFFECTING PATIENT SAFETY CONCEPT**

The major factors that adversely affect patient safety concept are listed as shortages in informing the patients, inadequacy of care, practicing false medication, prescribing false medication, incomplete or incorrect recording of patient information, failures in equipment and devices, conducting false-site surgery, falling down of a patient and getting injured, getting hospital infections, and the mistakes in identity checks and transfusions (Tengilimoğlu et al., 2010; Güven, 2007). In addition, defects in institution safety, suboptimal medical wastes, overlooking findings, mistakes in diagnosis resulting from inadequate analysis of workups, the employees' not having the habit of double checking, inadequate support from administration, and lack of coordination are also among the factors with adverse effects on patient safety. Another point of view emphasizes the presence of medical mistakes which threaten patient safety and categorizes these mistakes under three main subtitles: procedure-related mistakes, negligence-related mistakes, and practice-related mistakes (Güven, 2007).

### **4. PRECAUTIONS TO BE TAKEN FOR PATENT SAFETY**

The primary purpose to be adopted to ensure patient safety should be to reduce possible risks. This may be possible only through identifying current mistakes, specifying their causes, and establishing an effective reporting system which will prevent them from re-occurring (Çiftlik et al., 2010). "To Err is Human Report" issued by the Institute of Medicine (IOM) in 1999 is conceived as a comprehensive study on patient safety (Tengilimoğlu et al., 2012; Sammer et al., 2010). This report has an enormous significance with regard to its providing information on death rates resulting from medical errors in USA and also its drawing attention to patient safety problem (Tengilimoğlu et al., 2012).

The "World Alliance for Patient Safety 2005 Report" by World Health Organisation mentions the importance of regular reporting and the necessity of an effective reporting system as the major precaution to be taken for patient safety in order to learn from the errors. For this end, it states the need for establishing a local and national reporting system and that through grouping these records and making risk analyses, patient safety would be achieved. It is also reported that extending the attempts to improve quality in health sector in particular have positive effects which give rise to process

improvement, amending activities, case notice and forming reporting systems. Data obtained from these regular activities contributed to identification of factors which threaten the safety of both patients and health professionals and to take necessary precautions (Güleç and Gökmen, 2009).

Furthermore, it is seen that International Patient Safety Goals are set to systematically improve patient safety. From this perspective, other precautions to be taken include correct identification of patients, developing an effective communication, increasing the safety of high risk medications, practicing correct-site and correct patient surgery, reducing health-care related infections, preventing patients' injuries resulting from falling down (Tengilimoğlu et al. 2012).

It is highly important to act in accordance with the accreditation standards when regulating the necessary precautions for patient safety. This will help doctors and nurses to provide a safe health service and to identify the needs of patients. The accreditation standards which are supposed to be followed for patient safety are listed as (Güven, 2007):

- the administrators should take part in planning and monitoring the quality improvement and patient safety program,
- systems and procedures should be planned to improve quality,
- clinical indicators should be utilized to control infections, assess patients, reduce false medication, and follow up surgical operations,
- administrative instructions should apply for monitoring risk management, acting compatibly with the laws and codes, evaluating the expectations of patients and workers and controlling the events hazarding the safety of patients and employees.

Although it is the responsibility of all the employees to ensure the patient safety in hospitals, it is worth to keep in mind that the executives have some significant roles in providing a safe health service. Accordingly, patient safety should be adopted as a common goal; plans should be made; mistakes should be analyzed and an effective reporting system should be established; and finally adequate labour force and funds should be provided for all these (Güleç and Gökmen, 2009). Moreover, efforts should be made to create a patient safety culture which will provide the opportunity for the workforce at hospital to express the mistakes freely and without hesitation (Tengilimoğlu et al., 2012).

## **5. CONCLUSION AND PROJECTIONS FOR FUTURE**

Health sector is a sector in which no errors are tolerable. From this perspective, the workers in health sector are supposed to behave consciously in medical errors and preventing these. It is of great importance to define existing risks, to determine their causes, to create awareness in the staff of risk factors and how to prevent them. For this end,

- continuous education works should be conducted,
- an effective reporting system should be used for existing risk factors,
- patient safety culture should be created,
- patient safety consciousness should be disseminated to obtain quality in health sector,
- sufficient support of executives should be received,
- an effective communication should be formed between the patient and staff,

- health workers should act in accordance with international patient safety goals, accreditation standards and legal regulations.

It is though that when these principles are adhered to, it will be possible to achieve the main goal of patient safety, in other words, to avoid the damages of health services for patients and their families, to achieve the goal to have a healthy society, and to save the health of the workers.

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# SATISFACTION OF HOSPITAL INPATIENT AND THEIR COMPANION FROM HOTEL SERVICES

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## ABSTRACT

**Background:** In health care “patient satisfaction” is an important part of the service. Covering general hotel services in hospitals for patient satisfaction is important. Although, patient satisfaction is a subjective perception of patient / patient relatives, located in measuring the quality of health care is one of the most important markers.

**Purpose:** The aim of the study is to contribute the efforts made by the hospital administrators about increasing the patient satisfaction, by setting forth the satisfaction of patients from hospital hotel services in the State hospitals.

**Methods:** This is a cross-sectional study. The research was conducted in the 400-bed the Yozgat State Hospital (actual bed number is 367) in May 2013. Sampling was not used. Participants who agreed to participate in the study are the patients who were in the hospital at least for two nights (264 persons) and the companions of some patients who cannot answer the questions (128 people). Data were collected through questionnaires via the interviewer. The chi-square test was used to analyze the data.

**Results:** The 63.5% of the participants in the study is women, 75.3% is married, 75.8% is under the age of 60, and the median age is 45. Half of the patients have stated that (% 51.5) they are in the hospital for two-four days,

16.6% of them are in the hospital for more than two weeks. The ratios of evaluations regarding cleanness for the rooms that they stayed, beds that they used, toilets and the overall hospital cleanness are 66.1, 44.1, 40.6 and

71.7% respectively. The 92.9% of the respondents stated that their room floors were cleaned and the 24% stated that substances in the room are cleaned every day, the 26.3% stated that their bed linens are changed in every two days or every day. The %86.7 of the participants stated that they do not need to use bathroom in the hospital, the 82.9% stated that they have found sufficient amount of meals, 67.5% liked the meals and 6.2% stated that the meal was brought by the hospital employees.

The 99% of the respondents has expresses that they did not face any problems in terms of practicing their religious worship in the hospital and the 97.7% did not seek assistance from the hospital chaplain. It is observed that when level of education is lower and the age of respondents is older, their satisfaction from hospitality services is increased ( $p<0.01$ ). There is not found a significant difference in terms of the facts such as staying in the hospital before, the number of days in the hospital, being patient or companion of patient ( $p>0.05$ ).

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**Conclusion:** While the two-third of the respondents mostly satisfied from the hospital hotel services, they are not enough satisfied with the toilet and bed cleaning. Almost all of the patients have not experience any problem about religious service in the hospital.

**Key words:** Hospital, hotel services, patient satisfaction

## INTRODuCTION

Becoming healthy person or staying healthy is one of the most basic and essential rights of human beings. This right is provided by health services that are in disposal of the community. Provision of health services needs to provide health-related satisfaction to the society and meets the demands of the patients. Ensuring the patient satisfaction is possible by meeting the expectations of the patient in a good way (Şahin et al., 2005). Patient satisfaction is defined as; providing information about what level the patient's values and their expectations are met, where the essential authority is the patient, and it is the basic measurement of the quality of care (Özcan ve ark., 2008). In health care "patient satisfaction" is an important part of the service. Patient satisfaction, which is related to the perception of the service and meeting the expectations, can be defined different ways by different people and even by the same people at different times (Yılmaz, 2001). Patient satisfaction besides being perception of the subjective patient / patient companion is one of the important markers that located in measuring the quality of health care (Pakdil, 2009). The fact that a patient who lives in a very different environment from the home and forced to remains in hospital causes many difficulties and problems. Similar to the comfort and convenience that is offered up to healthy people any hotel, a quality service in a comfortable and clean environment will help patients in hospitals as well (Kılıç, 2002). The hospitals in order to ensure offer quality health services should show continuous efforts and the hospitality services should be used for this purpose (Güven ve ark.,2012).

In health institutions, patient / patient relatives satisfaction is affected by; medical care, nursing services, laboratory services, health personnel interested, cleanliness, technology infrastructure, general management services, food delivery, access speed, service, bureaucratic procedures, management style, price and such as quality by factors (Şahin et al., 2005). In this definition hospital hotel services is of great importance in terms of broad and covering satisfaction.

Hospitals are very functionality and complex institutions. These are the institutions that provide services to especially patients, companion and many people by offering health-care. Hospitals shows diversity in presentation of services provided, perceptions and expectations. Therefore, hospital hotel services should be paid attention in in terms of satisfaction of patients and their companions in hospital care service. In terms of transformation in health and the process of structuring Turkey's Public Hospitals Authority for hospitality services the director of the Hospital Hotel Service was founded and 199 new directors were appointed. In this context, the hospital hotel services will continue to increase the importance in the future. The hospital hotel services are a new area of research which is considered as a border in terms of scientific studies.

The aim of the study is to contribute the efforts made by the hospital administrators about increasing the patient satisfaction, by setting forth the satisfaction of patients from hospital hotel services in the State hospitals.

## METHODS

This is a cross-sectional study. The data for this research was obtained from the patient satisfaction survey. The universe of the patient satisfaction surveys consists of hospitalized people for at least two nights in Yozgat State Hospital 400 beds (actual beds 367). The permission of the study was taken from Yozgat Public Hospitals Association General Secretary. Ethical approval of the study was obtained from non-invasive Clinical Research Ethics Committee in Yozgat. The sample size account; in cases that knowledge of the universe size is unknown, patient satisfaction  $p = 0.30$  (Kılıç, 2002), the deviation from the ratio  $d = 0.05$ , and error level  $\alpha = 0.05$  based on the small sample size of  $n = 384$  persons was calculated. All clinics until it reaches the target sample sizes were visited and the research data was collected in May 2013. Participants who agreed to participate in the study are the patients who were in the hospital at least for two nights (264 persons) and the companions of some patients who cannot answer the questions (128 people). Data were collected through questionnaires via the interviewer. Interviewers were selected from intern nurses. Data form was prepared based on the literature by researchers. Pre-application form data and the data form were applied to 20 patients. A questionnaire was applied when pre- practice cases detected were corrected.

Data were analyzed with SPSS. Statistical evaluation was used chi-square test and binary logistic regression multivariate analysis (LR) (Meyers et al, 2006). The important arguments in Chi-square test were taken into LR analysis. LR The analysis result is shown in the variable table with statistical significance.

## RESuITS

Table 1. Cleaning perceptions according to socio-demographic characteristics of the study groups.

	Independent Variables	Perceived as clean			
		Rooms	Bedding	Toilets	All of hospital
<b>Gender</b>	n (%)	n (%)	n (%)	n (%)	n (%)
Female	249 (63.5)	153 (61.4)	115 (46.2)	97 (39.0)	166 (66.7)
Male	143 (36.5)	106 (74.1)	58 (40.6)	62 (43.4)	115 (80.4)
<b>Age groups</b>	$X^2, p$	6.5, 0.01	1.17, 0.28	0.73, 0.39	8.46, 0.01
< 30	79 (20.2)	40 (50.6)	31 (39.2)	27 (34.2)	47 (59.5)
30 – 39	86 (21.9)	52 (60.5)	27 (31.4)	22 (25.6)	60 (69.8)
40 – 49	68 (17.3)	42 (61.8)	26 (38.2)	22 (32.4)	45 (66.2)
50 – 59	64 (16.3)	49 (76.6)	37 (57.8)	39 (60.9)	53 (82.8)
≥ 60	95 (24.2)	76 (80.0)	52 (54.7)	49 (51.6)	76 (80.0)
<b>Education levels</b>	$X^2, p$	21.53, 0.001	16.57, 0.002	27.05, 0.001	14.10, 0.007
< Primary school	68 (17.3)	53 (77.9)	42 (61.8)	39 (57.4)	55 (80.9)
Primary school	146 (37.2)	102 (69.9)	75 (51.4)	60 (41.1)	104 (71.2)
Secondary school	74 (18.9)	39 (52.7)	26 (35.1)	26 (35.1)	47 (63.5)
≥ High school	104 (26.5)	65 (62.5)	30 (28.8)	34 (32.7)	75 (72.1)
<b>Period stayed in hospital</b>	$X^2, p$	11.70, 0.008	23.96, 0.001	11.55, 0.009	5.29, 0.152

2 – 4 days	202 (51.5)	125 (61.9)	91 (45.0)	74 (36.6)	139 (68.8)
5 – 9 days	82 (20.9)	54 (65.9)	33 (40.2)	37 (45.1)	59 (72.0)
10 – 14 days	43 (11.0)	31 (72.1)	16 (37.2)	16 (37.2)	33 (76.7)
≥ 15 days	65 (16.6)	49 (75.4)	33 (50.8)	32 (49.2)	50 (76.9)
<b>Patient-companion</b>	<b>X<sup>2</sup>, p</b>	<b>4.79, 0.187</b>	<b>2.57, 0.463</b>	<b>4.23, 0.238</b>	<b>2.25, 0.523</b>
Patient	264 (67.3)	177 (67.0)	109 (41.3)	107 (40.5)	197 (74.6)
Companion	128 (32.7)	82 (64.1)	64 (50.0)	52 (40.6)	84 (65.6)
<b>Total</b>	<b>X<sup>2</sup>, p</b>	<b>0.34, 0.559</b>	<b>2.65, 0.103</b>	<b>0.00, 0.986</b>	<b>3.44, 0.064</b>
	392 (100.0)	259 (66.1)	173 (44.1)	159 (40.6)	281 (71.7)
Total	392 (100.0)	259 (66.1)	173 (44.1)	159 (40.6)	281 (71.7)

X<sup>2</sup>: Chi-square tests, p: Two sided significance.

The two-third of (67.3%) the research groups were the patients, 63.5% is women, 75.3% of the participants is married. The 20.2% of the participants in the study is under the age of 30, age 60 and over is 24.2% of , and the median age is 45. The study group of 17.3% don't finish the school, 26.5% of has seen high school and higher education. Half of the patients have stated that (% 51.5) they are in the hospital for two-four days, 16.6% of them are in the hospital for more than two weeks (Tablo 1). The ratios of evaluations regarding cleanness for the rooms that they stayed, beds that they used, toilets and the overall hospital cleanness are 66.1, 44.1, 40.6 and

71.7% respectively. (Table 1).

**Table 2.** The hotel servicing perceptions according to socio-demographic characteristics of the study groups.

Independent variables		Services evaluation				
		Bathing needs n (%)	Room cleaning every day n (%)	Bed lines changed every two days n(%)	Amount of meals sufficient n (%)	Liked meals n (%)
Gender						
Female		34 (13.7)	227 (91.2)	63 (25.3)	207 (83.1)	158 (63.7)
Male		18 (12.6)	137 (95.8)	40 (28.0)	118 (82.5)	106 (74.1)
Age groups	X <sup>2</sup> , p	0.09, 0.764	2.95, 0.086	6.00, 0.050	0.2, 0.876	4.49, 0.034
< 30		9 (11.4)	73 (92.4)	25 (31.6)	57 (72.2)	40 (51.3)
30 – 39		5 (5.8)	76 (88.4)	29 (33.7)	70 (81.4)	61 (70.9)
40 – 49		3 (4.4)	64 (94.1)	19 (27.9)	56 (82.4)	46 (67.6)
50 – 59		14 (21.9)	61 (95.3)	13 (20.3)	54 (84.4)	46 (71.9)
≥ 60		21 (22.1)	90 (94.7)	17 (17.9)	88 (92.6)	71 (74.7)
Education levels	X <sup>2</sup> , p	19.60, 0.001	3.88, 0.422	15.00, 0.059	13.04, 0.011	12.64, 0.013
< Primary school		15 (22.1)	61 (89.7)	13 (19.1)	60 (88.2)	49 (72.1)
Primary school		22 (15.1)	135 (92.5)	33 (22.6)	125 (85.6)	96 (65.8)
Secondary school		7 (9.5)	70 (94.6)	19 (25.7)	62 (83.8)	52 (70.3)



≥ High school	8 (7.7)	98 (94.2)	38 (36.5)	78 (75.0)	67 (65.0)
<b>Period stayed in X<sup>2</sup>, p 8.72, 0.033</b> <b>1.39, 0.708</b> <b>hospital</b>					
2 – 4 days	11 (5.4)	183 (90.6)	74 (36.6)	155 (76.7)	129 (64.2)
5 – 9 days	10 (12.2)	79 (96.3)	14 (17.1)	69 (84.1)	52 (63.4)
10 – 14 days	6 (14.0)	41 (95.3)	6 (14.0)	43 (100.0)	36 (83.7)
≥ 15 days	25 (38.5)	61 (93.8)	9 (13.8)	58 (89.2)	47 (72.3)
<b>Patient-companion X<sup>2</sup>, p 46.70, 0.001</b> <b>3.56, 0.313</b> <b>51.96, 0.000</b> <b>16.22, 0.001</b> <b>7.48, 0.058</b>					
Patient	39 (14.8)	248 (93.9)	63 (23.9)	222 (84.1)	181 (68.8)
Companion	13 (10.2)	116 (90.6)	40 (31.3)	103 (80.5)	83 (64.8)
<b>X<sup>2</sup>, p 1.60, 0.206</b> <b>1.43, 0.232</b> <b>3.59, 0.166</b> <b>0.80, 0.372</b> <b>0.62, 0.431</b>					
Total	52 (13.3)	364 (92.9)	103 (26.3)	325 (82.9)	264 (67.5)
X <sup>2</sup> : Chi-square tests, p: Two sided significance.					

Surveyed patients' perceptions of cleanliness were not statistically different compared to the present situation in hospital ( $p > 0.05$ ) in terms of the status of patient and companion, marital status, length of stay in hospital, and previous stay in the hotel.

<b>Table 3. The logistic regression analysis of the socio-demographic characteristics on the hotel servicing</b>					
<b>Independent variables</b>				<b>95% CI</b>	
Room cleaning	$\beta$	Sig.	Odds ratio	Lower	Upper
Gender (Ref. Female)	.584	.029	1.793	1.061	3.031
Age (years)	.020	.036	1.021	1.001	1.040
Constant	-.047	.948	.954		
<b>Bedding clean</b>					
Education levels	-.446	.002	.640	.483	.849
Constant	.885	.202	2.422		
<b>Cleaning toilet</b>					
Age (years)	.019	.044	1.019	1.001	1.037
Constant	-.961	.172	.383		
<b>General cleaning of hospital</b>					
Gender (Ref. Female)	.698	.014	2.009	1.154	3.497
Constant	.296	.690	1.344		



Bathing needs					
Stayed in hospital (days)	.133	.000	1.142	1.092	1.195
Constant	-2.673	.053	.069		
Bed lines changed every two days					
Stayed in hospital (days)	-.077	.003	.926	.881	.974
Constant	-.639	.508	.528		
Amount of meals sufficient					
Age (years)	.027	.040	1.027	1.001	1.054
Constant	.023	.983	1.023		
Liked meals					
Age (years)	.020	.053	1.020	1.000	1.041
Constant	-.184	.836	.832		

Independent variables: Gender (categorical), age (continues), and education levels (ordinal).

According to the LR analysis; slant clean rooms assessment of the likelihood of subjects, 1.79-fold in men than women (95% confidence interval, 1:06 to 3:03), age, level of education is higher than those with smaller age in which there was no great matter. Possibility of considering bedding as clean is high in the lower level of education compared to those with more educated, whereas gender and age was not statistically significant. Possibility of evaluation of toilets as clean was higher in older age than those with younger age, gender and educational level were not significant. Possibility of evaluation of cleanliness of hospital is 2:01 fold higher in men than women (95% CI, 1:15 to 3:50), age and educational level were not significant (Table3).

The 92.9% of the respondents stated that their room floors were cleaned and the 24% stated that substances in the room are cleaned every day, the 26.3% stated that their bed linens are changed in every two days or more often (4.1% each day). However, as it gets wet or dirty bedding to be replaced, it is normally accepted that a modification is sufficient for two days out of it (Maddock et al.). The rooms of Daily floor cleaning did not differ according to socio-demographic variables ( $p>0.05$ ). The %86.7 of the participants stated that they do not need to use bathroom in the hospital, the 82.9% stated that they have found sufficient amount of meals, 67.5% liked the meals and 6.2% stated that the meal was brought by the hospital employees (Tablo 2).

In terms of the number of days patients are staying in hospital, as the bed linen changed every two days and those who expressed a need to decrease the number of bathrooms. As the age of patients increased the amount of food and he number of patients who find enough tasty are also increase (Table 2-3).

The 99% of the respondents has expresses that they did not face any problems in terms of practicing their religious worship in the hospital and the 97.7% did not seek assistance from the hospital chaplain. It is observed that when level of education is lower and the age of respondents is older, their satisfaction from hospitality services is increased ( $p<0.01$ ). There is not found a significant difference in terms of the facts such as staying in the hospital before, the number of days in the hospital, being patient or companion of patient ( $p>0.05$ ).

## CONCLUSION

According to research done by Kılıç at the same hospital in 2001, there has not been much of a change to the satisfaction of hospital hotel services in terms of after 12 years. While the two-third of the respondents mostly satisfied from the hospital hotel services, they are not enough satisfied with the toilet and bed cleaning. Almost all of the patients have not experience any problem about religious service in the hospital.

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# ADOLESCENTS AND DENTAL HEALTH: EXAMINING RISING COSTS AND FINANCIAL BARRIERS

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## ABSTRACT

This paper presents a systematic review of the empirical evidence on dental costs and barriers among adolescents: Utilization, Expenditures, and Their Determinants. The Andersen's Behavioral Model of Health Services Utilization is **used as a conceptual framework to summarize the related literature on this topic**. Based on the literature review findings, I have executed the Andersen model as a framework for a secondary analysis of the baseline (2007) and follow up (2012) National Survey of Children's Oral Health. This proposal provides definitions of key terms; data on predisposing factors, enabling factors, and the need factors.

**Keywords:** "Access", "Oral health", "Oral hygiene", "Oral Health behavior", "Adolescents", and "Dental"

## INTROuDuCTION

According to a September 2013 report by the Government Accountability Office only 50 percent of Americans have private dental insurance to defray the cost of major dental work (How to afford your dental work, 2014). The September 2013 report also found that an additional 13 percent have coverage through Medicaid or the State Children's Health Insurance Program (How to afford your dental work, 2014). Overall, an estimated 76 million Americans have no dental insurance (How to afford your dental work, 2014).

Every year, more than 50 million school hours lost due to oral health problems which affect children's performance at school and success in later life (Kwan et al., 2005). One significant concern in the United States is access to dental care, particularly for the 25% of children who experience 80% of the dental disease (McFarland et al., 2011). Over the past 20 years, dental caries (cavities) rates for adults and older children have decreased, while cavities for young children have not (McFarland et al., 2011). Statistics indicate that 41% of children ages 2 through 11 experience caries in their primary teeth and 42% of children ages 6 through 19 years' experience caries in their permanent teeth (McFarland et al., 2011). According to Stoke, Ashcroft, and Platt, various risk behaviors are associated to good oral health amongst adolescents (Stokes et al., 2006). These risk behaviors include frequent intake of sugary food and drinks, irregular tooth brushing, smoking, alcohol consumption and irregular dental attendance (Stokes et al., 2006). These common learnt behaviors seen in adolescents can be picked up during early childhood and evolve from parental influences (Stokes et al., 2006).

Adolescence is a critical time of change that requires individual responsibility to avoid dental disease that begins at this age and determines future oral health (Stokes et al., 2006). Good oral health allows an individual to speak, eat, and socialize without suffering active ailment, discomfort, or shame (Kwan et al., 2005). Oral health education aims to encourage oral health through educational resources, essentially the providing of material to improve oral health knowledge for taking on an enriched lifestyle, improved attitudes and appropriate

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behavior's (D'Cruz & Aradhya, 2013). Through adolescence, children are able to take on responsibility for learning and continuing health-related attitudes and behaviors that continue into adulthood (D'Cruz & Aradhya, 2013). A practical setting to teach preventative oral health and promote oral health is the school system (D'Cruz & Aradhya, 2013). Schools provide an effective platform for promoting oral health because they reach over 1 billion children worldwide (Kwan et al., 2005).

The purpose of this literature review is to thoroughly examine the rising costs and financial barriers that impact dental health among adolescents. By applying the Anderson model, I will examine oral-health utilization and access through variables included by sex, age, race, ethnicity, education, poverty status, health and dental insurance status, region, and place of residence within the United States. The following variables are reviewed throughout the literature; predisposing factors, enabling factors, and need. Data will also be used from the baseline (2007) and (2012) National Survey of Children's Oral Health as a tool to further understand the root of the problem.

### **Definition of 'Oral-Health'**

The World Health Organization defines 'Oral-Health' as "a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity (Oral health, 2014). Risk factors for oral diseases include unhealthy diet, tobacco use, harmful alcohol use, and poor oral hygiene (Oral health, 2014).

### **Definition for 'Access to oral health'**

Access to Oral Health Care Services (Access to Care)—"the ability of an individual to obtain dental care, recognizing and addressing the unique barriers encountered by an individual seeking dental team distribution, financial circumstances, special needs, transportation, location, language, cultural preferences and other factors influencing entry into the dental care system (Academy of General Dentistry, 2008).

## **LITERATURE REVIEW**

A systematic literature review was conducted that included a search of the PubMed and EBSCO databases including CINAHL, Medline, and Academic Search Premier. Online searches of relevant literature were also conducted using Google and Google Scholar. Key terms searched included "Access", "Oral health", "Oral hygiene", "Access," "Oral Health behavior", "Adolescents", and "Dental". Studies are included in this review if: (1) they are published in English; (2) discussed oral health; (3) discussed oral health and well-being; (4) discussed the relationship of oral health and nutrition (6) discussed the burden of oral disease; (7) discussed oral health prevention. The time frame specified for the search is literature published from 2000 to 2014. The search resulted into over 228 articles that shared a significant association to the rising costs and financial barriers that impact dental health among adolescents. After reducing the search topic 6 articles were found to be relevant to the proposed area of study. Also included within the content of this literature are 5 website references. Overall, 11 citations relevant to the proposed topic are used within the context of this paper.

## METHODOLOGY

In a cross-sectional analysis of oral health need and access to dental services US children and youth aged 1-17 years were assessed using data from the 2007 National Survey of Children's Health (Bell et al., 2012). The study included 86,873 participants. Results for the full sample found that 47% of children and youth were in excellent oral health, 24 % in very good oral health, 21 % in good oral health and 8 % in fair/poor oral health (Bell et al., 2012). Both good oral health status and fair/poor oral health status among the younger children were associated with greater odds of receiving preventative dental services compared to those with excellent oral health status (Bell et al., 2012). However, in the older groups the patterns were reversed. For instance, good and fair/poor oral health statuses were associated with lower odds of receiving preventative oral health services (Bell et al., 2012). Another study (Paula et al., 2012) found that variables such as structure and family conditions have a strong influence on a child's self-perceived oral health (Paula et al., 2012). Findings also indicated that a family's monthly income and mother's education played a vital role on a child's oral health (Paula et al., 2012). Higher income families with children displayed better oral hygiene behaviors, and access to healthcare (Paula et al., 2012).

The Department of Health and Human Services issued the Surgeon General's Report on Oral Health in America, and the U.S. General Accounting Office (GAO) released a report entitled Oral Health: Dental Disease Is a Chronic Problem among Low-Income Populations (Dye & Thornton-Evans, 2010). Dye & Thornton-Evans (2010) used data from the 1988-1994 and 1999-2004 National Health and Nutrition Examination Surveys to analyze trends for HP 2010 oral health objectives. Their study found that poverty is a vital contributing factor to poor oral health and that poverty status stratified by gender and race/ethnicity is very significant in showing current trends in oral health (Dye & Thornton-Evans, 2010). Moreover, findings showed dental caries significantly increased from 19% to 24% for children aged 2-4 years, but when stratified by poverty, caries only increased significantly for non-poor 2- to 4-year-old children 10% to 15% (Dye & Thornton-Evans, 2010).

Dental caries is the most dominant chronic disease among U.S. children and adults (Griffin, 2010). In the United States, the existence of early childhood caries is greater among racial and ethnic minority groups (Bray et al., 2003). For instance, relevant data from the National Health and Nutrition Examination Survey (NHANES III) reports the percent of caries-free children aged 2- 4 in ethnic groups to be 87% for non-Hispanic whites, 78% for non-Hispanic blacks, and 68% for Mexican Americans (Bray et al., 2003). The Surgeon General's Report (SGR) on Oral Health in 2000 reported that significant differences in oral health status existed by race/ethnicity and income (Griffin, 2010). According to national survey data, children from families with incomes exceeding 400% of the federal poverty level (FPL) were about 67% more likely to have a past year dental visit than children from families with incomes less than 100% of the federal poverty level in 2005 (Griffin, 2010). In 2001, 55% of adults were less likely to have dental insurance than medical insurance versus 86% who were insured (Griffin, 2010). By 2006, U.S. dental expenditures were estimated at 91.5 billion dollars (Griffin, 2010). The Rand Health Insurance Experiment conducted from 1974 to 1982 measured the effect of dental insurance on utilization and expenditures (Griffin, 2010). The Rand (HIE) found that dental expenditures rose by 46% when the copayment rate fell from 95% to 0% (Griffin, 2010). Ultimately, greater resources may enable a person to both seek and receive more dental care

(Griffin, 2010). Examining access to dental care to improve oral-health among adolescents is critical to our future health care system. Adolescents with access to dental services have greater oral-health, demonstrate improved attitudes, and avoid risk of further complications associated to poor dental hygiene. Controversially, adolescents without the proper access to dental services suffer from shame, embarrassment, discomfort, and other emotional/mental factors associated to oral-health access barriers. Moreover, adolescents without proper dental treatment prove to have later complications related to or associated from oral-health is critical to our future health care system.

## RESULTS

To operationally examine the rising costs and financial barriers that impact dental health among adolescents I have assessed the National Survey of Children's Oral Health. In my assessment I have used variables from the Anderson's model. These variables include; predisposing factors, enabling factors, and need factors. Predisposing factors were measured by the following; age, sex, education, occupation. Other factors include; ethnicity, social relationship and mental factors in term of health beliefs. Enabling factors measured; income, price of the services, health insurance status, transportation, travel time to and waiting time for health care. The need factors were assessed through the individual's perception and view of their own oral health and evaluated need.

The National Survey of Children's Oral Health is aimed at assessing the differences by race/ethnicity, income, special health care needs status and a variation of other essential demographic and health status characteristics among children (Bell et al., 2012). Surveys were conducted in English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean (National Survey of Children's Health, 2013). The National Survey of Children's Oral Health consists of a questionnaire focused on 13 key components. These components were selected for their epidemiological and policy importance, including 1) age /demographics; 2) health status; 3) health insurance; 4) health care utilization and access to health care; 5) medical home; 6) early childhood; 7) middle childhood and adolescence; 8) family functioning; 9) parental health; 10) neighborhood characteristics; 11) additional demographics; 12) additional health insurance questions; and 13) locating information (National Survey of Children's Health, 2013). The average length of the interview varied on the sample type (landline or cell phone). The typical interview for the landline sample would normally be 33 minutes, 6 seconds, and the median time was 31 minutes, 43 seconds (National Survey of Children's Health, 2013). The interview length for cell phone sample cases estimated to be 34 minutes, 14 seconds, and the median time was 32 minutes, 54 seconds (National Survey of Children's Health, 2013). The Data Collection for the National Survey began on April 05, 2007 and was reassessed on February 28, 2011. For the National Survey of Children's Oral Health 2011-2012, the sampling methodology surveyed households with at least one resident child aged 0 to 17 years at the time of the interview; complex sample design, with stratification by state and sample type (landline or cell phone) and with clustering of children within households (National Survey of Children's Health, 2013).

The survey consisted of 95,677 child-level interviews (National Survey of Children's Health, 2013). The respondents for the survey were included if they were a parent or guardian with knowledge of the health and health care of the sampled child in the household (National Survey of Children's Health, 2013). For the completed NSCH interviews, 68.6% of the respondents were mothers (biological, step, foster, or adoptive), 24.2% were fathers (biological, step,



foster, or adoptive), and 7.2% were other relatives or guardians (National Survey of Children's Health, 2013). Follow-up surveys were administered 5 years after the baseline (2007) survey. The follow-up (2012) survey consisted of 13 sections whereas the baseline (2007) survey consisted of 11 sections. The protocol for administering the survey employs a combination of mail and telephone survey administration.

Approximately, 58.8% of letters were mailed for the telephone numbers eventually dialed by the interviewers, which was 31.0% of the overall telephone numbers arbitrarily generated (National Survey of Children's Health, 2013). The mail component questioned the survey sample population and requested households to participate in a voluntary study (National Survey of Children's Health, 2013). The letter went on to indicate that the study's main focus was on immunization status of their children and the types of health and related services that their children need and utilize (National Survey of Children's Health, 2013).

Moreover, explanations were also provided in the letter to specify how their telephone number was chosen, who was conducting the survey, and that if the household wished to participate they would be contacted within the next 2 weeks from receiving the letter (National Survey of Children's Health, 2013). In 2010, *4.3 million (7%) children aged 2–17 years* had unmet dental needs because their families could not afford dental care (National Survey of Children's Health, 2013). The study also found that uninsured children (26%) were more than six times as likely to have unmet dental need as children with private health insurance (4%) and more than four times as likely as children with Medicaid or other public coverage (6%) (National Survey of Children's Health, 2013). Results for non-Hispanic white children were more likely to have had a dental contact in the past 6 months (67%) than non-Hispanic black (55%) or Hispanic (57%) children (National Survey of Children's Health, 2013).

#### ECONOMIC WELL-BEING RESULTS:

PERCENTAGE OF CHILDREN AGES 0-17 BY FAMILY INCOME REALTIVE TO THE  
POVERTY LINE :





# DETERMINING THE SATISFACTION LEVELS OF PATIENTS USING THE 112 EMERGENCY HEALTH SERVICES: SAMPLE OF KONYA

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## ABSTRACT

**Objective:** Determine the satisfaction levels of patients using the 112 Emergency Health Services in Konya and the factors affecting the satisfaction levels.

**Method:** The study data consist of the standardized questionnaire form application and participating observation results. The data were obtained through interviews with patients and relatives that were made with the systematic sampling method as the sample group of patients and relatives using the 112 Ambulance Services in the city center and districts of Konya, as well as the participating observations.

**Findings and Conclusion:** More than half of participants were pleased with the 112 emergency health services. There was a very high level of pleasure regarding the attitudes and behaviors of the personnel, attention being paid to the medical intervention and patient privacy, equipment and cleanliness of ambulance, taking the patient relatives in the front cabin, having problems with the team and arrival of ambulance in the scene in a short time. Majority of participants reacted against the healthcare professionals to take the patient to a healthcare organization they chose and the prohibition of allowing the patient relatives in the ambulance.

**Keywords:** 112, Emergency Health Services, Satisfaction,

## INTRODUCTION

Emergency health service is one of the most important and critical components of health care system. Execution of emergency health services in our country is carried out within Emergency Health Services General Directorate of Ministry of Health. Emergency health services within provinces are controlled and coordinated by branch offices, and management of province ambulance service is conducted by Head Physician (Official Gazette, 2004). This service is carried out such that citizens dial 112 free phone number 24 hours a day and reach command control center in each province, a fully-equipped ambulance containing a doctor, paramedic and emergency medical technician is assigned to the scene of request having been decided to be emergency, and required medical intervention is performed for patient or injured person on scene and, if required, the patient or injured person is transported to a hospital to be treated

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In order to enable each patient within the system to get the most appropriate care in an optimum level with minimum delay, a variety of people and institution effectively function compatibly. Struggles of these people against danger and stress on encountering many unusual events from high fever to multi-trauma are life-saving. Decisions taken and emergency interventions made by emergency health personnel during first intervention determine the difference between life and death. Emergency medical technician provides service to public in a poorly lighted, a narrow space, a highly noisy environment and unknown features of emergency scene. These situations render emergency medicine services unique (Gül, 2012:16-7). Emergency care is interventions realized by people educated on this subject by using various equipment and medical materials on scene in the shortest time possible to people who suddenly has gotten sick or has had an accident. Emergency care can be provided in emergency service of hospital or in any service or intensive care unit as well as 112 ambulances outside the hospital (Tabak, 2007).

Solving emergency health problems in sudden sicknesses or injuries in accidents or disasters or trying to take precautions are as old as history of humanity. Deaths occurred as a result of emergency health problems are mostly caused by unconscious first aid. Now that 10% deaths in accidents occur in first 5 minutes and 50% in first half-hour, it is revealed how important it is to make first and emergency aid in such very short time frame properly and rapidly (Arslan, 2002: cited by Güneri and colleagues. 2011-2).

Personnel number and quality of ambulance services maintained in our country have increased over time. As a result of improvement of substructure and increase in ambulance numbers, international level service provision has been started being realized. It is enabled that emergency cases are reached in the shortest time and 122 ambulance services are provided effectively and timely. Quality standards enhanced the standardization of ambulance services and importance of patient-focused services. In line with enhancement of quality and efficiency for emergency health services, elevation of standards in 112 ambulance services constitutes an aim by taking opinions of managers and personnel (Duran and colleagues, 2012:144-45). With the aim of strengthening emergency health system, 112 emergency health services are generalized to include all urban and rural regions throughout the country. In the last seven years, station number has been raised from 481 to 1361. Rates of reaching to incoming emergency calls within 10 minutes in cities and 30 minutes in rural areas with extensive station network and highly educated teams have reached to 90%, catching times for reaching to cases in developed countries (<http://www.mfa.gov.tr/>).

Determination of satisfaction status of citizens using 122 services matters in terms of moving services to a more qualified point. In this study, it is aimed to measure satisfaction levels of those using 112 services.

## **METHOD**

This study aiming the determination of satisfaction levels relating to 112 emergency health services of people living in Konya province is descriptive, and was conducted in 2014. In the study, with the aim of determining satisfaction levels relating to the system of people using 112 emergency health services, an inventory containing 30 questions in the first step was formed considering literature knowledge and views of employees. Subsequently, content validity

index was measured relating to which questions should be in the inventory and which should not, taking the opinions of 5 physicians working in this field. It was decided that 22 questions should be in the inventory. Afterwards, a pre-application was performed on 15 people and understandability of questions were assessed.

Questions in the scale contain answers in 5 point likert type and are as “1-Totally disagree, 2-Partially agree, 3-Neutral, 4-Agree, 5-Totally agree”. As 3 of questions contain negative answers, they are reverse-coded. After the assessment of questionnaires, corrections were made on reverse-coded values and total values were formed.

The population of study consists of patients using 112 emergency health services in Konya centrum in 2014. Sample consists of 350 people selected with random sampling method and accepting to participate in the study among these people. Address information of people in sample group was obtained from Konya Province Health Department registrations and questionnaires were carried out with these people by going to their addresses. Questionnaire was applied with face-to-face technique, descriptive statistics and t tests were applied on collected data. Croncah Alpha Reliability Coefficient of formed inventory was calculated as 0,89.

## FINDINGS

Data obtained from the study are in the following tables.

**Table 1. Socio-Demographic Features of Study Participants**

Gender	Number	Percentage	Age	Number	Percentage
Male	208	59.4	20 age <	15	4.3
Female	142	40.6	between 20-40	156	44.8
Marital Status	Number	Percentage	between 40-60	134	38.3
Married	273	78	over 60	44	12.6
Single	77	22			
Profession	Number	Percentage	Educational Status	Number	Percentage
Officer	36	10.3	Primary school	168	48
Worker	35	10	Secondary school	57	16.3
Retiree	35	10	High school	61	17.4
Housewife	115	32.8	College	64	18.3
Other	129	36.9			
TOTAL	350	100	TOTAL	350	100

As seen in Table 1, 208 (59,5%) of people within the scope of study are male and 142 (40,5%) are female. When participants are examined with respect to age groups, it is seen that 15 (4,3%) are 20-and-under, 157 (44,8%) are 20-40, 134 (38,3%) are 40-60 and 44 (12,6%) people are over 60 years of age. 273 (78%) of participants are married, 77 (22%) are single. 168 (48%) of those participating in the study are primary school graduates, 57 (16,3%) secondary school, 61 (17,4%) high school and 64 (18,3%) are college graduates. 36 (10,3%) of individuals attending the study are officers, 35 (10%) workers, 35 (10%) retirees, 115 (32,8%) housewives and 129 (36,9%) are from other profession groups.

**Table 2. Descriptive Statistics of Answers for Articles Given in the Inventory**

Articles in the Inventory	Mean	Standard Deviation
Ambulance had adequate equipment for all sorts of interventions and it was clean.	4,93	,34
Officers on the telephone tried to help me.	4,93	,33
112 team provided descriptive information about patient /injured person.	3,85	1,75
Ambulance did not experience delay due to indifference in traffic.	4,83	,59
112 team members were debonair and their debonairness gave us moral support.	4,78	,68
I did not have any problems with 112 team.	4,77	,66
112 team showed required attention for privacy of patient /injured person.	4,73	,91
Ambulance arrived to the scene in a short time.	4,71	,82
When I called 112, I reached an officer rapidly and readily.	4,69	,86
112 team showed required attention to patient/injured in the scene.	4,68	,97
112 team had difficulty in taking the patient to ambulance and they asked us to carry as well.	4,66	,93
Temperature of ambulance cabin was appropriate in terms of air conditions.	4,64	,97
I was satisfied with health services provided by 112 Emergency Health Services.	4,64	,63
112 team had their uniforms.	4,63	,82
112 team entered the house taking off their shoes or wearing galoshes.	4,63	,83
Devices brought to the scene by 112 team worked with no trouble.	4,52	1,00
Attitudes and behaviors of 112 team were nice.	4,49	1,10
112 team brought all materials to be used when they came to the scene.	4,42	1,21
When we met 112 team, information was taken relating to our discomfort by one person.	4,31	1,40
On transportation to hospital with ambulance, a non-vibrated and safe transportation was provided.	4,19	1,12
112 team had adequate knowledge and skill.	4,09	1,58
Officers on the telephone informed me about what to do.	4,05	1,51

When Table 2 was examined, “Officers on the telephone tried to help me” article takes the first ( $\chi=4,934$ ) and “Ambulance had adequate equipment for all sorts of interventions and it was clean” article takes the second ( $\chi=4,931$ ) highest scores while 112 team had adequate knowledge and skill ( $\chi=4,09$ ) and officers on the telephone informed me about what to do ( $\chi=4,05$ ) articles take the lowest points. Answer average of the questions are  $4,55\pm 0,56$ .

**Table 3: Findings For Satisfaction Levels With Respect to Some Demographic Data**

Gender	n	Average	Standard Deviation	t	p
Male	208	4,6451	,46	3,38	0,01
Female	142	4,4273	,66		
Marital Status	n	Average	Standard Deviation	t	p
Married	273	4,5961	,52	2,47	0,01
Single	77	4,4174	,66		

As seen in Table 3, when satisfaction levels with respect to gender are examined it is detected that difference between females and males is significant ( $p=0,01$ ) and satisfaction levels of males compared to females are higher. When marital statuses were examined, a situation emerges. Difference between satisfaction levels of married and single participants is significant ( $p=0,01$ ), it has been concluded that satisfaction levels of married people compared to singles are higher.

**Table 4: Findings For Determination of Difference Between Multiple groups**

Educational Status	N	Average	Sd	Age Groups	n	Average	sd
Primary School	168	4,64	,48	20<	15	4,25	,86
Secondary school	57	4,59	,57	20-40	156	4,53	,57
High School	61	4,42	,61	40-60	134	4,55	,53
College	64	4,42	,66	60 and over	45	4,73	,45
Total	350	4,55	,56	Total	350	4,55	,56
Variable	F		P	Group of Difference (Scheffe test)			p
Educational Status	3,76		0,01	Primary school-College			0.04
Age	3,054			group under 20 - group over 60			0,04
Profession	1,26		0,29	No Different Group			-

With the aim of determining satisfaction level among multiple groups in Table 4, One Way Anova Test was applied and Scheffe test was conducted for determination of difference among groups. Accordingly, difference among education levels was found to be significant ( $p=0.01$ ) and this difference was seen to be between Primary school-College groups. It was concluded that satisfaction levels of primary school graduates were higher compared to college graduates. When satisfaction levels with respect to age groups were examined, difference among groups was found to be significant ( $p=0,029$ ) and satisfaction level of group of 20-and-under is determined to be lower with respect to group of 60-and-over.

## CONCLUSION

Base of Health Services consists of Protective Health Services and Emergency Health Services. When particularly Emergency Cases are considered, the importance of first intervention cannot be ignored.

Intervention of emergency events by educated and experienced Health Professionals and transportation of patient to a fully equipped Health Institution as soon as possible after first

intervention must be main targets. For improvement of emergency health services importance of which is known by everyone, satisfaction level of public is an important factor. In this study, it is planned to measure general satisfaction levels of individuals having applied for 112 emergency health services in Konya province relating to these services. When answers given to articles in study questionnaire by participants, it is seen that general satisfaction level is profoundly high.

The study was made by a total of 350 people and 208 (59,5%) of these people are male and 142 (40,5%) are female, and it is seen in Table 3 that satisfaction level of males compared to females are higher. Again, in accordance with study findings, satisfaction levels of married people compared to singles are higher. When satisfaction levels are examined with respect to education statuses, it has been detected that satisfaction levels of primary school graduates compared to college graduates are higher, and in terms of age groups, satisfaction levels of 60-and-over group compared to 20-and-under group are higher and these indicators are stated in table 4.

Articles having the highest satisfaction levels are determined to be “Officers on the telephone tried to help me”, “Ambulance had adequate equipment for all sorts of interventions and it was clean” and “Allowing a patient relative to front cabin of ambulance, if conditions are appropriate”. Articles having the lowest satisfaction levels are determined to be “Prohibition of allowing a patient relative to front cabin of ambulance”, “Taking the patient to a healthcare organization they chose by ambulance team” and “112 team provided descriptive information about patient /injured”.

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# END USER SATISFACTION IN HOSPITAL INFORMATION SYSTEMS: A RESEARCH IN AEGEAN REGION

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Özel SEBETÇİ<sup>1</sup>

Seden ALGÜR<sup>2</sup>

## ABSTRACT

**Problem of the Study:** The question of whether there are other factors, depicted in literature apart from factors which affect end user satisfaction, that provide effective usage of HIS is the problem of the study.

**Purpose of the Study:** This research focuses on system users who are doctors, nurses and administrative employees that have interaction with Hospital Information System which is used at Medical Schools. The purpose of the study is to research on factors that affect user satisfaction to provide effective usage of HIS in around. The second purpose is to seek whether there are other factors exist recently apart from factors defined in literature. User satisfaction is one of the most important determinatives in success of Information Systems.

**The Methodology of the Study:** Survey methodology is used in this research. Applied survey is composed of the questions from study of Aggelidis and Chatzoglou (2012) and present factor researches done by IT specialists and academicians. It is done on doctors, nurses and administrative employees at Medical Schools in Aydın, Muğla and İzmir. 543 surveys which are done completely are subjected to the analysis.

**Findings and Result:** According to frequency analysis, almost 60% of people who answered the survey are female, almost 70% are under 35 years old, 54% graduate from university, 65% work at hospital 10 years or less, 40% are nurses, 40% use computer of IT systems for 5 years or less, 48% have intermediate level usage ability of hospital information system.

5 main factors are obtained as a result of factor analysis which is done to determine factor that affect user satisfaction. These are named as Information Quality, System Quality, Technology Compatibility, Source of Support, Overall Satisfaction. According to correlation analysis, Information Quality has very low effect on overall satisfaction. Source of Support has the highest effect.

**Key Words:** Information Systems, Hospital Information Systems, User Satisfaction

## INTRODUCTION

HIS (Hospital Information Systems) has been developed in 1960s and is still being used (Kim, Piao ve Wu, 2009, p.134). It is a document and information management system. That expectations of the patients and developments in medical technologies increase cause taking into account the need to use HIS more (Tabibi v.d, 2011, p.95). It is a very critical element to decrease clinical faults, to support health staffs to increase the efficiency of patient care and to improve the quality of patient care. HIS is designed to manage administrative, financial

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and clinical circumstances at hospitals as a comprehensive and integrated information system (Kim v.d., 2009, p.134). It is a comprehensive and integrated information system that stores, directs and recovers information about administrative and clinical subjects (Amin ve Hussein, 2011, p.210).

## **2. LITERATURE**

HIS is an information system that is used to ease the communications among health organizations, to provide keeping records and to support other organization functions. In other words, it is an information storage system that has information processing elements which are both computer and paper based (Chatzoglou, Fragidis, Doumpa ve Aggelidis, 2012, p.241).

HIS has vital importance at decision point and plays significant role to reach organizational success. It provides having and archiving medical results in computer environment, effective data management and information delivery. Managers, doctors and other health staff can reach the information without any delay and without a problem (Praveen Kumar ve Gomes, 2006, p.1).

There are many opportunities to evaluate the success of Information Systems because it can be investigated in lot of different perspective. According to DeLone and McLean, user satisfaction is the widest scope to evaluate information system. User satisfaction has vital effect on user behavior towards computer and system usage (Gürsel, Zayim, Gülkesen, Arifoğlu ve Saka, 2014, p.216). That the increase of users who understand necessity and benefits of change, participation of users in development and design of the system make end user as an important factor (Malik ve Khan, 2009, p.32).

End user satisfaction is one of the most important criterion on measuring the success of information system. The most often used tool to measure end user satisfaction is developed by Bailey and Pearson (1983) and 39 factors are defined for measure. This model is evaluated and modified by Ives (1983) and then by Baroudi and Orlikowski (1988) respectively. In the end, a new model which has 13 factors in 3 dimensional and is shorter. These 3 dimensions are information quality, electronic data processing staff and their services; and user information accumulation and participation. Typical criteria for information quality are accuracy, significance, integrity, validity, punctuality, format, security, documentation and reliability. The criteria for electronic data processing staff and their services are attitude of the staff, level of support, education, ease of access and communication. Finally, criteria for user information accumulation and participation are that training users, understanding and participation of user.

Aggelidis ve Chatzoglou (2012) modified the conceptual model that is developed by previous researchers instead of researching casual relationship among hidden variables of system and information quality, internal and external support; and end user satisfaction. First of all, content, accuracy, format and punctuality (independent variables) are accumulated under information quality which is higher level variable. Secondly, ease of usage, documentation, system processing speed, education and interface variables are gathered under system quality. Information Quality and System Quality, which are 2 factors derived from analysis, have positive effect on end user satisfaction. However, it is determined that both internal and external support do not have significant effect on end user satisfaction directly. On the other hands, it is obtained that both has positive effect on system quality.

In other words, compatibility measures the harmony among values, past experiences and needs of users of a technology. Compatibility is one of the 5 subjective features of an innovation and it covers rehabilitation of business conditions in models that are some accept oriented technologies (Ghazizadeh, Lee ve Boyle, 2012, p.43). Compatibility type that is defined as normative and conceptual includes the dimensions of compatibility with values and compatibility with previous experiences. After that 2 more dimensions are revealed. These are compatibility with present businesses practicals and compatibility with business preferences (Karahanna v.d., 2006, p.783). Coupling between system features and past experience of users is very important indicator of compatibility. He associates experiment related to specific technology with that the use of that technology wider (Ghazizadeh v.d., 2012, p.43).

### 3. RESEARCH

This research is focused on system users who are doctors, nurses and administrative employees and have interaction with Hospital Information System at medical schools.

The aim of the study is to research the factors that affect user satisfaction in effective HIS usage at hospitals. Second aim is to seek if there are other factors recently apart from factors depicted in literature. Survey methodology is used in this research. Applied survey is composed of the questions from study of Aggelidis and Chatzoglou (2012) and present factor researches done by IT specialists and academicians. It is done on doctors, nurses and administrative employees at Medical Schools in Aydın, Muğla and İzmir. 543 surveys which are done completely are subjected to the analysis.

As it is seen from Table 1, 59% of responders are women, almost 70% are under age of 35, 54% graduate from university, 65% work at hospital for 10 years or less, 40% are nurse, 40% use computer and information system for 5 years or less, 85% use hospital information system for 5 years or less and 48% have intermediate level usage ability of hospital information system.

**Table 1: Demographic Features of Responders**

Gender	n	%		Job	n	%
Male	222	40.9		Doctor	139	25.6
Female	321	59.1		Nurse	218	40.1
Overall	543	100.0		Administrative	186	34.3
Age	n	%		Overall	543	100
20-30	233	42.9		IT Experience Time	n	%
31-35	144	26.5		1-5 years	219	40.3
36-40	103	19.0		6-10 years	164	30.2
41-50	51	9.4		11-15 years	111	20.4
More than 50	12	2.2		16-20 years	38	7.0
Overall	543	100.0		More than 20 years	11	2.0
Education Level	n	%		Overall	543	100.0
Primary	8	0.9		HIS Experience Time	n	%
Secondary	57	16.0		1 year	75	13.8
Undergraduate	297	54.7		2 years	84	15.5

Master	95	17.5	3 years	86	15.8
Phd	59	10.9	4 years	92	16.9
Overall	543	100.0	5 years	127	23.4
<b>Working Time at Hospital</b>	<b>n</b>	<b>%</b>	6 years	12	2.2
1-3 years	108	19.9	7 years	16	2.9
4-6 years	135	24.9	8 years	21	3.9
7-9 years	112	20.6	9 years	9	1.7
10-12 years	81	14.9	10 years and more	21	3.9
13-15 years	57	10.5	Overall	543	100.0
16-18 years	25	4.6	<b>IT Experience Level</b>	<b>n</b>	<b>%</b>
More than 18 years	22	4.1	None	5	0.9
Unanswered	3	0.6	Poor	45	8.3
Overall	543	100	Medium	260	47.9
			Advanced	178	32.8
			Very Advanced	55	10.1
			Overall	543	100.0

Data is relevant to do factor analysis because expressions to determine factors that affect end user satisfaction are organized in same scale type. Factor analysis is done to research if forecast variables, that are prepared according to 5s likert scale and have relations among themselves, constitute a group or not. However, it is necessary to test reliability of the expressions before moving towards to factor analysis. Kaiser Meyer Olkin (K.M.O) value obtained from SPSS Software is used to determine reliability. It is 0.892 and shown in Table 2. It is concluded that reliability of the expressions are quite high because the value is higher than 0.5 and very close to 1. Varimax rotation is applied in analysis, values lower than 0.40 are hidden and 6 repetitions are done. As a result of the analysis, it is determined that scale is accumulated under 5 factors that keep one another outside. These factors are 66.289% of overall variance and are shown in Table 3.

**Table 2: KMO ve Bartlett's Test**

Kaiser-Meyer-Olkin Relevance Measure		.892
Bartlett's Sphericity Test	Approximate ki-square	5613.863
	Degree of Freedom (df)	210
	Significance	.000

**Table 3: Analysis of Factors that affect End user Satisfaction  
(Kaiser Normalization and varimax Rotation)**

FACTORS	Factor Loadings	Variance (%)	Overall Variance (%)
Factor 1: Source of Support			
SS2	.787		
SS3	.740		
SS1	.717	17.598	17.598

## SATISFACTION OF PATIENT

SS5	.679		
SS6	.659		
SS4	.646		
Factor 2: Overall Satisfaction			
OS5	.834		
OS4	.760		
OS1	.658	14.692	32.290
OS3	.620		
OS2	.587		
Factor 3: Information Quality			
IQ4	.824		
IQ3	.808	12.833	45.123
IQ1	.793		
IQ2	.791		
Factor 4: Technology Compatibility			
TC2	.837		
TC1	.800	12.412	57.534
TC3	.757		
Factor 5: System Quality			
SQ1	.784		
SQ2	.724	8.755	66.289
SQ3	.581		

As it is seen from Table 4, all factors have averages very close to 3. These results show that participant have neither positive nor negative perceptions about all factors. It is observed that Information Quality has very low effect on overall satisfaction. Source of Support has the highest effect.

**Table 5: Descriptive Statistics of Factors and Correlation Analysis**

Factors of Draft	Average	Standard Deviation	Overall Satisfaction and Correlation
Information Quality	2.914	.953	.019
System Quality	2.973	.911	.479
Technology Compatibility	2.713	1.103	.478
Source of Support	2.902	.900	.678

## 4. CONCLUSION and FUTURE PROJECTS

Our research is important because it presents the effect of technology compatibility factor by asking if there are other factors in addition to factors depicted in literature. The most important limitation of our research is that it only covers employees at hospitals just in 3 different cities. It is aimed to widen the target mass and to do the survey within whole Turkey. It is expected to obtain more appropriate data by this way.

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# PATIENT SATISFACTION IN HEALTH SERVICES: A COMPARATIVE STUDY IN UNIVERSITY AND STATE HOSPITAL

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## ABSTRACT

In this study it is aimed by measuring the level of satisfaction of outpatients whether they are satisfied during the treatment in accredited university hospitals with non-accredited hospital services in Ankara. The purpose of addressing these hospitals is to determine whether the difference in terms of satisfaction between hospitals. Another purpose is to determine whether they show differences according to demographic characteristics of patients' satisfaction levels and to determine satisfaction levels how effective it would be to choose the hospital again. As a result, it is concluded that compared to outgoing to the state hospitals (non-accredited), the individuals who went to the university hospitals (accredited) are more satisfied.

**Key Words:** Accredited, Satisfaction, Demographic Characteristics

## INTRODuCTION

### 2. The Conceptual Framework

**2.1. Patient satisfaction and importance :** Churchill and Surprenant (1982: 503), customer satisfaction, "After the experience of the service after purchase reflects how much he likes it or not like an event consumer services" is defined. Patient satisfaction "providing information about the patient's values and expectations are met and at what level of authority and the principles of the patient is the basic measure of the quality of care" is defined as (Çelikkalp et al, 2011: 2). Patient satisfaction is a complex concept influenced by several factors and one of the most important indication of the quality of patient care. On the basis of the quality of the service to determine the satisfaction level of the patient and the patient's application in this process, diagnosis, treatment and care outcomes for all the up to the receipt of activity plays an important role (Duggiral et al., 2008: 560-583). The determination of the quality of health care and the perception; waiting time of the patients, kindness and consistency of the employees, service accessibility, making and correctly once the services offered, the time of service with not finding the necessary solution for employees in an unexpected situation and the response and factors such as ensuring the complete plays an important role. Consumers, ie patients are the most important determinant for the identification of these factors (Kıdak and Aksaraylı, 2008: 93). On the other hand expectations about the services offered patients; medical requirements, experience in other health organizations, socio-cultural positions, are also known to influence of factors such as quality and definition of psychological state of mind (Tükel et al, 2004). The satisfaction level of the patients in this context, to improve the quality

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of service and in accordance with the expectations of the patient is required to provide higher quality of service (Erin et al., 2008: 387-410).

Despite the numerous studies in the literature in the context of Turkey accredited hospital does not have a lot of work for determining patient satisfaction in hospitals to be accredited with. In this study, they are not the hospital is accredited in terms of patient satisfaction were studied to determine which made a difference.

### 3. RESEARCH

**31. The Purpose and Scope of the Study:** Accredited university with an accredited hospital is assessed by measuring their satisfaction with their hospital in a state of non-being of patients in an outpatient service levels during treatment were satisfied with the service they received in Ankara. Patients' satisfaction levels will vary depending on which demographic characteristics of the patients, the hospital aims to determine the level of satisfaction in choosing how to be effective again.

**32. Method, Scale and Sample:** The theoretical part of this study was developed through a literature review. Survey administration activities in Ankara accredited university hospital (Hacettepe University Medical School) and in a public hospital were not accredited (Ankara Numune Education and Research Hospital) was performed on a total of 200 patients selected for outpatient and random. Happy as the questionnaire (2012) was used for this study. 4 of the questionnaire consisted of demographic questions while 20 questions consist of questions that measure the satisfaction of patients. 5'li questions prepared Likert-type scale to measure patient satisfaction questions. Respondents, one for each statement: "Strongly Disagree" and 5 "Strongly Agree" the most appropriate option from the case of the mark was requested. Demographic characteristics of the questions to be specified ranked and classified scale consists of question types. Statistical analysis of data was performed by the SPSS software package environment.

**33. Reliability Analysis:** Reliability Analysis Results, Concerning each scale in this research area (Cronbach's Alpha): University Cronbach to question 20, which measures patient satisfaction for the hospital's Alpha value (0.612), public hospitals to measure patient satisfaction 20 questions Cronbach's Alpha value (0.855), respectively. According to the results, it can be seen, that all Analyzed dimensions have acceptable reliability values.

### 4. FINDINGS

**4.1. Demographic Findings:** The patients included in the study by looking at the demographics of the university and state hospitals were obtained the following findings. According to the findings of the university hospital for 64% of the patients surveyed, 58% of those surveyed state hospital for the woman who is determined to occur. University hospitals, 35% of patients treated at the university, 34% of high school, 15% of primary school, secondary school, while 15% have post-graduate training 1%. State hospitals, 35% of patients treated in high school, 35% of universities, 19% of primary school, secondary school graduate has 8%, while 3% education. University hospital for studies in 65% of patients in the 26-35 age group, the 36-55 age group, 20%, 12% and 3% in the 15-25 age group are also included in the 56 and over age group. State hospital 51% of patients in the study for the 26-35 age group, 22% in the 15-25 age group, 22% and 5% in the 36-55 age group are also included in the 56 and over age group



. University, 87% of patients treated in hospital SSI, no social security, and it was determined that 12% of privately insured and 1%. Of the patients treated in public hospitals as SSI of 84% of health insurance, while private insurance and 7% 9% has been found to have any health insurance.

**4.2. Related Results Patient Satisfaction:** Government Considering the causes of hospital treatment of patients to choose the hospital; 36% of the hospital's home / business to it's close, 29% were satisfied with the service received before, the doctor wants to treat 20% of it is in the hospital, the physician's recommendations, 11% and orientation, the agreement institution of the 3% and that the 1% stated that they chose the hospital through the media. When we look at the cause of the patients treated at a university hospital to choose the hospital; 42% of the hospital's home / business to it's close, 32% were satisfied with the service received before 9% of the advice and guidance of the physician, the physician wants to be treated and 6% is in the hospital, the institution of the 6% through the media with 2% and 3% that agreement and stated that they prefer to hospital for other reasons.

University, 61% of patients in the study stated that the appointment of the hospital thought it was enough when the service (mean, 3.32). 86% of patients the hospital stated that adequate direction signs and markings that help transport (mean, 3.99). 86% of patients with transportation to the place where help in the hospital outpatient guidance, stated that there is enough of the plate and signs (mean 3.98). 90% of patients stated that they were satisfied with the services provided by physicians (mean, 4.12). Given the rate of patients who satisfied services provided by nurses were obtained in 81% (mean, 3.87). Of patient services provided by the consultant is not satisfied with 41% of patients (mean, 2.77). Laboratory / imaging services 75% of the patients stated that they were satisfied (Mean: 4.02). Remained undecided satisfaction of patients and 41% were not satisfied with reception of 31% (mean, 2.75). When we look at the satisfaction of the patients stated that they were satisfied with the security services 56% (mean, 3.46). 69% of patients stated that they were satisfied with cafeteria service (Mean: 3.64). The satisfaction rates of 50% of patients with unstable parking they have indicated that they are satisfied and 35% (mean, 2.50). For general cleaning of the patients stated that they were satisfied and 67% (mean, 3.54). When we look at the satisfaction of the medical care of patients at the hospital have been shown to be satisfied 84% (mean, 3.86). Overall is satisfied with the service I received from the hospital is designated as satisfactory the rate of those 86% (mean, 3.90).

University study of hospitals most satisfaction with the service they provide medical services to the patients (mean, 4.12) and laboratory / imaging satisfaction with services (Mean; 4.02), while the highest rate of dissatisfaction with the service they provide parking (mean, 2.50) and reception services (Mean; 2.75) as was obtained.

56% of patients in state hospitals involved in the study stated that the appointment of sufficient when the service (Mean: 3.16). 53% of patients the hospital stated that adequate direction signs and markings that help transport (mean, 3.12). 44% of patients, which helps transport location in the hospital outpatient guidance, stated that there is enough of the plate and signs (Mean: 3.05). 50% of patients were satisfied with the services provided by the physicians are not satisfied with the services provided by physicians and 25% stated that it was unstable in terms of satisfaction of 25% (mean, 3.25). Content Taken services provided by nurses and patients without the proportion of 44% and 32% respectively were obtained (mean, 3.05). Of



patient services provided by the consultant is not satisfied with 47% of patients (mean, 2.62). Laboratory / imaging services in 49% of patients stated that they were satisfied (Mean: 3.11). 48% of patients' dissatisfaction with reception, while 25% stated they were undecided (Mean: 2.62). When the satisfaction of the patients are not satisfied with the state security services, 42% stated that they were satisfied and 38% (mean, 2.84). 42% of patients are not satisfied with cafeteria service, 37% stated that they were satisfied (mean, 2.84). When the satisfaction of the parking they are not satisfied with 37% of patients were determined to be unstable while 38% (mean, 2.73). For general cleaning of the patients stated that they were not satisfied with 57% (mean, 2.51). When we look at the satisfaction of the medical care of patients at the hospital have been shown to be satisfied 46% (mean, 3.02). Overall is satisfied with the service I received from the hospital is designated as satisfactory the rate of those 44% (mean, 2.92).

State study of hospitals most satisfaction specify their service medical services of the patients (mean, 3.25) and appointment service (mean, 3.16), whereas the services they indicate dissatisfaction with the highest purity (mean, 2.51), patient counseling services (mean, 2.62), reception (mean, 2.62) and parking (mean, 2.73) was determined.

**4.3. Physician Satisfaction Related Findings:** When findings regarding satisfaction with the physician at the university hospital, 40% of the patients about the delay in the appointment time physician is delayed 1-10 minutes, 36% of 11-20 minutes is delayed, 23% for 20 minutes and over 1% of the delay and stated that if no delay. University of the patients treated in the hospital, "How long has the doctor to examine you?" question 45% of 6-10 minutes, 5 minutes, 38%, stated that 17% of 11-20 minutes. "For the same discomfort you prefer another physician?" 70% of patients treated at the University hospital in question has no answer, while 30% responded yes.

When the state hospital evaluated the findings related to satisfaction with physicians, 40% of the patients about the delay in the appointment time physician is delayed 1-10 minutes, 36% of 11-20 mins late, 23% of that 20 minutes and up late and 1% I stated that if no delay. State hospital treatment of patients with "How long has the doctor to examine you?" 39% of the questions 5 minutes, 34% of 6-10 minutes, 11-20 minutes, and 20% stated that while 7% over 20 minutes. "For the same discomfort you prefer another physician?" 70% of patients treated in public hospitals to answer the question, yes, while 30% gave no answer. Research to measure their satisfaction with hospital patients were compared directly under the two questions of university and state hospitals. It was first asked if they would prefer to repeat the same physician and patient. University of individuals to the hospital 84% "yes" was announced, saying he would prefer again. The state hospital in the ratio 58% has remained. Then again, the hospital has questions they would prefer to patients. 87% of individuals to the university hospital "yes" was announced, saying he would prefer again. The state hospital in the ratio 71% has remained.

**4.4. Demographic Statistical Comparisons:** The data obtained in this section is intended by examining the relationship between the different groups. Scale in the comparative analysis of outpatient treatment "age", "sex" and "education" test values in order to determine whether significant differences between sub-groups of independent variables that are normally distributed one-way analysis of variance was performed.

**4.4.1. Educational level:** responses to questions with one-way analysis of variance with arguments of education were examined. University Hospital of client satisfaction with the

services provided by the physicians of patients ( $F = 2.50, p < .048$ ), satisfaction with general housekeeping ( $F = 2.60, p < .040$ ) and overall satisfaction with the service received from the hospital ( $F = 2, 61, p < .040$ ), according to the training they receive their point of view to such services which were found to be statistically significant. When the responses of patients to the state hospitals in question were analyzed by an independent variable level of education was found to show a difference in level of significance.

**442. Age:** One-way analysis of variance with answers to the questions that age level independent variables were examined. When the University of answers given to the questions examined by an independent variable age of the patients to the hospital level, has been found to show a statistically significant difference in the level. Public hospitals have the fear of not enough services provided when appointments satisfaction ( $F = 2.88, p < .040$ ), and satisfaction with parking ( $F = 2.74, p < .047$ ), according to the age level of the perspectives of patients, such as service statistically significant has been found to vary.

**443. Sex:** responses to questions with one-way analysis of variance were analyzed from a gender perspective that argument. University hospital, satisfaction with reception ( $F = 4.53, p < .036$ ), and satisfaction with parking ( $F = 5.63, p < .020$ ) by gender perspectives of patients, such as services has been found to be statistically significant difference showed. When the responses of patients to the state hospitals in question were analyzed by the independent variables of gender, There was no difference in the level of significance.

## 5.RESuITS

The degree of patient satisfaction, quality of care in health facilities is. Patient satisfaction, or to meet the patient's expectations of the service in general is based on the service provided to the patient's perception. Therefore, when considering that they have a very heterogeneous patient portfolio of health institutions, to increase the more important cases as a good measure of patient satisfaction and quality of service emerges. In practice, purpose, Ankara "to compare the hospital has not been accredited by an accredited hospital, is assessed by measuring the level of satisfaction with their lack of patients treated as outpatients were satisfied with the service they received during treatment. The main reason for the handling, the hospital can not provide accredited hospitals have to be accredited by providing better patient satisfaction. However, the patients' satisfaction levels will vary depending on which demographic characteristics of the patients, the hospital is also aimed to determine the level of satisfaction in choosing how to be effective again. When all results are considered together, the two hospitals is very important and significant difference between satisfaction scores determined by the patients, patients' physicians and hospitals is possible to say again preferred to the status of two hospitals by the significant difference showed. When taken as a general university and state hospitals; university is very satisfied with the service of patients in the hospital were observed. University of patients for hospital outpatient education level significantly affects satisfaction scores. The State Hospital age levels was observed that the degree of satisfaction in a meaningful way. The survey results are evaluated, it was concluded that they were satisfied more individuals to the university hospital. Results in terms of satisfaction that in recent values of the two hospitals, public hospitals was higher than the proportion of patients remaining undecided for the university hospital and it was determined that the net positive attitude of the patient. Finally, this kind of detailed work with the community in general in health

institutions “patient satisfaction” aware of the settlements, taking the necessary measures for the promotion of patient satisfaction based on service quality, and thus perhaps the creation of a patients’ satisfaction index and suggested to be taken under this way, assurance of patient rights. Constantly repeated at intervals of surveys would be useful for these reasons.

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# PATIENT SATISFACTION IN FAMILY MEDICINE PRACTICE

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## ABSTRACT

Families with the most basic institution in the creation of societies. Families of individuals that make up the building blocks of the smallest communities. People are personal, physical, and spiritual development are located in enabling social structures. For this reason, the future of the families in the communities is very important.

The health of the fundamental rights of the people, is one of the indicators of the development of societies. The state of human rights in accordance with the concept of the social distribution of the whole community comes, provides the strengthening of the social health. Protection of the health of people as individuals, families and ensure that the health protection in the welfare state or welfare society. In this situation, the system will allow health care regulatory system known as family medicine. Evaluating the individual and the family, the family medicine system as a whole has developed an effective approach. In this study, family physicians, community health, how to improve their work affects patient satisfaction were examined. Family physicians in this study, the individual, family, and thus bring higher levels of public health and thus develop the idea of the level of welfare of the society were stressed.

**Keywords:** Family, Family medicine, Customer, Customer satisfaction

## 1. INTRODuCTION

The effect of family on individuals is versatile and powerful. The influence of positive and negative individuals in families is generally dependent on the pattern of family relationships. Any problems that may occur in the family affects the whole family. In this respect, addressing both individually and as a whole family will form the basis of a healthy community development. Individual, biological, social and cultural assets. Primarily to meet basic life needs to grow as an individual and must have physical, social and cultural terms, as a complete being. For example, you can not expect any health problems with the social and cultural development of the individual. At the same time we also consider will affect the other members of the family of a family member who is an individual's health problems as well as the other members of the family can not wait for the development of indirect social and cultural terms. Here are the basic health services which includes family medicine these reasons poses a considerable social importance.

Within the framework of the conversion program Health family medicine program to transition to become primary care services in family medicine is to examine all the family and community members. Investigation of active family physicians in increasing the living standards of the community and family medicine in terms of customer satisfaction is the main objective of the research.

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Working with primary regulation according to the age of the newly created family medicine practitioner of the individual, family and community to be at the highest level of provision of these services is expected to affect the foundation is very important. Society in high-performance, one of the concept put forward to ensure customer satisfaction, behavior, family medicine, essential in terms of providing increased efficiency in the provision of services is a form of behavior.

## **2. FAMILY MEDICINE**

Today, health services are divided into steps. Primary health care services; called health centers and includes units converted into family medicine units today. Secondary health care services; includes general hospitals. Here you will find all the medical expertise and patient they want to apply to the unit in accordance with the specific disease. Private branch specializing in one area and the third step includes services performed in the hospital. According to the system, expressed as a pyramid where many sources, primary health care is the gateway to the system [1].

Primary health care services are having the most fundamental role in terms of accessibility. This is sick with the first contact is achieved, the patient is made of the continuous monitoring, evaluating in the presence of the patient, comprehensive, individuals will follow until his death from birth and is the most accessible units will assume the task of coordination for the treatment of major diseases [2].

The Family Medicine from that perspective Wonca Europe (European Family Medicine Association) (2002) according to the definition, corresponding to the most appropriate way to define primary health care, the system will fill the structure is missing its own educational content, research, academic, and is the basis and clinical application of evidence a scientific discipline and is also a clinical specialty [3].

When we review the definition of Family Medicine, Leeuwenhorst (1974) According to the definition; "Family physicians, age, sex and disease, without distinction of the individuals, families and a specific population, personal, continuous and have received specialized training in providing primary health care services is a graduate of the Faculty of Medicine" [4]

Olesen and colleagues (2000), family physicians, age, sex and disease discrimination in the individuals, families and continuous and comprehensive care to the communities in which that is also a licensed medical doctor trained in this area. Makes the first to review all health problems. Chronic or terminal illness of patients with recurrent assumes the continuous care regardless of distinction. Works in coordination with other sectors. Is aware of the professional responsibility to society is defined as [5].

## **3. FAMILIES IN TURKEY DEVELOPMENT OF MEDICINE**

Primary care health centers in Turkey has been in development axis. Physicians working in primary care health centers, ie we define as the general practitioner, Started working after 6 years of medical school represents doctors who receive specialized training. In the world of family medicine physicians and general practitioners defined as job descriptions are the same pratisyenlik in Turkey. However, unlike the practice refers to doctors who have received specialized training [6].

Since the 1960s, began to establish the cascade of understanding of health services and health centers spread all going to Turkey have played a significant part in the provision of primary health care services and in the later stages of a very successful health centers have been carried out. But can not adapt to the changing conditions, patients incapable of remaining constantly monitored and the lack of expertise in the field of application could not keep up with the era in which health centers spay and remained shallow [7].

After 1960, Undersecretary of the Ministry of Health and Social Welfare Dr. Nusret Fişek No. 224 has created the Socialization of Health Services Act. Socialization Act digits, based on social justice, common, comprehensive, preventive, curative and health care provider a combination of health services is based on the principle of the implementation of full-day and one-stop service. Prof. Dr. Nusret Fişek released in 1985, 'Introduction to Public Health' book; Applied with success in the years 1963-1965 in the socialization of health care work, starting from 1966, stated that the application fails to return [8].

Family practice is common in Turkey began to simultaneously discuss with the world in the mid-1970s and at that time the family medicine has already accepted the idea of having a separate specialty is supposed to be one of the functions of the health clinic in an existing application. In Turkey, the Alma-Ata Declaration as the world all countries covered by all health development in 2000 in the frame, in the 1980s have begun efforts to strengthen primary care and family for physicians to train specialists in new types of need for primary care residency training has been implemented [9].

The first concrete steps regarding the implementation of family medicine in Turkey, on July 5, 1983 Family Medicine Specialist Medical Specialization is the recognition of the Charter. In 1984, the continuation of Gazi University Faculty of Medicine Department of Family Medicine was established first. Family medicine residency training; first in 1985 in Ankara, Istanbul and Izmir began teaching hospital attached to the Ministry of Health. 1990s when the bride is focused on family medicine residency training and has become the acceptance of the specialty. 1990 in Ankara Association of Family Physicians (AHUD) was established in 1998, Turkey Family Physicians Association (TAHUD) substantive changes have been made [10].

Higher Education on July 16, 1993 (HEC) and Decree No. 12547 has been deemed appropriate for the establishment of the Department of Family Medicine at the medical school. This decision has been one of the most important milestones in family medicine academic development. September 17, 1993, the university established in Trakya University Department of Family Medicine Family Physician assistant education began. First established as the founding chairman of the departments of public health, internal medicine, has been appointed academics from other disciplines such as pulmonology. Family physicians who first began to take place in 1994 in the academic staff [11].

In 2003, as a result of participation in a scientific establishment across Turkey gathered at the Ministry of Health and the results of his work has created a road map. According to this study of family medicine practice in primary care has been decided should begin. These decisions are prepared and pilot in 2004 in the light of the law was put into effect in 2005 as the first in Düzce. Family medicine practice today in 81 provinces in Turkey are carried out [12].



#### **4. THE IMPORTANCE OF PATIENT SATISFACTION IN HEALTH SECTOR**

The concept of satisfaction in health services has become an important issue in recent years. There is a large and heterogeneous group of customers required to satisfy the health institutions. When the patient's past medical institutions only customer called to mind while now health 'health services for all individuals and institutions involved in the production process' is considered as the customer [13].

How that one is an important determinant satisfy our purchasing decisions as consumers, we are if we exhibit the tendency to satisfy our products can direct a sense of satisfaction to be created by our previous experience with our decision to benefit again from a health care as a patient. But the service has different features according to the product. For Example; trying to take a bag or a disposable coffee ready to put on a garment we can make our decision as to whether compliance with our tasting expectations. If the service in question, especially health services while others have no possibility of such a trial and evaluation. Experience will be gained only after received consumed. Moreover, the lack of expertise in the technical sense of the patients in health care quality assessments in more with non-technical issues (waiting time, a clean environment, such as the communication approach of employees) to cause [14].

Patient satisfaction; used to evaluate the quality of services in health institutions is one of the basic criteria. Patient satisfaction in health institutions is important for four reasons [15].

Humanitarian Causes: The beginning of the fundamental rights of the patients are from the right to the best quality health care. The fact that both technical and adequate services provided in health institutions as well as in the scientific sense of the personality of the patient, should be provided while respecting the values and attitudes of the idea [15].

Economic Causes: Patients are obliged to service the receiver. Patients, because of the conditions in which they are more careful with regard to the service of customers in other sectors. Preferences are set and they expect the provision of more serious charges they pay. Other aspects of the insurance companies also pay great attention to customers not satisfied with the service they received. Insurance agencies, they put pressure on health institutions to ensure customers satisfaction Customer satisfaction, customer and profit potential to substantially improve the health care [16].

Marketing: Different factors affect patients from each other as informal relations and wage levels of the organization, determine the future of the organization of the patients also have thoughts on these factors. Patients about the company's future with the reviews are having on the company's controlling. Patients taking the unofficial public relations organization is known to create the sales force [17].

Effectiveness: from satisfied by a process of treating patients are known to exhibit more positive behaviors. Patients who are satisfied, they scrupulously follow the recommendations of physicians and other health professionals [17].

#### **5. CONCLUSION**

The patient is an individual. Social, emotional, physically interact with the environment. In this case, the disease on the individual, the individual's response to the disease and also to address the need to remember that a whole human environment. Feel comfortable or to feel

the individual is due to the lack of basic needs are met. Positive human relationships they establish with patients of family physicians, friendly and close to the behavior of the disease and their being adequately informed about the transactions are understood to be effective in the development of patient satisfaction.

As in family medicine developed and developing countries, especially in recent years, Turkey has developed quickly. Gained importance in the context of the importance of family medicine unit conversion idea of health is increasing every day. Family medicine concerned with the health of the family forms the core of the community is one of the most important social institutions. The beginning of the health of life are family medicine units. In terms of being quite easy accessibility is also vital in terms of individual and community health. The quality of the services offered in this respect is very important.

Customer satisfaction behavior in recent years is quite effective in improving the quality of family medicine unit, a unit serving the people. That's why family physicians are required to exhibit the behavior of customer satisfaction. Customer satisfaction is behavior that will allow the development of the movement of individuals in the highest performance in health administration and health business is a behavioral techniques. Family physicians in the study of behavior has focused on customer satisfaction and customer satisfaction during the application of family physicians were examined exhibit behavior.

High levels of customer satisfaction is a positive development from the family medicine system. However, the system can be further developed, the opinions of customers and arrangements should be made in this direction.

Customers family medicine system in the physical facilities and medical equipment to the more attention they, the system can be improved and the medical equipment necessary for the customer to increase the customers' satisfaction to provide the family medicine centers and work towards increasing the physical facilities should be made. In addition, family medicine centers and laboratory facilities should be developed to perform all necessary tests for customers, clients will be reflected positively on the level of satisfaction.

Confidence in their family doctor, doctor of respect, courtesy and quality of service perceived in terms of ensuring compliance, and physician interviews ease the tolerance rule is considered to be having a positive effect. However, examination and treatment of confidence that is done correctly, the doctor taking the time to listen to the doctors and the treatments, tests, medications, and the enlightenment they do about the disease should go to patient-centered or patient-sensitive participants and contemporary search for a solution.

Right expert or the addressee although health officials across the "solution finder" as seen / see patients who want to rest and be entered into a quest towards finding a solution has become an important element of quality of service. All created mandate and values in family medicine staff, patients generally leads to dissatisfaction factors should be given training on considering and fulfill the expected responsibilities of the self, improving the overall service quality of family medicine and the patient is of strategic importance for ensuring the satisfaction.



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# SERVICES IN SEMI-RURAL AREAS OF ESKISEHIR

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## INTRODuCTION

Seasonal and Migrant Farmworkers and their family members (SMF) are individuals who had to travel to another city or region to meet the needs of the agricultural workforce so that he/she was unable to return to his/her permanent residence within the same date (1). According to the data of Turkish Statistical Institute 2011, in Turkey, 25 millions people have known as main workforce. Of them, 26% worked as agriculture workforce and about 13% was called as SMF (2).

Although Eskisehir has so wide and ar able rural areas for agricultural activities, it needs agriultural workforce due to the intensive external migration. Every year approximately 1500 SMF comes to Eskisehir from Southeastern and Eastern Anatolian region for agriculture activities.

SMF has known as disadvantaged risk groups all around the world due to some specific characteristics; unsuitable living and housing conditions, malnutrition, industrial accident and injuries, reproductive health problems, pesticide exposure, the risk of heatstroke, frostbite, and inadequate access to health care services, infectious diseases and premature child deaths (3). The factors which effect the satisfaction level of SMF were determined as; factors related the patient (their expectations, age, gender, educational level, health status, the perceptions about their health conditions etc.), factors about health care services providers (personel characteristics of health staff, status of shown kindness and care, scientific knowledge levels of health staff etc.) and environmental and institutional factors (closeness of hospital, income

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status, working duration etc.) (4). For that reason to provide quality and accessible health care services to this disadvantaged risk groups is so critical.

In light of this, the aim of the study was evaluating the status of applications to the health care services and satisfaction level from received health care services of SMF.

## **METHODS**

The cross sectional study was conducted in 7 tent cities (Alpu, Sevinc-1 ve 2, Karacahoyuk, Bozan, Sakintepe ve Osmaniye) in semirural areas where located in Public Health Department of Eskisehir Osmangazi University Medical School Education and Research Regions in Eskisehir. Eskisehir is located in Central Anatolia, Turkey. In there the majority of people are engaged in agriculture especially in rural areas Therefore Eskisehir is one of the most preferable cities by SMF for agricultural activities. The study was reviewed and approved by the relevant institutions. We aimed to reach all people that sheltered in the tent cities.

A three part questionnaire was constituted to collect the data. First part included the socio-demographic characteristics of SMF, second part included applications of SMF to health care services due to their health problems and third part included satisfaction level of SMF of health care services. All the tent cities were reached by researches. All participants gave informed consent. We used the face to face conversation method to collect data. Data of people less than 15 years was obtained from their parents.

Data were analyzed using the SPSS 20.0 (IBM). We used descriptive statistics to evaluate socio-demographic characteristics and satisfaction level of SMF from health care services. Then we conducted multivariate logistic regression to identify the socio-demographic and other factors that related with good satisfaction level of SMF. A value of  $p < 0.05$  was considered statistically significant.

## **RESULTS**

In the study days, we reached total of 1041 (76%) SMF and their family members. A total of 482 (46.3%) SMF, who applied at least one time to health care services due to their health problems, responded the questionnaire. No difference was found between the tent cities in means of the number of responded SMF ( $p > 0.05$ ). The average number of application to health care services was  $0.96 \pm 1.61$  and ranged between 0 and 22. The mean and standard deviation of age were  $24.9 \pm 16.4$  years and ranged between 0 and 87 years. Table 1 shows socio-demographic characteristics of SMF and their family members.

**Table 1.** Socio-demographic characteristics

Socio-demographic characteristics	n	%
<b>Gender</b>		
Male	190	39.4
Female	292	60.6
<b>Age</b>		
14 and less	136	28.2
15-24	116	24.1
25-34	107	22.2
35-44	53	11.0
45-54	46	9.5
55-64	18	3.7
65 and older	6	1.2
<b>Educational level</b>		
Illiterate	304	63.1
Literate	62	12.9
Primary school and above	116	24.1
<b>Marital status</b>		
Single	197	40.9
Married	285	59.1
<b>Is He/She Working?</b>		
No	233	48.3
Yes	249	51.7
<b>Social Insurance</b>		
No	116	24.1
Yes	366	75.9
<b>When did you come here?</b>		
March	115	3.1
April	267	55.4
May	190	39.4
June	6	1.2
July	4	0.8
<b>Total</b>	<b>482</b>	<b>100.0</b>

Among the SMF 39.4% were male; 63.1% were illiterate, 39.9% were single, 51.7% had a regular income, 75.9% had a social insurance. Table 2 summarizes the characteristics of applications of SMF to health care services due to their health problems.

**Table 2.** The characteristics of applications of Seasonal and Migrant Farmworkers to health care services due to their health problems

Characteristics of applications	N	%
<b><u>Institution applied</u></b>		
Family Medicine Center	56	11.6
Integrated District Hospital	157	32.6
State Hospital	256	53.1
Univercity Hospital	13	2.7
<b><u>Who did you apply for?</u></b>		
For me	326	67.6
For my children	139	28.8
For my wife/husband	9	1.9
Other	8	1.7
<b><u>Cause of application</u></b>		
Emergency	79	16.4
Examination	306	63.5
Control	14	2.9
General body control	1	0.2
Surgery	6	1.2
Mouth and teeth health	12	2.5
Pregnancy	37	7.7
Family planning	2	0.4
Prescription	1	0.2
Other	24	5.0
<b><u>Cause of preferences</u></b>		
Obligation	95	19.7
Closeness	319	66.2
Satisfaction of services	40	8.3
Advise	13	2.7
To have a familiar person	1	0.2
Habit	3	0.6
Other	11	2.3
<b>Total</b>	<b>482</b>	<b>100.0</b>

Among the SMF; 11.6% applied to the family medicine center, 32.6% applied to the local hospital, 53.1% applied to the public hospitals 2.7% applied to the university hospital, 16.4% applied for the emergency services, 63.5% applied for the examination. The predictive factors among the applications to the health care services were reported as closeness of hospital

(66.2%), obligation (19.4%), and satisfaction from the health care services (8.3%). Table 3 shows satisfaction level of SMF of health care services.

**Table 3.** The satisfaction level of Seasonal and Migrant Farmworkers of health care services.

	N	%
<b>Did you satisfied with the health care services?</b>		
No	49	10.2
Yes	433	89.8
<b>Will you prefer the same doctor in each application?</b>		
No	246	51.0
Yes	236	49.0
<b>Can you share your complaints with your doctor clearly?</b>		
No	24	5.0
Yes	445	92.3
Partially	13	2.7
<b>Were you informed adequately about your health conditions by the doctor?</b>		
No	37	7.7
Yes	417	86.5
Partially	28	5.8
<b>Were you satisfied with the treatment?</b>		
No	32	6.6
Yes	424	88.0
Partially	26	5.4
<b>Were you satisfied from auxiliaries staf</b>	<b>f</b>	
No	13	2.7
Yes	444	92.1
Partially	25	5.2
<b>Time of wait for examination</b>		
Long	68	14.1
Normal	414	85.9
Short	0	0.0
<b>Were you satisfied from cleaning of hospital</b>		
No	0	0.0
Yes	467	96.9
Partially	15	3.1

<b>Will you recommend the health care services institution to your relatives</b>		
No	23	4.8
Yes	414	85.9
Partially	45	9.3
<b>Can you assess quality of health care services compared to where you came from?</b>		
Where I come from is better	78	16.2
Here is better	271	56.2
No difference	133	27.6
<b>Total</b>	<b>482</b>	<b>100.0</b>

Of the SMF, 89.8% were satisfied with health care services, 49% chase the same doctor in another application, 92.3% had a good communication with the their doctors, 86.5% were informed adequately about their health conditions, 88% were satisfied with their treatment. Table 4 shows the related socio-demographic characteristics regarding the satisfaction level of SMF according to logistic regression analyses.

**Table 4.** The related socio-demographic characteristics regarding the satisfaction level of Seasonal Migrant Farmworkers according to logistic regression analyses

	p value	Exp (B)	95% Confidence Interval	
			Lower	Upper
Age	0.280	0.865	0.666	1.125
Gender	0.171	0.617	0.309	1.231
Distance from the tent cities to city center	<b>0.037</b>	0.495	<b>0.255</b>	<b>0.960</b>
Educational level	<b>0.046</b>	0.682	<b>0.468</b>	<b>0.993</b>
Marital status	0.276	1.576	0.696	3.569
Who did you apply for to the health care services	0.603	1.169	0.650	2.102

According to the logistic regression analyses, some socio-demographic characteristics (distance from the tent cities to the city center and educational level) were associated with from received health care services of SMF and their family members.

## DISCUSSION

In present study evaluating the status of applications to the health care services and satisfaction level from received health services of SMF was aimed. In this study approximately half of the SMF reported that they oftenly prefer the state hospital in Eskisehir City Center. The SMF may consider that the state hospital provides high quality and comprehensive health care services to them and the state hospital locates nearly to their tent cities.

The majority of SMF and their family members applied to the health care services for the examination. These consequences may be connected with SMF's inability to find suitable time for primary preventive health care services due to their hard working conditions.

In present study most of the SMF applied the nearest health institution because of the following reasons; inability to find time, loss of income, inability to let and lack of vehicles. Furthermore when the distance between tent cities and hospital had increased, the satisfaction level of SMF

decreased. We suggested that the primary health institutions should be located at the near areas to the tent cities. Because closeness of health institution to the people's places is one of the most effective factors for determining their preferences to receive health care services (5).

Of the SMF 89.9% reported that they had a good satisfaction level from the health care services. The factors; taking more quality health care services compared to their homelands, cleaning of hospital in Eskişehir, attitudes and behaviors of hospital staff, good communication between SMF and doctors, may be associated with the satisfaction level of SMF. Özcan et al told that 76 percent of individuals, who applied to Silvan State Hospital, had a good satisfaction level of health care services (6).

On the other hand individuals, who had higher educational level, had low satisfaction level from health care services ( $p=0.037$ ). The lower expectations of SMF and their family members from the health care services might be resulted with the higher level of satisfaction. Ercan et al. told that when the educational level had increased, the satisfaction level of individuals decreased (7).

## CONCLUSION

Finally, SMF preferred the secondary and tertiary health care services rather than primary health care services. It burdened to secondary and tertiary health care services unnecessarily. The SMF's lower expectations from the health care services might be resulted with higher level of satisfaction.

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# QUALITY OF LIFE



# USING SOCIAL MEDIA FOR HEALTH ISSUES: A STUDY ON THE STUDENTS OF VOCATIONAL HIGH SCHOOL OF HEALTH SERVICES

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## EXTENDED ABSTRACT

**The Problem of the Study:** In the last decade, social media has become a phenomenon for both individuals and business. While individuals are using social media for interacting with others, expanding networks, sharing experiences and making comments, healthcare organizations began to use social media in order to reach target groups, interact with clients and promote products and services. Also, social media has changed the nature of the communication between the health organizations and the clients from one way communication to interactive, and become a trigger for individuals to make better decisions by reviewing the others' comments and experiences about hospitals, physicians, drugs, and healthcare etc. As a source of information, social media has become an important tool for reducing the information asymmetry between the health service providers and the clients. Furthermore, the increasing use of mobile phones, especially smart phones, allowed individuals to be online in social media whenever and wherever they are without any time or place constraints. In many academic researches, it is found that social media is mostly used for health information seeking and the use of social media is more popular for the youngsters.

**The Purpose of the Study:** The rise of social media has attracted the attention of many practioners and researchers, and each research has focused on different aspects of social media in health care such as prevalence of use, reasons of use, advantages and disadvantages, social media usage habits among different age/sex/education level/income groups. In order to identify the current status of social media use of young adults for health related topics, this study carries on three purposes which are (a) to determine the use of social media by young adults, (b) to evaluate the reasons of social media use for health issues, (c) to identify the differences between gender and location.

**Method:** This study was designed as a descriptive research and the survey method was used to collect data in December 2014 among voluntary students during their final examinations. The survey was developed on PEW Research Centre's Health Tracking Survey which was implemented in USA at 2012. The study's sample consisted of 506 students who are the studying at Vocational High School of Health Services in Gazi University and Trakya University. The data obtained from the questionnaires were coded and computerized by the researchers, and, the frequency and percentage distributions were calculated using SPSS 15.0 statistic software. Comparison of the categorical data was carried out using Chi-square test. The values of  $P < 0.05$  were considered statistically significant.

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**Findings and Results:** Totally, 506 students studying at two different universities participated in the study. It's clear that young adults use social media tools for healthcare purposes, and the results indicate that Facebook and Twitter are the most popular social media sites used for health issues. Mobile applications related to physical exercise, diets and periodic tables are the most popular applications among young adults. Application developers and smart phone producers should take this into account and work more on 'free' health applications in order to raise awareness and improve the health knowledge of young adults.

**Key Words:** Healthcare, Social Media, Young Adults, Mobile Applications

# KIDNEY TRANSPLANT OUTREACH NETWORK (IN THE EASTERN PROVINCE): A STEP TOWARDS INTEGRATED TRANSPLANT CARE IN SAUDI ARABIA

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## **Abstract**

The complex process of integrating clinical care requires the suitable setup and environment for it to succeed. When two or more services are involved, or when care is provided across more than one institution, integrating clinical care becomes even more complex. Some of these complexities can be addressed with proper design and implementation of integrated programs and active involvement from all involved stakeholders. This integration, facilitated by collaboration or alliance between two or more organizations, has been shown to add value to services provided by the involved organizations.

Kidney failure is a complex problem that is best treated with Kidney Transplantation. Successful transplantation requires team approach from multiple disciplines, resulting in a complex and dynamic process that involves frequent interactions among different team members. This dynamic nature and the complexity of care delivery process require close attention to minimize risks to patients, improve outcomes, and efficiency of resource utilization.

Providing an efficient and effective care would not be possible without extending the integration to involved disciplines and areas where transplant care is provided. The experience at the Multi-organ Transplant Center (MOTC; at King Fahad Specialist Hospital in Dammam, Saudi Arabia) is presented as an example of practical application of these concepts and the outcomes are discussed.

## **CONCLUSION:**

MOTC outreach model and its role in integration of transplant care shows promising initial outcomes and needs further study as a potential generalizable model in the Country. A proper process for quality assurance is crucial for the success and sustainability of such program.

**Key Words:** Integrated Care, Health Systems, Inter-organizational, Collaboration, Alliance, ESRD, Kidney Transplantation, Outreach.



# COMPARATIVE INVESTIGATION OF MANAGEMENT OF ELDERLY CARE SERVICES IN THE WORLD AND TURKEY

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## ABSTRACT

**Objective:** This study aims to aged care services in the world of social, cultural and economic aspects of the country to examine the comparative examples, in Turkey to identify weaknesses and to provide solutions to remedy the problem.

**Methods:** A literature search was performed to compare examples of countries around the world.

**Results:** 841 million people live in the world over 60 years. In 2050, this figure is expected to be 2 billion. 2% of national income in Denmark is divided into social care spending. Institutional and home based care services are 100% financed by taxes on municipal level. 2.88% of the Dutch national income is devoted to social care spending. 79% of Financing is covered by public insurance, and 21% by private insurance. 27% of Germany's population is over 60 years old. In the case of family care in Germany, only those who didn't want to leave the corporate professional sense, it was observed that including themselves they want a mix of models. Japan is the country with the oldest population in the world with 32%. All aged over 40 employees are obliged to pay health insurance. 55% of elderly care is financed by premiums, and 45% by public funds. Over 60 year old population rate in Turkey is 10.7. Life expectancy at birth in 2050 is expected to be 79 years of age. In 2011, Family and Social Policy Disability and Elder Services Headquarters is established. Social policies for the elderly, Social Security is becoming operational context of institutional care practices and social assistance and services. Financing remains inadequate.

**Conclusions:** Elderly care management system has a very important place. Each population is different from each other. In Turkey which has entered into a The demographic transition process with a good organization, a mixed maintenance and financing models with a speed appropriate to the future aging can be developed.

**Key Words :** elderly care, ageing

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# THE EVALUATION OF QUALITY OF LIFE OF FAMILIES WHO GET SOCIAL AND ECONOMIC SUPPORT: KONYA SAMPLE

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## ABSTRACT

**Aim:** The aim of the study is to examine life quality of the families that take social and economic supports from Directorate of Meram Social Services Center that works under Family and Social Policies Ministry of Konya Provincial Directorate.

**Method:** In the research quantitative research method was used. Also, research has descriptive features. The population of the research consists of 593 families that live in Konya and have taken social and economic supports from Directorate of Meram Social Services Center since 1 November 2013. In order to decide sample size, the table below was used (Altunışık et al., 2012) and according to the table, it is concluded that 234 families can represent the population. However, in order to increase the reliability of the results, more families are attempted to be included and finally 246 families that accepted to participate in the research are investigated within the context of study. In the research as a result of literature review, questionnaire form developed by the researcher was used to collect socio-demographic data. In order to determine *the life quality* of one who takes social and economic support, The World Health Organization Quality of Life questionnaire (WHOQOL-BREF) that was adapted into Turkish by Eser et al. (1999) was used. Due to the fact that Directorate of Social Service Center did not allow the researcher to collect data via face-to-face interview technique, data is collected via mails. By computerizing collected data during the research, data control was done at the first stage and incorrect data was arranged. Statistical analyses were done in the computer environment. Descriptive statistics, independent sample one-way variance analysis and independent sample t tests are done on the data.

**Findings:** It was confirmed that average of perceived life quality of individuals is 2.19; average of perceived state of health of individuals is 2.41. Average score of perceived quality of life of families who take social and economic supports (SES) does not vary based on education ( $p>0,05$ ), marital status ( $p>0,05$ ), monthly income ( $p>0,05$ ) and age ( $p>0,05$ ). Similarly, average score of perceived state of health of families who take SES does not vary based on marital status ( $p>0,05$ ), monthly income ( $p>0,05$ ), age ( $p>0,05$ ) and social security ( $p>0,05$ ). Within the context of the research, only, average score of perceived quality of life ( $p>0,05$ ) of families who take SES and based on status of social security and average score of perceived state of health ( $p>0,05$ ) based on education level vary. Average scores revealed for individuals' physical area sub-domains as 11.33; psychological area sub-domains as 11,17; social area sub-domains as 10,76 and environmental sub-domain as 10,74.

**Conclusion and Suggestions:** When it is considered that least average score is taken from environment domain among sub-domains of quality of life, working on stated topics, especially

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evaluation questions constituted environment domain is foreseen.

**Key Words: Quality of Life, Social Services, Social and Economic Supports.**

## INTRODUCTION

Not only the claim that the notion of the quality of life, which is developed in social sciences, is handled initially in oncology in practical medicine (Top and et al. 2003) but also the claim that it is developed to measure betterment of health is existing in the literature (Yıldırım and Hacıhasanoğlu, 2011). Especially, encountering with the expression of quality of life frequently when treatment efficiency and health policies are decided (Şimşek Aybar 2014) also generally using the notion of quality of life in the field of health and studies related with health show that the notion is directly related with the health. In addition, several studies are found in the literature. For example, some studies in order to understand the relation between health problems and life quality were done such as cancer (Usta-Yeşilbalkan and et al., 2005; Özçınar et al., 2010; Şimşir Atalay et al., 2011; Kutlu et al., 2011; Karayurt, 2012; Özbayır et al., 2012) renal failure (Kuzeyli Yıldırım and Fadiloğlu 2005; Eşit-Üstün and Karadeniz, 2006) coronary failure (Özer and Argon, 2005; Demir Korkmaz, 2012), organ transplantation (Özsaker, 2012), chronic injuries (Öğce, 2012), diabetes (Eren et al., 2004), depression (Durukan et al., 2011) and so on. Thus, it can be said that health is one of the important parameters of quality of life. (Tüzün and Eker, 2003).

World Health Organization defines Quality of Life as “individuals perception of their position in life in the context of the culture and value systems in which they live.” (Fidaner et al., 1999; Işıklı et al., 2007). Quality of life confronts “as a notion that indicates reactions to illnesses and physical, psychological and societal impacts of daily life” (Akdeniz and Aydemir, 1999). Although there is no consensus about what the notion of quality of life is, it is defined as one’s subjective feelings about his life is getting better (Telatar and Özceve, 2004; Kılçarslan, 2008; Kutlu et al., 2011). The main aim here is to evaluate individuals and societies health in a better way and reveal benefits and harms of health services (Düzgün Çelik, 2006). It is because, increasing quality of life has positive impact on individuals’ health, psychological state and economic conditions (Gülmez, 2003). In today’s world, not only curing illnesses but also increasing individual’s quality of life are aimed. This is why significant effort is shown to measure individuals’ well-being and quality of life (Yıldırım and Hacıhasanoğlu 2011).

When the factors that affect quality of life are examined, it is seen that political, social and economic aspects are existing (Işıklı et al., 2007). Also, it is stated that concerns about the future, inefficiencies on support systems and acute or chronic health diseases are the problems that decrease the quality of life (Savcı, 2006). When the factors that affect quality of life positively and negatively are taken into account, it is seen that using scale of quality of life in families that take social and economic support is appropriate.

## RESEARCH

**Research Model:** In this study, quantitative research design is used. Quantitative research, by its simplest meaning, is the works that require collecting and analyzing quantitative datum (Büyüköztürk et al., 2013). The aim of the study is to figure out the life qualities of the families that take social and economic support from Directorate of Meram Social Care Center under the Konya Ministry of Family and Social Policies.

**Scale:** To determine the *life quality* of the person who take social and economic support, World Health Organization Quality of Life Scale (WHOQOL-BREF) translated into Turkish by Eser et al. (1999) is used. WHOQOL-Bref is a scale of 26 questions. WHOQOL-Bref is composed of 4 domains. There is no separate section. The scale does not have a total score. Each section or domain takes score out of maximum 20 points or 100 points. When the Turkey version of 27 questions (the 27<sup>th</sup> question is the national question) is used, “the bordering area score” named as Çevretr. In this situation, the Çevretr area score is used instead of bordering area score.

**Table 1. Information about sub-dimensions of World Health Organization Quality of life Scale.**

SUB-DIMENSIONS	QUESTIONS THAT ARE INCLUDED
Physical Health	3, 4, 10, 15, 16, 17, 18
Psychological	5, 6, 7, 11, 19, 26.
Social Relationship	20, 21, 22.
Environment	8, 9, 12, 13, 14, 23, 24, 25, 27

3<sup>rd</sup>, 4<sup>th</sup>, and 26<sup>th</sup> questions have inverse points. Some questions do not take place on the sub-dimensions; with the 1<sup>st</sup> question the perceived life quality, with the 2<sup>nd</sup> question perceived health status is measured.

**Sample:** The population of the research is consisting by the 593 families that are living in Konya Province and take social and economic support from Directorate of Meram Social Care Center as of the date of November 1, 2013. To determine the sample size, the table prepared by Altunışık et al. (2012) is used, and according to table it is concluded that 234 families can represent the population. However, to increase the reliability of the results, more families are tried to be included, and in the end 246 families accepted to join the research are examined within the context of the study.

## FINDINGS

**Table 2. The socio-demographic features of the person (the person who take the family care responsibility) who receive social and economic support (SES) in behalf of children.**

Member of family who receive SES	N	%
Mother	193	78,4
Father	28	11,4
Other (Bigbrother,grandparents)	25	10,2
<b>Marital Status</b>	<b>N</b>	<b>%</b>
Married	111	45,1
Single	135	54,9
<b>Age of the member of family who receive social and economic support</b>	<b>N</b>	<b>%</b>
20-29	27	11,0
30-39	91	37,0
40-49	76	30,9
50-59	29	11,8

60+	23	9,3
<b>Educational status</b>	<b>(n)</b>	<b>(%)</b>
Non-lettered	41	16,7
Lettered	19	7,7
Primary School	152	61,8
Secondary School	21	8,5
Equivalent to High School and over	13	5,3
<b>The total income of the family receives social support (TL)</b>	<b>N</b>	<b>%</b>
351-550	86	35,0
551-750	56	22,7
751-1000	19	7,7
1001-1250	54	22,0
1251+	31	12,6
<b>Social Security</b>	<b>N</b>	<b>%</b>
No	101	41,1
G0 – Green Card	107	43,5
Working	23	9,3
Retired	15	6,1
<b>Total</b>	<b>246</b>	<b>100,0</b>

When the perceived life quality and perceived health status of the family member who received SES examined; it is determined that average of the perceived life quality of the individuals is 2,19, average of the perceived health status of the individuals is 2,41. When it is considered that the minimum value is 1 and the maximum value is 5, it can be said that the averages of both of the perceived life quality and perceived health status are stay under the centre line. However, while the general health status of 70,7% of the individuals who are fifteen years old or above is evaluated as very well/well, the general health status of 7,2% of them is evaluated as bad/very bad (TR Ministry of Health, 2014).

**Table 3. The results of the analysis of life quality and health status of the families receiving SES perceived according to some arguments.**

	Perceived Life Quality	Perceived Health Status
<b>Education</b>	0,34	0,04 *
<b>Marital Status</b>	0,41	0,12
<b>Monthly Income</b>	0,06	0,09
<b>Age</b>	0,29	0,06
<b>Social Security</b>	0,01 *	0,13

$p < 0,05$

As it is seen in the table 3, perceived average score of the quality of life of families who took SES does not vary based on education ( $p < 0,05$ ), marital status ( $p < 0,05$ ), monthly income ( $p < 0,05$ ), and social security ( $p < 0,05$ ). Similarly, it is seen that perceived average score of the health status of families who took SES does not vary based on marital status ( $p < 0,05$ ), monthly income ( $p < 0,05$ ), age ( $p < 0,05$ ) and social security ( $p < 0,05$ ). It is determined in terms

of the research that perceived average score of the life quality based on social security status ( $p<0,05$ ) and perceived health status based on education level ( $p<0,05$ ) of only the families who took SES vary. While there are studies in literature that state the perceived average score of life quality and health status vary based on education, marital status, age, income, level of education, and social security status (Pala and Avcı, 2004; Eşit Üstün and Karadeniz, 2006; Işıklı et al., 2007; Ateş et al., 2009; Ergen et al., 2010; Durukan 2011), there are also some studies (Eren et al., 2004; Ergen et al., 2010; Durukan, 2011; Gülmez 2013) stating that the averagescore does not vary. This situation possibly caused by the disparity in age of the groups that examined, and living styles of the communities. However, in literature, the common view is perceived average score of life quality and health status decreasing proportional to age (Birtane et al., 2000; Turgul et al., 2004; Arslantaş et al., 2006). It can be said that research findings generally do not correspond to literature.

When the scores that the family members who took SES got from the sub-dimensions of the World Health Organization Quality of Life Scale, consisting of the “*Physical Area*”, “*Psychological Area*” and “*Environment Area*,” are examined; it is determined that the average of the score the individuals got from physical area sub-dimension is 11,33 (on the scale of 100 it is 45,83), the average of the score of psychological area is 11,17 (on the scale of 100 it is 44,83), the average of the score of social relationship sub-dimension is 10,76 (on the scale of 100 it is 42,27) and the average of the score of the environment area sub-dimension is 10,74 (on the scale of 100 it is 42,17). For example; in a study performed on the patients who are diagnosed with breast cancer the average score of life quality is determined as for physical area 13,74, for psychological area is 13,56, for social relationship area 13,33 and for environment area 14,51 (Atalay et al., 2011). Similarly, it is seen in a study performed on the housewives. The housewives participated to the study took 15,8 points from the physical area sub-dimension, 13,1 from psychological area sub-dimension, 10,5 from the social relationship area sub-dimension and 14,2 from environment area sub-dimension (Ateş et al., 2009). When the average of score that the individuals within the scope took from the sub-dimension of life quality is compared to the other studies in the literature, it can be said that the average score took from sub-dimensions are quite low.

## CONCLUSION

As it is seen, sub-dimensions of life quality of the families get the minimum average score from environment area. This is why it is seen important to improve life quality of families that took SES in terms of, in general, all sub-dimensions and, in specific, issues relate with environment area.

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# AUTONOMY IN ADOLESCENCE WITH DIABETES I: A PSYCHOSOCIAL NURSING APPROACH (ORAL PRESENTATION)

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Autonomy in adolescence with diabetes I: A psychosocial nursing approach

## Abstract

**Introduction:** Diabetes type 1 diabetes accounts for over 90% of childhood and adolescent diabetes. According to International Diabetes Federation (IDF) is described as a “chronic, debilitating and costly disease associated with major complications that pose severe risks for families, countries and the entire world”. Diabetes has profound psychosocial impact as any other life-threatening disease. Adolescence in young people with diabetes I is a difficult development stage and its management is challenging. Autonomy is defined as the development of responsible independence, and is especially a central phenomenon to adolescent development.

**The Purpose of the study:** The purpose was to review literature about autonomy in adolescents with diabetes type I.

**Material - Method:** A literature review was conducted using the electronic databases PubMed and Google Scholar. The following key words were entered: “autonomy”, “diabetes I”, “nursing” and a combination thereof. Exclusion criteria of articles were the language, except English.

**Results:** Adolescence is characterized as a period with many physical, psychosocial, cognitive changes. It is a period with intense feelings of increased self-reliance and autonomy. In chronic illness, autonomy may be associated with illness control. Teenagers with diabetes are expected to gradually become independent in their management of diabetes. During growth into autonomy, the transition into adolescence is characterized by a trading relationship between dependence on parents and dependence on peers. There is evidence that parents have an important role in encouraging autonomy. The study concludes that the nurse must work to qualify the young patients and their parents in order to acquire their autonomy and help them adhere to treatment. With this way there will be a transition into autonomy and the adolescents are going to adjust to diabetes and in controlling blood glucose.

**Key words:** diabetes, nursing, autonomy

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# THE EXISTING DEFINITIONS OF QUALITY OF LIFE IN CANCER PATIENTS

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**Introduction:** Cancer is the second leading cause of death worldwide. According to the World Health Organization (WHO), quality of life is defined as “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concern”. Cancer and its treatment affected the quality of life in cancer patients. Recently, there is an increasing interest for quality of life (QOL) and it is popular in nursing research.

**The Purpose of the study:** The purpose of the present study was to review literature existing definitions in quality of life.

**Material - Method:** A literature review was conducted using the electronic databases PubMed and Google scholar. The following key words were entered: “quality of life”, “cancer” and a combination thereof. Exclusion criteria of articles were the language, except English.

**Results-Findings:** The concept of quality and health related quality of life emerged in 1920. There are many definitions for this concept. Between the existing definitions it is worthwhile to mention Calman’s. He is supported that QOL is a gap between reality and hoping dreams and ambitions. Cella suggested “quality of life as the patient’s appraisal of and satisfaction with their current level of functioning compared with that they perceive to be possible or ideal. The greater the gap between the actual and the ideal situation, the lower a person’s quality of life will be.” Other definitions are proposed by World Health Organization, Gotay, Ferrel and Dow and other researchers. In addition to, we must take into consideration that the perception of a person’s quality of life is differed between individuals. Health professionals and especially nurses have to intervene appropriately in order to improve patient’s quality of life.

**Key words:** cancer, quality of life, definitions

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# DENTAL MALPRACTICE: DEALING WITH A RISING PROBLEM IN TURKEY

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## ABSTRACT

Doctors can face punitive and legal consequences if patients are not satisfied with the medical treatment. Malpractice is a fact that might be a matter of any kind of field of profession. However, the seriousness of the results is directly proportional to seriousness of the subject of the occupation. Without a shadow of a doubt, human life is the most precious subject. While some victims file a claim for compensation and demand 100.000 dollars just for one wrong extracted tooth, others blame on the faith. However, dental malpractice is not the result of faith but a situation maybe prevented with some basic precaution. The attempt to improve patient safety has become one of the major focal points of all health care professions, regardless of the fact that, in the field of dentistry, initiatives have come late and been less ambitious. This study provides information examination about dental malpractice, penal sanctioning of doctors who made malpractice, how to take measure for not to come across with dental malpractice in Turkey and some other developed countries.

**Key words:** Malpractice, Dental Dentistry, Doctor's responsibilities, Patient complaint

## DENTAL MALPRACTICE in TURKEY

In article 25, The Universal Declaration of Human Right says that “ *Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.* ”. It gave a high profile to the right to health for everyone. In Turkey, The Constitution of the Republic of Turkey says that “*The physical integrity of the individual shall not be violated except under medical necessity and in cases prescribed by law; and shall not be subjected to scientific or medical experiments without his or her consent.*”<sup>17/2</sup>. There is no doubt that human can make mistake (Myre and McRuer, 2000). Malpractice is a fact that might be a matter of any kind of field of profession. However, the seriousness of the results is directly proportional to seriousness of the subject of the occupation. Human life is the most precious subject. Studies show that 44,000-99,000 people die annually due to medical malpractices that are preventable (Sox and Woloshin, 2000).

In regard to health law, although there is largely progression about the legal responsibility

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of the physicians, also the legal responsibilities of the dentists are crucial in terms of medical attention (Conrad et al., 1995). The most common dental specialty that patients complain about differs from one country to another (Ozdemir, 2005). Dental malpractice is a failure of standard care in which results in patient injury or death due to negligent treatment or failure to diagnose and/or treat (Hapcook, 2006). If it can be proven that a dentist act negligently to cause a patient injury or patient does not receive sufficient medical treatment, the patient can sue the medical staff and the doctor will be held legally responsible. The file a claim for compensation against doctors has increased in recent years in medical industry not only in Turkey but also all over the world. In dentistry, implant treatment, oral surgery, and prosthetic rehabilitation are leading fields for malpractice claims (Brauer et al., 2011).

In our country, malpractice cases are not covered within the framework of a specific legislation. These cases are examined under the general rules of law. The legal responsibility of the dentists who are working in the public sector is subject to public law. The patient who suffer as a consequence of a medical attention, if dentist who is working in public hospital, sues against state (Ozdemir, 2005). However, if dentist who is working in private clinic, the patient can sue the dentists according to the provisions of private law.

## **REASONS FOR DENTAL MALPRACTICE**

In the medical and dental fields, professionals are required to comply with the established standards of care (Ertem et al., 2009). Most important factors:

- a) Lack of experience
- b) Willful damage
- c) Lack of attention
- d) Negligence
- e) Failing comply with regulations

## **CONCLUSION**

Like all other medical staff, dental practitioners are under the obligation to comply with the laws of they practice. They also have to adhere to ethical principles as well as the acceptable standards and protocols of diagnosis and treatment. Recognition of such negligent actions on the part of doctors is crucial to the prevention of medical disputes and to the establishment of patient satisfaction. It seems that having education about patients' rights could guarantee higher level of knowledge about rights. It is important to enhance education on patients' legal rights in professional education and continuing education. It is also important to develop new education methods

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# BABIES ARE FIRST: THEY NEED THEIR OWN PARENT ESPECIALLY FOR FIRST YEARS

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## INTRODuCTION

The extraordinary development of the brain has attracted the attention of scientists for many years. In recent years, the results of the researches in the field of neuro-biology has revealed that the brain shows a fast development and change in the first years of life (Blackman, 2002; Shonkoff and Phillips, 2000). Therefore, it has been observed that the first years in life are emphasized as the critical period in which the development of the brain is shaped more and when the stimuli play important roles; and in some countries early interventions about the brain development have gained speed (Bekman, 2000). The term “early intervention” is frequently used in the literature to refer to “ensuring that the families who have children with developmental disorders or who are at risk between 0-36 months have the access to specific supports and services” (Ozaydin and Gallagher, 2012). It has been determined that the early intervention programs that support the child and the family in the same natural environment have a positive influence on the developmental skills of the children as well as the social relations of the parents and their self-respects (Guralnick, 2008). In this context, it is observed lately that many countries have fastened the benefit-cost analyses and the education and health requirements as it is expected from a social state (Bekman, 2000; Guralnick, 2008).

In our country, although it is known that the most common system is the healthcare system in reaching the children between 0-3 of age who have developmental disorders or or who are at risk, it is observed that an Early Intervention System that covers and follows the healthcare, education and therapy services for these children and their families has not been formed yet. Despite the struggles, it is observed that one economic and one cultural basic factor make it difficult to form such a system. The first one is the limiting effect of the philosophy of the market-based liberal state practices, which has gained speed with the effects of globalism lately on the role and expenses of the state. This limitation requires that the social expenses on the family and risk groups are limited substantially. The second basic factor is the fact that the small children are cared for at home in the family as a cultural value. The fact that the care and support services having been defined as the duty of the mothers within the wide Turkish family structure, which has the characteristics of solidarity and protectiveness, have caused that the care and support services are limited (Ozaydin and Gallagher, 2012).

In the report of Boğaziçi University, Social Policy Forum (2009), it is stated that the caretaking of babies and children under the age of three is the responsibility of the mothers in the scope of our cultural and traditional values. In addition, if the mother has to work, the child is taken care of either by a babysitter or by the elderly in the family. When international reports are examined it is observed that the access of 0-36-month children to early education services is also limited in the world (UNICEF, 2007). This situation leaves the women in our

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country -especially those who are between the ages 25 and 39 who can participate in active labor force- face to face with making choices on whether to continue working or to leave their work in order to take care of the children. It is observed that the problems in the caretaking process of healthy children, especially children with special needs, being responsible for the care of elderly people, low educational levels, traditional expectations from a mother and a woman may prevent women from working in a paid job. In this context, the viewpoint of the fact that women are considered as being responsible for the housework and healthcare services in terms of social gender-based cooperation being the source of social gender inequalities has been emphasized in this study. This situation may give rise to a dilemma between fighting against social inequalities with the participation of women in the labor force and supporting the developments of children by caring for them in their early childhood periods.

When women decide to work -or not to work- outside their homes, they have to consider that there will be drawbacks at home and in the housework, and on the issue of who will care for the children, the handicapped or the elderly at home, and their time to spend on the housework at home outside their working hours (TÜSİAD-KAGİDER, 2008). Although there are no discrimination in terms of the participation of women in the labor force, their responsibilities at home keep them away from their working lives, and those who can participate in the labor force may leave their jobs or move away from promotions at work or from showing their full potentials at their work. Similarly, those women who decide on participating in the business life or getting promoted in their jobs may have to postpone having children or have to decide to have fewer children. It is of vital importance that this dilemma, which is experienced by the women in the labor force between their work and their families, is supported with supportive care services for children or the elderly at home, going back to work being facilitated for the women after giving birth, and they must also be supported with efficient social security services. In this study, detailed interviews have been made with the mothers struggling with health problems and insufficiencies in their children and the viewpoints of a small exemplification group have been reflected. It is considered that the obtained findings will provide rich samples and experiences in understanding the needs of mothers with same conditions and contribute to the literature.

The purpose of this study is determining the viewpoints of the mothers whose 0-3-year old children who have developmental disorders (Down Syndrome) and/or congenital cardiac disorders hospitalized in the Children Cardiology Department of a Foundation University in Ankara about the services to cover the needs of them.

## **THE RESEARCH**

### **The Research Model**

The study was conducted as a Multiple Case Study by adopting Qualitative Study Approach. The qualitative situation study has been preferred because it gives the opportunity of collecting detailed data that are relevant with the study area (Yıldırım and Şimşek, 2013). Semi-structured interviews, which consisted of 6 questions, were made in order to determine the viewpoints of the mothers on which services could cover their needs in dealing with their 0-3-year-old children with developmental disorders (Down Syndrome) and/congenital cardiac disorders.

## Participants

The participants of this study were selected with the Easy Availability Sampling, which is one of the sampling methods preferred mostly by qualitative researchers. The researcher met the mothers of eight 0-3-year-old children during his 5-day stay at the Cardiology Service as the companion of one of his relatives in October 2014. Since the researcher shared similar needs and problems with the mothers, the researcher established close friendship with the mothers and exchanged information. Since two of the mothers did not speak Turkish, the communications did not continue. The other 6 mothers were requested for interviews on the needs and service types that could cover their needs at the hospital, and all the mothers participated willingly in the interviews. When the researcher met the participants in October 2014, it was observed that 3 babies were in hospital for heart surgery, and the other 3 babies were in hospital for routine annual check-ups. The characteristics that define the participants are given in Table 1.

Parti- cips (Mothers)	Age of Mother	Age of Child (Month)	Gender of Child	Education of Mother	Number of Children	Province	Does the Mother work?	Does the Father work?	Diagnosis of the Child
M1	40	33 months	Boy	Illiterate	4	Van	Yes (Agri- culture)	Yes	DS
M2	31	6 months	Girl	Primary School	1	Urfa	Yes (Agri- culture)	Military S.	DS
M3	32	34 months	Boy	Highschool	3	Urfa	Yes (Agri- culture)	Yes	DS
M4	31	27 months	Girl	University	2	Ankara	Yes	Yes	CCD
M5	29	35 months	Girl	University	1	Van	No	Yes	CCD
M6	26	24 months	Boy	Highschool	1	Ankara	No	Yes	CCD

CCD: Congenital Cardiac Disorders DS: Down Syndrome

Table 1. Demographic characteristics of the participants

## Data Collection Technique

The Qualitative Research Approach was adopted in this study, and the data needed by the researcher were collected with an interview form which consisted of 6 questions prepared by the researcher. The interview form consisted of the “*Information Form*” and the “*Interview Questions Form*”. The interviews were made 6 months after the children were discharged from hospital. However, during this period, the mothers were contacted at least once and the health status of their children were asked, and it was learnt that their health status was improving. The first interview was made in the residence of M4 as a focus group interview in Ankara. The 3 mothers who resided outside Ankara were contacted to determine the proper time, and the interviews took 15-20 minutes each. During the focus interviews and in telephone calls, the voices of the mothers were recorded after their consents were obtained.

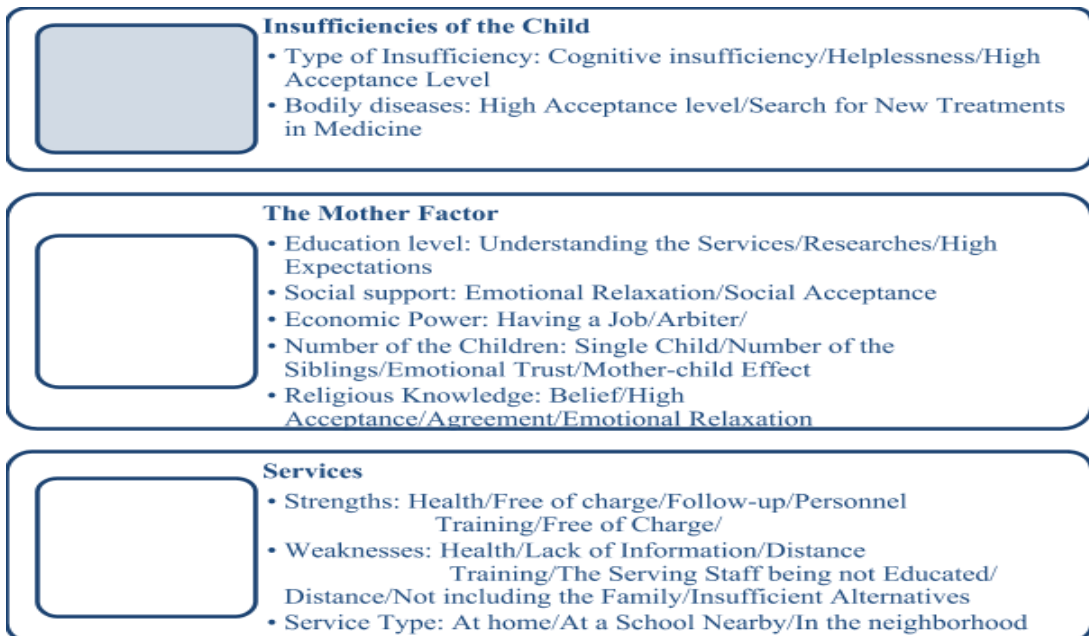
## The Analysis of the Data

The data collected were analyzed with the Content Analysis Technique which included the processes like the listing of the data, encoding the data, finding the themes, organizing the codes and themes (Baxter and Jack, 2008; Yıldırım and Şimşek, 2000). After the focus interviews and telephone calls, the recordings were dictated on blank paper. The written records were recorded in 16 pages. After the written recordings were completed, 6 mothers were contacted via telephone in order to clarify the viewpoints of theirs or to confirm the issues

that the participants were indifferent to. The themes and the sub-themes were formed with the written data obtained in the interviews. The researcher shared the themes and sub-themes with 3 mothers who lived in Ankara and received positive feedbacks. The mothers stated that the themes and sub-themes reflected their subjective situations.

## FINDINGS AND RESULTS

The findings of the study consist of 3 themes and sub-themes that are obtained with the viewpoints of the mothers. The findings of the study are given in Figure 1. When Figure 1 is examined it is observed that the 3 basic themes that shaped the viewpoints of the mothers are related with the inability of the child, the characteristics of the mother and the service provided.



**Figure 1.** The themes and sub-themes.

It is observed that if the insufficiency of the child is an insufficiency that affects the cognitive development, which is the first theme, this does not affect the acceptance of their children's status by their mothers; however, they have difficulties in telling this situation to other people around. It is observed that a similar situation is not stated as a problem in the families with children who have CCD. The mothers of the children with CCD consider the situation that their children do not have cognitive problems as a lucky situation; and it has been observed that they have stated that they understood the problems of the other mothers better. In this context, it is observed that mothers and families with similar problems understand each other better and make use of each other's experiences.

The second theme of the study has been determined as the "Mother" factor. It has been observed that 5 mothers who worked -and some who did not work- in the agricultural sector stated that mothers were responsible for the caring of children. One of the participants, who was a working mother, accepted that it was the responsibility of mothers, while, support services were necessary in working life. Although two of the participants of the study were

highschool graduates, and two of them university graduates, only one mother worked, showing that mothers stayed away from business life. It is understood that 3 mothers who worked in their family businesses in agricultural sector were responsible for both the business life and the life at their homes and their children. It was observed that when the mother, whose six-month old baby had DS, told that they learnt that their baby had to receive open heart surgery in Urfa, her mother-in-law told her that there was no need for the treatment in Ankara and did not approve this. It is understood that her husband, who was in military service, called her father-in-law to take her to Ankara and she was cared for there by her father-in-law. Although the education levels of mothers are low, it is understood that they become strong with the social support from their spouses and from their immediate relatives. In addition, the participants stated that mothers had powerful bonds with their children due to hospital days and treatment processes. Again, it is also observed that all mothers share the idea that their belief system has had a strong influence on accepting the insufficiency or other health problems of their children. This emotion was also shared by a mother who had a six-month-old baby, and also by a mother who had 34-month-old baby, and was described as the “trust in God”.

The third theme of the study has been determined as the “Services” factor. It has been observed that the mothers who participated in the study stated that the services given to their children were, the vaccinations in the Family Health Centers and the routine controls. They also stated that they were sent to other cities or to Ankara for operations which could not be made in their cities or for some controls by the healthcare staff (the doctors) in the centers. All of the participants stated that the healthcare services being free of charge, the staff being well-trained, and the accessibility for any doctor they wanted were the strong sides of the healthcare system. On the other hand, they also stated that mothers who came from outside Ankara and who were from poor backgrounds had difficulties in accommodation, transportation, and accompanying people. It was learnt that mothers with children who had DS were registered in the private training and rehabilitation centers for the educational services of their children, and they received education services from these institutions. Since two mothers with children who had DS (M1 and M3) lived in districts of Urfa and Van, and did not have private education and rehabilitation centers in their areas, had to take their children to the city centers. It was also observed that two mothers took their children to these centers for twice a week for 2-3 months, and did not continue due to insufficient education levels of the staff in these centers and due to the distance of the centers. It is understood that these children with DS had difficulties in walking, which is a major muscle skill deficiency, and they were unsuccessful in producing the speaking sounds. It is understood that the mothers who had insufficiencies or health problems in their children might work as “Teacher Mothers”. This, at the same time, may be the opportunity for a new business field for gaining women in business life.

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# DIRECTION OF HEALTH EXPENDITURES IN TURKISH SOCIAL SECURITY SYSTEM OF 2000S

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## INTRODuCTION

Regular and sustainable structure for a social security system has gained significance in all over the world because of the chronic problems such as unemployment, black economy, aging population, and excessive debt in public finance. Afterwards of 80s, increasing limitation on intervention tools of nations due to globalization caused more important problems in social security systems. Share of the health expenditures in social security expenditures exhibited remarkable increases because of important developments in aging population, advancements in combat against diseases, and globalization in right of health. The relationship between social security and health is now more significant than ever because of the necessities such as protection of sustainability of health expenditures, development of social protection level and development of health standards. This interaction caused in both areas that reorganization effort to gain strength in terms of productivity, prevention of waste of resources, and sustainability.

## TuRKISH HEATH SYSTEM

Turkish health system has incurred a substantial change through reforms issued within the transformation program in health. Before the Health Transformation Program, the health system was established on a complex, managed by multiple authorities, and partial structure consisted of Ministry of Health, Social Security Organization, and universities. This structure in which private health organizations have only limited place acquired totally different construct through the reforms introduced by the reforms of the Transformation in Health Program. SSK health units were transferred to the Ministry of Health so that provision and financing of health system were differentiated from each other; hospitals were given wider authority on using income of circulation capital and on purchasing and investment decisions; and health information systems were developed (Sülkü, 2011: 15).

While Turkey has partial, multiple management and non-standardized health system finance structure up until 2006, a significant development has been experienced after this year by introduction of “transformation in health” and “social security reform” regulations. Therefore, it is necessary to investigate finance of the Turkish health system in two different perspectives as before and after 2006 (Yıldırım & Yıldırım, 2010).

Afterwards of 1980s, globalization tendencies have become more effective on health reforms. Health reforms aimed to finance health service by means of premiums and contributions instead of taxes, to separate service provision and finance, to privatize health organizations, to expand decentralized and competitive application with flexible and performance-based employment

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(Erol & Özdemir, 2014: 11-13). Obtaining chance to health reforms that has been discussed since 1980s and 1990s, and having enormous social security deficits by the end of 1990s necessitated transformation in the health system. Although the green card program initiated in 1992 undertook significant function in providing free health service, it increased financial burden on the system. In this framework, a transformation program in health system, which aims to quality and moderns health services in an equitable and righteous manner, to provide effective financial protection against high health expenditures, and to maintain sustainability of the health system, was introduced. This transformation would ensure;

- a) Strengthening basic health services and applying an efficient and gradual transfer system through family practice system,
- b) Establishing a health system that widespread, easy-to-access, satisfaction-oriented, and enabling efficient-resource allocation,
- c) Reorganization of the Ministry of Health in term of administrative and functional dimensions,
- d) Taking advantage of information technologies to have access into information,
- e) Establishing a general health insurance covering all population.

Although the first application in institutional structuring of social security organization was planned in 2006, combination of retirement regime and general health insurance legs completed in 2008 based on the legislation with 5510 serial number called as “Social Security and General Health Insurance Law”. In this system where production of health service and finance are separated from each other, the main orientation was relying on purchasing of health services. A general health insurance system, which collects premiums from individuals in proportion to their economic situations and gives health services according to their needs, would constitute foundation of the finance system. However, critics on the general health insurance system pronounce that this system is different than the understanding aiming free health service that is a citizenship right. These critics consider the model in which premium payers enjoy certain health services, citizens having difficulty in premium payment (the poor) are directed to social support mechanisms, and requests exceeding capabilities of the system are directed to private health insurances and organizations, as a liberal model (Erdoğan, 2006).

By means of the general health insurance program, social security aids and health service provision were separated from each other. The purpose of the program was to ensure that all citizens can access health services with equal coverage and quality according to risk-sharing principle based on effective control and monitoring systems and it was organized in a structure so as to maintain a financial protection system preventing waste of resources.

## **HEALTH EXPENDITURES IN TURKEY**

It was realized that as increase in health expenditures expands average life expectancy, utilization of costly high-tech equipment, developing health conscious, increasing demand for health expenditures due to increasing household income, increasing demand due to the supply, and problems based on asymmetric information cause increases on costs (Kılavuz, 2010: 174). As result of the policies followed by the Ministry of Health, Turkish health sector has grown four times in recent decade and created significant market. In this growth, the enormous increases in expenditures of the Social Security Institution and transfers made from budget to the health system have been determinant. Private sector health services have

developed progressively and it reached significant portion in the total health expenditures. In parallel to the increase in total number of hospitals, private hospitals gained weight in this system. Additionally, there are substantial increases in medical devices at inpatient treatment institutions (Erol & Özdemir, 2014: 19).

Table 1: Health Expenditures in Turkey and Their Proportion to GDP (1999-2013)

Years	Total health expenditure (million TL)	Proportion of total health expenditure to the GDP (%)
1999	4,985	4.8
2000	8,248	4.9
2001	12,396	5.2
2002	18,774	5.4
2003	24,279	5.3
2004	30,021	5.4
2005	35,359	5.4
2006	44,069	5.8
2007	50,904	6.0
2008	57,740	6.1
2009	57,911	6.1
2010	61,678	5.6
2011	68,607	5.3
2012	74,189	5.2
2013	84,390	5.4

Resource: TÜİK, Health Expenditures Statistics.

While health expenditures in Turkey reached its peak point by 6.1% in 2009, afterwards of this year it has decreased and decreased to 5.4% of the GDP in 2013. The main reason behind this decrease was the global economic crisis experienced in 2008 (Yıldırım, 2013: 58). In composition of health expenditure in Turkey, major changes were observed after the transformation in health system. While share of the public in GPA increased to 4.1% in 2006, share of the household expenditure decreased to 1.1%. This situation suggests that the burden of the health expenditures was relayed from citizens to public; and this was a development conforming to the social state qualification.

## FINANCING OF HEALTH EXPENDITURES

Health expenditure is one of the essential factors of sustainability of the society. Spending made on health within limits of welfare is among the most primer indicators of development. Nevertheless, sustainability of this expenditure level, taking advantage of new technology and advancements, finding effective resolutions for needs of ever-growing social groups, and not to create adverse effects on indicators such as economic development, competition and growth are expected. Finance of the health expenditures in Turkey had been maintained based on a system oriented on social security system for long years. Within the reorganization efforts aiming unity in norms and standards, general health insurance arose as a new finance application.

In health services finance in Turkey, general health insurance is an essential resource. General health insurance has four basic resource mechanisms in finance of the health services (Yıldırım & Yıldırım, 2013):

1. Employer and employee premiums,
2. Taxes (premiums for individuals who cannot pay their premiums, GSS contribution, and protective health services),
3. Direct payments (contributions, informal payments),
4. Private health insurance premiums.

Table 2: Balance of Income and Expenditures of the Social Security Institutions (Thousand TL)

Years	Income	Increase rate (%)	Expenditures	Increase rate (%)	Deficit	Coverage ratio (%)
2003	27,916,539	39.5	41,336,077	47.7	-13,419,538	67.5
2004	34,689,248	24.3	50,621,622	22.5	-15,932,374	68.5
2005	41,249,438	18.9	59,941,373	18.4	-18,691,935	68.8
2006	53,830,886	30.5	71,867,475	19.9	-18,036,589	74.9
2007	56,874,830	5.7	81,915,401	14.0	-25,040,571	69.4
2008	67,257,484	18.3	93,159,462	13.7	-25,901,978	72.2
2009	78,072,788	16.1	106,775,443	14.6	-28,702,655	73.1
2010	95,273,183	22.0	121,997,301	14.3	-26,724,118	78.1
2011	124,479,836	30.7	140,714,602	15.3	-16,234,766	88.5
2012	142,928,505	14.8	160,223,453	13.9	-17,294,948	89.2
2013	163,013,555	14.1	182,688,916	14.0	-19,675,361	89.2
2014	184,328,932	13.1	204,400,437	11.9	-20,071,505	90.2

Resource: TÜİK, Health Expenditures Statistics.

When balance of income and expenditures of the SGK is considered as of years, while it was observed that income of the institution has increased, on the other hand, its deficit has increased regularly due to increase in expenditures. In the meantime, coverage ratio of income to expenditures has gained a trend for continuous increase.

Table 3: Budget Items in the SGK's Balance of Income and Expenditure (Million TL)

Budget Items	2010	2011	2012	2013	2014
<b>1- INCOME</b>	<b>95,273</b>	<b>124,480</b>	<b>142,929</b>	<b>163,014</b>	<b>184,329</b>
Premium Income	66,763	81,789	96,399	116,856	131,057
Restructuring	149	7,772	2,961	1,873	2,942
Public Contribution	15,170	21,176	23,537	27,471	30,512
Additional Payment	3,314	3,817	4,372	4,639	5,565
Billed Payment	5,871	6,147	5,374	5,366	5,895
Other Incomes	4,005	3,780	10,286	6,809	8,358
<b>2- EXPENDITURES</b>	<b>121,997</b>	<b>140,715</b>	<b>160,223</b>	<b>182,689</b>	<b>204,400</b>

Retirement Wages	78,957	91,615	105,294	119,162	134,392
Insurance Payments	692	914	1,124	1,235	2,162
Additional Payment	3,347	3,863	4,432	5,004	5,675
Health Expenditures (including travel allowance)	32,556	36,542	44,151	49,938	54,603
Health Expenditures (excluding travel allowance)	32,509	36,500	44,111	49,889	54,551
Billed Payments	4,258	5,116	2,030	2,372	2,829
Management	618	682	776	826	902
Investment	70	65	121	176	206
Other Expenditures	1,500	1,917	2,295	3,976	3,633
Deficit	<b>-26,724</b>	<b>-16,235</b>	<b>-17,295</b>	<b>-19,675</b>	<b>-20,072</b>
Finance of Deficit	<b>27,069</b>	<b>16,509</b>	<b>17,250</b>	<b>20,348</b>	<b>21,269</b>

Resource: TÜİK, Health Expenditures Statistics.

When balance of income and expense are investigated in terms of budgeted items in detail, it can be seen that the most important income item was premium income, and then this is followed by government contribution. The threat caused by transfers from government Budget to the health finance on stability of the public finance might result in adverse impact on economic structure. While share of the budget transfer in budget of the Social Security Institution was 3.68% in 2008, it reached 5% by 2010. As of 2014, this rate was 4.5%. Concerning expenditures, a similar regular increase is apparent as it was observed with the income item. The most notable ones among the expenditure items were wages of retired citizens and health expenditures.

Health systems across the world are experiencing difficulties due to increasing costs. Against increasing costs, either the consumption is required to be limited, or share reserved for health expenditures within budget should be expanded. In many countries with various development levels, health expenditures' ongoing increase in national GDPs pushed some countries to take several measures and they reorganized their health system in terms of cost-effective approach. Current status of the health sector and financial stress that might be faced in the future requires precautions for more efficient utilization of resources of health systems. It can be stated that globally recognized method in efficient and productive health services providing is giving the service at appropriate stage. Basic health service is the first stage service that includes in protective health services. In provision of this service, family practitioners and family health nurses take position. The necessity of controlling the health expenditures put government administrations into a requirement to establish balance among demand, efficiency and quality through payment reform (Kılavuz, 2010: 186 - 188).

## RESuIT

Social insurance system, which has an important place in Turkish welfare system, experienced serious crisis in 1990s due to populist approaches; and has lost its financial sustainability. This situation created fundamental threats on number of social security applications. 2000s have been a period in which new approaches have been searched for concerning health and social security system. Transformation in health program commenced after 2003 aimed elevation of

health standards and maintaining financial sustainability. This structuring has gained substantial success by combination with 5510 serial numbered legislation called “Social Security and General Health Insurance Law” in 2008.

Unemployment, black market, income declaration method ignoring real tax method and tax remissions, which are considered as significant reasons of social security deficit in Turkey, create substantial pressure on income aspect of the social security system. As these problems are accompanied with others such as aging population and increasing health expenditures, negatively affect financial sustainability. Reorganization programs are structured in a way to fight against these issues and planned to maintain health quality and standards without any concession. It is necessary to take supportive regulations such as developing health conscious, health literacy, expansion of health tourism activities, resolving issues with family practitioner system, gaining conscious medicine treatment, reevaluation of education process of health workers according to the demand of market and human resource planning in health sector along the long term perspective so that this reorganization efforts to reach its goals.

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# THE IMPORTANCE OF ERGONOMICS IN TERMS OF EMPLOYEE HEALTH: A FIELD OF RESEARCH

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## ABSTRACT

**The Problem of the Study:** “İşbilim” meaning of ergonomics-related studies are gaining more importance with each passing day. However, the call center industry in the world, in Turkey, 11.5 million more than 30,000 people running. With each passing day, this number is increased even further if you think about the employees ‘ergonomic design of the business environment is very important in terms of business efficiency. We’re in the same position for a long time employees, the work carried out by the appropriate table, Chair, or in the case of strongly support equipment, back pain, neck or shoulder injury, such as pain in the legs or feet, muscle and skeletal system diseases, circulatory system disorders can also be confronted with serious health problems, In addition, ambient lighting, noise, and some physical risk factors such as thermal comfort of employees on productivity is extremely important. **The Purpose of the Study:** The purpose of this study was to study the suitability of the conditions of ergonomic aspects in mind when in a call center is intended to investigate the problems of employees ‘ergonomic.

**Method:** In the study, call center employees made the implementation of the survey results in the SPSS package program by using statistical analysis methods with interpreted and evaluated.

**Key word:** 1. ergonomics, 2. call center, 3. Work Environment

## INTRODuCTION

Call centers that are developing in accordance with rapid technological improvement and with changing customer satisfaction, became an irreplaceable factor for the companies in today’s competition environment. In a period that contains a rapidly increasing competition, easy accessible customers and hard-maintained faithfulness, the biggest difference that companies may create against selective demands of customers is to listen their complaints and to offer the best solutions. At this point, call centers, which act as a bridge between the customer and the company, have an important role as they’re easily accessible for the customers, as they contribute to company development by ensuring transmission and evaluation customer demands and requests, and as they enhance the relationship between the company and the customer.

First known call center is the one that was established by Ford Company in 1960s in order to make their customers to notify faulty products. Ford and A&T Company have formed hotlines beginning with 800. The company has rendered toll-free services and proved the necessity to other companies, and then other companies accepted the concept of customer services by toll-

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free consumer hotlines. In the course of time, call centers became a sector.

## **I. DEFINITION OF ERGONOMICS**

Ergonomics addresses the research and development studies in numerous areas in the industrial world, with a human factor engineering approach as a specific-targeted “combined scientific field”. Scientists who offered the term “ERGONOMICS” which we can express as “human engineering”, desired to ensure the lifelong productivity of human existence and to protect the productive existence of self-improving and strong human by scientific laws. Like the balance and laws of nature, human existence has its own ability, capacity and work power aspects (Erkan, 1996:19). Main purpose of field of occupation of ergonomics is productivity of human factor and its integration in the system, and humanization of working life.

## **II. CALL CENTER SECTOR**

### **A. Information on the Sector (Call Center)**

Call center is, in the simplest definition, a communication unit which answers the calls from their customers, suppliers, vendors of companies and other third parties, starts transactions arising from the calls when necessary, transfers the calls to relevant departments and makes external calls according to the job requirements (Demirdiler and Üçdoğruk, 1995:605)..

As of 2010, 130.000 call centers, 8,8 million call desks and 11,5 million call center employees render service in call center sector which creates a sector of approximately 340-billion USD in the world (ÇSGB İş Teftiş Kurulu Raporu, 2013.17).

### **B. Regional Distribution of Call Center Sector in the World**

Call center sector is evaluated in 4 regions namely Europe, Middle East and Africa Region abbreviated as EMEA, North America Region, Latin America Region and Asia-Pacific Region in the world. Europe, Middle East and Africa Region (EMEA) of which our country is a part, owns %29,7 of the call center sector and this region has not reached its sectorial saturation level. England owns %23 and Germany owns %13 of the shares in the region.

When we look worldwide, North America Region owns %42 of the shares in the sector in call desk distribution and keeps the leading position. In 2012, call desk number in North America constituted %19,7 of Asia-Pacific Region World call center sector. It's expected that growth of world call center sector in general will be %3,2, and regional growth will be %5,1 by years. Countries having the biggest shares of the region are: India %30, China %23, Japan %21 and Australia-New Zealand %10. Latin America Region constitutes %8,6 of the world call center sector, and its annual growth rate is above the world average like EMEA and Asia-Pacific Regions. Countries with the biggest share in the region are: Brazil %56 and Mexico %24 (ÇSGB İş Teftiş Kurulu Raporu, 2013.17).

### **C. volume and Employment Generation of Call Center Sector in Turkey**

Call center sector in Turkey which has a history of about 8-10 years, draws attention with its rapid development as a result of technological advancement in recent years. In 2000, sectorial growth has been %4 in reference to the previous year. In Call Centers Association reports, it has been determined that this growth was actualized mainly in outsourcer service provider companies, that number of call centers is approximately 1000, however about 300 workplaces



have a seat capacity of 5 and above when considered in respect of call center desk number. Number of the employees that work / will work in the sector is given in the following figure graphically by years.



**Figure 1:** Number of Employees that Work / Will Work in Call Center Sector by Years

As it's understood from the graphic, number of the employees in the sector was 40.000 in 2010 and it has reached to 58.500 in 2012. Current number of employees in the sector is expected to reach 85.000 in 2015 with the current growth rate. Therefore, amount of increase in the number of employees in the sector is above %100 within 5 years. Factors for this rapid growth in the sector are; development in finance, in telecommunication sectors and in technology, professionalization trend in public services and pioneering role of labor intensive sectors in struggle with unemployment in recent years, and regional promotion applied by government for improvement in regions with low development level (ÇSGB İş Teftiş Kurulu Raporu, 2013.17).

## RESEARCH SuBJECT

Research subject is; studying and evaluating the work environment of customer representatives in a call center rendering service in private sector in Gümüşhane province in terms of ergonomics.

## IMPORTANCE OF RESEARCH

Data obtained in consequence of this research, was evaluated and interpreted via SPSS program and shared with senior managers in order to make up the shortages and to increase productivity, and advices were given in regard of necessary changes to be made.

## RESEARCH MODEL

Questionnaire model shall be approached in the research. Frame survey of ergonomics and productivity is conducted below: General information on customer representatives: Gender, Age, Educational Background, Term of Employment. Ergonomics: Discomforts in workplaces, working conditions, improvement of layout.

## POPuLATION AND SAMPLE

Population of this research comprises of 80 administrative, technical and auxiliary personnel and 300 customer representatives working in a call center rendering service in private sector in Gümüşhane province in 2015. Sample of the population of 380 persons comprises of 300 customer representatives who carry on the same business with same working conditions. Questionnaire is conducted to 300 customer representatives with required qualifications, and 290 personnel returned the questionnaire.



## DATA COLLECTION TECHNIQUE

Questionnaire is prepared as single form and includes 35 questions. Questionnaire comprises of 5 sub-factors. These are 1. demographic information, 2. evaluations on lighting in offices, 3. evaluations on air conditioning, 4. evaluations on noise, 5. evaluations on furniture and working area. Data obtained from the research is evaluated by using SPSS (Statistical Package Program for Social Science) program.

## RELIABILITY ANALYSIS

Cronbach's Alpha	N of Items
,744	35

## FINDINGS RECEIVED FROM THE RESEARCH

**Table 1: General Information on Call Center Customer Representatives**

Gender Information of Customer Representatives		
VALUE	NUMBER	PROPORTION
Female	202	69,7
Male	88	30,3
Total	290	100,0
Age Information of Customer Representatives		
VALUE	NUMBER	PROPORTION
24 and under	176	60,7
Between 25-30	100	34,5
Between 31-36	12	4,1
Between 37-42	2	,7
Total	290	100,0
Educational Information of Customer Representatives		
VALUE	NUMBER	PROPORTION
Primary school	5	1,7
High school	61	21,0
Üni.(still continuing)	144	49,7
University	80	27,6
Total	290	100,0
Term of Employment of Customer Representatives		

QUALITY OF LIFE

VALUE	NUMBER	PROPORTION
0-5 years	257	88,6
6-10 years	25	8,6
11-15 years	7	2,4
21 years and above	1	,3
Total	290	100,0

**Which of the health problems below resulting from your job did you encounter?**

DEĞER	SAYI	ORAN
Worn out vocal cords	58	20,0
Vascular disorders (cystitis, high cholesterol, etc.)	7	2,4
Musculoskeletal disorders (lumbar, back, neck pain, etc.)	106	36,6
Worn out throat	45	15,5
Psychological disorders	29	10,0
Blank	45	15,5
Total	290	100,0

**Table 2: Evaluations of Call Center Customer Representatives in regard to Lighting**

Questions about Lighting	YES		NO		NO IDEA		TOTAL	
	NUM-BER	PRO-POR-TION	NUM-BER	PRO-POR-TION	Num-ber	PRO-POR-TION	NUM-BER	PRO-POR-TION
1- Do you feel comfortable with the lighting in your working area?	101	34,8	189	65,2	0	0	290	100,0
2- Do you have a personal light in addition to the general lighting in your work	20	6,9	269	92,8	1	,3	290	100,0
3- Are the windows behind or near the working area?	237	81,7	51	17,6	2	,7	290	100,0
4- Do the windows have adjustable shades?	257	88,6	33	11,4	0	0	290	100,0
5- Is the defective lighting equipment fixed immediately?	176	60,7	100	34,5	14	4,8	290	100,0

**Table 3: Evaluations of Call Center Customer Representatives in regard to Air Conditioning**

Questions about Air Conditioning	YES		NO		NO IDE		TOTAL	
	NUMBER	PROPORTION	NUMBER	PROPORTION	Number	PROPORTION	NUMBER	PROPORTION
1- Is the interior air clean and healthy?	141	48,6	147	50,7	2	,7	290	100,0
2- Is there any air conditioning system in the work environment?	180	62,1	97	33,4	13	4,5	290	100,0
3- Does the air conditioning system work in good order?	119	41,0	107	36,9	64 (blank)	22,1	290	100,0
4- Is there cigarette smoke or carbon dioxide resulting from human breathing in your office?	77	26,6	207	70,3	9	3,1	290	100,0
5- Are the temperature and humidity values in the work environment monitored periodically?	111	38,3	170	58,6	9	3,1	290	100,0

**Table 4: Evaluation of Noise Status in Call Centers**

Questions about Evaluation of Noise	YES		NO		NO IDEA		TOTAL	
	NUMBER	PROPORTION	NUMBER	PROPORTION	Number	PROPORTION	NUMBER	PROPORTION
1- Are the ceilings and walls covered with noise reducing equipment?	142	49,0	126	43,4	22	7,6	290	100,0
2- Is noise level measured and recorded in your workplace?	58	20,0	220	75,9	12	4,1	290	100,0
3- Is the noise level non-disturbing?	137	47,2	143	49,3	10	3,4	290	100,0
4- Is the inter-personal oral communication performed easily in the work environment?	226	77,9	56	19,3	8	2,8	290	100,0
5- Are telephone and bell equipment replaced with other non-disturbing voiced or luminous signs?	113	39,0	152	52,4	25	8,6	290	100,0

**Table 5: Evaluations of Employees in regard to Office Equipment and Working Area**

Mobilya ve Çalışma Alanı ile İlgili Sorular	EVET		HAYIR		FİKRİM YOK		TOPLAM	
	SAYI	ORAN	SAYI	ORAN	Sayı	ORAN	SAYI	ORAN
1- Sandalye/oturma materyali, ayakların zemine düz basacağı, kalça ve dizlerin uygun açıyla büküleceği şekilde tasarlanmış mı?	104	35,9	177	61,0	9	3,1	290	100,0
2-Oturma yeri geriye doğru meyilli mi?	126	43,4	152	52,4	12	4,1	290	100,0
3-Oturma yüksekliği ayarlanabiliyor mu?	216	74,5	65	22,4	9	3,1	290	100,0
4- Oturma yeri yüzeyi, uzun süreli çalış- malarda rahatsız etmeyecek bir kumaş- la kaplanmış mı?	122	42,1	159	54,8	9	3,1	290	100,0
5- Oturma materyalinin ön kenarı diz arkasının kesilmesini veya kan dolaşımını engellemeyecek şekilde yuvarlatılmış mı?	129	44,5	154	53,1	7	2,4	290	100,0
6- Arkalık yüksekliği ayarlanabiliyor mu?	117	40,3	164	56,6	9	3,1	290	100,0
7- Çalışma bilgisayarınızın ekranında ekran koruyucu var mı?	55	19,0	227	78,3	8	2,8	290	100,0
8- Sürekli kulaklık kullanmaktan dolayı kulak bir rahatsızlık hissediyor musunuz?	189	65,2	93	32,1	8	2,8	290	100,0
9- Çalışma alanında, farklı işleri/evrakları birbirinden ayırabilmek için yeterli yüzey var mı?	176	60,7	94	32,4	20	6,9	290	100,0
10- Sürekli başka kimselerin görüş alanında olmak sizi rahatsız ediyor mu?	131	39,0	152	52,4	25	8,6	290	100,0
11- Kendi iş alanınızı dekore etme ve değişiklik yapma olanağı var mı?	157	54,1	125	43,1	8	2,8	290	100,0
12-Çalışma ortamında açık kablolar ve düzensiz yerleştirilmiş elektrik donanımı, çalışanları rahatsız etmeyecek şekilde düzenlenmiş mi?	150	51,7	132	45,5	8	2,8	290	100,0
13- Dosya dolapları eğilimi ve uzanmayı gerektirmeyecek biçimde düzenlenmiş mi?	176	60,7	100	34,5	14	4,8	290	100,0
14- Çalışma masanızın kenarları düz ve yuvarlatılmış mı?	230	79,3	53	18,3	7	2,4	290	100,0
15- İş yerinizde ki masa sandalye ve dolapların yanlış yerleştirilmesinden dolayı, çalışmalarınız olumsuz etkileniyor mu?	106	36,6	177	61,0	7	2,4	290	100,0

## CONCLUSION AND EVALUATION

In our study, ergonomic conditions in the call center where we performed application is examined and it's been considered that necessary efforts are made in general in order to create an ergonomic office design. However, determined deficiencies and arrangements to be done in order to increase productivity are given below.

In order to make the employees focus on their tasks in an office environment, employees should work in an environment properly illuminated. Table 2 shows the evaluations of customer representatives in a call center in regard to lighting. %34,8 of the employees within the scope of research feel comfortable with the lighting in workplace, and %65,2 do not feel comfortable. A significant part of the employees feel uncomfortable with the lighting. In such a case, employees tend to make mistakes. Insufficient personal lighting (%92,8) causes unease to employees in terms of noticing details and focusing attention. Conducting sensitive studies shall make contribution to increase the productivity. In the call center where a questionnaire survey was conducted, %81,7 of the participants stated that windows are behind or near the working area. This causes the employees feel uncomfortable due to the incidence direction of the light. As a result of evaluation and survey, it's been observed that window shadows necessary to prevent reflection from windows are usually available (%88,6).

Table 3 shows the answers to the questions regarding examination of the work environment in terms of air conditioning, cleaning and health. As can be seen in the table, %50,7 of the employees stated that the air is not clean and healthy. Only %41 of the employees who stated that there is an air conditioning system in their work environment with a proportion of %62,1, expressed that the air conditioning system operates in good order, and %36,9 of them expressed that the air conditioning system does not operate in good order. It's been determined by the obtained data that cigarette smoke and carbon dioxide contamination arising from cigarette smoke do not exist extremely (%70,3) within the call center.

Table 4 shows evaluations related to noise in the call center. Buildings should be covered with noise reducing equipment in order to avoid external noise. %49 of the participants stated that ceilings and walls are not covered with noise reducing equipment, %43,4 stated that they are covered and %7,6 of them stated that they have no idea. Considering the opinions of %49 of the participants who stated that ceilings and walls are not covered with noise reducing equipment, making improvement shall affect the productivity positively. As long as the noise level is not measured and monitored, we cannot know whether it's at a harmful level or not. By our questionnaire, it appeared that noise has never been measured (%75,9). However, although the noise level has never been measured, %47,2 of the employees stated that noise level of the call center discomforts them. Noisy environments prevent healthy communication. In order to ensure a proper communication between the employees and other people and also between employees and other employees, noise should be reduced. In the office where the research has been conducted %77,9 of the oral communication can be performed easily and %19,3 of it cannot be performed conveniently.

Table 5 shows the data related to the evaluations of the employees in regard to the office furniture and their environment. %35,9 of the customer representatives who work in the call center stated that the chairs / seat materials are designed in a manner that they're flat on the floor and hips and knees can be bent at proper angle. A major part of %61 stated the opposite.

By these proportions, we understand that some of the chairs / seat materials were not designed in a manner to comfort the worker. More ergonomic work environment may be ensured when these broken or uncomfortable chairs are designated and replaced by the management. Employees spend most of their time at sitting position. They will not feel much tired as long as they feel comfortable. %52,4 of the employees said no to the question “Does the seat place recline?”. This recline prevents the employee to slip frontward. In order to create a more comfortable seating position, this condition should be provided to all employees.

Probably the biggest problem in the call centers is various disorders that may occur in ears due to the usage of headsets by customer representatives. %65,2 of the employees gave an affirmative answer to the question “Do you feel uncomfortable in your ears with continuous usage of headsets?”. %32,1 of them gave a negative answer to this question. Especially in using headsets, headsets should be customized. Allergic reactions may occur when a headset is used by more than one person. Selection of headset is also extremely important.

Basic requirement to ensure a comfortable work environment in an office is order. Our movement area will be comfortable when we place the tables, chairs and cabinets according to the layout principles. Disorder causes confusion and time loss. %36,6 of the participants stated that they face disorder, and %61 stated that they do not.

In conclusion, data obtained from the study are evaluated and interpreted above and advices are given in regard of the arrangements necessary to be done. Execution of these arrangements will provide physically and psychologically healthier and more ergonomic work environment for employees in the office, and this will increase productivity. Therefore, it's suggested that this call center will achieve a higher service success.

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# SOCIAL MARKETING APPROACH IN INCREASING THE ORGAN DONATIONS: AN ATTITUDE STUDY AIMED AT ORGAN DONATIONS

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## ABSTRACT

**Objective:** This study was conducted in an attempt to determine the viewpoints of students receiving education at Selçuk University regarding organ donations, as well as their thoughts about the effect of social marketing upon organ donations.

**Material and Method:** The study was applied to 196 students receiving education in Selçuk University Faculty of Health Sciences. In the study, we used a questionnaire form that was used by Argan M.T. (2007) aimed at organ donations. Statistical analysis program was used in analyzing the study data for the frequency values.

**Findings:** More than half of the participants consisted of women and half of the participants had spent a large part of their lives in the city. There is a very limited number of study participants considering to donate their organs in the near future. As a result of the study, it was determined that the participants did not have detailed information about organ donation and extensive knowledge about the formal process. On the other hand, the participants believe that organ donation is a social responsibility.

**Keywords:** Organ Donation, Social Marketing, Organ Transplantation

## INTRODuCTION

Developments occurring in medicine and technology enable individuals to live more comfortable and longer. One of these opportunities is organ donation. In a narrow sense, organ donation is the act of replacing an organ that functions no more with another organ that would function. However, the greatest problem is that there is no sufficient number of organs to be transplanted. The number of donations have fallen behind the organ transplantations and medical developments. Today, apart from the scarcity of organ donations, there is a number of social problems. The most important method being used in the solution of social problems is social marketing. Social marketing is defined as “the process of analyzing, planning, applying and evaluating the programs in order to affect the existing behavior in the target audience by using the traditional marketing methods to develop the individual and community health” (Bright 2000). Social marketing is a non-profit method that concisely aims to enable individuals to acquire new behaviors and get rid of the undesired behaviors. Social marketing is used in various fields in order to increase the good behaviors. Due to a number of reasons,

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social marketing is among the most compelling marketing duties. Because individuals are required to abandon things that amuse them (give up smoking) and get into new habits (walk to the market). The actual problem and the great difference in this condition is that there is nothing to be given, shown or committed to individuals in the short term in case that they make these changes (Kotler and Lee, 2007).

The conception of social marketing envisages an approach that protects, sustains and develops the individual and community health. This conception is grounded on enabling people to acquire behaviors that would protect, sustain and develop the well-being of individual and community health and make accurate decisions about their own health. Thus, individuals are expected to consider it a duty to develop the consciousness of healthy life and enhance their lifestyle; in a sense protect their health and consequently avoid risky behaviors and adopt behaviors that would protect and develop their health (Yigitbaş and Yetkin, 2003).

Marketing applications aimed at social problems aim to create behavioral changes and the effort being made for the behavioral change has a great importance. In Turkey, the examples of social marketing applications aimed at protecting and developing the health involve organ donation, reproductive health and tobacco control programs (Argan, 2007). Social marketing examples involve instructional campaigns aimed at informing the society about organ donations, as well as action and behavior campaigns aimed at encouraging people for organ donations and finally the value campaigns that are organized to remove the negative values of society regarding donations (Argan, 2007). Social marketing method is also used in increasing the organ donations. It is suggested to reach more people and make positive changes in their thoughts through social marketing studies.

This study dwells upon the thoughts and views of university students regarding organ transplantations in terms of social marketing. The most important aspect of this study is that it removes the wrong ideas about organ donations in Turkey. Besides, the fact that there is a very limited number and extent of applications and researches regarding organ donations with the social marketing approach in Turkey makes this study important.

## **MATERIAL AND METHOD**

This study has been inspired by the fact that university students are young and dynamic individuals who would soon work actively in the field of health. The method of questionnaire application was used in the study. The study was applied to students receiving education in Selçuk University Faculty of Health Sciences and Health Management. 200 students were included in the questionnaire; however, 4 of the questionnaires being applied were not involved in the study. Random sampling method was used in selecting the samples. Due to the limitation of time, the study was only applied to students receiving education at the Faculty of Health Sciences. The number of samples and the field of application comprise the limitation of this study.

In the study, we used a questionnaire that was used by Argan (2007). 20 statements were involved in the first part of the questionnaire form in order to determine the knowledge levels of university students regarding organ donations and transplantations and each statement was required to be answered as “true”, “false” and “no idea”. The second part of the questionnaire form questioned the personal experiences about organ donation as a factor influencing the intention of donating organs. This part involved totally 5 statements and students were required

to answer these statements as “yes” and “no”. The third part of the questionnaire, on the other hand, was aimed at measuring the attitudes toward organ donations. 24 attitude statements being determined were evaluated with 5 point likert scale. The fourth part of the questionnaire aimed to reveal the most important subjects in a possible social marketing campaign that would contribute to the increase of organ donations. It was evaluated with five point likert scale. The fifth part of the questionnaire form tried to find out the information resources of students regarding organ donations. The sixth part was formed in an attempt to reveal the intentions of students, who had not donated their organs, to donate in the near future. Finally, the demographic information of students were involved.

## FINDINGS

**Table 1: Information about the Demographic Data of Participants**

Gender	N	%	Grade	N	%
Male	74	37.8	1.Grade	55	28,1
Female	122	62.2	2.Grade	69	35,2
Idea of donating organs in the future	N	%	3.Grade	56	28,6
Strongly disagree	4	2,0	4.Grade	16	8,2
Disagree	10	5,1	Residence	N	%
Undecided	67	34,2	City	106	54,1
Agree	82	41,8	District	54	27,6
Strongly Agree	33	16,8	Town	11	5,6
Total	196	100	Village	25	12,8

Table 1 shows the demographic data of students that participated in the study. Considering these data, 62% of study participants consist of women, 54.1% consist of students that had spent a large part of their lives in the city and 35.2% consist of second grade students, who comprise the majority. Regarding donating organs in the future, 34.2% of participants displayed an undecided attitude, whereas 41.8% selected “Agree” on the questionnaire form.

**Table 2: Knowledge and Thoughts of Participants about Organ Transplantations**

N=196	True		False		No idea	
	n	%	n	%	n	%
Everyday people die waiting for an organ transplantation, because there is no sufficient number of organs for transplantation	154	78,6	15	7,7	27	13,8
The shape of body gets corrupted after the organ donation	21	10,7	112	57,1	63	32,1
It is legal to sell organs in our country	22	11,2	146	74,5	28	14,3
If wealthy or famous people need an organ, they have the priority to get the organ and the tissue before other people	38	19,4	140	71,4	18	9,2

As a person donating an organ has an organ donation card, she/he is not allowed to give up the idea	23	11,7	79	40,3	94	48,0
Even if I donate my organs, it is required to receive the approval of my family after my death	95	48,5	51	26,0	50	25,5
Islam prohibits organ donations	16	8,2	119	60,7	61	31,1

Table 2 shows that the participants evaluated the knowledge and statements about organ transplantation as “true”, “false” and “no idea”. 78.6% of participants agreed with the statement “People die waiting for an organ transplantation and there is no sufficient number of organs for transplantation”. 48.5% of participants approved the statement “Even if I donate my organs, it is required to receive the approval of my family after my death”. 57.1% of participants disagreed with the statement “The shape of body gets corrupted after the organ donation”. Besides, 74.5% of participants disagreed with the statement “It is legal to sell organs in our country”. 48% of participants gave the answer “no idea” to the statement “As a person donating an organ has an organ donation card, she/he is not allowed to give up the idea”.

**Table 3: Answers Given by the Participants to the Statements about Organ Donation**

N=196	Yes		No	
	n	%	N	%
I know a person who had donated organs in her/his life	43	21,9	153	78,1
I know a person who had donated organs after death	22	11,2	174	88,8
I know a person whose life was saved after an organ donation	49	25,0	147	75,0
One of my close relatives need an organ donation	23	11,7	173	88,3
I have donated my organs	7	3,6	189	96,4

Table 3 involves statements that could be evaluated in association with the social lives of participants. 78.1% of participants gave the answer no to the statement “I know a person who had donated organs in her/his life”. 88.8% of participants also gave the answer no to the statement “I know a person who had donated organs after death”. While 25% of participants knew a person whose life had been saved after an organ donation, 3.6% of them had donated their organs.

**Table 4: Participants' Levels of Agreeing with Statements about Organ Donations**

N=196	STRONGLY AGREE		AGREE		UNDECIDED		DISAGREE		STRONGLY DIS-AGREE	
	n	%	n	%	N	%	N	%	n	%
Organ donation is a social responsibility	69	35,2	79	40,3	35	17,9	7	3,6	6	3,1
I don't care about the lives of other people	7	3,6	15	7,7	8	4,1	44	22,4	122	62,2
If my life was in danger, I would want to be donated organ	80	40,8	65	33,2	43	21,9	4	2,0	4	2,0
A fetwa from the Religious Affairs regarding the allowance of	46	23,5	95	48,5	46	23,5	4	2,0	5	2,6
Organ donation is convenient for my moral values	57	29,1	85	43,4	42	21,4	8	4,1	4	2,0
I support organ donations	89	45,4	79	40,3	23	11,7	4	2,0	1	,5

Table 4 shows the values regarding the attitudes and thoughts of participants about organ donations as numerical and percental values. According to these data, 40.3% of participants believed that organ donation was a social responsibility. 62.2% of participants strongly disagreed with the statement "I don't care about the lives of other people". 43.4% of participants believed that organ donation was convenient for their moral values and beliefs. On the other hand, 45.4% of participants "strongly agreed" with supporting the application of organ donation.

**Table 5: Significance Levels of Statements about Organ Donations**

	VERY SIGNIFICANT		SIGNIFICANT		MODERATE		INSIGNIFICANT		NOT SIGNIFICANT AT ALL	
	n	%	n	%	N	%	n	%	n	%
<b>N=196</b>										
Giving information about where to donate organs	123	62,8	55	28,1	13	6,6	2	1,0	3	1,5
Giving information about how to donate organs	0	0	132	67,3	53	27,0	10	5,1	1	,5
Introducing the people whose lives were saved after an organ donation	94	48,0	67	34,2	25	12,8	6	3,1	4	2,0
Declaring that organ donation is religiously allowable	106	54,1	57	29,1	24	12,2	6	3,1	3	1,5
Guaranteeing that the organs being donated will be fairly given to those in need	135	68,9	41	20,9	17	8,7	3	1,5	0	0
Health education regarding organ donations	125	63,8	51	26,0	13	6,6	3	1,5	4	2,0

Table 5 shows the effort of measuring the consciousness levels of participants regarding the social responsibility of organ donation. According to this table, 62.8% of participants considered the statement “Giving information about where to donate organs” very significant. 48% of participants also considered the statement “Introducing the people whose lives were saved after an organ donation” very significant. Similarly, according to the data, 54.1% of participants considered the statement “Declaring that organ donation is religiously allowable” very significant, as well. Besides, 63.8% of participants also considered the statement “Guaranteeing that the organs being donated will be fairly given to those in need” very significant. In addition to this, 63.8% of participants considered the health education regarding organ donations very significant.

**Table 6: Data about the Resources Having Been used by the Participants regarding the News or Information about Organ Donations within the last 3 Months**

n=196		nnn N	%
Television news	Yes	142	72,4
	No	54	27,6
Television health programs	Yes	107	54,6
	No	88	44,9

<b>Newspaper</b>	Yes	96	49,0
	No	100	51,0
<b>Medical institutions</b>	Yes	88	44,9
	No	108	55,1
<b>Religious institutions (like mosque, mufti office, Religious Affairs)</b>	Yes	37	18,9
	No	159	81,1
<b>Organ transplantation institutions (like organ foundations)</b>	Yes	50	25,5
	No	146	74,5
<b>Internet</b>	Yes	104	53,1
	No	92	46,9
<b>School</b>	Yes	73	37,2
	No	123	62,8
<b>Friends</b>	Yes	37	18,9
	No	159	81,1
<b>Family</b>	Yes	29	14,8
	No	167	85,2
<b>Non-governmental organizations</b>	Yes	41	20,9
	No	155	79,1

Table 6 shows the data about the resources having been used by the participants regarding the news or information about organ donations within the last three months as numerical and percental values. According to these data, 72.4% of participants obtained information about organ donations from television news. 54.6% of them obtained information from television health programs. Additionally, 49% of them obtained information from newspapers, 53% from the internet and 44.9% from medical institutions.

In addition to this, 18.9% of participants obtained information about organ donations from religious institutions, 25.5% from organ transplantation institutions and 20.9% from non-governmental organizations. It is observed that the factors of school, friends and family had a minimum effect upon participants to obtain information about the issue.

## CONCLUSION AND EVALUATION

As a result of the study, it was observed that there was no sufficient level of social awareness regarding organ donations. Even though there is a great number of people waiting for the suitable organ and primarily the donation, the donations remain incapable. There is an attitude and a belief that it is very important to donate an organ in order to sustain health and more importantly the life. However, the transformation of these attitudes into behaviors is a key point.

While approaching the organ donations in terms of social marketing, we grounded the functions of product, price, promotion and distribution, which are the basic functions of marketing, in terms of organ donation. Product is a behavior of donating organs in terms of social marketing

in organ donation. In organ donation, the social marketing approach is primarily aimed at changing behaviors and this method requires a serious effort and process. Price, on the other hand, involves the social, psychological and physical difficulties being encountered in the process of organ donation. In organ donation, the functions of promotion and distribution are also as important as product and price. Mass communication plays a great role in terms of promotion and distribution. Mass communication is used as the greatest means in directing the communities in the modern and indeed the postmodern era. Affecting the entire life, the mass media is thought to be efficiently used in transforming the organ donation into a behavior via the social marketing method. It is observed that primarily the government, organ donation institutions and non-governmental organization, which are thought to have an important responsibility in this matter, are not active enough and they do not effectively use the mass media for that purpose.

On the other hand, apart from mass communication channels, personal communication channels are also important. It certainly is not possible for people not to interact with each other in the social domain. From this point of view, if individuals who serve/will serve in the social domain have an accurate consciousness and a behavioral pattern regarding the organ donation, this will be effective upon directing the society.

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# SOCIAL MEDIA PERCEPTION OF UNDERGRADUATES

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## ABSTRACT

**Problem of the Study:** Globalization having effect on the world's being a single market is a consequence of the current technological progress. The recently experienced rapid progress and change in the information and communication technologies make the internet a very usual part of daily life whereby a new, interactive and multi-option world welcomes the users. Social media platforms becoming popular very quickly and simultaneously when the usage areas of the internet have spread gather more and more users every day and the platforms are mentioned most often with their new applications. The internet taking part in almost all areas ranging from education, health, defence industry to scientific studies and entertainment (Kenanoğlu ve Kahyaoğlu, 2011) reshapes both social, economic, cultural life and the interaction between the individuals (Özmen, Akuzum, Sunkur ve Baysal, 2011). The people get the information without any time and space limitation thanks to internet based social networks and accessing to the information takes a free, effective and limitless dimension without relying on the person. The fact that social media has many users and becomes a highly popular communication channel is associated with the question: Why do the individuals want to appear in social media?

**Objective of the Study:** The objective of our study is to introduce the social media affecting our lives and the large masses lately, adding new dimension to the internet and to specify the social media perception of the undergraduates and to reveal some values regarding for which specific purposes the undergraduates use the internet.

**Method:** The study has been exercised on the undergraduates of Selçuk University, Faculty of Health Sciences. 232 undergraduates participated in the survey have been evaluated via questionnaire. They have been selected simple (random) sampling method. Social Media Perception Scale has been used in the survey and the information has been analysed via Spss.

**Findings and Results :** The undergraduates have stated that they use the social media mostly for spending time during the day with the ratio of 58.2%, they use it due to funny contents with the ratio of 53.9%, due to providing the opportunity of contacting with the old friends with the ratio of 51.3%, for sharing class notes with the ratio of 48.3%, for getting information regarding the surrounding environment and the community with the ratio of 48.3%, as they just like these kind of sites with the ratio of 47.0%, with the aim of discussing / sharing the current issues on the agenda with the friends with the ratio of 46.1%. Whereas the undergraduates whose families live in the towns with the ratio of 33.3% use the social media in order to be easily recognized among the people, the undergraduates whose families live in the cities with the ratio of 17.0% have stated that they use the social media less for this purpose. The undergraduates taking the university exam for the 3<sup>rd</sup> times with the ratio of 48,0% and for the 4<sup>th</sup> and more times with the ratio of 44.4% use the social media as a spare time activity

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**Key Words:** Media, Algi, Üniversite Öğrencileri

## INTRODUCTION

Rapid improvements in the communication technologies foster the people to search and question the information and to follow the latest developments. Intensive information flow at the current age improves and changes the people's fields of interest and gets the expectations up. "Social media arising through the internet and its development take place as a daily routine of today's people and become a body of tools used by more and more people with each passing day. Social media is a new virtual media where the users express themselves and contact with the other users." (İşlek, 2012:2) Subscription to the social media sites shows a steep increase especially among the young and young adults during the recent years. (Li, 2007).

Social media is a platform which combines social movements and accelerates the actuality; it presents an environment where the individuals can publish their own outputs, acts and news. (Babacan ve arkadaşları, 2011:73) Should the social media is evaluated more comprehensively, it can be defined as the web sites which are installed on Web 2.0 technologies and enable to achieve cooperative project and to constitute more intense social interaction and groups (Brubs ve Bahnisch, 2009: 7).

"Thanks to the improvement of information networks nowadays, the individuals are not passive any more, they are learning by experience, interacting with the other individuals, accessing to the information without time and space limitation and their study process is lifelong." (Uysal 2013:2) "It changes the audience as active, participative, both producing and consuming individuals instead of just taking and consuming the content given to them." (Koçak, 2012:8) "Thanks to this, education is free, effective and more individualistic without relying on the person, time and space. Whereas the information itself and its holder were both important in previous ages, today the people who knows to access to the right information and can rapidly get the result among limitless sources are essential." (Uysal, 2013:2) "Thanks to social media tools such as Facebook, Twitter, Youtube, Flickr, the people can have the opportunity of constant communication with each other. Today, these sites are getting used increasingly. One of the most basic reason of this can be the fact that there wasn't any place before where the people could express their ideas and feeling as free as in the today's social media tools." (Uysal, 2013:2) Social media enables the users to express themselves in virtual platforms actively. The people meet their needs thanks to the mutual communication opportunity. The popular communication tool especially used by the young serves to many fields ranging from telecommunication and entertainment to accessing information to education as it has wide range of service fields, it is widely used. (Ök, 2013:2)

All these progresses reveal that social media is worthy of study. In this study, it is analysed for which purposes the social media is mostly used and how the social media, which is mostly preferred especially by the young, is perceived by undergraduates.

## MATERIAL AND METHOD

The study has been exercised on the undergraduates of Selçuk University, Faculty of Health Sciences. 232 undergraduates participated in the survey have been evaluated via questionnaire. They have been selected simple (random) sampling method. Social Media Perception Scale has been used in the survey and the information has been analysed via Spss.

## RESEARCH

Findings of the survey participants are given in the table below.

**Table 1. Demographic data of the participants to the survey**

Class	N	%	The number of siblings	N	%
1. Class	70	30,2	1	6	2,6
2. Class	70	30,2	2	56	24,1
3. Class	92	39,7	3	74	31,9
Gender			4 and higher	96	41,4
Male	97	41,8	High school graduation		
Woman	135	58,2	Public high school	120	51,7
Place where your family live	N	%	Anatolian high schools	87	37,5
Village	51	22,0	Vocational school	16	6,9
Ratio	15	6,5	Other	9	3,9
District	66	28,4	Total	232	100
Province	100	43,1			
Total	232	100			

Table 1 college students surveyed by the families of most living in provinces with 43.1%, 28.4% is observed that district. Students were found to be the third year of high school graduation and 39.7% by public high schools with the most 51.7%. 41.8% of respondents male, 58.2% of women and 4% above the number of 41,4'n brother, was found to be 31.9% 3.

**Table 2. Demographic data of the participants to the survey**

Count of university entrance	N	%	Monthly income for your family	N	%
1	88	37,9	1-800	43	18,5
2	110	47,4	800-1500	82	35,3
3	25	10,8	1500-2000	54	23,3
4 and higher	9	3,9	2000-3000	37	15,9
Did you do an internship	N	%	3000-and higher	16	6,9
Yes	40	17,2	Internship non-working	N	%
No	192	82,8	Yes	101	43,5
			No	131	56,5
Total	232	100	Total	232	100

According the table 2 : 43,5% of the participants have stated that they are working out of internship and 56,5% are not working out of internship. Monthly income of the undergraduates' families is between 800 TL and 1500 TL with the highest ratio of 35,3% and they has 3000 TL and above monthly income with the lowest ratio 6,9 %. It has been detected that 82,8% of the participants didn't do internship but 17.2% of them did.

**Table 3. Social Media Perception of Participants Situations**

	<i>Absolutely Agree</i>		<i>Agree</i>		<i>Undecided</i>		<i>Don't Agree</i>		<i>Absolutely Don't Agree</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
It offers fun content.	61	26,3	125	53,9	32	13,8	10	4,3	4	1,7
It makes me get back to my old friends.	87	37,5	119	51,3	10	4,3	12	5,2	4	1,7
It allows me to obtain information about I live in the environment, reflecting the community.	77	33,2	112	48,3	23	9,9	15	6,5	5	2,2
Curiosity is resolved.	79	34,1	101	43,5	26	11,2	20	8,6	6	2,6
It allows me to express myself.	37	15,9	71	30,6	75	32,3	37	15,9	12	5,2
I like to use such sites.	41	17,7	109	47,0	49	21,1	25	10,8	8	3,4
It makes my assessment of my free time.	39	16,8	96	41,4	47	20,3	36	15,5	14	6,0
It allows easier to be a difference between people / recognition	23	9,9	51	22,0	72	31,0	62	26,7	24	10,3
It allows us to be together with family members and friends	29	12,5	61	26,3	50	21,6	60	25,9	32	13,8
It allows me to share my lesson information.	38	16,4	112	48,3	41	17,7	30	12,9	11	4,7
It helps pass the time, during the day,	37	15,9	135	58,2	31	13,4	23	9,9	6	2,6
I like going to share your own videos and photos of my people.	25	10,8	71	30,6	63	27,2	49	21,1	24	10,3
It allows me to meet new people.	31	13,4	87	37,5	46	19,8	49	21,1	19	8,2
It forget me trouble.	23	9,9	71	30,6	52	22,4	57	24,6	29	12,5
Developments in the agenda to share with my friends / is helping to debate.	52	22,4	107	46,1	39	16,8	26	11,2	8	3,4
I like to look at pictures of my friends and see their changes.	43	18,5	104	44,8	50	21,6	26	11,2	9	3,9
It passes the good time.	38	16,4	96	41,4	66	28,4	24	10,3	8	3,4
The feeling of belonging to a group that makes me fall for.	16	6,9	41	17,7	78	33,6	67	28,9	30	12,9
It allows me to get rid of people who bother me.	26	11,2	55	23,7	62	26,7	63	27,2	26	11,2
It helps me to play a game.	34	14,7	80	34,5	34	14,7	46	19,8	38	16,4

According the table 3 : The undergraduates have stated that they use the social media mostly for spending time during the day with the ratio of 58.2%, they use it due to funny contents with the ratio of 53.9%, due to providing the opportunity of contacting with the old friends with the ratio of 51.3%, for sharing class notes with the ratio of 48.3%, for getting information regarding the surrounding environment and the community with the ratio of 48.3%, as they

just like these kind of sites with the ratio of 47.0%, with the aim of discussing / sharing the current issues on the agenda with the friends with the ratio of 46.1%.

**Table 4. High school graduation \* Share my lesson information.**

	Absolutely Agree		Agree		Undecided		Don't Agree		Absolutely Don't Agree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Genel Lise	21	17,5	53	44,2	29	24,2	12	10,0	5	4,2	120	100
Anadolu Lisesi	14	16,1	44	50,6	11	12,6	14	16,1	4	4,6	87	100
Meslek Lisesi	3	18,8	9	56,2	0	0	3	18,8	1	6,2	16	100
Diğer	0	0	6	66,7	1	11,1	1	11,1	1	11,1	9	100
Toplam	38	16,4	112	48,3	41	17,7	30	12,9	11	4,7	232	100

66.7% of respondents Other high school graduation, 56.2% of vocational high schools, Anatolian High School students with 50.6% using social media to share course information.

**Table 5: The place where your family live \* Meet new people.**

	Absolutely Agree		Agree		Undecided		Don't Agree		Absolutely Don't Agree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Köy	5	9,8	21	41,2	10	19,6	12	23,5	3	5,9	51	100
Belde	3	20,0	6	40,0	5	33,3	1	6,7	0	0	15	100
İlçe	8	12,1	28	42,4	14	21,2	12	18,2	4	6,1	66	100
İl	15	15,0	32	32,0	17	17,0	24	24,0	12	12,0	100	100
Toplam	31	13,4	87	37,5	46	19,8	49	21,1	19	8,2	232	100

Table 5 in place ratio with 41.2% and 40.0% in villages inhabited by families and students in the district where 42.4% are using social media to meet more new people.

**Table 6: The place where your family live \* It allows easier to be a difference between people / recognition**

	<i>Absolutely Agree</i>		<i>Agree</i>		<i>Undecided</i>		<i>Don't Agree</i>		<i>Absolutely Don't Agree</i>		<i>Total</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Köy	5	9,8	11	21,6	18	35,3	13	25,5	4	7,8	51	100
Belde	2	13,3	5	33,3	4	26,7	3	20,0	1	6,7	15	100
İlçe	7	10,6	18	27,3	21	31,8	14	21,2	6	9,1	66	100
İl	9	9,0	17	17,0	29	29,0	32	32,0	13	13,0	100	100
Toplam	23	9,9	51	22,0	72	31,0	62	26,7	24	10,3	232	100

Whereas the undergraduates whose families live in the towns with the ratio of 33.3% use the social media in order to be easily recognized among the people, the undergraduates whose families live in the cities with the ratio of 17.0% have stated that they use the social media less for this purpose

**Table 7: The undergraduates taking the university exam count of input? \* Makes my assessment of my free time**

	<i>Absolutely Agree</i>		<i>Agree</i>		<i>Undecided</i>		<i>Don't Agree</i>		<i>Absolutely Don't Agree</i>		<i>Total</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
	12	13,6	39	44,3	19	21,6	13	14,8	5	5,7	88	100
	23	20,9	41	37,3	21	19,1	20	18,2	5	4,5	110	100
	3	12,0	12	48,0	5	20	3	12,0	2	8,0	25	100
4 ve üstü	1	11,1	4	44,4	2	22,2	0	0	2	22,2	9	100
Toplam	39	16,8	96	41,4	47	20,3	36	15,5	14	6,0	232	100

The undergraduates taking the university exam for the 3<sup>rd</sup> times with the ratio of 48,0% and for the 4<sup>th</sup> and more times with the ratio of 44.4% use the social media as a spare time activity.

## DISCUSSION

It has been researched for which purposes the undergraduates use the social media, to what extent they use it in daily life and communication, what their social media perceptions are and the differentiation level of their social media perception as per the socio-demographic variables and undergraduates' point of view for social media. The findings obtained from the research are as in the following:

43,5% of the participants have stated that they are working out of internship and 56,5% are not working out of internship. Monthly income of the undergraduates' families is between 800 TL and 1500 TL with the highest ratio of 35,3% and they have 3000 TL and above monthly income with the lowest ratio 6,9 %. It has been detected that 82,8% of the participants didn't do internship but 17.2% of them did. The undergraduates have stated that they use the social media mostly for spending time during the day with the ratio of 58.2%, they use it due to funny contents with the ratio of 53.9%, due to providing the opportunity of contacting with the old friends with the ratio of 51.3%, for sharing class notes with the ratio of 48.3%, for getting information regarding the surrounding environment and the community with the ratio of 48.3%, as they just like these kind of sites with the ratio of 47.0%, with the aim of discussing / sharing the current issues on the agenda with the friends with the ratio of 46.1%. In the study, Özel (2012), where habit of internet use of the undergraduates was researched, using internet for education has ranked 1<sup>st</sup> with 27%, using internet for fun has ranked 4<sup>th</sup> with 16%. This result is almost parallel to our study.

Whereas the undergraduates whose families live in the towns with the ratio of 33.3% use the social media in order to be easily recognized among the people, the undergraduates whose families live in the cities with the ratio of 17.0% have stated that they use the social media less for this purpose. The undergraduates taking the university exam for the 3<sup>rd</sup> times with the ratio of 48,0% and for the 4<sup>th</sup> and more times with the ratio of 44.4% use the social media as a spare time activity.

Generally, the undergraduates use the social media mostly to spend time during the day, for funny content and to contact with the old friends. The undergraduates whose families live in the towns have stated that they mostly use the social media in order to be easily recognised among the people.

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# AGING AND AGING POLICIES IN TURKEY

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## ABSTRACT

An elderly not only mean physical, but also psychological and social. So in the hands of the elderly is regarded as a process of the gradual loss of those health, role, status, prestige and etc (Özen Cingir, 2012:119). In this case, it is a fact e how much important elderly is being supported by both the government and the family of the elderly. In Turkey, increased levels of education, developing technology obtained through the reduction of healthy aging and the birth rate policies have accelerated the aging of the population (Kahrman, 2014:27). Elderly is thought to lead to some problems along Turkey's changing demographics. Policies for the elderly in order to reduce the effect of reflection would bring the increase in the elderly population should be developed and implemented. In this study, it was aimed to examine aging and aging policies in Turkey with the views of literature.

Keywords: Aging, aging economy, aging and health.

## INTRODuCTION

In the process of social change and development, elderly population is increasing in Turkey as in other countries.

**Table 1 : The total population rate of elderly population in Turkey, 1935-2075**

Yıl Year	Toplam Total	Yaş grubu - Age group					(%)
		65-69	70-74	75-79	80-84	85+	
1935	3,9	1,3	1,3	0,5	0,5	0,3	
1945	3,3	1,2	1,1	0,4	0,4	0,2	
1950	3,3	1,3	1,1	0,4	0,3	0,2	
1955	3,4	1,2	1,1	0,4	0,4	0,3	
1960	3,5	1,4	1,1	0,5	0,4	0,2	
1965	4,0	1,7	1,2	0,5	0,4	0,2	
1970	4,4	1,8	1,4	0,5	0,4	0,3	
1975	4,6	1,7	1,5	0,6	0,5	0,3	
1980	4,7	1,9	1,3	0,8	0,4	0,2	
1985	4,2	1,3	1,3	0,8	0,5	0,3	
1990	4,3	1,8	1,0	0,8	0,5	0,3	
2000	5,7	2,4	1,7	0,9	0,4	0,3	
2008	6,8	2,4	1,8	1,6	0,8	0,3	
2009	7,0	2,4	1,8	1,6	0,8	0,4	
2010	7,2	2,5	1,9	1,5	0,9	0,4	
2011	7,3	2,5	1,9	1,5	0,9	0,5	
2012	7,5	2,5	2,0	1,5	1,0	0,5	
2013	7,7	2,7	2,0	1,4	1,1	0,6	
2023	19,2	3,8	2,8	1,8	1,1	0,8	
2050	29,8	6,1	5,4	4,2	2,6	2,6	
2075	27,7	6,4	6,0	5,7	4,4	5,2	

Resource : <http://www.tuik.gov.tr>

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According to TÜİK data, while the proportion of people aged 65 and over in Turkey was 5.7% in 2000, this ratio was raised 8% in 2014. The proportion of the elderly population in the total population is estimated to be 10.2% in 2023, this proportion is expected to rise to 20.8% in 2050 (www.tuik.gov.tr). As it can be seen from the statistical data, the elderly population which has quite a serious growth rate should not be neglected in our country. Because of the increasing elderly population, taking into account the material and spiritual dimensions of aging, it is required the state's elderly policies in the scope of welfare state.

## **2. CONCEPTUAL FRAMEWORK**

### **2.1. Overview of Old Age**

A lot of concepts related to aging are used in everyday life. Concepts of age, aging and old age are defined differently although it can seem the same meaning. Of the terms defined in different ways, it will lead to the determination of policies toward putting out problems of the elderly. Firstly, we will explain the concepts of age, elderly and aging to try to explain with an overview.

#### **2.1.1. Age**

In the daily life many age-related concepts are used. Age, aging and aging concepts come as the same concepts, where it different in the meaning. The different of this concept expresses the aging elders' problems, and that will lead to determine the intended policies. We will try to explain such first age, aging and concepts as general view.

The concept of age indicates a specific date for the date of birth. But when looking at the literature, defining the concept of different ages is available. The concept of the age of scientific studies reveals that four different size. These dimensions are; social, psychological and chronological age (Eryilmaz, 2011:58).

*Chronological Age:* The determination of the chronological age of the individual birth records from the population can be calculated on the basis of the number of years lived (Yıldız, 2006:28). Covering all periods of human life from birth up to the current point of the process is expressed as the chronological age.

*Biological age:* The function of the body as a result of the decline in the individual's dementia is defined as to be seen. Differences may occur between a person's biological age and chronological age.

*Psychological Age:* the individual within the psycho-social status, mental health, interpersonal communication skills demonstrates (Cited: Gökulu et al., 2013:667).

*The Social Age:* As can be seen from the definition, the concept of social age, status and role with losses, their relationships with family and friends in the social structure of the elderly individuals in the study area are withdrawing from life (Önal, 2011:17; Baran, 2003: 121-123).

#### **2.1.2. Elderly**

The World Health Organization (WHO, 1998) has examined the aging chronologically and it has explained that beginning of the aging was 65 years and older in its report (Ministry of Family and Social Policy, 2011: 4).

However, 65 years and over within the period not homogeneous it is heterogeneous. This

definition, periods, may vary according to the cultural and social environment. Therefore, the functions of the body and the changes that occur in the course of old age, according to seniors:

- The young old (65-74 years)
- Elderly (75-84yas)
- Highly the elderly (85+years) (Kutsal, 2007:3). Disability, medical dependency refers to a period in terms of that .those with advanced age; it is believed that it will be more addictive.

### **2.1.3. Aging**

Aging is a universal process that has seen in every living; is also a change in which causes a reduction in all the functions of the elderly. In other words, aging is a chronological, social and biological process that cannot be avoided (Hablemitoğlu and Özmete, 2010: 16). Aging is not only a biological process but also it refers to the social and cultural situation.

### **2.2. The Problems of Elderly in Turkey**

If elderly population is thought be involved in the dependent population, it is estimated that will be load on SGK. The increasing of health expenditures and retirement pensions will negative impacts on social security system. In addition, in the community the elderly care has become a huge problem therefore issues such as industrialization, women's entry into working life, changes in cultural structures and traditional society. Because of all these, elderly care centers are needed more day by day.

### **2.3. General Policies for Old Age in Turkey**

Turkey at year of 1926 the omitted numbered civil law 743 such directed to elders, it is the oldest known law. This law includes the insurance clause which involves protecting the elder, children and disabled. In 1930 the omitted numbered 1380 "municipalities law" incorporate the related clauses for protection the deprived elders (Kahrman,2014:118).Public organization which is municipalities started to give service to the deprived elders such as improved change under the name of nursing home as infirm person homes, powerless hostel, and hospice hostel. However they started to find activities and real people their aims helping elders (DPT, 2007:11).

In Turkey elder services the first time started to be included in community services with social services general directorate and related to welfare and social ministry in 1963 (Bahar et al., 2009:89).

In 1966 the first nursing house which is related to health and social welfare ministry come into operation in Konya(Ateş,2013:260).According to article 61 of the constitution 1981, "elderly are protected by the State". The government helping providing and other rights and facilitates are regulated by law. Protection of rights of the elderly being provided by the government; however for human dignity it must be given the necessary social right to be able to continue life (Dural and Con,2011:485).

In Turkey in 1963 the efforts started for planning to develop the directed policies for elders, some of them under the social insurance and other under the social services. Almost all the plans are involved (DPT,2007:14).

By the State Planning Organization (DPT) in Turkey in 2007, "Status of Elderly People in

Turkey and National Action Plan for Aging” preparation is made (Çamur and Acar, 2012: 35). A workshop was organized for this action plan in 2008. The main issue has been clarified as a result of activities. These are (Kutsal, 2012: 13-14);

- Aging and development,
- Improving the health and well-being in old age,
- Providing facilities and supportive environments for the elderly.

SPO’s titles in the “National Aging Action Plan” are a very limited. These limited applications were regarded as insufficient for the elderly and it is not meet the expectations of the elderly (Dural and Con, 2013: 493).

### **Results and Suggestions**

It is seen that the elderly population in Turkey has increased rapidly. Social services, social aid and on social care the needs of the elderly population should take attention that our country not so well prepared. In order to eliminate the uneasiness will bring this situation, a number of radical changes are considered to be well within the scope of social policies. It should be noted that elderly individuals have an important place within the scope of social policies. The basis of social policy for the elderly, it creates the social state principle. Under this policy, applications of social policies for the elderly should be carried out. Here, it draws attention to old-age insurance. Given all care and health expenses in old age is brings to mind the idea also met with private insurance systems in an integrated manner. Also with age congresses and through the education in this area will be able to contribute to shaping the subject of raising applications.

In ensuring the active participation of the elderly people to living, social care, social assistance, social services applications are outstanding. However, these applications are not sufficient in our country. It should develop some policies and regulations for the active participation of the elderly to live through coordination between the institutions for the social assistance and social security.

Arrangements to ensure the participation of elderly people to living in a productive manner will contribute to the reduction of negative impacts of the financial point of old age economy. By giving incentives such as child benefit, increasing the birth rate should be provided, so that it should be emphasis on the policies to support the population growth.

Aging culture can be created through advertising campaigns that will aim to attention of the public about elderly services and rights. With developing projects related to elderly care, this system should be to reach a better spot. In the same time, effects of elderly care process on aging economy should not be ignored.

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# HIP REPLACEMENT IN AUSTRIA - MODELLING THE ECONOMIC BURDEN DUE TO OBESITY

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## Hip replacement in Austria - Modelling the economic burden due to obesity

### ABSTRACT

**Introduction:** Since low birth rates meet growing life expectancy the population in Austria is tending to overage, thereby causing increasing economic burden for the public healthcare system. For the planning of healthcare resources and decision making in health policy, comprehensive tools to evaluate the future demand for health services and expenditure in the healthcare sector are needed. A simulation model taking into account the demographic development to evaluate the future need for hip replacement was already published, but lacks of accounting for the increasing prevalence of obesity.

**Research goal:** Based on literature review it can be seen that there is a link between obesity and the need for hip arthroplasty. The aim of the presented model is to evaluate the additional burden for the healthcare system in the domain of hip replacement, which is caused by obesity.

**Methods:** Based on data from literature and Austria's national statistics service a system dynamics model was created, taking into account the influence of obesity on the frequency of indications for hip arthroplasty, the need for revision of implants and the length of stay in hospital.

**Findings and results:** The results indicate a 77% increase in the total costs until 2050 solely due to the demographic change. This growth might be doubled by the boosted need for hip replacement through obesity. Therefore comprehensive countermeasures and preventive actions to reduce obesity are needed. Through simulation of different scenarios of the BMI distribution within Austria's population the presented model offers a comprehensive view on the influence of obesity on the healthcare expenditure in the domain of hip implants. Thus it provides a basis for future decisions in health policy making.

**Key Words:** Hip prosthesis, Body-Mass-Index, population development, cost estimation

### 1. INTRODuCTION

Austria's population is currently subject to a demographic change, caused by the so-called 'double aging effect'. Low fertility rates meet growing life expectancy. Thus there is an inherent trend towards an overaged society, resulting in approximately 25% of the population being of age 60 years and above by 20 years from now (Statistics Austria, 2013). As a direct result the expenditures and the need for appropriate healthcare resources caused by age related diseases and injuries are an upcoming challenge for the Austrian healthcare system. Hence proper planning of the healthcare development is necessary to manage this situation.

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Simulation models linking the demographic development to the expected healthcare expenditures have proven to be an indispensable support for health policy makers. As the major indications for hip replacement, namely arthrosis and fracture of the femur neck, are clearly age related a comprehensive model was built to link the current demographic trends to the need for hip arthroplasty (Siegl et al., 2014). Since there are several studies concluding that there is a link between obesity and increased risk for hip replacement (Haverkamp et al., 2011; Karlson et al., 2003; Wendelboe et al., 2003) the presented work aims to extend the previously published baseline model (Siegl et al., 2014) to investigate the influence of obesity on the future need and expenses for hip replacement.

## 2. METHODS

### 2.1 The baseline Model

The baseline model aims to estimate the future expenditure for artificial hip replacement, which is dependent of two main factors. Those are firstly, the total number of surgeries and secondly the awarded financial compensation per treatment. The model's working principle is illustrated in Figure 1. Its input parameters are the population size by age as well as the implantation and revision rates by age. It is primarily based on multiplying the implantation rate by the number of people at risk, thus determining the total number of primary implantations. In similar manner the number of revision surgeries is determined, by a multiplication of the patients that already received hip replacement with the revision rate. The latter is influenced by the tribological pairing and the fixation method used during implantation. The model includes cemented as well as cementless fixation and different materials for the tribological pairing. Theoretically an infinite number of revision surgeries is observed (cf. Figure 1), but the model does not further distinguish between patients that received three or more revisions, as data from the Australian joint replacement register (Australian Orthopaedic Association, 2012) shows that this fraction is negligible.

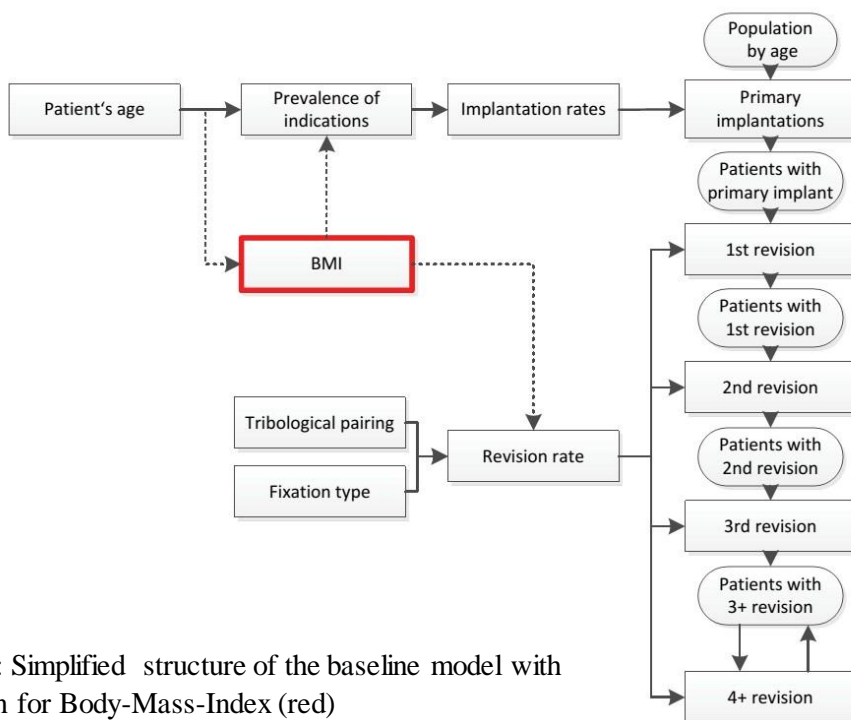


Figure 1: Simplified structure of the baseline model with extension for Body-Mass-Index (red)

Corresponding data for the revision rates was obtained from the Swedish and the Australian joint replacement register (Australian Orthopaedic Association, 2012; Garellick et al., 2010), while data for the age specific implantation rates and population development was obtained from Statistics Austria (Statistics Austria, 2013). Finally, once given the number of implantations per year, the arising costs are evaluated on basis of the Austrian DRG (diagnosis related groups) based reimbursement system, which also takes into account the length of stay in hospital. The latter is implemented using the expected value drawn from the corresponding age specific distributions obtained from Statistics Austria (Statistics Austria, 2013).

## 2.2 Model building

The newly developed extension as well as the baseline model is implemented using the system dynamics modeling approach, for the reason that the characterization of the given task by stock and flow variables is convenient. Thereby stock variables, denoted by rounded edges in Figure 1, describe an accumulation of an entity over time while flow variables describe the change of those accumulations.

## 2.3 Obesity in Austria

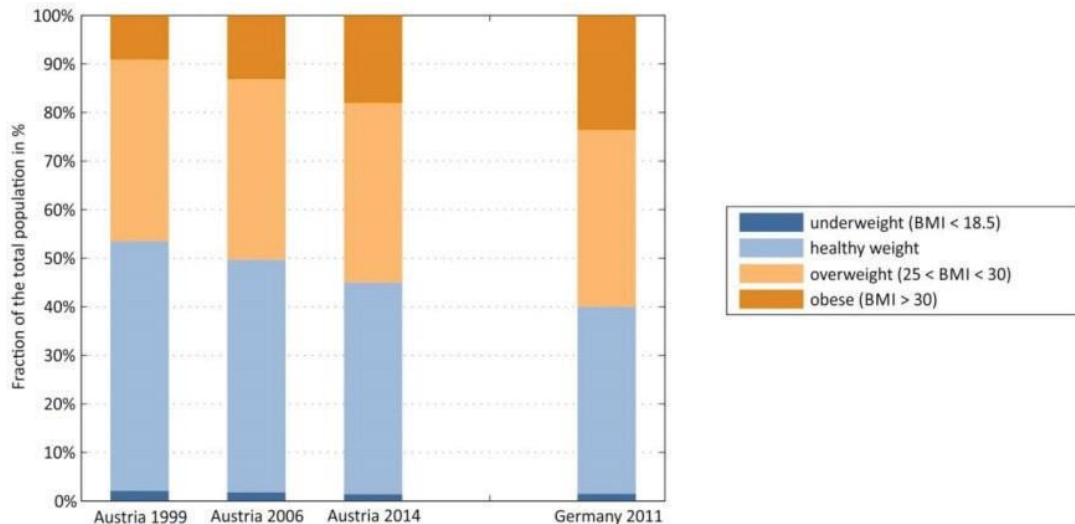


Figure 2: Distribution of the population amongst Body-Mass-Index for Austria and Germany in different years and extrapolation for Austria 2014 (Austrian Federal Ministry of Health, 2009; RKI, 2013a; RKI, 2013b)

Comprehensive studies about the distribution of the Body-Mass-Index (BMI) in Austria were conducted in 1999 and 2006 (Austrian Federal Ministry of Health, 2009). Figure 2 shows the BMI distribution for the overall population. The model itself uses BMI data dissected into five groups by age. As no recent data was available, the BMI distribution in 2014 was extrapolated, by using linear extrapolation. To check for plausibility the results were compared to the most recent data available from Germany (RKI, 2013a; RKI, 2013b). Since the extrapolated BMI distribution for Austria 2014 tends to underestimate the prevalence of obesity in comparison to Germany, simulations were carried out with both distributions.



### 2.1.4 The BMI model

According to literature obesity can influence the following three parameters related to artificial hip joints:

- Prevalence of arthrosis
- Risk for revision surgery
- Length of stay

Since the survey period for the baseline model data was 2002 to 2011 the BMI distribution for 2006 is used as a reference. It is assumed that the distribution in 2006 represents the average BMI distribution in the survey period, since 2006 is in the middle of the survey period and there is no other data available for this period. The prevalence and revision data from the survey period is then adjusted according to the change in the BMI distribution from 2006 to 2014 using the relative risk (RR) factors denoted in Table 1. For the calculation of the average relative risk from different studies the sample size was applied as a weighting factor. The data was categorized into three groups by BMI and normalized to BMI <25, as 25 is considered to be the borderline between healthy weight and overweight.

BMI	RR for primary implantation		RR for revision
	Males	Females	
< 25	1.0 ( Ref. )	1.0 ( Ref. )	1.0 ( Ref. )
25 to 30	1.4 (1.2 – 1.6)	1.3 (1.2 – 1.5)	2.4 (1.1 – 5.2)
> 30	3.7 (2.4 – 5.6)	2.0 (1.8 – 2.2)	3.6 (1.4 – 8.9)

Table 1: Relative Risk for primary implantation and revision with 95% confidence interval (Sadr Azodi et al., 2008; Karlson et al., 2003; Wendelboe et al., 2003)

Based on the findings of Sadr Azodi et al. (2006) and Foote et al. (2009), also an increase of the median length of stay by one day for obese people was integrated in the model.

## 3. RESEARCH

### 3.1. Results

The model output is illustrated in Figure 3 as the annual costs arising from artificial hip replacement without inflation. The baseline scenario indicates a 77% increase in the total costs until 2050 solely due to the demographic development. The scenario assuming the extrapolated BMI distribution for Austria shows an additional increase in the total annual costs of approximately 15% in 2015 due to obesity when compared to the baseline results for 2015. This 15% top-up can be observed in every single year of the simulation period. In contrast to this rather constant top-up the scenario assuming Germany's BMI distribution starts with a 28% increase in 2015 that constantly grows up to 34% in 2050.

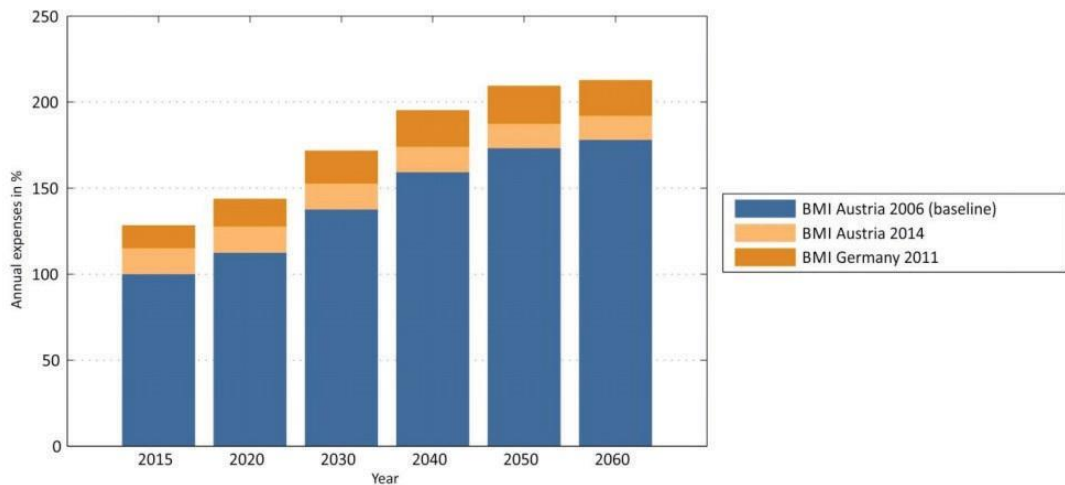


Figure 3: Forecast of the annual costs for hip replacement assuming different BMI distributions in the Austrian population (2015 = 100%).

However the overall trend in the curve remains the same, as the expenses stabilize from 2050 onwards due to the underlying demographic development that also establishes a stable period for about ten years from 2050 onwards and starts to decline afterwards. A subsequent increase of the total costs in the preceding decades, varying between 77 and 90% amongst the three scenarios is evident. In the same time period the underlying number of surgeries increases by 68% in the baseline scenario, by 71% in the Austrian and by 76% in the German BMI scenario. The main cause for this increase is that the age structure of the underlying population experiences a shift towards an 'overaged' society. In about 20 years from now already 25% of the population in Austria will be above the age of 60, thereby causing increased demand for hip replacement.

### 3.2. Discussion

The results point out at tightening financial burden for the Austrian public healthcare system (under the assumption that the health policy remains unchanged). Therefore the previously published forecast (Siegl et al., 2014) needs to be revised to account for increasing prevalence of obesity. The presented model allows simulating different scenarios for healthcare provision, since health policy is crucial for the future healthcare expenditures. Therefore all input parameters for the demographic development, the implantation and revision rate, as well as the BMI distribution can be varied to evaluate different scenarios. Although there are other measures that are considered to be superior to BMI in describing linkage to potential health risks (e.g. Waist-to-height-ratio), BMI was used in this model for reasons of better availability of sufficient and current data. However the current BMI distribution had to be extrapolated from historic data. To overcome these drawbacks, additional simulations were performed with BMI data from Germany (RKI, 2013a; RKI, 2013b), as in general satisfying transferability of data from Austria and Germany are assumed due to geographic and cultural proximity. Since historic data shows that obesity was slightly more prevalent in Germany than in Austria (OECD, 2012) the result of this scenario can be interpreted as upper boundary

for the true development, while the Austrian scenario might slightly underestimate the development by using simple linear extrapolation for lack of sufficient data. The results show that the increase in the overall costs exceeds the increase in the total number of surgeries. In general this behavior can be reasoned by the growing life expectancy leading to more and more people living long enough to need at least one revision procedure. Therefore there is a growing demand for the more costly revision surgery.

But furthermore it can be noticed that the discrepancy is higher as prevalence of obesity rises. This behavior is a result of the relative risk factors given in Table 1. The risk for obese females to need hip replacement is only twice the risk for normal weighted females. But the number of revisions will grow disproportionately as the relative risk for revisions is 3.6. This causes increased costs as revisions are more expensive than primary implantations. Given the high sensitivity towards a change in the populations BMI distribution and not to forget additional burden through other obesity related diseases, the results indicate a need for change in Austria's health care policy. Comprehensive prevention programs need to be established, following the "healthy individual in a healthy society" (Rose, 1993) idea. Treatment of obesity and the resulting risk factors can only be one brick in the health policy. Effective prevention needs a multilevel approach ranging from the individual level (e.g. healthy nutrition, sports), to local level (e.g. teaching healthy nutrition, ban junk food from schools, ...) as well as national level (e.g. taxation of unhealthy food, support people with low socio-economic-status, ...) (Müller et al., 2006). However this paper does not intend to suggest a certain preventive strategy, but to present a comprehensive simulation model for the estimation of the future economic burden in the area of hip endoprosthesis. Thereby the baseline model already offered the possibility to simulate a wide variety of changes in health policy like new reimbursement plans, cost sharing, rationing and so on. The new model now also accounts for changes in the BMI distribution of the underlying population. Future work will be dedicated to account for the rehabilitation process following hip arthroplasty. However the presented model is yet a powerful tool for resource planning and health policy decision making.

#### **4. CONCLUSION**

The presented model is a novel tool that estimates the future need and expenditure in the domain of artificial hip joint replacement with regard to the ongoing demographic change and increasing prevalence of obesity. While the former causes an increase of total costs of approximately 77% until 2050, the latter tends to double this effect. The provision of sufficient healthcare infrastructure and its funding is therefore an upcoming challenge for the Austrian public healthcare system. Although the model is still undergoing future development towards the inclusion of the rehabilitation process, it already offers a widespread functionality to support decision making and health policy planning.

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# POVERTY OF ELDERLY POPULATION AND SOCIAL POLICY PRACTISES IN TURKEY

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Ceylan SÜLÜ<sup>1</sup>

By the help of the developments in social and medical fields, it has been seen that average lifetime has almost doubled in comparison with two centuries before. This fact brings elderliness phenomenon forward as a social problem. Elderly population is progressively increasing in developed and developing countries, which poses various problems in social, economical and social security systems.

As the individuals grow older, they work less or lose the ability to work and they are exposed to discrimination, which makes aging-based poverty a current issue. For this reason, poverty of elderly is a major issue for elders. In order to improve the situation of elderly, social policy-based practises are highly significant. Such implementations of social policy ought to aim an active, independent, decent and happy elderliness by considering changing demographic structure.

It is of high importance that social policies are needed to be produced in order to ensure life quality, prosperity, standards and revenue assurance for elders.

**Keywords:** Elderliness, Poverty, Life quality, Social Policy Practises

## Objectives of Research

The main objectives of this research are to describe the poverty of elderly, the universal phenomenon of elderliness and to indicate the significance of social policies and their practises which aim to prevent poverty of elderly.

In this regard;

- Specifying how poverty and elderliness are perceived in Turkey
- Determining how the elders are perceived by employers
- Stating the importance of increasing elderly rate by demographic data
- Analyzing what social policy implementations are practised and what needs to be done in order to prevent poverty of elderly

are among the objectives of this research.

## Significance of Research

One of the primary problems which can be seen in developing countries is the aging population, which results from the increasing poverty rate and technological developments in medicine and science. This is also valid for Turkey. From this point of view, grounding on the elders, who form the great portion of the poor, anti-poverty social policies gain importance. In this study, anti-poverty social policies will be mentioned by stressing aforementioned universal reality.

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## **Literature Review**

In the beginning of research process, a research planning is to be done, which includes the general framework of research. A literature review is to be conducted subsequently.

Literature review process aims to identify what kind of scientific data exists, to ground the research on these data, to determine aspects of the issue and to conclude which aspect to be investigated.

## **Hypothesis of Research**

- Poverty is a widely experienced problem of Turkey.
- Aging rate has a progressive course in Turkey.
- Fertility per person is thought to decrease as the age increases.
- Increasing elderly population is facing with the poverty.
- It is assumed that all of the data used in this research are valid and reliable.

## **Limitations**

Since this research is to be conducted by using the current literature sources as an archive study, it is limited to the previous findings.

## **Methodology**

In this research, an archive study is to be done by utilizing general scanning technique. General scanning techniques are the scanning regulations on a sample or a group of samples, which are used in order to induce about a universe. (Karasar, 1994: 79).

## **Data Analysis**

In this research, statistical data will be analyzed by reviewing previous studies. Acquired data from the analysis will be commented on with a critical view and scientific information. In order to keep research up-to-date, the latest data supplied by TÜİK will be used.

## **Introduction**

Aging is a universal and a considerable reality for all countries. Elders are the fastest-growing age group thanks to developing medicine technology. Increasing elderly rate brings a variety of problems with it. Health problems, loss of family and friends, sheltering, transportation, malnutrition, depressions only constitute certain parts of these problems. At the top of these problems comes the poverty of elderly.

“The main problem of elderly population facing today is the loss of revenue, hence the experience of poverty. Elderly population comprises the significant part of hazard group in the society” (Karadeniz ve Durusoy Öztepe; 2013: 78).

If we are to specify the reasons of poverty of elderly, wide informal labour in the country, weak coverage of social security system, insufficiency of retirement pay and age pension and income inequality are the leading factors.

“Popular culture characterises elders as senile, inauthentic, silent, nonproductive, conservative and nonprogressive creatures. Such beliefs continue existing in spite of well-supported opposing proofs” (Kornblum ve Julian; 2013: 308).

Either the employers and the society itself have misperceptions about elder workers. It is thought that elder workers are less productive, less healthier, poor in skills, more accident-prone and underperformer workers. Consequently, elderly population becomes unable to participate in the labor force and poverty rate increases.

Another factor which cannot be disregarded is that women are well ahead in terms of poverty of elderly rate. Furthermore social policy implementations fail to satisfy the needs, which aggrieves women more in countries like Turkey which is a developing one and has conservative customs.

Social insecurity, low widow's pension, higher average life time and higher frequency of chronic diseases cause women to suffer from the poverty deeper than males. (Danış; 2009: 73)

Within this framework, examining the phenomenons of poverty and elderliness in detail and discussing what sort of social policy implementations are served to elders in Turkey are highly fundamental. Besides, TUIK 2014 data provides a descriptive source for the current situation of elders. Poverty and elderliness descriptions are made in the first stance and elderly rate are subsequently analyzed by the data of 'Elders in Statistics', a study by Turkish Statistical Institute conducted in 2014. Poverty is considered to be the first phenomenon to analyze in the study.

### **The Concept of Poverty**

Although poverty is as much old as the history of humanity, it has not been able to ranked in the order of importance for a while. However, it has been regarded as a burning question with the effect of the social mobility since 1960s.

Poverty has started to gain a denser meaning with globalization phenomenon and it has started to be one of the most significant social problems of both social sciences and all societies. It can be seen that when the concept of poverty is addressed, it is rather challenging to find an objective definition both due to the reasons of poverty and difference in observability and different standards between rich and poor. Aspoverty differs from person to person, country to country, and even inside the boundaries of countries. Poverty is a multi-dimensional phenomenon which includes social, cultural and economic factors. (Karadeniz ve Öztepe; 2013: 79).

This situation makes it harder to find a universally accepted definition for the concept of poverty. When we examine the existing definitions:

In the most general sense, poverty is the condition of being unable to satisfy the needs. It is possible to describe poverty in two categories. Poverty, in the strict sense, means starvation and lack of shelter, in broad terms, however, it states falling behind the average of society despite of having basic food, clothing and shelter facilities (TÜİK; 2008: 32). Another significant point here is that poverty and deprivation ought not to be confused.

When poverty is discussed, people first think of being deprived without income. Low income and not being able to making a living are seen as one of the basic reasons of poverty. However, poverty has been recently seen as a multi-dimensional preception and it has included concepts like health, education and access.

As it is seen, the phenomenon of poverty consists of complex processes which get affected



from various and interdepeding factors. The limitations in accessing to economic and social sources, which can be called as spiral of poverty, might be both the cause and the effect of poverty. When the causes of poverty in Turkey is considered, it is seen that extrapersonal factors are more extensive. Poverty, which gained importance in 1960s as social mobility increased, started to be in the agenda as a top-line problem in 1990s.

There are variety of factors which affect poverty in Turkey. Among the most predominant factors on poverty in Turkey are migration, labor force market, economic crisis, social security systems, education, family and solidarist elements.(Metin; 2014 : 104-109). Retiring elders loses great portion of their revenues and when they get retired, they cannot find a job and face with poverty.

One of the main causes of poverty of elderly is that there are prejudiced misperceptions about elder workers among both the employers and the society. Elder workers are perceived as less healthier, heavy handed, more accident-prone, underperformer workers and absenteeist.

Researches, however, have found that these prejudices are fallacious. It is revealed by the researches that elder workers, contrary to popular belief, cause less labor turnover, provide more stable work force, have lower absentee rate, are more optimistic about their jobs and have less working accident ( Kornblum ve Julian ; 2013: 310-311).

Among these findings, poverty of elderly are seen as a significant factor which can be evaluated as both personal and social element. From this point of view, it would be more feasible to look into phenomenon of elderliness both as a cause and effect.

### **The Concept of Elderliness**

*Elderliness is described as an extension of adulthood stage and a further phase of lifetime in which physical and psycholological changes are seen. Elderliness, which is generally described as such, is accepted as a period for which physical changes, phsycho-social factors and chronology are also considered in order to describe.(DURAK; 2004)*

The phenomenon of elderliness, as in poverty, can be described in various types. Beginning from person's birth, aging period initiates and this process continues as growth, developmental and change stage till death.

Each society has a different understanding of elderliness and the value it gives to its elders changes according to the culture it exists in. While, in some societies, the elder is a powerful tie, like a plane tree, who holds the familytogether, in others, elders are seen as a trammel with his/her decreasing energy of life and phsyical losses.

Elderly population is progressively increasing in developed and developing countries. Thanks to the advances in medicine field, infant mortality rate has decreased, care services have been improved, vaccines and medicines have cured diseases and birth rates have decreased by women's participation in business life. Within these factores, there have emerged a kind of demographic structure which continually age.

While developed countries are able to maintain and protect the social prosperity standards of elders by foreseeing the situation and taking precautions, developing countries like ours are unable to implement necessary plans, policies and practices in paralell with aging rate of demography. (DANIŞ; 2009, s. 68).

The social policy practises for elders throughout the world are elderly care, old age asylum, home care services, elder clubs, advice centers for elders, nursery of elders, caring of elders and rehabilitation centers, flats for old persons, geriatric care center, mobile catering, guest house for elders, village for elders, mental clinics and social contribution services for old persons (Çamur Duyan ve Önal Dölek; 2013:107).

There are various social policy implementations for elders in the world today. Certain precautions in order to make them more independent and save them from poverty started to be practised from past to present.

“When elderly profile of Turkey is considered , it can be said that these practises are not evenly utilized. As a developing and progressively diversifying country, we ought to socialize our elders more actively and not to face our elders with the poverty. When considered from this aspect, the practices for elders in Turkey are senior center, nursery of elders, elders supervising centers by Ministry of Family and Social Policies, home care services by certain municipalities and geriatric services by certain universities “(Çamur Duyan ve Önal Dölek, 2013:107).

The most common practise in Turkey is the senior centers. There are 329 senior centers in Turkey. Family structures, which have been changed and transformed by modernization, have increased the importance of and demand to social policy institutions. The demand is progressively increasing. This increase in senior centers can be explained with the transformation of family structure.

The transition from extended family to elementary family has changed the place of the elde in the family. The majority of elders have started to live independently and this has lessened the social, moral and economic support of family and relatives to the elder. For this reason, elders increasingly prefer senior centers in which they can socialize with their peers instead of staying inside the family and becoming functionless.

In Turkey, so as to enhance the life quality of elders and respond to the transformations of family structures, current practices and services ought to be improved by reforming the capacities.

### Demographic Projection – From 1935 to 2075

Elderly population by sex and proportion of elderly population in total population, 1935-2075

Year	Total Population			ElderlyPopulation			proportion of elderly Population in total population			General Sex ratio	Elderly sex ratio
	Total	Female	Male	Total	Female	Male	Total	Female	Male		
1935	16 158	7 937	8 221	628	279	349	3,9	3,5	4,2	96,5	79,9
1940	17 821	8 899	8 922	630	271	358	3,5	3,0	4,0	99,7	75,7
1945	18 790	9 447	9 344	627	257	370	3,3	2,7	4,0	101,1	69,4
1950	20 947	10 527	10 420	691	273	418	3,3	2,6	4,0	101,0	65,3
1955	24 065	12 233	11 831	822	321	502	3,4	2,6	4,2	103,4	63,9
1960	27 755	14 164	13 591	979	388	591	3,5	2,7	4,3	104,2	65,7
1965	31 391	15 997	15 394	1 243	530	713	4,0	3,3	4,6	103,9	74,4
1970	35 605	18 007	17 598	1 566	708	858	4,4	3,9	4,9	102,3	82,5
1975	40 348	20 745	19 603	1 853	851	1 003	4,6	4,1	5,1	105,8	84,8
1980	44 737	22 695	22 042	2 113	955	1 158	4,7	4,2	5,3	103,0	82,5
1985	50 664	25 672	24 992	2 126	955	1 171	4,2	3,7	4,7	102,7	81,6
1990	56 473	28 607	27 866	2 417	1 091	1 326	4,3	3,8	4,8	102,7	82,3

2000	64 730	32 399	32 331	3 859	1 750	2 109	6,0	5,4	6,5	100,2	82,9
2005	68 861	34 491	34 370	4 647	2 011	2 636	6,7	5,8	7,7	100,4	76,3
2007	70 586	35 362	35 224	4 865	2 096	2 769	6,9	5,9	7,9	100,4	75,7
2008	71 517	35 901	35 616	4 893	2 139	2 754	6,8	6,0	7,7	100,8	77,7
2009	72 561	36 462	36 099	5 083	2 223	2 861	7,0	6,1	7,9	101,0	77,7
2010	73 723	37 043	36 680	5 328	2 331	2 997	7,2	6,3	8,2	101,0	77,8
2011	74 724	37 533	37 191	5 491	2 398	3 093	7,3	6,4	8,3	100,9	77,5
2012	75 627	37 956	37 671	5 682	2 474	3 208	7,5	6,5	8,5	100,8	77,1
2013	76 668	38 473	38 195	5 892	2 561	3 331	7,7	6,7	8,7	100,7	76,9
2014	77 696	38 984	38 712	6 193	2 699	3 494	8,0	6,9	9,0	100,7	77,3
2023	84 247	42 137	42 110	8 624	3 831	4 793	10,2	9,1	11,4	100,1	79,9
2035	90 680	45 260	45 421	13 158	5 936	7 222	14,5	13,1	15,9	99,6	82,2
2040	92 258	45 986	46 272	15 243	6 871	8 372	16,5	14,9	18,1	99,4	82,1
2045	93 175	46 377	46 798	17 476	7 893	9 583	18,8	17,0	20,5	99,1	82,4
2050	93 476	46 462	47 013	19 485	8 814	10 670	20,8	19,0	22,7	98,8	82,6
2055	93 278	46 304	46 974	20 982	9 487	11 494	22,5	20,5	24,5	98,6	82,5
2060	92 717	45 975	46 742	22 248	10 040	12 209	24,0	21,8	26,1	98,4	82,2
2065	91 800	45 481	46 319	23 525	10 625	12 901	25,6	23,4	27,9	98,2	82,4
2070	90 589	44 858	45 732	24 156	10 930	13 227	26,7	24,4	28,9	98,1	82,6
2075	89 172	44 150	45 022	24 672	11 214	13 458	27,7	25,4	29,9	98,1	83,3

Source: (1) TurkStat, Population Censuses, **1935-1990**

(2) TurkStat, Population Estimates, **2000-2007**

(3) TurkStat, Address Based Population Registration System, **2008-2014**

(4) TurkStat, Population Projections, **2013-2075**

The first cynosure in the figures is that elderly population is the fastest growing age group among others. Interpreting the situation by using United Nation's definition, if elderly population in a country is between 8% and 10% out of total population, the population in that country is 'old', when the ratio is higher than 10%, it means that the population is 'very old'. In Turkey has a fast increase tendency in comparison with other age groups. (TUIK; 2014:1) Elder population ratio, which was under 5% until 1990's, has rapidly increased for 15 years.

The highest elder population ratio has started to be seen with decreasing death rate. This increase is the combination of three demographic change: remarkable decreases in fertility rates which also decrease the quantity of young population, increases in life expectancy of all age groups and high fertility rates of previous years which inflated the numbers of people who reached 65 age. (TNSA,2014).

In comparison with other age groups, it can be clearly seen that elderly population ratio has the fastest increase rate. While population growth rate of Turkey was 13.3% in 2014, elderly population growth rate was 49.9%. In 2014, elderly population dependency rate was 11.8%, it is expected to be 19.% in 2030.

In the context of the population projections, it is thought that there will be two elders per each child in 2050. (Gökçe – Kutsal; 2005: 14).

The increase of elderly population ought to be evaluated as the experience and increasing knowledge of the elders. By the help of social policy implementations, benefiting from elders's experiences ought to be prioritized. Further more, if the necessary precautions are not taken properly, as can be seen in the figures properly, a possible high quantity of dependent

population danger is waiting for Turkey and this can be the most significant problems of near future. Besides, women population in dependent population is one step ahead, which ought to be also taken into account.

In conclusion, when increasing elderly population rate is considered, it is estimated that elderly population ratio will rise to 10.2% and Turkey will be classified as 'very old' country in 2023 according to the projections. Although 65 or higher aged population ratio was 8% in 2014, it is predicted that the ratio will be measured as 10.2% in 2023, 20% in 2050 and finally 27.7% in 2075. (TÜİK; 2014:1).

Elderliness, which has gained a momentum in the world, especially in Turkey, brings along the poverty of elderly. The fact that Turkey will have a 'very old' population in the coming years raises the importance of social policies in this field. The exclusion of elders from business life is assumed to make them dependent, discontent, passive and directly poor.

### **Conclusion and Suggestions**

Elderly population in developed and developing countries is rapidly increasing and elderliness is becoming a progressive problem day by day. Following Industrialization period, women's participation in business life and the transition from extended family to elementary family have paved the way for individualization of family members and changed the position of elders in the family.

Elders are not anymore perceived as 'bonds' and their care is gradually undertaken by institutions. Likewise, increasing elderly population and the decrease of the importance of elders in the families make them vulnerable to mass poverty.

At this point, the failure of social security systems in fighting against poverty, expulsion of elders from business life, socially insecure and informal workers, insufficiency of retirement pays are raising the poverty from day to day.

A large segment of the society, especially the employers, has misleading perceptions about elder workers, which has been proven by the researches on the contrary.

It is widely observed that especially in the third world it is social problems, rather than individual issues, which affect poverty of elders the most. Social service policies for low income and for those who are not included in social security systems and benefits remain incapable. Furthermore, the institutes of social services fall short of satisfying the needs. Besides, payments of benefits to elders are not able reach to a sufficient threshold which can suppress poverty of elderly.

Thus following solution proposals are presented for the poverty of elderly in the country:

Considering that women population come to the forefront with poverty of elderly, women need to be included in the labor market, where they ought to have a regular income and get social security benefits. In this context, the strongholds of women are required to be increased in the business life.

Lower limits of old age pension needs to be raised to level by which elders spend their life in peace,

Necessary proceedings about payments of benefits ought to be done properly, these payments ought to be increased,

Employers' misconceptions about elderly must be forestalled and the experiences of elders ought to be benefited,

An active lifestyle needs to be provided for elders, elder's will to work ought to be ensured

Elders ought to be served with the opportunity to defend their own rights and they need to be supported by political incentives,

Certain institutions ought to be founded for those who are obliged to pay rent, the quantity and coverage of current social service practises needs to be increased, especially for those who are incapable of caring themselves.

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# ESTABLISHING DISABILITY DATABASE OF GÜMÜŞHANE PROVINCE

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## ABSTRACT

**Introduction and Aim:** According to Law No. 2828 “Disabled” is; the case of non-compliance with the requirements of normal life; as a result of the loss of varying degrees of physical, mental, emotional and social capabilities because of any injury or accident congenitally or acquired and a person who is in need of prevention, care, rehabilitation, counseling and support services. Any person can become disabled; congenitally or as a result of an illness or accident by losing physical, mental, sensory and social skills in various degrees. This situation hinders the vital activities of people partially or completely and also most importantly makes it difficult to carry out their social life. There is not enough information about the number of people with disabilities, the rate of different disability groups, and the socioeconomic characteristics of the disabled in Gümüşhane province.

This study was conducted in order to determine the number of disabled people in Gümüşhane province, to determine the socio demographic characteristics of the disabled and in order to create the disability database of Gümüşhane province.

**Materials and Methods:** This study was a cross-sectional study. All households in Gümüşhane province have formed the universe and all households were included in the survey. The fieldwork was carried out between February 2013 and February 2015. This study was supported by Disability Support Program (EDES).

Necessary permissions were taken before starting the fieldwork (Governor’s permission and approval of the Ethics Committee of Karadeniz Technical University). Data was collected through a questionnaire (Disability Information Questionnaire) developed by the researchers for this study. The questionnaire was used after preliminary tests and necessary corrections were made.

Interviewers were selected among students of Gümüşhane University Health High School. After the necessary theoretical and practical training on the questionnaire interviewers applied the questionnaire by face to face interview technique. Disability Information Questionnaire was applied to disabled who was found to fulfill the World Health Organization (WHO) criteria for disability classification or who had disability report taken from any health care institution. All of the data obtained was recorded to the computer. Data was analyzed with SPSS packet program on computer and chi-square test was used for statistical analysis.

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**Results:** During the study data about 4608 disabled was obtained. According to our study ratio of orthopedic, visual, hearing, speech, mental and emotional disabilities was 3.4% of the population.

When we investigate the distribution of the study group by the type of disability, orthopedic disability rate was found to be 1.5%, visual disability rate 0.6%, hearing disability rate 0.3%, speech and language disability rate 0.06%, emotional disability rate 1.0% and mental disability rate 0.2%.

49.5% of the disabled identified during the research were men and 50.5% were women. The rate of illiterate people (67.2%) among the disabled was a striking result. 25.4% of the disabled were graduated from primary school and high school graduation rate was only 1.0%. When the family types of the disabled were examined it was found out that 46.9% of the disabled had nuclear families, 29.9% of them had large families, and 23.2% of them had separated families.

The rate of disabled benefiting from home care services was found to be 28.7%, the rate of disabled taking disability pension was found to be 30.5%.

According to the Turkey Disability Survey (2002) the disability rate of Turkey is 2.58%. Our results are compatible with data obtained from Turkey Disability Research.

**Conclusion and Recommendations:** It has been found out that 3.4% of the population was disabled in Gümüşhane province. Our results were compatible with data obtained from Turkey Disability Research.

67.2% of the disabled were illiterate. These results show us that disabled cannot benefit enough from the educational services. Therefore, necessary physical and social studies should be made in order to make disabled benefit more from formal education. In addition, disabled who cannot benefit from this opportunity should be directed to the open access education. The rate of disabled benefiting from home care services was found to be only 28.7%, the rate of disabled taking disability pension was also found to be only 30.5%. These data indicates us that disabled cannot benefit enough from the rights granted to them and further studies need to be conducted about it.

**Keywords:** Gümüşhane, Disability, Disability Rate, Disability Types, Disability Database

## INTRODuCTION

According to Law No. 2828 "Disabled" is; the case of non-compliance with the requirements of normal life; as a result of the loss of varying degrees of physical, mental, emotional and social capabilities because of any injury or accident congenitally or acquired and a person who is in need of prevention, care, rehabilitation, counseling and support services (1). The World Health Organization(WHO)definition ofdisability; refers to thesituation as a result ofadeiciencyoccurringin health andthe loss or restriction of the ability to perform a business compared to a person who would be considered normal (2).

There are approximately 500 million disabled people in the world. According to the World Health Organization, approximately one quarter of the world population is facing disability directly or indirectly. 80 percent of the world's disabled live in developing countries, and they do not have access to primary services (2, 3, 4).

The World Health Organization accepts disability rate as 10% for developed countries, and 12% for developing countries. According to this statement it is estimated to be 700 million disabled worldwide, and 9 million disabled in Turkey (2, 3,4).

Disability shows quite a variety, the number of disabled is increasing as a result of the increase in aging population and chronic diseases. Wars, traffic accidents and other disasters are among the causes of disability.

In countries where the average life expectancy is over 70 years, individuals spend as much as 11.5% or 8 years of their life with disabilities.

According to the results of "Turkey Disability Survey"; impairment rate was 12.29% and disability rate was 2.58% in Turkey. The proportion of patients with chronic diseases was 9.70% (5).

When the proportional distribution of disability varieties was investigated; the rate of hearing disability was 37 per thousand, speech and language disability was 38 per thousand, while the proportion of mental disability was 48 per thousand (5).

The rate of people who have multiple disabilities were 11.40%. The later appearance rate of disability was too high in all disability groups (5).

Disability rates increased with age. Disability rates were higher in men, but chronic diseases were reported to be higher in women in populations (5).

Also in the same survey it was reported that the disability rate was higher in rural areas and the rate of chronic diseases were higher in urban areas (5).

When the distribution of disability rate by region was investigated disability rate was found higher in Black Sea region with 3.22%, and lowest in Marmara region with 2.23%. It was reported that the percentage of people with chronic diseases was highest in Marmara region with 10.90%, and lowest in Southeast Anatolian region with 7.18% (5).

Any person can become disabled; congenitally or as a result of an illness or accident by losing physical, mental, sensory and social skills in various degrees. This situation hinders the vital activities of people partially or completely and also most importantly makes it difficult to carry out their social life. There is not enough information about the number of people with disabilities, the rate of different disability groups, and the socioeconomic characteristics of the disabled in Gümüşhane province.

This study was conducted in order to determine the number of disabled people in Gümüşhane province, to determine the socio demographic characteristics of the disabled and in order to create the disability database of Gümüşhane province.

## MATERIALS AND METHODS

This study was a cross-sectional study. All households in Gümüşhane province have formed the universe and all households were included in the survey. The fieldwork was carried out between February 2013 and February 2015. This study was supported by Disability Support Program (EDES).

Necessary permissions was been taken before starting the fieldwork (Governor's permission and approval of the Ethics Committee of Karadeniz Technical University). Data



was collected through a questionnaire (Disability Information Questionnaire) developed by the researchers for this study. The questionnaire was used after preliminary tests and necessary corrections were made.

Interviewers were selected among students of Gümüşhane University Health High School. After the necessary theoretical and practical training on the questionnaire interviewers applied the questionnaire by face to face interview technique. Disability Information Questionnaire was applied to disabled who was found to fulfill the World Health Organization (WHO) criteria for disability classification or who had disability report taken from any health care institution. All of the data obtained was recorded to the computer. Data was analyzed with SPSS packet program on computer and chi-square test was used for statistical analysis.

## **RESuITS AND DISCuSSION**

During thisstudy conducted in order to createthe disability database of Gümüşhane province, data about 4 608 disabled was obtained and thedescriptive data of the disabled was identified. The most important ofthese datacan be listedas follows;age, gender, disability type, disability rate,causes ofdisability, the date that disabilityarose, havingdisabilityreport, disability pensions,care services, equipment used, level of education, occupation, employment status, family income, their own income, family type,household size, the status of getting outof the houseon their own,relationshipbetweenparents of disabled and as the person giving care to disabled people. All of this datawastransferredto the computerand must be updatedat regular intervals.

According to our study generaldisabilityratewas found to be 3.4% of the population in Gümüşhane province. When we investigate the distribution of the study group by the type of disability, orthopedic disability rate was found to be 1.5%, visual disability rate 0.6%, hearing disability rate 0.3%, speech and language disability rate 0.06%, emotional disability rate 1.0% and mental disability rate 0.2%.

Disability rate was generally higher at Torul and Kürtün districts compared to the otherdistricts.Also, visual disability rate was higher at Torul and Şiran districts compared to the otherdistricts.It has been found out that orthopedicdisability rate was significantly higher in Torul district thantheother districts.

According to the Turkey Disability Survey (2002) the disability rate of Turkey is 2.58%. This rate is 3.05% for women and 2.12% for male in the general of Turkey. Disability rate is 3.22% at the Black Sea region which includes our province (5).

Our results are compatible with data obtained from Turkey Disability Survey.

**Table 1.** The Socio Demographic Characteristics of the Disabled Identified During the Study

		Number	%
	<b>Number of Disabled Identified</b>	4 608	3,4
Sexuality	Male	2 281	49,5
	Female	2 327	50,5
E d u c a - t i o n a l L e v e l	Illiterate	3 097	67,2
	Literate	295	6,4
	Primary and secondary school graduate	1 170	25,4
	High school graduate	46	1,0
Family Type	Nuclear	2 161	46,9
	Large	1 378	29,9
	Seperated	1 069	23,2
Home Care	Receiving home care	1 324	28,7
	Not receiving home care	3 284	71,3
Di s a b i l i t y P e n s i o n	Taking disability pension	1 405	30,5
	Not taking disability pension	3 203	69,5

As it is shown at Table 1; 49.5% of the disabled were men, and 50.5% were women. The rate of illiterate people (67.2%) among the disabled was a striking result.

In our study, the family types of the disabled were examined, and it was found out that the majority of the disabled had nuclear families (46.9%) (Table 1).

The vast majority of disabled had no occupation. Only 2.4% of the disabled were found to be officers, and 4.4% were found to be workers.

Still the vast majority of disabled were not working. It has been found out that only 3.2% of the disabled were working in the public sector and 3.0% were working in the private sector. Besides, 23.8% of the disabled were found to be retired.

The vast majority of disabled were living with their spouse and/or with their children. It has been found out that 8.1% of the disabled were living with their mothers and/or fathers, and 6.0% were living alone.

There was no relationship between the majority of the disabled parents. Besides, there was a relationship among 5.1% of the parents of disabled; their mothers and fathers were relatives.

It has been found out that 16.3% of the disabled could not get out of the house by themselves, 36.7% could get out of the house with the help of someone else, and 47.0% could get out of the house by themselves.

1 334 (28.9%) of the disabled was receiving home care services funded by the Ministry of Family and Social Policies (6, 7). It has been found out that this disabled receive home care services from their mother (33.6%), spouse (15.6%), bride (13.3%) and other relatives (20.5%) respectively.

## CONCLUSIONS AND RECOMMENDATIONS

During this study conducted in order to create the disability database of Gümüşhane province, data about 4 608 disabled was obtained and the descriptive data of the disabled was identified. This data was transferred to a computer, and in order to be kept this data up to date an on-line disability database working across the country should be established and the data should be updated by the hospitals and by the Provincial Directorate of Family and Social Policies.

It has been found out that 3.4% of the population was disabled in Gümüşhane province. Our results were compatible with data obtained from Turkey Disability Research.

The rate of disabled benefiting from home care services was found to be only 28.7%. The rate of disabled taking disability pension was also found to be only 30.5%. These data indicates us that disabled cannot benefit enough from the rights granted to them and further studies need to be conducted about it.

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# THE EFFECT OF SOCIAL SUPPORT ON THE LIFE QUALITY OF THE PATIENTS HOSPITALIZED IN THE MERAM MEDICAL FACULTY OF THE NECMETTİN ERBAKAN UNIVERSITY

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Satı YILMAZ<sup>1</sup>

## ABSTRACT

**Aim:** This study has been made in order to detect the relation between the social support and quality of life that the patients perceive.

**Importance:** It is thought that knowing how and in which areas cancer and its treatment effects the patient and his family's life quality will be helpful to the cancerous patient and his family to increase their life qualities. Therefore, identifying life quality and perceived social support level of the patients placed in the sample of the study and taking necessary precautions are important in terms of contributing to the treatment process and creating a remedy.

**Method:** Questionnaire has been used in collecting data (socio-demographic questions and questions relating to the illness), Ferrans and Povvers 'Cancer adaptation of the quality of life index -111(EORTC QLQ-C30)' has been used for evaluating the quality of life; and '*Multidimensional Scale of Perceived Social Support* (MSPSS) has been used in order to identify the social support that the patients perceived. The cancerous patients hospitalized in the clinic of oncology of the Medical Faculty of Meram situated in Konya in 2015 and the patients who came to the chemotherapy unit in order to get outpatient treatment has created the universe of the study. 110 patients who are suitable for the research criteria and who accepted to participate in the research, have composed the sample of the study.

**Results and Findings:** As a result of study, a significant positive correlation has been found between the social support that the patients perceived and their total quality of life. When the average scores that the patients in the study group took from the life quality scale are evaluated, it has been determined that the highest average score belongs to psychological / religious subscale  $24.27 \pm 5.79$  and the least average score belongs to health and mobility subscale  $21.25 \pm 5.82$ . When the average scores that the patients took from the social support scale are evaluated, it has been seen that the highest average score belongs to the subscale perceived from family  $25.21 \pm 4.72$ , and the least average score belongs to the subscale perceived from a special person  $15.92 \pm 8.82$ .

**Keywords:** Cancer, Perceived social support, Perceived quality of life

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## 1. INTRODUCTION

Following the World Health Organisation's (WHO) defining the health not only as not having illness and disability but also physical and mental social well-being, the issue of quality of life has started to gain importance in health care applications. With the acceptance of the illnesses had not only physical dimension but also psychosocial aspects, the importance of the concept of the quality of life has increased (Fries, Singh, 1996).

As the importance of the quality of life related to health increased, various definitions related to the concept have been developed. In the study of (Rustoen et al., 1999), the quality of life was defined as "person's sense of well-being that derived from being pleased or not pleased about the vital events important for the person (Rustoen et al., 1999). Akyol (1993) defined the concept of the quality of life as intersection between satisfaction of individuals and social relationships (Akyol, 1993). De Haes and Knippenberg (1986) defined the quality of life as "a vague and sensitive thing that everybody talks about it but nobody knows what to do clearly" (De Haes and Knippenberg, 1986).

These definitions made in the literature come along with a content covering all aspects of life like health area, socio-economic area, psychological area and family area. It's thought that it effects all these life areas in cancerous patients (Rustoen et al., 1999). Traditionally, cancer diagnosis are consubstantiate with connotations that gives rise to thought of pain and death in the patients. Therefore; cancer is a period of experiencing distressed, fearful and emotional collapse in the people's life (Courtens et al., 1996). As a result of the increase in the life spans of cancerous patients and development of new treatment methods, the thought that the cancer is a chronic disease has been increasingly accepted by the patients (Schag et al 1991; Courtens et al 1996). While fighting a chronic disease, the social support they will receive from surroundings will be helpful to the treatment period.

In this context, the relation between the social support that the cancerous patients perceive and the quality of life of them has been tried to be identified on the cancerous patients being treated in the Medical Faculty of Meram in our study.

## 2. MATERIAL AND METHOD

The study has been made on the patients hospitalized in the clinic of oncology of the Meram Medical Faculty of the Necmettin Erbakan University between the dates of 01.04.2015 and 07.04.2015 and on the patients who came to the chemotherapy unit in order to get outpatient treatment.

The data was collected from the 110 volunteer patients by the researcher using face to face interview technique. A research took an average of 15-20 minutes. The data was collected through three forms. Questionnaire has been used in collecting data (socio-demographic questions and questions relating to the illness), Ferrans and Povvers 'Cancer adaptation of the quality of life index -111(EORTC QLQ-C30)' has been used for evaluating the quality of life; and, '*Multidimensional Scale of Perceived Social Support* (MSPSS) has been used in order to identify perceived social support. The data obtained was evaluated through the ready statistical program SPSS 16. In the detection of the significance of average rates, the t test and the anova test was used in the study, the reliability of the study was found positive. In this study, reliability analysis results of the scale has been found between 0,73 -87. By Eker and et

al, Cronbach Alfa internal consistency coefficient was calculated separately for subscales and found between 0.80 and 0.92 (Eker, Arkar, Yildiz, 2001).

Implementation of the Research only in the Meram Medical Faculty of the the Necmettin Erbakan University and not being able to be understood some of the questions in the scale by the patients composed the limitations of the study. All the cancerous patients cannot be generalized by this study.

### 3. FINDINGS

66.4% of the 110 patients joined the research is consisted of women. 37.6% of the patients are at the age group of 50-59 and they consist of the majority of the sample. 51.8% of the patients are primary school graduate and 85.5% of them are married. In the job group, the housewives has consisted of a large part with the portion of 53.6%. 92.7% of our patients have social security. While 84.5% of our patients are living with their spouse and children, 10% don't have child. 28.2% of them have three children. In terms of residence places, 63.6% of them are staying at the city center while 9.1% of them are living in the country like village or town. 84.5% of them have house at the place they stay. In terms of annual income, the portion of 72.7% is between 0 -15,000 TL and this shows that the patients in the overall sample have lower level of income. 41.8% of our patients have been diagnosed in the last 6 months and 78.2% of them have been getting chemotherapy treatment. While 73.6% of our patients don't have additional diseases, 26.4% of them have additional diseases. 69% of the additional diseases found in the patients is hypertension and 31% is diabetes.

The average rates of the quality of life of the patients which is intended for their identifier features obtained by surveys and related test statistics are presented in the Table 1. According to this, when the quality of life of the patients as regards of their gender is analysed, the men's average rate of the health and mobility subgroup scores and the psychological/religious subgroups scores are high and this is not significant statistically. However; while there was a statistically significant relation with the female patients in the social and economic subgroups, the difference in the family subscore couldn't be found significant. When the total quality of life scores are analysed, we see that there is not a relation between gender factor and quality of life. It was pointed out that there was not a relation between gender factor and quality of life scores of the patients in the study of Kızılcı in 1997 which is named the factors affecting cancer patients getting chemotherapy and their relatives, made in the Research and Application Hospital of the Medical Faculty of the 19 May University (Kızılcı, 1997).

When the quality of life of the patients according to their age groups are analysed, the highest average score of the health and mobility subgroup and the family subgroup is at the age group of 50-59 and the difference has been found significant. The highest average score of psychological / religious subgroup belongs to the age group of 60-69 and the difference between them has been found significant. The highest average score of the social and economy subgroup and total quality of life score belongs to the patients at the age group of 40-49 and the difference between them has been found significant. In the literature, Kızılcı and Reis has reached some findings which shows that the quality of life increases with the increase of age (Kızılcı, 1997; Reis, 2003).

When the quality of life of the patients analysed according to their educational status, the highest average score of the health and mobility subgroup belongs to the secondary school

graduates and the difference hasn't been found significant. The highest average score of psychological / religious subgroup belongs to the primary school graduates and the difference between them hasn't been found significant. The highest average score of family subgroups belongs to the university degree graduates and the difference has been found significant. The highest average score of the social and economy subgroup and total quality of life score belongs to the university degree graduates and difference has not been found significant statistically. In the studies Arslan and Kızılcı made over the cancerous patients, total score of quality of life has been found high in the university degree graduates according to Rolls Royce quality of life scale (Arslan, 2003; Kızılcı, 1999).

When the houses' being property or rent is analysed, the highest average score of the total quality of life and in its all subgroups belongs to home owners and the difference has been found significant statistically.

According to annual income, the highest average score of psychological / religious subgroup has been found in the patients who has income between 30,001 TL and 45,000 TL and the difference has not been found significant. The highest average score of the total quality of life and in its all other subgroups belongs to the patients who has income over 45,000 TL and the difference has been found significant. In the study that Kızılcı made on the cancerous patients, quality of life was found higher in the patients who had not experienced financial difficulties (Kızılcı, 1997). Also in the study that Bergner had made in 1989 shows that financial sufficiency increases the quality of life (Bergner,1989). In the study that Reis made on the cancerous patients, the quality of life was found higher in the patients with good income and the difference has not been found significant statistically (Reis, 2003). There is parallelism between these examples in the literature and our study.

In the relation between the quality of life and whether the patients get chemotherapy or not during the treatment process and in the health and mobility, social and economy and in the family subgroups, the highest score belongs to the answer yes and the difference between them has not been found significant. In the average score of psychological / religious subgroup and the average score of the total quality of life, the highest score comes to the answer yes, too and the difference between them has been found significant.

To the question of additional diseases out of cancer, in the health and mobility, social and economy subgroups and in total quality of life the highest average score belongs to the answer no and there couldn't be found a significant relation between them. The highest score in the family subgroups was given to the answer no and the difference has been found significant. The highest average score of psychological / religious subgroup has been found in the answer yes. The difference has not been found significant statistically.

When the average scores that the patients got from the quality of life scale were analysed, it has been determined that the highest score belongs to the family subscale and the lowest score belongs to health and mobility subscale.

When the perceived total average social support scores were analysed, the average score of social support from family has been found as 25.21 and the average score of social support from friends has been found as 18.05 and the average score of social support from a special person has been found as 15.92. The total average social support score has been found as 55.92. In this case, the highest perceived total average social support score derives from family



and the lowest perceived total average social support score derives from a special person. We can think that the patients get more social support from family members like spouse, child, mother, father, sibling or relatives. In a study Scmith E and et al. made in 1985, the most important source of support for married women is their husbands in the period of 1 to 3 months after genital cancer diagnosis ( Scmith et al., 1995). In an other study made by Tuna in 1993,the patients expressed that they got support from their spouses at the first place and they got support from their children at the second place. There is parallelism between these studies in the literature and our study.



**Table 1: The Average Distribution Scores Of The Quality Of Life According To The Patients' Identifier Features**

Identifier features	Number	Health and mobility subgroup score X±SD	Test ve p Rate	Social and Economy subgroup score X±SD	Test and p Rate	Psychological/religious subgroup score X±SD	Test and p Rate	Family subgroup score X±SD	Test and p Rate	Total Quality of Life X±SD	Test and p Rate
Gender											
Male	37	21.26±6.21	t =-0.08	21.39±5.57	t =0.711	23.81±6.14	t =0.584	21.88±7.24	t =1.615	21.85±5.69	t =0.559
Female	73	21.25±5.66	p=0.994	22.20±5.65	p=0.479	24.50±5.64	p=0.560	23.98±6.02	p=0.109	22.48±5.03	p=0.552
Age Group											
24-39	7	18.54±7.92	F =5.392 p= 0.001	20.50±7.82	F =3.977 p=0.005	21.58±7.92	F =3.32 p=0.013	21.52±7.97	F=10.504 p=0.000	20.02±7.56	F =6.604 p=0.000
40-49	28	22.62±4.49		23.22±4.66		25.31±4.41		23.98±5.16		23.59±3.81	
50-59	37	22.33±4.59		22.36±4.55		24.34±5.46		25.32±3.53		23.16±3.86	
60-69	25	22.01±4.91		22.97±4.99		26.04±3.08		23.63±6.18		23.22±4.08	
70+	13	15.24±8.21		16.69±7.56		19.86±9.34		14.23±8.28		16.28±7.75	
Educational Status											
Illiterate	24	19.15±8.18	F=1.408 P=0.245	16.60±8.01	F=1.991 P=0.120	22.51±8.13	F=2.078 p =0.108	19.93±8.82	F=3.483 P=0.018	19.30±2.89	F=2.001 P=0.118
Primary	57	21.90±5.13		22.39±4.78		25.48±4.14		25.98±5.65		21.14±2.40	
Secondary	18	22.05±3.14		22.45±2.68		23.96±2.81		23.55±5.35		20.32±3.22	
University D.	11	21.17±6.09		23.75±6.07		22.28±9.16		26.51±3.49		24.23±1.97	
Marital Status											
Married	94	21.63±5.47	F= 2.368 p=0.099	22.48±5.10	F= 6.268 p =0.003	24.97±5.31	F= 6.631 p=0.002	24.05±5.96	F= 4.880 p=0.009	22.81±4.73	F =4.879 p=0.009
Never married	5	22.05±4.85		23.42±5.06		23.53±4.47		18.22±6.38		22.07±4.39	
Widow/widower	11	17.68±8.15		16.53±7.39		18.59±7.43		19.00±8.66		17.76±7.6	

Identifier features	Number	Health and mobility subgroup score X±SD	Test ve p Rate	Social and Economy subgroup score X±SD	Test and p Rate	Psychological/ religious subgroup score X±SD	Test and p Rate	Family subgroup score X±SD	Test and p Rate	Total Quality of Life X±SD	Test and p Rate

Residence Status											
Home Owner	93	21.95±5.43	t =3.046	22.61±5.06	t =3.074	24.75±5.34	t =2.067	23.87±5.96	t =2.272	22.99±4.70	t =3.095
Rent	17	17.43±6.57	p =0.003	18.22±7.08	p =0.003	21.63±7.47	p =0.041	20.04±8.40	p =0.025	18.78±6.68	p =0.003
Income Status											
0-15,000	80	20.35±5.80	F =4.368	21.24±5.75	F=4.492	23.81±5.51	F =2.075	22.39±6.91	F=2.407	21.50±5.32	F=4.365
15,001-30,000	24	22.47±5.18	p =0.006	22.36±4.37	p =0.007	24.41±6.76	p =0.108	24.90± 4.73	p =0.071	23.16±4.30	p =0.006
30,001-45,000	3	27.27±2.11		29.00±1.14		29.66±0.57		29.10±0.79		28.40±1.16	
45,001-Over	3	29.39±1.05		29.68±0.54		30.00±0.00		28.00±3.46		29.36±0.55	
Are you getting chemotherapy?											
Yes	86	21.83±5.43	t =0.095	22.43±5.27	t =0.246	24.74±4.88	t =0.009	23.78±6.07	t =0.131	22.80±4.78	t =0.038
No	24	19.17±6.79	p =0.047	20.14±6.50	p =0.078	22.56±8.20	p =0.103	21.48±7.73	p =0.127	20.37±6.38	p =0.045
Do you have additional diseases?											
Yes	29	20.09±6.54	t =-1.257	20.96±5.63	t =-1.084	24.32±4.68	t =0.055	20.94±7.49	t =-2.294	21.20±5.52	t =-1.283
No	81	21.67±5.53	p =0.211	22.28±5.60	p =0.281	24.25±6.17	p =0.956	24.11±5.93	p =0.024	22.65±5.12	p =0.202

Social Security											
Yes	102	21.07±5.81	t=-.953	21.64±5.55	t=-1.91	24.13±5.92	t=-0.886	23.10±6.65	t=-1.00	22.08±5.28	t=-1.313
No	8	23.14±5.98	P=.343	25.55±5.37	P=0.058	26.02±3.58	P=0.378	25.5±03.55	P=0.318	24.60±4.27	P=0.192

Job											
Worker	9	22.06±3.37	F=0.522	22.70±4.83	F=0.447	24.51±2.55	F=0.781	24.95±3.64	F=1.142	23.07±2.64	F=0.711
Housewife	59	21.72±5.81	P=0.759	22.34±5.68	P=0.814	22.83±5.12	P=0.565	23.98±6.15	P=0.343	22.83±5.12	P=0.616
Officer	7	21.04±5.78		22.89±6.47		22.62±5.31		24.78±5.67		22.62±5.31	
Retired	30	19.96±6.78		20.64±5.94		20.76±6.20		21.00±7.71		20.76±6.20	
Private Sector	3	23.73±1.08		22.43±2.56		23.16±4.54		24.80±1.00221.45±12.09		23.47±0.84	
Own work	2	20.07±4.04		21.59±4.11		24.95±7.12				21.53±5.83	

In the total quality of life and in its all subgroups average scores, patients' not having social security has come out the most. The difference between them has been found significant statistically. In this case, we can think, it is effective that 66.4% of the patients' being women in terms of gender and 53.6% of theirs being housewife when analysed in terms of job. In the study Kızılcı made on cancerous patients, it was stated that quality of life total score was higher in those who does not have social security (Kızılcı, 1999). The results of our studies is parallel with the Study of Kızılcı. There couldn't be obtained a significant result between the quality of life of the patients according to their profession groups and their subgroups. In the studies of Yıldız, Karamanoğlu and Reis which takes part in the literature, there couldn't be obtained a significant result between profession groups and the quality of life, neither (Yıldız,1998; Karamanoğlu,1999; Reis,2003).

#### 4. RESULTS AND RECOMMENDATIONS

In our study on the effects of social support on the quality of life in the cancerous patients in the Medical Faculty of Meram situated in Konya province, it is understood that there is not a direct effect on the quality of life of gender, educational status, job, social security and whether the patient have an additional disease or not and also it is understood that there is relation between the quality of life and marital status, residence status, income status and getting chemotherapy. Some differences were observed when researches were observed in terms of subgroups. Health and mobility subgroup average score was found high in the never married patients; however, there couldn't be find a significant relation between them. There couldn't be find a significant result in psychological / religious and family subgroup's annual income. There is not an effect of income status on the quality of life of the patients in these two groups. The effect of patients'getting chemotherapy in the treatment period over their quality of life has been found significant; however, it is thought that there is not a positive effect of giving chemotherapy in the social and economy, psychological/religious subgroups and family subgroups. There was reached the outcome that there was not an effect on the quality of life whether there is additional diseases out of cancer or not but it was vice versa in the family subgroup.

The quality of life scale total average score is  $22.27 \pm 5.24$ , reliability analysis results of the scale has been found as 0.91. The total average score the patients got from the quality of life scale has been found as 4 at least and 30 at most. 0 point shows the lowest quality of life and 30 points shows the highest quality of life in the quality of life scale. We can say that the patients have taken scores above the average; in other words, the quality of life of the patients are good. Social support total average score has been found as  $25.21 \pm 4.72$  and Cronbach alpha rate has been found as 0.71.

There could be obtained significant positive results in the correlation test carried out between the multidimensionally perceived social support scale and quality of life. When the relation between the average scores of the patients' quality of life perceived from their family and total quality of life and all subscales of quality of life, there has been found a positive relation between the social support perceived from the family and all scales of the quality of life.

The perceived social support's being the most from the family has proved the family reality. There can be provided educational programmes and financial regulations for the relatives of the patient by the government. Because the social support score from a special person (from

nurse) has been found low in our study, there can be held programs, seminars and etc. for the medical staff aiming to increase the quality of life.

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# ORGANIZATIONAL IDENTIFICATION AND ORGANIZATIONAL TRUST: A RESEARCH ON EMPLOYEES WORKING IN A STATE HOSPITAL THROUGH OUTSOURCING

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## ABSTRACT

**The Problem of the Study:** It can be said that there are a slight research examining outsourced employees' organizational identification and organizational trust. These studies is a cross-sectional study aims at contribute to overcoming the deficiencies in the area.

**The Purpose of the Study:** This study aims to determine that if there are significant differences between demographic characteristics of the employees working in a state hospital through outsourcing according to the level of confidence and identification or not.

**Method:** The theoretical part of this study is developed via literature review. A survey employed to gather data from the employees working in the state hospital through outsourcing in Mugla. Questionnaires were distributed to the hospital reaching a final sample total of 124 respondents. Statistical analyses of the data were conducted in the environment of SPSS 22 software program.

**Findings and Results:** Demographic distributions of participants are as follows: 68.5% of them are female and 31.5% are male; 66.9% of them were graduated from high school, 2,5% of them received undergraduate degree and 30.6% staff has the associate degree; the vast majority of the employees (71.8%) were married. It is found that there are significant differences between gender type according to the trust in the organization, trust in the leaders and in the general score of trust ( $p < .001$ ). It is found that women received higher scores than men in three dimensions scores. There are significant differences between marital status according to the work-group identification and identification in general. There are no significant differences between education levels according to organizational trust and organizational identification.

**Key Words:** Organizational Identification, Organizational Trust, Outsourcing, State Hospital, Demographic Characteristics

## INTRODUCTION

There is a continuous interaction between the working conditions with employees in the working life. Direction and degree of this interaction can affect many organizational performance indicators such as achieving organizational goals and the creation of effectiveness and efficiency. Survival of the organizations depends on the effectiveness and efficiency. In some research variables enhancing organizational effectiveness and productivity has been determined. People who are the most valuable asset owned by the organization are the most

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important of these variables. The performance of the organizations may increase a number of organizational behaviors beyond the employees' formal duties. Hence, research on human needs and emotions in organizational life is increasing day by day. It can be said that there are several reasons about doing too much research about this subject. For example, each day the organization's environment becomes more complex and dynamic, the hierarchical structure is flattened, teamwork, empowerment and outsourcing in the sections of secondary importance increase. Hospitals are at the top of all organizations experiencing such a change and it has also observed that the trend of benefit from outsourcing particularly increasing in hospitals. In recent years, benefit from the outsourcing strategy has become widespread in the public hospitals. Benefit from outsourcing provides significant advantages in terms of productivity and quality to hospitals and however, it is suggested that the hospitals also support and strengthen the basic functions. But when the studies are examined, it appears that studies which are sampling the organizational behavior of the staff working outsourced by the hospitals are quite limited. Therefore, this study aimed to remedy a gap in the literature, examines the relationship between organizational identification and organizational trust of a public hospital outsourced staffs.

To achieve the purpose of study, outsourced employees in a public hospital are preferred as a sample. More specifically, accounting, data processing, data preparation, guidance and counseling staffs are included in the study. By demonstrating organizational trust and organizational identification of the outsourced employees, direction of the relationship between the two organizational behaviors has been identified. Key questions of the survey are as follows:

- Are there any differences between demographic characteristics of employees according to the organizational trust level?
- Are there any differences between the demographic characteristics of employees according to the levels of organizational identification?

## 2. Conceptual Framework

**2.1. Organizational Trust:** Employee confidence creates the basis of the organization. Although complex nature of organizational trust, it lives on concepts such as openness, integrity, honesty, consistency. If a person fosters positive emotions about not having damage because of his/her organizational relationships, not being exploited of the vulnerability, protected rights and interests and behavior would be to his/her benefit, it means that he/she trusts in the organization. As long as organizational climate is friendly and faithful, the sense of trust continues to increase. When viewed in terms of human relations, good faith and sincerity, organizational trust is the feeling of being sure of his colleagues; the positive expectations regarding the rights and interests will be protected and people will act fairly in all circumstances (Demirkaya and Kandemir, 2014). Organizations with high confidence are more successful and innovative than organizations have low confidence. Organizational trust depends on all employees' job satisfaction and perceived effectiveness of organization (Huff and Kelley, 2003: 82). In one research, trust in the organization is defined as perceptions of employee about the support provided by an organization and the belief that leaders will stand behind the promise and be truthful (Türköz et al. 2013). Shockley-Zalabak et al. (2000), defined trust in the organization as positive expectations and beliefs about behavior and intentions of the

individuals in the organization according to expectations, organizational roles, relationships and interdependence. According to Tan and Lim (2009) trust in the organization means that employees are willing to remain vulnerable to the actions of the organization.

In terms of organizational perspective, it is stated that a high level of organizational trust lead to high staff satisfaction and productivity (Schnake, 1991). Trust in the organization increase the motivation of staff, ensures effective teamwork, supports open communication, and the release of the staff can be significantly reduced (DeFrank and Ivancevich, 1998). Employees, whose organizational commitments are high, see themselves as a key player in the team (Jones and George, 1998).

In the literature, there are three dimensions of organizational trust. These are trust in the organization, trust in the leaders and interpersonal trust. However, these three dimensions that are intertwined with each other and there is not a standard definition in precise limits.

Trust in the organizations is the perception of the employees about the support provided by the organization (Mishra and Morrissey, 1990). The perception of the employees that they are considered valuable by the organization, and therefore to fulfill the expected behavior from them; raises their faith that organization will be aware of them and they will be rewarded. This paves the way for the trust of the organization (Wayne et al. 1997).

Trust in the leader refers to the belief of the employees that manager will be honest and faithful to the promise (Polat, 2007). It is treated as employees beliefs based on explanations and promises of the leader (Deluga, 1994:315). When employees trust their leaders, they can transfer this trust to entire organization, because they can perceive the leader as an agent of the organization. Therefore, it is suggested in the literature that trust is a process must be initiated by the leaders (Tokgöz and Aytemiz Seymen, 2013).

Interpersonal trust is defined as employees' beliefs on employees' to act against each other, honesty in speech and the good intentions. Trust between employees is a mutual phenomenon. In this case trust between two employees begins with expectations about the behavior of each other. If anyone thought that the other is reliable, begins to sharing with him and gives up controlling the movements of the other. When the other one begins to perceive that person is reliable, tends to exhibit similar reliable behavior (Tokgöz and Aytemiz Seymen, 2013).

**2.2. Organizational Identification:** Organizational identification defined as the perception of unity and belonging to the organization if the organizations succeed or failed (Ashforth and Mael, 1989: 34). Organizational identification can be expressed as the degree of self-integration of the members with the main features of the organizational identity (Dutton et al., 1994). While people introducing himself say that "I am A and member of the X organization" it demonstrates that he is proud of both to present IDs identification and the identity of the organization that identified (Ashforth, et al. 2008).

Organization, team or work group is a social category that people identify themselves as individuals (Parker and Meyer, 2011). Therefore, the direction of formation of identification concept can vary; these different aspects are the focal point of the identification. Because of organizations are combinations of different groups, there may be different levels of identification levels. It can be related with groups in organization or all of the organization (Van Dick et al. 2005; Knippenberg and VanSchie, 2000; Bartels et al. 2007).

In this research organizational identification is examined in two subsections: work group identification and identification with the organization.

Work group identification means that employees live successes and failures of the group they belong on a personal level (Boros, 2008). It can also be defined as passion to the group that he felt himself as a part. Individual believes that he/she shares the same fate and connects with psychological bond with the other members of the group identified (Tsamitis, 2009).

Identification with the Organization: In the social life individuals are evaluated according to the organization they are members. Information about individual that he/she is a member of an organization means that he/she shares some of the values and feelings of belonging to the organization. This also contributes to increase individuals' personal dignity in the positive direction. This process of being a member of a functional organization, called as identification with the organization (Bartels et al. 2007). As well as work-group identification, in identification with the organization, employee has a perception that the successes and failures of the organization are his/her own successes and failures (Fuller et al. 2006). Identification with the organization can be expressed as integration of people's goal compatible with organizational goals.

### **3. RESEARCH**

**31. Aim of Research:** We have used field research to achieve our aims. To collect data, questionnaire has been used. This study aims to determine that if there are significant differences between demographic characteristics of the employees working in a state hospital through outsourcing according to the level of confidence and identification or not.

**32. Scale:** As data collection tool Organizational Trust and Organizational Identification questionnaires have been used. Organizational trust questionnaire consists of 27 items and 3 dimensions. There are 9 items about trust in the organization developed by Whitener et al. (1998), 10 items about trust in the leader developed by Mayer et al. (1995), and 9 items about interpersonal trust developed by McAllister (1995) and validated in Turkish by Tokgöz and Aytemiz Seymen (2013). Organizational identification questionnaire consists 12 items and 2 dimensions. There are 6 items about in group identification and 6 items about organizational identification. 5-point Likert scale has been used.

**33. Sample:** The sample of the study includes 132 employees working in a state hospital through outsourcing located in Mugla and their tasks are to prepare data. The number of returned questionnaires is 126, and because of having missing values 2 of them are disqualified. 124 questionnaires are subjected to analysis.

**34. Reliability Analysis:** Reliability Analysis Results, concerning each scale in this research are (Cronbach's Alpha): organizational trust (0,918), trust to manager (0,948), and trust to colleagues (0,935), in-group identification (0,863) and organizational identification (0,806). According to these results, it can be seen that all analyzed dimensions have acceptable reliability values.

**35. Data Analysis:** To analyze data SPSS 22 software has been used. In accordance with the research purposes reliability test (Cronbach's alpha), descriptive statistics, compliance with the normal distribution, non-parametric correlation and Mann-Whitney U test have been

used. According to the results, the average scores of the dimensions don't show a normal distribution. Therefore, non-parametric tests have been used.

#### 4. FINDINGS

Demographic distributions of participants are as follows: 68.5% of them are female and 31.5% are male; 66.9% of them were graduated from high school, 2,5% of them received undergraduate degree and 30.6% staff has the associate degree; the vast majority of the employees (71.8%) were found to be married. Employee's age ranges from 25-50 years and the average of the age is 32,9 years.

**Table 1. Comparison of Gender Types According to Organizational Trust and Organizational Identification**

	Gender	n	Mean	Std. De- viation	Mann- Whit. U	Z	p
Trust in the organi- zation	Female	85	3,2353	,81408	1199,000	-2,481	,013*
	Male	39	2,8109	,78371			
Trust in the leader	Female	84	3,5226	,82101	1080,500	-2,870	,004*
	Male	38	3,0632	,70151			
Interpersonal trust	Female	85	3,8941	,94916	1372,500	-1,540	,124
	Male	39	3,6467	,95509			
General trust score	Female	84	3,5492	,70057	893,000	-3,890	,000*
	Male	38	3,1590	,53529			
Work-group identi- fication	Female	85	4,0157	,87575	1397,000	-1,415	,157
	Male	39	3,9872	,62406			
Identification with the organization	Female	85	3,7980	,71367	1454,000	-1,102	,271
	Male	39	3,6880	,68631			
General identifica- tion score	Female	85	3,9069	,77317	1336,000	-1,733	,083
	Male	39	3,8376	,55704			

Table 1 shows a comparison of organizational trust and organizational identification dimensions and overall score according to gender. It is seen that there are significant differences between gender and trust in the organization ( $p < .05$ ), trust in the leaders ( $p < .01$ ) and in the general score of trust ( $p < .001$ ). It is found that women received higher scores than men in three dimensions scores. There is no significant difference between gender types according to the organizational identification dimensions.

**Table 2. Comparison of Marital Statutes According to Organizational Trust and Organizational Identification**

	Marital Status	n	Mean	Std. Devi- ation	Mann- Whit. U	Z	p
Trust in the organiza- tion	Single	89	3,0674	,72840	1403,500	-,860	,390
	Married	35	3,1893	1,03982			
Trust in the leader	Single	87	3,3690	,70038	1416,000	-,607	,544
	Married	35	3,4057	1,04963			

Interpersonal trust	Single	89	3,7753	1,01848	1507,000	-,281	,778
	Married	35	3,9206	,77007			
General trust score	Single	87	3,3965	,62383	1406,500	-,657	,511
	Married	35	3,5052	,79630			
Work-group identification	Single	89	3,9288	,75749	988,500	-3,189	,001*
	Married	35	4,2048	,88846			
Identification with the organization	Single	89	3,7416	,65134	1250,000	-1,717	,086
	Married	35	3,8190	,83174			
General identification score	Single	89	3,8352	,68142	1143,000	-2,305	,021*
	Married	35	4,0119	,77627			

When Table 2 is examined, it is seen that there are significant differences between marital statuses according to the work-group identification ( $p < .001$ ), and identification in general ( $p < .05$ ). There is no significant difference between marital statuses according to all organizational trust dimensions.

**Table 3. Comparison of Education Levels According to Organizational Trust and Organizational Identification**

	Education level	n	Mean	Std. Deviation	Mann-Whit. U	Z	p
Trust in the organization	High school	83	3,0090	,81613	1198,000	-2,129	,033
	Associate degree	38	3,4112	,72358			
Trust in the leader	High school	83	3,3476	,82495	1297,500	-1,270	,204
	Associate degree	38	3,5946	,60688			
Interpersonal trust	High school	83	3,6921	1,01825	1250,000	-1,834	,067
	Associate degree	38	4,0380	,78196			
General trust score	High school	83	3,3463	,71108	1097,000	-2,414	,016
	Associate degree	38	3,6752	,51351			
Work-group identification	High school	83	3,9016	,86877	1167,000	-2,313	,021
	Associate degree	38	4,1711	,60091			
Identification with the organization	High school	83	3,7229	,74503	1339,500	-1,335	,182
	Associate degree	38	3,9474	,51129			
General identification score	High school	83	3,8122	,78020	1209,500	-2,056	,040
	Associate degree	38	4,0592	,53303			

Employees having bachelor degree doesn't take into consideration, because they are very small group (3 people) in the total. Analysis is conducted on 121 people. According to Table 3, it is observed that there are no significant differences between education levels according to organizational trust and organizational identification.

## 5. CONCLUSIONS AND FUTURE PROJECTIONS

According to the research findings we have found that employees' organizational trust and organizational identification levels are at a moderate level. When employees' organizational trust levels compared with levels of organizational identification; it is observed that the level of

organizational identification is higher than organizational trust. More specifically, the trust to colleagues level is the highest in the organizational trust dimensions. Similarly, it is determined that the in-group identification is highest in the organizational identification. It is remarkable that both subscales reflect the situation that employees keep colleagues at the forefront.

It is found that there are significant differences between gender and trust to organization, trust to managers and in the general score of trust and there is a significant differences between marital status and the intra-group identification, and identification in general. Lastly, there are no significant differences between organizational trust and organizational identification according to education level.

In the health care industry, practices and policies that are enhancing organizational identification and organizational trust together should be developed. Hospital management handle organizational behavior subjects such as organizational identification, organizational citizenship, organizational trust, and organizational commitment as a whole. In this sense, some subjects become more important: The employees' participation in decision making, democratic management approach, the encouragement and rewarding of employees, open and honest management style, priority to the employees' needs.

In the future research, different samples can be used and differences between these samples can be investigated. At the same time, subjects of organizational trust and organizational identification can considered along with other issues such as organizational citizenship, organizational commitment, job satisfaction, organizational culture, organizational support.

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# POSTERS





# THE INFLUENCE OF DEATH TO NURSES WORKING IN INTENSIVE CARE UNITS

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**Introduction:** The Intensive Care Units (ICU) are the departments of the hospital where the health care professionals are asked to care for patients with life-threatening situations. Dealing with death is an integral part of their everyday life. Health care professionals have tremendous psychological burden, as they have to perform a series of actions in order to oppose the occurrence of death or to contribute to the preparation of the death. The frequent contact of nurses and other health professionals with death, results in having both emotional as well as organic problems. Their personal balance is totally altered.

**Purpose:** The purpose of this review is to investigate the effect of the daily dealing with death in the professional and personal life of the nurses working in the ICU.

**Methodology:** Extensive review of the recent literature was conducted in electronic databases (Pub med, Google scholar), and in Scientific journals.

**Results:** The nurses who care for patients who are at an end-stage of their life have increased obligations, as they aim to satisfy both the physiological / organic needs of the patients as well as their needs at the social, psychological and spiritual level. These situations are particularly stressful, so the nurses have high levels of anxiety that leads after several years to burnout. It is essential for the nurses to be taught methods of dealing with death and coping with stress arising from it, in order to avoid these difficult situations. It is also important for the hospital administrations to access, analyze and address the occupational hazards present in the ICU.

**Conclusions:** The appropriate information and training of nurses working in ICUs in dealing with death is of prime importance, as they have a daily contact with life-threatening situations, thus their mental health is deteriorating.

**Key words:** dealing with death, ICU nurses, end of life stage.

# THE INFLUENCE OF THE ECONOMIC CRISIS IN CARDIOVASCULAR SYSTEM

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**Introduction:** The economic crisis has obviously negative effects on society. In the context of economical crisis, there is an increase in morbidity and mortality rates derived from cardiovascular diseases and more particularly from acute heart attacks. The inability of patients' compliance to treatment due to the cost and the negative effects of stress, as a consequence of the economic crisis, on cardiovascular health, are also apparent.

**Objective:** The objective of this review is to investigate the effect of the economic crisis on the cardiovascular system and the development of cardiovascular diseases.

**Methodology:** Extensive review of the recent literature was conducted in electronic databases (Pubmed, Scopus and Google Scholar) and scientific journals.

**Results:** In all countries in economic crisis the health of the lower socioeconomic strata suffer more due to a deterioration of the quality of nutrition, limited access to health services and this fact combined with higher rates of anxiety and depression and increased rates of smoking leads to increased cardiovascular mortality. The sleep disorders are mainly due to the uncertainty and anxiety about the future. An increase of alcohol consumption in combination with all the above events have also devastating effects in the cardiovascular system.

**Conclusions:** From the experience we have so far in the countries affected by the economic crisis, it seems that there is a direct connection between the crisis and the rise of the cardiovascular diseases. It is necessary, therefore, to find alternative ways to deal with anxiety and depression, to make efforts to improve the living and to try to overcome habits that damage the cardiovascular system and as a result they lead to a deterioration of the existing situation with painful consequences on the health of individuals.

**Key words:** economic crisis, cardiovascular system, cardiovascular diseases.

# RISK FACTORS OF SENILE DEMENTIA

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**INTRODuCTION:** Dementia is not a single disease but a set of symptoms related to brain cognitive functions affecting the patient's daily routine.

**PuRPOSE:** The purpose of this retrospective study is to identify the risk factors of senile dementia.

**MATERIAI & METHODS REvIEW:** An extensive review of the recent literature in electronic databases (Pub med, Google scholar) and magazines was conducted.

**Keywords:** risk factors, senile dementia.

**RESulTS:** The brain is an organ that requires a lot of energy which is provided by the heart through the blood vessels. If their health suffers, suffers and brain health with dementia. Often has become the need of the proper functioning of the cardiovascular system for the proper functioning of the brain. Increased age is the most important cause of the disease, since rarely occurs before 65 years. A very important factor is the genetic burden, since relatives of people with dementia are more frequently affected. We have found some genes associated with the disease, although their presence does not ensure the occurrence of the disease, nor their absence removal risk. Also, chronic alcohol consumption and smoking are an important factor in the occurrence of senile dementia compared but people who do not abuse these substances. The effect of exercise on the incidence of dementia has been shown that the incidence of people who exercised more than three times a week was almost 40% less compared with those who exercised less. Moreover, presence of diabetes is due to 90% to develop dementia later.

**CONCluSIONS:** Senile Dementia is a disease that causes high health impacts and in the daily life of the individual, but the knowledge of factors can reduce the appearance.

# GENETIC FACTORS AND MENTAL DISORDERS

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**INTRODuCTION:** The systematic investigation of the role of genetic factors in the onset of mental disorders occurs mainly in recent decades and this is due to the progress made in the methodology of the studies and tightening the criteria for the diagnosis of diseases.

**PuRPOSE:** The purpose of this retrospective study is to highlight the impact of genes on mental health.

**MATERIAI & METHODS REvIEW:** An extensive review of the recent literature in electronic databases (Pub med, Google scholar) and magazines was conducted.

**Keywords:** genetic, genetic factors, mental disorders.

**RESuLTS:** Genetic factors implicated mainly event anxiety disorders, particularly panic disorder and obsessive compulsive disorder, and suicidal behavior. The family studies have verified the earlier empirical observations of familial onset of mental disorders, particularly major, with the finding that the first-degree relatives (parents, siblings, children) of the patient exhibit a significantly higher risk of suffering from the same disorder in compared with relatives of healthy controls. The risk of disease is proportional to the degree of kinship with the patient's relatives. So, for second-degree relatives (half siblings, grandparents, uncles, grandchildren, nieces and nephews) the risk of disease significantly below the corresponding first-degree relatives, is at levels approximately twice that of the general population. In contrast, for the third degree relatives (first cousins) were found to be only slightly higher than the risk in the general population.

**CONCluSIONS:** Understanding the interaction of genetic and environmental factors is expected to help identify people at high risk and effective prevention and treatment of mental illness.

# MENTAL HEALTH IN HEMODIALYSIS

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**INTRODuCTION:** Patients with kidney disease are a group of chronically ill patients, who in addition to medical problems caused by the disease itself are faced with many changes regarding their lifestyle and their integration at scheduled dialysis sessions.

**PuRPOSE:** The purpose of this retrospective study is to highlight the effects of dialysis on the mental health of patients.

**MATERIAI & METHODS REvIEW:** An extensive review of the recent literature in electronic databases (Pub med, Google scholar) and magazines was conducted.

**Keywords:** patients, mental health, hemodialysis.

**RESulTS:** Depression is the most common psychological complication encountered in hemodialysis and usually expresses their attitude towards reality experienced. The mood seems to be lasting, and usually occurs with low self-esteem and feelings of frustration and despair. The suicide attempt and suicide is quite common, while an undetermined number of deaths due to violation dietary rules, may be associated with suicidal tendencies. Stress also is a diffuse and uneasy feeling that like any disease, so in hemodialysis patients, occurs quite frequently. This is because the patients did not have many outlets, such as labor, freedom of movement, and his thoughts always trapped in potential complications of the disease, death etc. The main stressors of hemodialysis include, uncertainty about the future, the restriction of space and vacation time, the loss of body functions, reduced ability childbearing dependence health personnel, the impact on the profession, the wait for a transplant, and more.

**CONCluSIONs:** Health professionals, especially psychologists should support patients on dialysis to reduce the impact of disease on their mental health.

# AIDS AND MENTAL HEALTH

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**INTRODuCTION:** HIV is still lethal and the disease of AIDS is a chronic disease with all the emotional and psychological impact involved.

**PuRPOSE:** The purpose of this retrospective paper is to highlight the impacts of AIDS in the mental health of patients.

**MATERIAI& METHODS REvIEW:** Extensive review of the recent literature in electronic databases (Pub med, Google scholar) and magazines.

**Keywords:** mental health effects, AIDS.

**RESuLTS:** The people who became ill from the virus are more likely to develop depression, anxiety disorders, PTSD and suicidal behavior .An important factor is the side effects of antiretroviral drugs on the central nervous system and brain, shown on their mood, in cognitive functions, even with dementia symptoms. The presence of depression in HIV-positive patients worsens the physical state of these that's why they feel hopelessness and do not conform to the medication. There are frequent suicidal ideation and self-harm. Even if there is no disturbance, the seropositive patients incur with difficulty concentrating, irritability, lack of energy \_ nervousness.

**CONCluSIONS:** The way we talk about AIDS strengthens and perpetuates prejudice and leads to stigmatization marginalization of HIV positive people which results of it is to increase the psychological problems of these people.

# ARTERIAL HYPERTENSION IN CHILDREN AND ADOLESCENTS

KOURKOUTA L<sup>1</sup>, BARELIS<sup>2</sup> G, PAPADOPOULOU L<sup>2</sup>, PAPOULIA F<sup>2</sup>, ILIADIS C<sup>2</sup>, KLEISIARIS C<sup>3</sup>

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**INTRODuCTION:** A child blood pressure increase during the first six weeks of life and then remains almost constant until the age of five years, after which the pressure is progressively increased until it reaches the level of an adult. Unlike adults there isn't a threshold blood pressure, in which, according to clinical trials ,should be given antihypertensive therapy.

**PuRPOSE:** The purpose of this retrospective study is to highlight the relationship of hypertension with children and adolescents.

**MATERIAI and METHOD REvIEW:** Extensive review of the recent literature was made in the electronic databases (Pub med, Google scholar) and magazines.

**Keywords:** hypertension, children, teenager.

**RESuITS:** The hypertension is rare in children and a blood pressure level, which is considered high for an adult ,are almost always associated with an underlying disease in children.The conventional sphygmomanometer is not feasible for children under 5 years old, and great care should be given to the cuff size for older children.It is also necessary to measure the pressure of the limb in children with high blood pressure in the arm in order to exclude the possibility of a aortic isthmus stenosis.Children should undergo measurement of the blood pressure, initially to identify those with high blood pressure. These children should be referred to a specialist in high blood pressure pediatrician as it is very likely to have an underlying cause.

**CONCluSIONs:** Children from the very small age should be checked for possibly increased arterial hypertension that will have a large impact on later life.



# PSYCHOLOGICAL CHARACTERISTICS SEXUAL EXPLOITED CHILDREN

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**INTRODuCTION:** The phenomenon of child sexual abuse is a problem that the consequences have duration and influences their subsequent child's life, turning it into an adult who facing difficulties in several important aspects of his life.

**PuRPOSE:** The purpose of this retrospective paper is to identify the psychological characteristics of child sexual abused.

**MATERIAI& METHODS REvIEW:** Extensive review of the recent literature in electronic databases (Pub med, Google scholar) and magazines.

**Keywords:** Psychological characteristics, child sexual abuse.

**RESuLTS:** Children who are sexual abused I show strong emotional reactions. They cry too easily, and they are too demanding. The term "frozen look" describes the characteristic expression that have. Their relation with the others and they are too reticent and in physical contact generally suspicious. It seems to have a readiness to react in danger signs or intensity from the environment. Social behavior of these children showed that they are less socially than others while their reactions are not stable. The slow physical development is positively affected when they leave the house but the disruption to speech or to behavioral problems is not easily restored. These very general characteristics show that there is severe personality disorder, which is very likely to continue to exist even when these children are adults. It is obvious that in the environment in which the child grows and abused is characterized by rejection and aggression. All this does not allow the creation of an adaptive environment conducive to the maturation of the child.

**CONCluSIONS:** Society is the one who has to highlight the problem of sexual child abused and health professionals who will face the problem and especially the psychological effects that may cause serious consequences in the future.

# THE PSYCHOLOGICAL IMPACT OF ABORTION

KOURKOUTAL<sup>1</sup>, LAVDANITI M<sup>2</sup>, MICHALACHEA<sup>3</sup>, ILIADIS C<sup>3</sup>, TAXTSOGLOU K<sup>4</sup>, DIMITRIADOU A<sup>5</sup>

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**INTRODuCTION:** In psychiatry, abortions are a major cause of important psychological disorders, mainly in women undergoing immediate intense psychosomatic injury. These disorders are manifested in both the short and long term, and can be conscious or unconscious: namely either is directly related to the traumatic event of abortion (conscious) or it appears psycho-pathological reactions which masqueraded this problem (unconscious).

**PuRPOSE:** The purpose of this retrospective study is to highlight the impact of abortion on the mental health of the woman.

**MATERIAI AND METHODS REvIEW:** Extensive review of the recent literature was made in electronic databases (Pub med, Google scholar) and magazines.

**Keyword:** psychology, psychological effects, abortion, woman.

**RESuITS:** The abortion constitutes a violent intervention both body “I” of the woman and the one that is directly related to the body, her psychology. The psychological effects exist before abortion during and after this. The anxiety, fears and guilt usually accompany women and during surgery. The main psycho-pathological situations observed in the woman who is suffering abortion are:

-Phobic sentiments fueled by the violent traumatic intervention on her body,

-Deep feelings of consciously guilt or decrypted through symbolic reductions in nightmares and events of everyday life.

-Depressive disorders because consciously or unconsciously, dominates the ‘deprivation’ that is the basic cause of depressive syndrome. This is the deprivation of the child that seems to woman’s psychology, that he has a personality from the moment of conception,

-Hysterical manifestations that may mimic any other disease state,

-Feelings of highest failure in life and a creeping despair that is aspiring woman’s psychic energy,

-Intense feelings of inferiority toward each young woman lying in the reproductive age.

CONCLUSIONS: The effects of abortion on women are important and are following throughout her whole life.

# ACUPUNCTURE AS AN ALTERNATIVE METHOD OF TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS (POSTER)

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Acupuncture as an Alternative Method of Treatment in Patients with Rheumatoid Arthritis

## Abstract

**Introduction:** Acupuncture is a form of alternative treatment of pain in rheumatoid arthritis. Many patients consider it an alternative treatment for lack of improvement of conventional therapies. Acupuncture as a treatment for pain relief has been shown to increase more and more in these patients. Recent studies on the use of acupuncture have shown that acupuncture increased by 31% in patients with rheumatoid arthritis and rheumatic diseases.

**Purpose of Study:** The purpose was to review literature is to study the effectiveness of acupuncture as an alternative method in the treatment of rheumatoid arthritis.

**Material- Methods:** A literature review was conducted using the electronic databases PubMed, Scopus and Google Scholar. The following key words were entered: “Acupuncture”, “Rheumatoid Arthritis”, “Alternative Treatment” and the combination thereof. Exclusion criteria of articles were the language, except English.

**Results:** Acupuncture has become a widely accepted intervention for many conditions that involve pain, including rheumatoid arthritis as shown in this review and in many others available in the literature. They are taken into consideration various methods used by acupuncture (traditional Chinese acupuncture or using power) and to assess and evidence on the treatment of acupuncture. It is a relatively safe method of analgesia in rheumatoid arthritis but not the best intervention. It should be noted that the use of acupuncture was observed that significantly reduced swelling, pain in the joints of the limbs as well as inflammation in the synovial tissue. In conclusion, these findings suggest that acupuncture (with or without electricity) can provide therapeutic benefits for the treatment of rheumatoid arthritis.

**Keywords:** Acupuncture, alternative method, treatment, rheumatoid arthritis

International Healthcare Management Conference (IHMC)			
SCIENTIFIC PROGRAM			
15 June 2015			
08:30-09:45	REGISTRATION		
09:45-10:30	OPENING CEREMONY		
10:30-11:20	Panel-I Moderator: Adnan Kısa, Prof. Health Policy and Health Reforms Yasar A. Ozcan, Prof. (Karaca Hall)		
11:20-11:40	Cafe-Break		
11:40-12:30	Panel-II Moderator: Adnan Kısa, Prof. The Globalization of Healthcare Services Michael A. Counte, Prof. (Karaca Hall)		
12.30-14.00	LUNCH		
	Karaca Hall	Zigana Hall	Artabel Hall
Moderator	Sıdıka Kaya, Professor	Ayşegül Kaptanoğlu, Prof.	Conference Courses
14:00-15:20	Health Effects Of Energy Part Of Employees To The Thermal Insulation In Hospitals About Saving Ideas. Halil İbrahim İçoğlu.	Factors Affecting The Decision Making Process İn Healthcare Institutions: Çağdaş Erkan Akyürek, Raya Sawalha, Sina Ide.	Quality Management in Hospital Services
	Assessment Of Physicians About Community Health Centers According To The Urban And Rural; Turkey Sample. Reşat Aydın, Egemen Ünal, Mehmet Enes Gökler, Selma Metintaş, Burhanettin Işıklı, Fatih Önsüz	The Management Of Corporate Reputation In Health Care Institutions: A Research Study For Measuring The Perception About Corporate Reputation Of Employees Working In Public And Private Hospitals: Mehtap Aracı, Emine Genç.	
	The Analysis Of Private Hospitals' Mission Statements In Terms Of Stakeholders. Ersin İrk, M.Fatih Karaca, Mesut Ardıç	The Effect Of The Organizational Cynicism And Psychological Contract On Turnover Intention: A Research For Health Care Workers: Ferda Alper Ay, Özgün Ünal.	Michael A. Counte, Ph.D., Professor School of Public Health Saint Louis/USA
	Economic Impact of Hospitals in Turkey Muammer Set, Adnan Kısa,	Medical Personnel's Duty To Notify Crimes: Gökhan Avcı, Kübra Avcı.	
	Effects Of Performance Based Payment System On Hospital Productivity. Şahin Kavuncubaşı, Salih Mollahaliloğlu, Selami Yıldırım, Hakan Kacak.	What Are The Motivation Factors For The Doctors In Managerial Positions? The Relationship Between The Need For Power With The Need For And Achievement Performance: Halis Demir, Tarhan Okan, Sedat Bostan	

	A New Approach To The Organizational Management: Using Coso Model In Human Resource Management In Health Care  Aslı Kaya, Ramazan Erdem.	Stakeholders’ Views On Training Personal Care Givers A Transnational Study:  Alper Güzel, A. Alper Ertem, Bülent Elbasan, Deran Oskay, Seyhan Fırat.	Fevzi Akıncı, Ph.D.,Professor  Kings College/ USA
	Effects Of Environmental Trust On Identification In A University Hospital: Ş. Didem Kaya, Y.Yalçın İleri, Aydan Yüceler	Evaluation Of Leadership Styles, And Health Worker Performance In Hospitals: Sait Söyler, Emreİlşçi.	
	Cafe-Break		
15:20-15:40	Karaca Hall	Zigana Hall	Artabel Hall
Moderator	Fevzi Akıncı, Prof.	Dilaver Tengilimoğlu, Prof.	Saime Şahinöz, Assoc. Prof.
15:40-17:00	Factors Having Influence Upon Patients Hospital Preferences: Nevşehir Province Public Hospital Sample .MehtapAracı, NuriyeKırsay	Mushroom Management In Health Sector Taşkın Kılıç, Çiğdem Gülce.	Development Of “Medical Device Calibration General Evaluation Form” For Medical Device Users: Ramazan Kırsaç, Ömer R. Önder.
	Assessing The Return Of Investment On Heart Disease Prevention Management Programs At The Workplace: Lauren Pote, FevziAkıncı (skype)	An Evaluation Of Health Care Personnel Employed In The Public Health Agency Of Turkey In Terms Of Business-Family Life Conflict: Ramazan Kırac, Adem Bilgin	Perception Of Leadership And Organizational Commitment Hospital Workers: Arzu Türkmen, Gülnur Üçpınar Mert.
	Medical Technology And The Impact Of Health Care Expenditure :Mortadha Alhasemalssed (skype)	Effect Of Laborers’ Overqualification Perception On Job Satisfaction: An Empirical Study On Health Sector. Bülent Kuzu ,Uğur Berk, Mehmet Kahya, Hakan Bayramlık	What Are The Islamic Discussions About Surrogacy Motherhood That Connected To The Several Advanced Medical Technology: Yılmaz Fidan.
	The Technical Efficiency Of Outpatient Services In Turkish Public Hospitals: A Stochastic Frontier Estimation: Emre Aftlgan	Work holism In Healthcare Professionals: Musa Özata, Çetin Bebe, Hilal Akman	Visits Abroad In Terms Of Health Management, Vedat Argin, Turgut Şahinöz, Saime Şahinöz
	Segment Differences In Social Marketing Health Interventions: Tufan Özsoy	A Current Situation Analysis About Disaster Management Of Public Hospitals Of Gümüşhane And Its Districts: Afşin A. Kaya, Ceren Kaya.	Effect Of Per Capita Income On The Regional Distribution Of Physicians: Growth Curve Model: Erdinç Ünal, Akın Dayan

	Activity-Based Costing And Management In A Hospital based Endoscopic Surgery Unit Ayşegül Yıldırım Kaptanoğlu, Fevzi Akıncı.	Relationship Organizational Culture and Organizational Commitment In Health Institutions: M. Serhat Semercioğlu. Derya Çetin, Abdülaziz Ali Peksoy.	Historical Development Of Health Management Training In Turkey: Mehmet Yorulmaz, Mehmet Gençtürk, Mustafa Demirkıran.
	Adolescents and Dental Health: Examining Rising Costs and Financial Barriers: Anna Miller-Buck. (Skype)	The Levels Of Burnout Of Health Employees: An Example Of Society Healthy Foundation, Abdullah Soysal, Güler Sezgin, Fedayil Yağar.	Comparison Between The Queuing System And Appointment System In Hospitals With Patient Satisfaction: Gumushane State Hospital: Sedat Bostan, Fatma Çiftçi, Yıldırım Aydoğan
	Public Relations, Social Media And Health Campaigns: A Global Perspective. Syed Pasha, Nilofer Pasha (Skype)		
17:00-17:20	Cafe-Break		
	Tomara Hall /Poster Presentations	Zigana Hall	Artabel Hall
Moderator	Taşkın Kılıç, Assist. Prof.	Muhsin Kalkışım Prof.	Y.Emre Öztürk, Assist. Prof.
17:20-18:30	Management of risks by the FMEA method in Moroccan health in situations: Case of Pathological Anatomy and cytology Laboratory in Rabat: Youssef El Hanı, Najat Mahassini, Abdelkarim Filalı-Maltouf	Obeziteye Yönelik Kamu Spotu Çalışmalarının Sağlık İletişimi Açısından İrdelenmesi: Selami Seven Sümeyye, Arslan, Şeyma Yıldız	The Effect Of Social Support On The Life Quality Of The Patients Hospitalized In The Meram Medical Faculty Of The Necmettin Erbakan University: Saft Yılmaz
	Risk Factors Of Senile Dementia: Iliadis C, Ouzounakis P, Koukourikos K, Papastergiou K, Tsaloglidou A, Kourkouta L	Sağlık Yöneticileri Tarafından Türkiye'nin Avrupa Birliği Sürecinin Sağlık Politikaları Üzerinden Değerlendirilmesi: Onur Elataş, Sedat Bostan.	Sağlık Yönetimine Bir Yaklaşım Sağlık Hizmetlerinde Halkla İlişkiler Biriminde İki Yönlü Simetri Modelinin Kullanımı: Şengül Boşkut, Bahar Seven Fırat, Abdülaziz Ali Peksoy

	Acupuncture as an Alternative Method of Treatment in Patients with Rheumatoid Arthritis: Kerasina Papastergiou, Maria Lavdaniti, Lambrini Kourkouta	Dünyadaki Hasta Haklarının Gelişimi Etik Ve Yasal Düzenlemeler: Çiğdem Koçak, Sedat Bostan	Sağlık Hiz. Finansmanı Ve Geri Ödeme Yöntem. İle Drg'ye Dayalı Ödeme: Bünyamin Temiz, Emre Sütlüoğlu, İbrahim Kızıldağ, Merve Şahin, Nazmiye Ekinci, Saliha Salih, Tuğçe N. Dursun.
	The Influence Of Death To Nurses Working In Intensive Care Units : Tsaloglidou A, Koukourikos K, Georgoudi K., Lazaridou I., Kazakos K. , Kourkouta L.	Hastanelerde Yalın Yönetim: İzzet Demir	Sağlık Kurumu Yöneticilerinin Zaman Yönetimi Yaklaşımları Araştırması: Süleyman Uysal, Sedat Bostan.
	The Influence Of The Economic Crisis In Cardio-vascular System: Tsaloglidou A., Koukourikos K., Pantelidou P., Laskari K., Dimitriadou A.	Sağlığın Sosyal Belirleyicileri Ve Yerel Yönetimlerin Etkileri: Hakkı İpek, Mehmet Hanif Kurul, Müjdat Yeşildal	Sağlık Çalışanları Açısından Medikal Turizmin Bilinirliği Ve Farkında Olması: Servet Uysal, Sedat Bostan.
	-Genetic Factors And Mental Disorders: Monios, A. -Mental Health In Hemodialysis Ouzounakis, P -Aids And Mental Health: Iliadis, C -Arterial Hypertension In Children And Adolescents: Kourkouta, L. -Psychological Characteristics Sexual Exploited Children: Kourkouta, L. -The Psychological Impact Of Abort. Kourkouta, L.	Sağlık Kurumlarında Afet Risklerinin Yönetimi "Türkiye Örneği": Sıdkı Küçükçaya	Sağlığın Geliştirilmesi Ve Teşviğinde Birinci Basamak Sağlık Hizmetlerinin Rolü: Merve Yurdakul
		Biyokimya Laboratuvarı Çalışanlarının Karşılaştığı Fiziksel Risk Faktörlerinin FMEA (htea) Analizi İle Değerlendirilmesi: Yunus Emre Öztürk, Mustafa Kemal Uslu	Hasta Ve Çalışan Güvenliği Kapsamında 112 Çalışanlarının Risk Algısının Değerlendirilmesi  Aslı Köse Ünal, Hülya Bölük, Ayşegül Demirer,
19:30-22:30	GALA DINNER		



16 JUNE 2015-TEUSDAY			
	Karaca Hall	Zigana Hall	Artabel Hall
Moderator	Metin Ateş, Prof.	Ramazan Erdem, Prof.	Musa Özata, Assoc. Prof.
09:30-10:50	Measuring Process Performance Within Healthcare Logistics - A Decision Tool For Selecting Measuring Technologies: Diana Cordes Feibert, Peter Jacobsen	Psychological Violence (Bullying): Research On Employee Health Professionals In The Emergency Department In Muş State Hospital: Abdullah Soysal, Rabia Fırftna, FedayiYağar.	Examining The Employee Satisfaction And Quality Assessment Scores Of Public Hospitals:  Hasan Evirgen, Mustafa Demirkıran. Mehmet Yorulmaz, SerapTaşkaya.
	Evaluation Of Shift Work In Oral And Dental Healt Centers From Employees' Point Of View: Mehmet Yorulmaz, Mustafa Demirkıran, Mehmet Gençtürk, Serap Taşkaya	Utilization Of Health Services In Turkey: Analysis Of Turkstat Surveys Between 2010-2012: Arif Şahin, Rojan Gümüş.	The Evaluation Of The Awareness In Occupational Health And Safety: A Field Study For Healthcare Professionals: Ramazan Kırac, Fatma Çiftçi, Zeynep Kavşur
	Importance Of Radiation Safety And Awareness Of Radiology Technicians In Terms Of Hospital Management. Şirin Özkan, Gökhan Aba,	Investigation Of Sociotropic And Autonomic Personality Traits Of Healthcare Management Students In Terms Of Some Socio-Demographic Variables: Hatice Ulusoy, Didem Gültekin, Sinem Sarıçoban	The Attitude Survey Of Nurses And Technicians For Work Safety:  Ramazan Kırac, Şura Alan, Çetin Bebe.
	Attitudes Toward Physician-Nurse Collaboration In Pediatric Oncology Hospital, Kubilay Yalçınkaya, Yasemin Akbulut, Gamze Kutlu	Occupational Risks In Health Care Workers And Employee Safety Concept: Sinem Somunoğlu İkinci	The Needlestick And Sharps Injury Encountering Situations Of Nurses And The Methods They Followed After Encounter: Yunus Emre Öztürk, Yavuz Kaan Çelik
	Malpractice Among Nurses: Trend To Error And Its Causes:  Fatma Er, Serap Altuntaş.	Analyzing Self-Efficacy-Competence Levels Of Nursing Students And Variables That Effects These Levels: Aysun Yeşiltaş, Orhan Adigüzel	Tendency Of The Nurses Working In Erzurum Towards Medical Error: Necmettin İşçi.

	Determine The Attitudes Of Nurses Who Are Working On Patient Safety In The Emergency Room: Rasim Babahanoğlu, Şura Alan	Psychological, Social And Economic Effects Of Medical Malpractice On Patients And Their Relatives :Merve Tekinarslan, Ramazan Erdem .	Using Social Media For Health Issues: A Study On The Students Of Vocational High School Of Health Services :Alper Güzel, Aysu Kurtuldu, A. Alper Ertem.
	Health Inequalities Between Countries. Gökhan Aba, Metin Ateş	Balanced Scorecard Applications in Health Care: Necla Yılmaz, Ramazan Erdem	Risk Management Employee Safety. Aydan Yücel, Ş. Didem Kaya, Serap Kılınc
	Institution of quality management in Moroccan hospitals: “Case of Ibn Sina University Hospital Centre of Rabat” Youssef El Hani, Leila Radi, Najat Mahassini, Fatima Bouazza, Abdelkarim Filali Maltouf	A Study On Patient-Physician Relations With The Framework Of Agency Theory: The Sample Of Isparta Province Center Hospitals: Elif Akkaş , Ramazan Erdem	Patient Satisfaction in Health Services: A Comparative Study in University and State Hospital: Abdullah Soysal, Sema Dökme, Fedayi Yağar.
10:50-11:10	Cafe-Break		
	Karaca Hall		Artabel Hall
11:10-11:50	Panel-III Moderator: Şahin Kavuncubaşı, Prof. International Patient Transfers (Medical Tourism) Dalia Gamil		Conference Courses Assist. Prof. Ahmet Burhan Çakıcı Legal problems and solutions for health professionals Asst. Prof. Yahya DERYAL
11:50-12:30	Panel-IV: Moderator: Şahin Kavuncubaşı, Prof Universal Patient Rights Tevfik ÖZLÜ, Prof.		
12:30-14:00	LUNCH		

	Karaca Hall	Zigana Hall	Artabel Hall
Moderator	Celalettin VatandaşProf.	Murat Küçük Prof.	
14:00-15:20	Seasonal and Migrant Farmworkers’ Satis- faction Level of Health Services in Semi-rural Areas of Eskisehir :EgemenÜnal, Reşat Aydın, Mehmet Enes Gökler,Selma Metintaş, Emine Ayhan, Tuğçe Koyuncu, Burcu Atalay, Fatih Öz, Burhanettin Işıklı.	Kidney Transplant Outreach Network (In The East- ern Province): A Step Towards Integrated Trans- plant Care In Saudi Arabia: Abdulrahman Housawi, Mohammed A. Alghonaim, Mohammed Saad Al Qahtani, Mohammad Akhtar Hossain, Mohammed Ibraheem Al Saghier	Conference Courses
	End User Satisfaction in Hospital Information Systems: A Research in Aegean Region: Özel Sebetçi, Seden Algür	Patient Safety Concept and Its Importance:  Sinem Somunoğlu İkinci	Current Approaches in Health Care Management and Leadership
	An Evaluation Of Calls Made To SABİM (Min- istry Of Health Communication Center) Line Between The Years 2004 And 2009: Sedat Bostan, Fatma Çiftçi, Taşkın Kılıç, Salih Gürhan.	Autonomy In Adolescence With Diabetes i: A Psy- chosocial Nursing Approach (Oral Preentation): Maria Lavdaniti, Sofia Zyga, Kerasina Papastergiou, Lambrini Kourkouta.	
	Elderly and their Attitudes, Satisfaction and Usage about Health Services in Turkey:  Rojan Gümüş, Arif Şahin.	Health Effects Of Energy Part Of Employees To The Thermal Insulation In Hospitals About Saving Ideas: Halil İbrahim İçoğlu.	Assist. Prof. Sedat Bostan, Gümüşhane University/ Turkey
	Comparison Of Female And Male Nurse Man- agers’ Leadership Style: Sayedali Naji, Isfahan, Maryam Karimi. Isfahan Reza	The Evaluation Of Quality Of Life Of Families Who Get Social and Economic Support: Konya Sample: Mehmet Kırlioğlu, Musa Özata	Assist. Prof. Taşkın Kılıç, Gümüşhane University/ Turkey
	Satisfaction of Hospital Inpatient and Their Companion From Hotel Services: Mahmut Kılıç, Aydan Doğan, Durmuş Gökkaya.	Comparative Investigation Of Management Of El- derly Care Services In The World and Turkey:  Ebru Ezmek, Metin Ateş.	
	Effect Of Intellectual Capital On Company Inno- vation A Research For Health Administration: Esra Çiğdem Cezlan	The Existing Definitions Of Quality Of Life In Cancer Patients: Maria Lavdaniti, Kerasina Papastergiou, Evanthia Manousaridou, Lambrini Kourkouta.	
15:20-15:40	Cafe-Break		

	Karaca Hall	Zigana Hall	
Moderator	Ömer R.Önder, Assoc. Prof.	Dan Sava, PhD.	
15:40-17:00	Determining the Satisfaction Levels of Patients Using the 112 Emergency Health Services: Sample of Konya: Musa Özata, Çetin Bebe, Mehmet Doğan, Hasan Kendirci	Social Marketing Approach In Increasing The Organ Donations: An Attitude Study Aimed At Organ Donations: Yunus Emre Öztürk, Hilal Akman, Ramazan Kırac.	
	Patient Satisfaction In Family Medicine Practice: Gülnur Üçpunar Mert, Arzu Türkmen	Social Media Perception Of Undergraduates : Yunus Emre Öztürk, Fatma Çiftçi.	
	Dental Malpractice: Dealing With A Rising Problem in Turkey :Onur Nacakgedigi, Yusuf Poyraz, Esmâ Nacakgedigi.	Aging and Aging Policies In Turkey: Esra Azime Parlak, Ramazan Erdem.	
	Babies Are First: They Need Their Own Parent Especially For First Years: Latife Özyayın, Mehmet M. Özyayın	Hip Replacement In Austria - Modeling The Economic Burden Due To Obesity: Werner Siegl, Alexander Lassnig, Jörg Schröttner.	
	Direction Of Health Expenditures In Turkish Social Security System Of 2000s: Mehmet M. Özyayın, Ömer Can Çevik , Necla İrem Ölmezoglu	Poverty Status Of The Elderly Population Applications In Turkey and Social Services : Ceylan Sülü	
	The Importance Of Ergonomics In Terms Of Employee Health A Field Of Research: Mehmet Merve Özyayın, Elif Çelenk Kaya, Necla İrem Ölmezoglu.	The Relationship Between Clinical Competence And Job Satisfaction In Shahid Montazery Hospital Nurses- es, Sayedali Naji, Azam Khanian.	
	Establishing Disability Database Of Gümüşhane Province: Turgut Şahinöz, Saime Şahinöz, Aydın Kıvanç, Muhammed Ali Köroğlu.	Organizational Identification and Organizational Trust: A Research On Employees Working in A Satellite Hospital Through Outsourcing. Saffet Ocak, Tezcan Kaşmer, Ömer Gider, Mehmet Top.	

17:00-17:30	Karaca Hall
	Closing Ceremony
18:00-20:00	City Tour
19:30-22:30	Healthcare Management Academics Meeting Dinner
07:00-21:00	17 JUNE 2015 - Social Program
	Batum- Gürcistan Tour- Uzungöl Lake Tour



# Sağlık Hizmetleri Finansmanı Ve Geri Ödeme Yöntemleri İle Drg'ye Dayalı Ödeme

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## ÖzET

**ÇALIŞMANIN SORUNU:** Sağlık hizmetlerinde kullanılan ödeme sistemlerinin hepsinin avantajlı ve dezavantajlı yanları vardır. Etkili, verimli bir finansman için dezavataji en az olan ödeme sistemi kullanılmalıdır. Bu bakımdan bakıldığında dünyanın birçok ülkesinde kullanılan DRG sistemi diğer ödeme sistemlerine göre daha az dezavantajlı olup daha fazla kullanılmaktadır. Türkiye’de de DRG sistemine geçiş çalışmaları devam etmektedir.

**ÇALIŞMANIN AMACI:** Sağlık alanında geri ödeme yöntemleri ve Teşhis İlişkili Grupları(DRG) detaylandırarak anlattığımız bu çalışmada sağlık kurumlarında daha etkili olan geri ödeme yöntemlerin ve en son hangi geri ödeme yöntemi üzerinde çalışmaların sürdürüldüğünü araştırıldı. Ayrıca sağlık kurumlarında finansman ve sağlık kurumlarında maliyetlendirmenin önemine vurgu yapılmıştır.

**METOT:** Araştırmada sistematik analiz yöntemi kullanılmıştır. Araştırma için gerekli bilgiler toplanmıştır. Daha sonra konu başlıkları belirlenip çalışmaya başlanmıştır. Çalışma devam ederken Sosyal Güvenlik Kurumu ve Teşhis İlişkili Gruplar Daire Başkanlığı’na konu hakkında bilgi almak, maliyetlendirmenin nasıl yapıldığını kavramak amacıyla birkaç kez ziyaret gerçekleştirilmiştir. En son parçalar bütünleştirilmesi sağlanmış ve editörlüğünün de yapılmasıyla birlikte çalışma tamamlanmıştır.

**Bulgular ve SONUÇLAR:** Finansman ve geri ödeme sistemi ne kadar etkili bir sistem olsa da bütün sistemlerin avantajlı ve dezavantajlı kısmı vardır. Ayrıca bir sistem ne kadar mükemmel olsa da eksik bir yanı zamanla çıkmaktadır ve bu yön onu ya revize ettirmek ya da değiştirmek zorunda bırakır. Sağlık kurumları ise eldeki kıt kaynaklarla kurumu finanse edip devamlılığını sağlamak zorundadır. Bu nedenle sağlık kurumlarında finansmanın etkili kullanabilmesi için etkili bir maliyet analizi yapılması gerekir ve yapılan bu analiz sonucunda kaynakların etkili ve verimli şekilde kullanılması sağlanabilir.

**Anahtar Kelimeler:** Finansman, maliyetlendirme, geri ödeme yöntemleri

## 1.GİRİŞ

Sağlıksistemlerikalitevemaliyetetkenleriüzerineşekillenensistemlerdir. Kalitenin artırılması en önemli hedeflerden biriyken, bunu kısıtlayan kaynaklarla sağlamak sistemi zorlaştırmaktadır. Sağlık sistemlerine ekonomik göstergeler ışığında bakıldığında sistem üzerindeki maliyet baskısının yüksek olduğu görülmektedir. Bu nedenle, sağlık bakımı için sınırsız kaynaklar ayırma olanağına sahip olunmadığı için, eldeki kaynakların azami yarar sağlayacak şekilde kullanılabilmesi fikri daha ön plana çıkmakta, kalite ve maliyet etkenlerini dengeleyebilecek politika ve araçlara ihtiyaç duyulmaktadır. Bu stratejik araçlardan en önemlisi sağlıkta geri ödeme sistemleridir. Uygulanacak geri ödeme sisteminin, bakım kalitesini artırmayı ödüllendirirken, gereksiz maliyetleri de cezalandıracak bir yapıya sahip olması gerekmektedir. Bu kapsamda; yapılan çalışmada, dünyada sağlık kurumlarına geri ödemede en çok kullanılan sistemlerden biri olan DRG/TİG (Teşhis İlişkili Gruplar)’e ağırlıklı olarak yer verilmiştir

## 2 SAĞLIK HİZMETLERİNDE FİNANSMAN KAVRAMI VE FİNANSMAN YÖNTEMLERİ

Bir sağlık sisteminin temel fonksiyonlarından biri, topluma sağlık hizmetleri sunmaktır. Kısıt kaynaklar altında artan harcamalar, bireylerin ödeme güçlüğünden dolayı sağlık hizmetlerine erişememe riski ile karşılaşma olasılığına işaret eder. Bu riskin azaltılması veya ortadan kaldırılması gerekliliği, ülkeleri sağlık finansmanına ilişkin düzenlemeler yapmaya yöneltmiştir(Uğurluoğlu, 2008).

### 2.1. Sağlık Hizmetleri Finansmanın Önemi

Sunulan sağlık hizmetinin etkiliği, verimliliği, ekonomikliği açısından optimal seviyede olabilmesi için hizmetin önemi kadar hizmet finansmanı da önemlidir(Aktan, Işık, 2007).

### 2.2. Sağlık Hizmetlerinin Finansmanı

Sağlık finansmanı, sağlık hizmetlerinin maliyetlerini karşılamak için gerekli kaynakları yaratma olarak tanımlanabilir. Sağlık finansmanının temel amacı, beklenmedik hastalıklarla karşılaştıklarında bireyleri hastalığın finansal yükünden korumaktır. Sağlık hizmetlerinin sunumu ve finansmanı arasındaki ilişki temelde kaynakların transferi olarak açıklanabilir. Bu transfer, hizmet sunucuların mal veya hizmet olarak sağlık hizmeti kaynaklarını bireylere transfer etmesi ve bireylerin veya üçüncü şahısların da finansal kaynakları hizmet sunuculara transfer etmesi ile gerçekleşir. Sağlık finansmanının işlevlerinden biri, bireylerin sağlık hizmetlerini etkili ve uygun bir şekilde satın alabilmelerini sağlamaktır. Risk havuzlama, finansal kaynakların toplanması ve yönetimidir. Böylece sağlık harcamalarının yaratacağı finansal risk, hizmetleri kimin kullandığına bakmaksızın, havuzdaki tüm bireyler tarafından paylaşılr(Uğurluoğlu, 2008).

#### 2.2.1. Doğrudan ve Dolaylı Finansman Yöntemi

Doğrudan finansman yöntemi, sağlık hizmeti talebinde bulunanların almış oldukları hizmetin bedelini doğrudan kendilerinin ödemesi anlamına gelmektedir (Aktan, Işık; 2007). Dolaylı finansman yöntemi ise; hizmet sunumunu gerçekleştiren ile talep eden arasında üçüncü parti (taraf) ödeyici yer almaktadır(Aktan, Işık, 2007). Dolaylı finansman yöntemleri şu şekildedir: Vergi gelirleri, sosyal sağlık sigortası, özel sağlık sigortası,tıbbi tasarruf hesabı, bağışlar(Uğurluoğlu, 2008).

## 3 SAĞLIK HİZMETLERİNDE GERİ ÖDEME YÖNTEMLERİ

Sağlık hizmetini finanse eden kurumun, sağlık hizmetini üreten kuruma, güvence altına aldığı

bireylerin kullandığı hizmet karşılığı ödeme yapması gerekir. Ödeme mekanizmaları finansör ve hizmet üreticisi kurumlar arasındaki ilişkiyi tanımlar (Akyürek, 2012). Sağlık hizmeti sunanlara temel olarak iki kaynaktan (doğrudan yapılan ödemeler ve dolaylı ödemeler olmak üzere) ödeme yapılır. *Doğrudan yapılan ödemelerde*, hizmetten yararlanan kişiler, kamu veya özel sektördeki hizmet sunucuya doğrudan ödeme yapar. *Dolaylı ödeme yönteminde* ise hizmetten yararlanan kişiler adına onları sigortalayan özel veya sosyal sigorta kuruluşları, işveren veya ödeme gücü olmayanlar için de devlet “üçüncü şahıs” olarak (*third party*) hizmet sunan kişi, kurum veya kuruluşlara ödeme yapar (Uz, 1997).

### 3.1. Geri Ödeme Modelleri

**Sabit Bütçe :** Hastaneye tüm harcamalarını karşılamak üzere belli bir süre için (sıklıkla yıllık) belirlenen sabit bir bütçe verilir. Bu modelde hastane yöneticileri kendilerine tahsis edilen bütçeyi en verimli şekilde harcamak zorundadır (Uz, 1997).

**Fatura Bedelinin Ödenmesi:** Hastanelere verdikleri her bir hizmet için ayrı ayrı ödeme yapılır. Bu yöntemin ödeme yapan kişi, kurum veya kuruluşlar açısından gözle görülür en önemli dezavantajı sağlık hizmetlerinin maliyetlerinin artması ve hizmet sunucular tarafından yaratılan ve çoğu zaman gereksiz olan taleplerdir (Uz, 1997).

**Gün Başına Ödeme :** Hastanelere, bireylere sundukları hizmetlerin süresi başına ödeme yapılır (Uz, 1997). Örneğin SGK yoğun bakım ödemelerini gün başına yapmaktadır.

**Kişi Başına Ödeme :** Kişi başına ödeme yöntemi, sağlık hizmetlerinde üçüncü taraf ödeyicilerin hizmet sunucularına belirli bir zaman dilimi içerisinde, kişi başına belirlenmiş sabit ücretler üzerinden ödeme yaptığı bir yöntemdir (Akyürek, 2012). Daha çok birinci basamakta uygulanmaktadır. Aile Hekimlerine ödemeler kişi başına yapılmaktadır.

**Vaka Başına veya Teşhise Göre Ödeme :** Vakanın teşhisinin ne olduğuna ve tedavisinin ne kadar zor veya kolay olduğuna bakılmaksızın her bir vaka için (örneğin genito-üriner enfeksiyon, basit diyare veya tüberküloz osteomyeliti) farklı ödeme yapılır. . Bu model (DRG- *Diagnosis Related Groups*) ilk önce ABD’de başlatılmıştır ve yaklaşık 470 teşhis grubu geliştirilmiştir (Uz, 1997).

### 3.2. Teşhis/Tanı İlişkili Gruplar (TİG/DRG)

Teşhis İlişkili Gruplar, benzer hastalar için aynı miktar kaynak tüketildiği varsayımı ile ortalama maliyetlerden hareket eden yatan hasta sınıflandırma sistemidir (Ağırbaş, 2014). TİG şu mantığa dayanır: Eğer hastaları benzer sağlık gereksinimlerine sahip hasta gruplarına kategorize edebilirsek, herhangi bir hastaya sağlanan bakımı, gruptaki diğer bütün hastalara sağlanan bakımla karşılaştırabiliriz (Kadıız, 2011).

Tüketilen kaynaklar *bağıl değer(ağırlık)* olarak değerlendirilmektedir (Ağırbaş, 2014). TİG hastalıkları önce ana tanıya göre, daha sonra da işlemlerine göre gruplandırır (Öztürk, 2014). ). Teşhis İlişkili Gruplar, sadece ödeme sistemi olarak algılanmamalı, planlama, bütçe yapma, denetim ve geleceğe bakış olarak değerlendirilmelidir (Ağırbaş, 2014).

TİG’in asıl amacı hastanenin vaka karması karışımının bu vakalar için harcanan kaynaklarla ilişkisini kurmaktır (Kadıız, 2011). TİG’e dayalı geri ödeme sisteminin diğer amaçları ise şunlardır (Öztürk, 2014):

- Hastalık grupları arasındaki maliyet farklılıklarını ortaya koymak,
- Vakaların türlerini ve şiddetini baz alarak kaynakların daha adil bir biçimde dağıtılmasını sağlamak,



- Yönetilebilir bir ödeme sistemi sunmak,
- Sağlık insan gücü planlaması için veri sağlamak,
- TİG uygulayan ülkelerle karşılaştırma imkanı,

Hastane yönetim aracı olarak yararlanmaktadır

**TİG/DRG'nin Kullanım Alanları:**Klinik faaliyetlerin ölçülmesi, finansman, hastane içi yönetim aracı, kalite ve kullanım ölçümlerine başlamak için bir araç, hastanede klinik ve finansal kararların verilmesi,

hekimler arası karşılaştırma istatistikleri ve hizmet sunucu profilleri, hastane içi ve hastaneler arası bakım kalitesi karşılaştırmaları, veri ve tanımlama standartlarının oluşturulması, DRG'ler hastane bakımına yönelik bir **ödeme** veya **bütçeleme** aracı olarak uluslararası alanda yaygın olarak kullanılmaktadır.

**Ödeme sistemi**, esas olarak, hastanelere, sunulan vaka sayısı için (DRG'lere tayin edilen, her bir vaka kendi fiyatı üzerinden olacak şekilde) ödeme yapma işlemidir.

**Bütçeleme sistemi**, yıllık veya çeyrek dönemlik bütçelerin hazırlanarak geleneksel miktar, vaka karması ölçüleri veya diğer ölçüler temelinde hastanelere dağıtımlarının yapıldığı bir sistemdir.

### 3.3. DRG için SWOT Analizi

**Güçlü yanlar:** Hastanede kalış sürelerinde kısalma, hastane kaynaklarının daha etkin kullanılması, performans artışı(Akyürek, 2012).

**Zayıf yanlar:** Hastane başvurularının ve tekrar başvurularının artması, fazla kodlama eğilimi, kurulmasının karmaşık olması(Akyürek, 2012).

**Fırsatlar:** Hastanelerde toplanan veri kalitesinde artış, kurulması daha zor olsa da, ulusal versiyonunun olması(Akyürek, 2012).

**Tehditler:**Kaynakların gereğinden daha az kullanılması, hastaların gereğinden daha az tedavi edilmesi, komplike vakalardan kaçınılması(Akyürek, 2012).

### 3.4. Sağlık Kurumlarında Maliyet Muhasebesi ve DRG'ye Dayalı Maliyet Belirleme Metodolojisi

İşletmelerde üretilen mamul ve hizmetlerle ilgili olarak ortaya çıkan maliyetlerin oluşumunun belirlenip izlenmesi, etkin bir maliyet muhasebesi sistemin varlığı ile mümkün olabilmektedir(Akdoğan,2009).

**Sağlık Kurumlarında Giderlerin Sınıflandırılması:** Sağlık kurumlarında direk malzeme, direk işçilik ve genel üretimden oluşan üretim maliyetleri gider olarak adlandırılabilir.

**Direk Malzeme Giderleri:** Hastane hizmetlerinin ayrılmaz bir parçası olan, üretimin içerisinde mutlaka bulunan, ne kadar harcandığı ve parasal değeri doğrudan tespit edilen malzemelerdir(Talakacı, 2009).

**Direk İşçilik Giderleri:** Sağlık hizmetinin üretilmesi için mutlaka gerekli olan ve üretilen sağlık hizmeti ile doğrudan ilişkili olan personel giderlerinden oluşmaktadır(Altıntaş,2003,58).

**Genel Üretim Giderleri:** Hastanedeki hizmet üretimi için gerekli olan ve direkt malzeme ve direk işçilik dışında kalan tüm giderlerdir(Talakacı,2009).

## 4 SONUÇ ve ÖNERİLER

Sağlık sisteminin sürdürülebilirliğini sağlamak için maliyet kontrolleri yanında kaliteli sağlık bakımına ihtiyaç duyulmaktadır. Bunun için ise ülkelerin yeterli finansal kaynağa sahip olması gerekir. Ancak ülkelerin sağlık harcamalarının fazla olmasına karşın sağlığa ayırabilecekleri kaynaklarıdır. Kıt kaynaklar ve artan sağlık harcamaları, bireylerin ödeme güçlüğüne dolaylı olarak sağlık hizmetlerine erişim ve kullanımda ciddi sorun yaşama olasılığını artırmaktadır. Temel amacı, bireyleri veya hane halklarını beklenmedik hastalıkların meydana getireceği finansal yüke karşı korumak olan sağlık finansmanı, çeşitli yöntemlerle sağlanmaktadır. Bu yöntemler, bir ülkede hakkaniyetli bir finansman sistemine erişilmesi amacını etkileyebilmektedir.

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# Sağlık Yönetimine Bir Yaklaşım

## Sağlık Hizmetlerinde Halkla İlişkiler Biriminde İki Yönlü Simetri Modelinin Kullanımı

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### ABSTRACT

**The Problem of the Study:** Halkla ilişkilerin temel modellerinden birisi olan İki yönlü simetri modeli, halkla ilişkiler biriminin olduğu, iletişimin büyük bir önem taşıdığı her kurumda uygulanabilecek bir modeldir. Kurum içi halkla ilişkiler birimi tarafından ortaya konan faaliyetlerin etkili ve verimli bir şekilde devam etmesi açısından önemli bir modeldir. Aynı zamanda hastane içerisinde yaşanan sorunları da etkili iletişim ile çözüme ulaştırmaktadır. İki yönlü simetri modelinin kullanımı ile hastanelerde personelin performansı, çalışma ortamı, iletişim şekli, çalıştığı pozisyon, maddi ve manevi iş tatmini gibi alanlarda yaşanan her türlü sorunun, Halkla İlişkiler Biriminin bu noktadaki etkinliğini bu model ile araştırmak mümkündür.

**The Purpose of the Study:** İki Yönlü Simetri modelinin sağlık kurumlarında uygulanabilirliğini ortaya koymak ve bu modelin kullanımı ile verimliliğin artırılması amaçlanmıştır. Bu uygulama ile hastanede memnuniyetin ve sadakatin sağlanmasının yanında kalite standartlarına da katkı sağlamaktır.

**Method:** Araştırmanın kuramsal kısmı literatür taraması sonrasında oluşturulmuştur. Halkla ilişkiler biriminde İki Yönlü Simetri Modeli kullanılarak kurum içerisinde ortak bir iletişim zemininin oluşturulmasında uygulanacak bir model oluşturulmuştur.

**Findings and Results:** Halkla ilişkiler alanında temel yapı taşlarından birisi olan İki Yönlü Simetri modeli iletişimin büyük bir öneme sahip olduğu, hizmet sektöründe faaliyet gösteren sağlık kurumlarında uygulanmaya çalışılmıştır ve uygulama modeli oluşturulmuştur. İnsanın olduğu iletişimin olduğu her kurumda ve her birimde uygulanabilecek bir modeldir.

**Key Words:** İki Yönlü Simetri Modeli, Halkla İlişkiler, Sağlık, Hastane

### INTRODUCTION

Sağlık kurumlarında faaliyetlerin en iyi şekilde yürütülebilmesi için ilk etapta halkla ilişkiler biriminin oluşturulması ve bu birimin başına da bu alanda eğitim almış bireylerin getirilmesi gerekmektedir. Oluşturulan bu birimde, iki yönlü simetri modeli, bir yönetim modeli olarak uygulanmalıdır. Bu model ile sağlık sektöründe kurum içi etkili iletişim sağlanabilir, kurum içi kontrol mekanizmalarına katkıda bulunmak, iletişim eksikliğinden kaynaklanan ve kötü bir imaja neden olan sağlık skandallarının büyük oranda engellenmesi ve üst düzeyde verimliliğin sağlanmasında önemli bir modeldir. Aynı zamanda bu modelin uygulanması kolay ve büyük maliyetler gerektirmeyen bir uygulamadır.

Halkla ilişkiler birimi, üst düzey yönetime bağlı önemli bir yönetim birimidir. Kurum içi iletişim fonksiyonunu işletme içerisinde oluşturulan kurum içi halkla ilişkiler birimi

gerçekleştirmektedir. Halkla ilişkiler, kurum içerisinde çalışanlar arasında, çalışanlar ile müşteriler arasında doğru iletişimin kurulmasında, kurum içerisinde güven ve memnuniyetin sağlanmasında, bireyler arasında iletişimden kaynaklanacak sorunların engellenmesi aşamasında faaliyet göstermekte ve üst yönetime yardımcı olmaktadır.

İki yönlü simetri modeli, iletişim alanında etkili bir modeldir. Kuruluşların sosyal sorumluluk anlayışı ile hareket ederek, çalışanların beklentilerine cevap verebilmek, iki yönlü bir iletişim kullanılarak ortak bir iletişim zemini oluşturmak bu modelle mümkündür.

Örneğin, hasta ve doktor arasında etkili bir iletişim gerçekleşmesi ve doğru teşhis koyulması, hizmet alanlardan gelen feedbacklerin dinamik yapıya dâhil edilmesi, doktora ve sağlık personeline yönelik şiddet olaylarının, uygulanan bu model sonrasında azalacağını, kurum içerisinde sosyal sorumluluk anlayışının temel alınması ile çalışanların memnun edilmesi, işinden ve çalışma ortamından memnun olan çalışanların özveri ile işlerini yürütmesi, kurumun temsilcileri olan sağlık personeli ve çalışanları da dış hedef kitleye en iyi şekilde hizmet etmesini öngören bu model her kuruma uygulanabilir.

## **THE CONCEPTUAL FRAMEWORK**

### **1. Halkla İlişkiler Modelleri**

Halkla ilişkiler stratejik iletişim modelidir. Üzerine birçok farklı tanımlamalar yapılmıştır ancak kesin bir tanımından bahsetmek zordur. Uluslararası Halkla İlişkiler Enstitüsü (IPRA) halkla ilişkileri, “bir kuruluş ile hedef kitle arasında, karşılıklı anlamayı sağlamak üzerine kurulu, özel tasarlanmış, planlanmış ve sürelendirilmiş bir çabadır.” şeklinde tanımlamıştır (Kalyon, 2007;5). Halkla ilişkiler uygulamalarının dört modeli bulunmaktadır; Basın ajansı modeli ve Barnum, Kamuoyu bilgilendirme modeli ve Ivy Lee, İki yönlü asimetrik model ve Edward Bernays, İki yönlü simetrik model.

Basın ajansı modelinde kamuoyunun kazanılması, siyasal kampanyalar için her türlü uygulamayı ve manipülasyonu kullanan basın ajanları vardır. Kamuoyu bilgilendirme modelinde kamuoyuna gerçeğin anlatılması ve kamuoyunun aydınlatılması önemlidir. George Parker ile birlikte ilk halkla ilişkiler ofisini açan Lee, araştırmacı gazetecilerin ilgi odağı haline gelen işletmelerle kamuoyu arasında iletişim kanalı işlevini üstlenmiş, 1906 yılı ilkbaharında Lee'nin halkla ilişkiler anlayışını tanımlamasına zemin hazırlayan antrasit kömür grevi ve ardından pensilvanya demir yolları halkla ilişkiler anlayışını uygulamaya koyabileceği ilk örnekler olmuştur (Peltekoğlu, 2007;104). İki yönlü asimetrik modelde tek yönlü iletişim vardır. Hedef kitleye sadece kurum açısından bakılır. Karşı taraftan alınan feedbackler sadece hedef kitleyi etkilemek için kullanılır.

### **2. İki Yönlü Simetrik Model**

Günümüzdeki halkla ilişkiler kavramına en yakın modeldir. Araştırma ve sonuçlar önem kazanmıştır. Kuruluşlar hedef kitleden isteklerini dikkate alarak halkla ilişkiler danışmanları kuruluşlarını halkın istediği doğrultuda düzenler. Sosyal sorumluluğunu uygular. Halkla ilişkiler alanındaki diğer modellerde bireyler ikna stratejilerine maruz bırakılmakta ya da pasif bir duruma getirilmekteydi. Oysa iki yönlü simetrik modelde, herhangi bir “maruz bırakma, yönlendirme, etki altına almaya çalışma» amacı yoktur; aksine bu modelde “karşılıklı anlayış, müzakere ve etkileşim” mevcuttur (Özen, 2009: 22). Böylesi bir iletişim zemini oluşturulduğu için bu model uygulandığında feedback alınıp sürece dâhil edilebilecektir ve ortak iletişim paydasında buluşulacaktır. İki yönlü simetrik model halkla ilişkiler modelleri arasında en fonksiyonel olanıdır. Bu modelin uygulanması sürekliliği ve bilgi birikimini gerektirmektedir. Kuruluşlar bu modelin önemine henüz daha varmamışlardır.

Ancak büyük ve kurumsallaşmış bir işletme, sosyal sorumluluk anlayışına uymak, çalışanın beklentisine cevap vermek, iki yönlü iletişimle ortak zemin yakalamak istediğinde, ideal olan iki yönlü simetrik modeldir (Peltekoğlu, 2007;126).

## 2. Sağlık ve Halkla İlişkiler

Halkla ilişkiler; organizasyonla hedef kitle arasında karşılıklı anlayış, kabul görme, işbirliği ve iletişimin sağlanıp sürdürülmesine yardım eden, sorunların ve konuların yönetimiyle ilgili, yönetimi kamuoyu konusunda sürekli bilgilendirerek, ona karşı duyarlı olmasına yardımcı olan, yönetimin kamu yararına hizmet etme sorumluluğunu tanımlayıp vurgulayan, eğilimlerin önceden saptanmasına yardımcı olmak için bir erken uyarı sistemi görevi yaparak yönetimin değişikliğe ayak uydurmasına ve değişiklikten yararlanmasına yardım eden, araştırma yöntemleri ile sağlıklı ve etik ilkelere uygun iletişim tekniklerinden birincil araçlar olarak yararlanan özgün bir işletme fonksiyonudur (Sjoberg' den aktaran B.Yurdakul ve diğerleri, 2007; 32).

Sağlık kurumları çok geniş bir yapıya sahiptir, bu yapı içerisinde özel uzmanlık alanlarının olması ve en son teknolojinin kullanılması özel yönetsel sistemleri gerektirmektedir. Bu sistemin içerisinde birçok türden meslek kümeleri (doktorlar, yöneticiler, yardımcı sağlık görevlileri, teknisyenler, işçiler vb) etkileşim halindedirler (Ertekin, 1978; 71). Kurumdaki iletişimin en iyi şekilde devam edebilmesi için halkla ilişkiler birimine ihtiyaç vardır.

Hastane içerisindeki yöneticiler uzmanlık alanları ne olursa olsun halkla ilişkiler alanında yeterli değildirler. Çünkü halkla ilişkiler çalışmaları özel bir eğitim ve zaman gerektirmektedir. Birimin en iyi şekilde faaliyet gösterebilmesi için alanında uzman kişilerden oluşması ve yönetim şeması içerisinde üst düzey yönetime bağlı olarak çalışmalarını yürütmesi gerekmektedir. Halkla ilişkiler uzmanlarının uygulayacağı teknikler ve iletişim modelleri ile üst düzeyde verimlilik sağlanabilmektedir.

## RESEARCH

İki yönlü simetri modelinin sağlık kurumlarındaki uygulamaları;

- **Yatan Hastalarla İletişim:** Halkla ilişkiler danışmanları ve bu birimde çalışan personel yatan hastalara günlük ziyaretler düzenlenir, onlarla iletişim kurulur. Hastalarla kurulan iletişim sonrasında iki yönlü iletişim ile elde edilen geri bildirimler sürece dâhil edilir. Hasta ve hasta yakınlarından elde edilen veriler raporlaştırılır. Bu raporlar üst yönetime sunulur ve gelen talepler sonrasında kurum içerisinde değişiklikler yapılır ve gerektiği durumlarda da yenilikler yapılır. Hastalara yapılan günlük ziyaretler onların moral ve motivasyonlarını da olumlu yönde etkiler. Bu uygulama doktorların günlük vizite çıkmaları şeklinde uygulanmaktadır. Karşılıklı yürütülen hoşgörü iletişimi sonrasında kaliteli hizmet anlayışı pekişecektir.
- **Çocuk Hastalarla İletişim: Çocuk servislerinde düzenlemeler yapılarak,** hastane onları için sıkıcı ve korkutucu bir yer olmaktan öte eğlenceli bir mekân haline getirilir. Çocuk hastaların sıkıldıkları vakit eğlenebileceği sosyal etkinlik odası oluşturulur. Yatan çocuk hastalarda, eğitim çağındaki olanların eğitimlerinden geri kalmamaları için küçük bir çalışma ofisi hazırlanır. Çocuklar doktorlarının gözetiminde bu ofiste kitap okumak ve ders çalışmak gibi faaliyetlerde bulunabileceklerdir. Bu uygulama iki yönlü iletişim modelinin sosyal sorumluluk içermesi yönünü ortaya koymaktadır. Uzun bir zaman hastanede kalan çocukların sosyal yaşamdan kopmamaları ve kendilerine olan güvenlerini yitirmemeleri açısından önemlidir bu modelin uygulanması.

- **Doktor ve Hasta İlişkileri:** Hasta ve doktor arasında herhangi bir problem çıktığında halkla ilişkiler danışmanları olaya **müdahil olup anlaşma sağlar**. Hasta ve hasta yakınları kötü bir ruh haliyle hastaneye geldikleri için agresif olabilirler ve saldırgan davranışlar gösterebilirler. Bu tür olayların ülkemizde yaşandığı da hepimizin malumudur. Hastaneye gelen vakalarda halkla ilişkiler biriminden bir personel ilgili birimde bulunur ve hasta yakınları ile ilk iletişimi kurar. Etkili iletişim ile bireyler sakinleştirilmeye çalışılırken bir yandan da sağlık uzmanlarının işlerini etkili bir şekilde yapmaları sağlanır.
- **Hastane Personeline Yönelik Etkinlikler:** Doktor ve hastane çalışanlarına çeşitli etkinlikler düzenleyip moral ve motivasyonları artırılır. Kurum içi eğitimler düzenleyerek çalışanlara etkili iletişim konusunda eğitimler düzenleyip onları bilinçlendirmek de bu modelin uygulama alanlarından birisini oluşturur. Bu modelin en büyük faydası doktorlara verilecek eğitimler sonrasında hasta- doktor arasındaki iletişim iki yönlü bir iletişim olacağından yanlış teşhis ve bunun gibi yanlış iletişimden kaynaklanan sorunları da en aza indirir.
- **Kronik Rahatsızlığı Olan Hastalar İle İletişim:** İki yönlü simetri modelinin uygulanacağı bu alanda amaçlanan etkili iletişim ve sosyal sorumluluk bilinci ile verimliliği arttırmak ve kalite standartlarını yükseltmektir. Kronik rahatsızlığı olan hastalar belirli periyotlarla zamanlarının bir kısmını hastanede geçirmektedir. Hastaların bu zamanlarını daha iyi değerlendirmeleri için bir etkinlik alanı geliştirilir. Bu alanda kitap okumaları yapılır, satranç oynanır ve bireylerin verimli zaman geçirmeleri sağlanır.

## CONCLUSIONS AND FUTURE PROJECTIONS

Sağlık kurumlarında halkla ilişkiler biriminin önemi tam olarak benimsenmediği için kurum içerisinde bu birimin aslına uygun olarak oluşturulmadığı ve görev tanımlamalarının yapılmadığı görülmektedir. Bir diğer önemli sorun ise halkla ilişkiler biriminde çalışan personelin bu alanda eğitim almış kişilerden oluşmamasıdır. Bu alanda eğitim almamış olan halkla ilişkiler personelinin, kurum içerisinde yürüteceği faaliyetler iletişim açısından yetersiz olmaktadır. Bu sorunların giderilmesi için yapılması gerekenler, kurum içi halkla ilişkiler biriminin oluşturulması ve bu birimin başına bu alanda akademik eğitimler almış halkla ilişkiler uzmanlarını getirmektir. Bu birimde gerçekleştirilen etkinliklerin sürekliliğini sağlamak ve etkisini arttırabilmek için üst düzey yönetime bağlı olarak konumlandırılması gerekmektedir.

Bu uygulamalar uzman kişiler tarafından uygulandığı ve üst yönetim tarafından desteklendiği takdirde uygulanabilirliği artacaktır. Hastaların ve çalışanların memnuniyeti **sağlanmış olacaktır. Sağlık kurumları** sosyal sorumluluklarını uygular ve bunun sonucunda olumlu imaja sahip olur ya da var olan imajı pekiştirilir. Kalite politikasının öngördüklerini de yerine getirmiş olur. Modelin uygulanacağı bütün alanlarda iki yönlü iletişim esas alınmalıdır. Ayrıca disiplin ve kontrolün temel alınacağı bu çalışma alanlarında süreklilik de çok büyük bir öneme sahiptir.

Sağlık kurumlarında akademik eğitim almış halkla ilişkiler uzmanlarının istihdam edilmesi ve bu birimin görev tanımlamasının en iyi şekilde belirlendikten sonra üst yönetim tarafından kabul edilmesi ve ciddiye alınması bu çalışmanın temel önerisidir.

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# The Effect Of Social Support On The Life Quality Of The Patients Hospitalized In The Meram Medical Faculty Of The Necmettin Erbakan University

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## ABSTRACT

**Aim:** This study has been made in order to detect the relation between the social support and quality of life that the patients perceive.

**Importance:** It is thought that knowing how and in which areas cancer and its treatment effects the patient and his family's life quality will be helpful to the cancerous patient and his family to increase their life qualities. Therefore, identifying life quality and perceived social support level of the patients placed in the sample of the study and taking necessary precautions are important in terms of contributing to the treatment process and creating a remedy.

**Method:** Questionnaire has been used in collecting data (socio-demographic questions and questions relating to the illness), Ferrans and Povvers 'Cancer adaptation of the quality of life index -111(EORTC QLQ-C30)' has been used for evaluating the quality of life; and '*Multidimensional Scale of Perceived Social Support* (MSPSS) has been used in order to identify the social support that the patients perceived. The cancerous patients hospitalized in the clinic of oncology of the Medical Faculty of Meram situated in Konya in 2015 and the patients who came to the chemotherapy unit in order to get outpatient treatment has created the universe of the study. 110 patients who are suitable for the research criteria and who accepted to participate in the research, have composed the sample of the study.

**Results and Findings:** As a result of study, a significant positive correlation has been found between the social support that the patients perceived and their total quality of life. When the average scores that the patients in the study group took from the life quality scale are evaluated, it has been determined that the highest average score belongs to psychological / religious subscale  $24.27 \pm 5.79$  and the least average score belongs to health and mobility subscale  $21.25 \pm 5.82$ . When the average scores that the patients took from the social support scale are evaluated, it has been seen that the highest average score belongs to the subscale perceived from family  $25.21 \pm 4.72$ , and the least average score belongs to the subscale perceived from a special person  $15.92 \pm 8.82$ .

**Keywords:** Cancer, Perceived social support, Perceived quality of life

## 1. INTRODUCTION

Following the World Health Organisation's (WHO) defining the health not only as not having illness and disability but also physical and mental social well-being, the issue of quality of life has started to gain importance in health care applications. With the acceptance of the illnesses had not only physical dimension but also psychosocial aspects, the importance of the concept of the quality of life has increased (Fries, Singh, 1996).

As the importance of the quality of life related to health increased, various definitions related to the concept have been developed. In the study of (Rustoen et al., 1999), the quality of life was defined as "person's sense of well-being that derived from being pleased or not pleased about the vital events important for the person (Rustoen et al., 1999). Akyol (1993) defined the concept of the quality of life as intersection between satisfaction of individuals and social relationships (Akyol, 1993). De Haes and Knippenberg (1986) defined the quality of life as "a vague and sensitive thing that everybody talks about it but nobody knows what to do clearly" (De Haes and Knippenberg, 1986).

These definitions made in the literature come along with a content covering all aspects of life like health area, socio-economic area, psychological area and family area. It's thought that it effects all these life areas in cancerous patients (Rustoen et al., 1999). Traditionally, cancer diagnosis are consubstantiate with connotations that gives rise to thought of pain and death in the patients. Therefore; cancer is a period of experiencing distressed, fearful and emotional collapse in the people's life (Courtens et al., 1996). As a result of the increase in the life spans of cancerous patients and development of new treatment methods, the thought that the cancer is a chronic disease has been increasingly accepted by the patients (Schag et al 1991; Courtens et al 1996). While fighting a chronic disease, the social support they will receive from surroundings will be helpful to the treatment period.

In this context, the relation between the social support that the cancerous patients perceive and the quality of life of them has been tried to be identified on the cancerous patients being treated in the Medical Faculty of Meram in our study.

## 2. MATERIAL AND METHOD

The study has been made on the patients hospitalized in the clinic of oncology of the Meram Medical Faculty of the Necmettin Erbakan University between the dates of 01.04.2015 and 07.04.2015 and on the patients who came to the chemotherapy unit in order to get outpatient treatment.

The data was collected from the 110 volunteer patients by the researcher using face to face interview technique. A research took an average of 15-20 minutes. The data was collected through three forms. Questionnaire has been used in collecting data (socio-demographic questions and questions relating to the illness), Ferrans and Povvers 'Cancer adaptation of the quality of life index -111(EORTC QLQ-C30)' has been used for evaluating the quality of life; and, '*Multidimensional Scale of Perceived Social Support* (MSPSS) has been used in order to identify perceived social support. The data obtained was evaluated through the ready statistical program SPSS 16. In the detection of the significance of average rates, the t test and the anova test was used in the study, the reliability of the study was found positive. In this study, reliability analysis results of the scale has been found between 0,73 -87. By Eker and et al, Cronbach Alfa internal consistency coefficient was calculated separately for subscales and found between 0.80 and 0.92 (Eker, Arkar, Yildiz, 2001).

Implementation of the Research only in the Meram Medical Faculty of the the Necmettin

Erbakan University and not being able to be understood some of the questions in the scale by the patients composed the limitations of the study. All the cancerous patients cannot be generalized by this study.

### 3. FINDINGS

66.4% of the 110 patients joined the research is consisted of women. 37.6% of the patients are at the age group of 50-59 and they consist of the majority of the sample. 51.8% of the patients are primary school graduate and 85.5% of them are married. In the job group, the housewives has consisted of a large part with the porsion of 53.6% . 92.7% of our patients have social security. While 84.5% of our patients are living with their spouse and children, 10% don't have child. 28.2% of them have three children. In terms of residence places, 63.6% of them are staying at the city center while 9.1% of them are living in the country like village or town. 84.5% of them have house at the place they stay. In terms of annual income, the portion of 72.7% is between 0 -15,000 TL and this shows that the patients in the overall sample have lower level of income. 41.8% of our patients have been diagnosed in the last 6 months and 78.2% of them have been getting chemotherapy treatment. While 73.6% of our patients don't have additional diseases, 26.4% of them have additional diseases. 69% of the additional diseases found in the patients is hypertension and 31% is diabetes.

The average rates of the quality of life of the patients which is intended for their identifier features obtained by surveys and related test statistics are presented in the Table 1. According to this, when the quality of life of the patients as regards of their gender is analysed, the men's average rate of the health and mobility subgroup scores and the psychological/religious subgroups scores are high and this is not significant statistically. However; while there was a statistically significant relation with the female patients in the social and economic subgroups, the difference in the family subscore couldn't be find significant. When the total quality of life scores are analysed, we see that there is not a relation between gender factor and quality of life. It was pointed out that there was not a relation between gender factor and quality of life scores of the patients in the study of Kızılcı in 1997 which is named the factors affecting cancer patients getting chemotherapy and their relatives, made in the Research and Application Hospital of the Medical Faculty of the 19 May University (Kızılcı, 1997).

When the quality of life of the patients according to their age groups are analysed, the highest average score of the health and mobility subgroup and the family subgroup is at the age group of 50-59 and the difference has been found significant. The highest average score of psychological / religious subgroup belongs to the age group of 60-69 and the difference between them has been found significant. The highest average score of the social and economy subgroup and total quality of life score belongs to the patients at the age group of 40-49 and the difference between them has been found significant. In the literature, Kızılcı and Reis has reached some findings which shows that the quality of life increases with the increase of age (Kızılcı, 1997; Reis, 2003).

When the quality of life of the patients analysed according to their educational status, the highest average score of the health and mobility subgroup belongs to the secondary school graduates and the difference hasn't been found significant. The highest average score of psychological / religious subgroup belongs to the primary school graduates and the difference between them hasn't been found significant. The highest average score of family subgroups belongs to the university degree graduates and the difference has been found significant. The highest average score of the social and economy subgroup and total quality of life score belongs to the university degree graduates and difference has not been found significant statistically.

In the studies Arslan and Kızılcı made over the cancerous patients, total score of quality of life has been found high in the university degree graduates according to Rolls Royce quality of life scale (Arslan, 2003; Kızılcı, 1999).

When the houses' being property or rent is analysed, the highest average score of the total quality of life and in its all subgroups belongs to home owners and the difference has been found significant statistically.

According to annual income, the highest average score of psychological / religious subgroup has been found in the patients who has income between 30,001 TL and 45,000 TL and the difference has not been found significant. The highest average score of the total quality of life and in its all other subgroups belongs to the patients who has income over 45,000 TL and the difference has been found significant. In the study that Kızılcı made on the cancerous patients, quality of life was found higher in the patients who had not experienced financial difficulties (Kızılcı, 1997). Also in the study that Bergner had made in 1989 shows that financial sufficiency increases the quality of life (Bergner,1989). In the study that Reis made on the cancerous patients, the quality of life was found higher in the patients with good income and the difference has not been found significant statistically (Reis, 2003). There is parallelism between these examples in the literature and our study.

In the relation between the quality of life and whether the patients get chemotherapy or not during the treatment process and in the health and mobility, social and economy and in the family subgroups, the highest score belongs to the answer yes and the difference between them has not been found significant. In the average score of psychological / religious subgroup and the average score of the total quality of life, the highest score comes to the answer yes, too and the difference between them has been found significant.

To the question of additional diseases out of cancer, in the health and mobility, social and economy subgroups and in total quality of life the highest average score belongs to the answer no and there couldn't be found a significant relation between them. The highest score in the family subgroups was given to the answer no and the difference has been found significant. The highest average score of psychological / religious subgroup has been found in the answer yes. The difference has not been found significant statistically.

When the average scores that the patients got from the quality of life scale were analysed, it has been determined that the highest score belongs to the family subscale and the lowest score belongs to health and mobility subscale.

When the perceived total average social support scores were analysed, the average score of social support from family has been found as 25.21 and the average score of social support from friends has been found as 18.05 and the average score of social support from a special person has been found as 15.92. The total average social support score has been found as 55.92. In this case, the highest perceived total average social support score derives from family and the lowest perceived total average social support score derives from a special person. We can think that the patients get more social support from family members like spouse, child, mother, father, sibling or relatives. In a study Scmith E and et al. made in 1985, the most important source of support for married women is their husbands in the period of 1 to 3 months after genital cancer diagnosis ( Scmith et al., 1995). In an other study made by Tuna in 1993, the patients expressed that they got support from their spouses at the first place and they got support from their children at the second place. There is parallelism between these studies in the literature and our study.

**Table 1: The Average Distribution Scores OfThe Quality OfLife According To The Patients' Identifier Features**

Identifier features	Number	Health and mobility subgroup score  X±SD	Test ve p Rate	Social and Economy subgroup score  X±SD	Test and p Rate	Psychological/ religious subgroup score  X±SD	Test and p Rate	Family subgroup score  X±SD	Test and p Rate	Total Quality of life  X±SD	Test and p Rate
Gender											
Male	37	21.26±6.21	t =-0.08	21.39±5.57	t =0.711	23.81±6.14	t =0.584	21.88±7.24	t =1.615	21.85±5.69	t =0.559
Female	73	21.25±5.66	p=0.994	22.20±5.65	p=0.479	24.50±5.64	p=0.560	23.98±6.02	p=0.109	22.48±5.03	p=0.552
Age Group											
24-39	7	18.54±7.92	F =5.392  p= 0.001	20.50±7.82	F =3.977  p=0.005	21.58±7.92	F =3.32  p=0.013	21.52±7.97	F=10.504  p=0.000	20.02±7.56	F =6.604  p=0.000
40-49	28	22.62±4.49		23.22±4.66		25.31±4.41		23.98±5.16		23.59±3.81	
50-59	37	22.33±4.59		22.36±4.55		24.34±5.46		25.32±3.53		23.16±3.86	
60-69	25	22.01±4.91		22.97±4.99		26.04±3.08		23.63±6.18		23.22±4.08	
70+	13	15.24±8.21		16.69±7.56		19.86±9.34		14.23±8.28		16.28±7.75	
Educational Status											
Illiterate	24	19.15±8.18	F=1.408  P=0.245	16.60±8.01	F=1.991  P=0.120	22.51±8.13	F=2.078  p =0.108	19.93±8.82	F=3.483  P=0.018	19.30±2.89	F=2.001  P=0.118
Primary	57	21.90±5.13		22.39±4.78		25.48±4.14		25.98±5.65		21.14±2.40	
Secondary	18	22.05±3.14		22.45±2.68		23.96±2.81		23.55±5.35		20.32±3.22	
University D.	11	21.17±6.09		23.75±6.07		22.28±9.16		26.51±3.49		24.23±1.97	
Marital Status											
Married	94	21.63±5.47	F= 2.368  p=0.099	22.48±5.10	F= 6.268  p =0.003	24.97±5.31	F= 6.631  p=0.002	24.05±5.96	F= 4.880  p=0.009	22.81±4.73	F =4.879  p=0.009
Never married	5	22.05±4.85		23.42±5.06		23.53±4.47		18.22±6.38		22.07±4.39	
Widow/widower	11	17.68±8.15		16.53±7.39		18.59±7.43		19.00±8.66		17.76±7.6	

Identifier features	Number	Health and mobility subgroup score  X±SD	Test ve p Rate	Social and Economy subgroup score  X±SD	Test and p Rate	Psychological/religious subgroup score  X±SD	Test and p Rate	Family subgroup score  X±SD	Test and p Rate	Total Quality of life  X±SD	Test and p Rate
Residence Status											
Home Owner	93	21.95±5.43	t =3.046	22.61±5.06	t =3.074	24.75±5.34	t =2.067	23.87±5.96	t =2.272	22.99±4.70	t =3.095
Rent	17	17.43±6.57	p =0.003	18.22±7.08	p =0.003	21.63±7.47	p =0.041	20.04±8.40	p =0.025	18.78±6.68	p =0.003
Income Status											
0-15,000	80	20.35±5.80	F =4.368  p =0.006	21.24±5.75	F=4.492  p =0.007	23.81±5.51	F =2.075  p =0.108	22.39±6.91	F=2.407  p =0.071	21.50±5.32	F=4.365  p =0.006
15,001-30,000	24	22.47±5.18		22.36±4.37		24.41±6.76		24.90± 4.73		23.16±4.30	
30,001-45,000	3	27.27±2.11		29.00±1.14		29.66±0.57		29.10±0.79		28.40±1.16	
45,001-Over	3	29.39±1.05		29.68±0.54		30.00±0.00		28.00±3.46		29.36±0.55	
Are you getting chemotherapy?											
Yes	86	21.83±5.43	t =0.095	22.43±5.27	t =0.246	24.74±4.88	t =0.009	23.78±6.07	t =0.131	22.80±4.78	t =0.038
No	24	19.17±6.79	p =0.047	20.14±6.50	p =0.078	22.56±8.20	p =0.103	21.48±7.73	p =0.127	20.37±6.38	p =0.045
Do you have additional diseases?											
Yes	29	20.09±6.54	t =-1.257  p =0.211	20.96±5.63	t =-1.084  p =0.281	24.32±4.68	t =0.055  p =0.956	20.94±7.49	t =-2.294  p =0.024	21.20±5.52	t =-1.283  p =0.202
No	81										
Social Security											
Yes	102	21.07±5.81	t =-.953	21.64±5.55	t =-1.91	24.13±5.92	t =-0.886	23.10±6.65	t =-1.00	22.08±5.28	t =-1.313
No	8	23.14±5.98	P =.343	25.55±5.37	P =0.058	26.02±3.58	P =0.378	25.5±03.55	P =0.318	24.60±4.27	P =0.192
Job											
Worker	9	22.06±3.37	F=0.522  P=0.759	22.70±4.83	F=0.447  P=0.814	24.51±2.55	F=0.781  P=0.565	24.95±3.64	F=1.142  P=0.343	23.07±2.64	F=0.711  P=0.616
Housewife	59	21.72±5.81		22.34±5.68		22.83±5.12		23.98±6.15		22.83±5.12	
Officer	7	21.04±5.78		22.89±6.47		22.62±5.31		24.78±5.67		22.62±5.31	
Retired	30	19.96±6.78		20.64±5.94		20.76±6.20		21.00±7.71		20.76±6.20	
Private Sector	3	23.73±1.08		22.43±2.56		23.16±4.54		24.80±1.002		23.47±0.84	
Own work	2	20.07±4.04		21.59±4.11		24.95±7.12		21.45±12.09		21.53±5.83	

In the total quality of life and in its all subgroups average scores, patients' not having social security has come out the most. The difference between them has been found significant statistically. In this case, we can think, it is effective that 66.4% of the patients' being women in terms of gender and 53.6% of theirs being housewife when analysed in terms of job. In the study Kızılcı made on cancerous patients, it was stated that quality of life total score was higher in those who does not have social security (Kızılcı, 1999). The results of our studies is parallel with the Study of Kızılcı. There couldn't be obtained a significant result between the quality of life of the patients according to their profession groups and their subgroups. In the studies of Yıldız, Karamanoğlu and Reis which takes part in the literature, there couldn't be obtained a significant result between profession groups and the quality of life, neither (Yıldız,1998; Karamanoğlu,1999; Reis,2003).

#### **4. RESULTS AND RECOMMENDATIONS**

In our study on the effects of social support on the quality of life in the cancerous patients in the Medical Faculty of Meram situated in Konya province, it is understood that there is not a direct effect on the quality of life of gender, educational status, job, social security and whether the patient have an additional disease or not and also it is understood that there is relation between the quality of life and marital status, residence status, income status and getting chemotherapy. Some differences were observed when researches were observed in terms of subgroups. Health and mobility subgroup average score was found high in the never married patients; however, there couldn't be find a significant relation between them. There couldn't be find a significant result in psychological / religious and family subgroup's annual income. There is not an effect of income status on the quality of life of the patients in these two groups. The effect of patients'getting chemotherapy in the treatment period over their quality of life has been found significant; however, it is thought that there is not a positive effect of giving chemotherapy in the social and economy, psychological/religious subgroups and family subgroups. There was reached the outcome that there was not an effect on the quality of life whether there is additional diseases out of cancer or not but it was vice versa in the family subgroup.

The quality of life scale total average score is  $22.27 \pm 5.24$ , reliability analysis results of the scale has been found as 0.91. The total average score the patients got from the quality of life scale has been found as 4 at least and 30 at most. 0 point shows the lowest quality of life and 30 points shows the highest quality of life in the quality of life scale. We can say that the patients have taken scores above the average; in other words, the quality of life of the patients are good. Social support total average score has been found as  $25.21 \pm 4.72$  and Cronbach alpha rate has been found as 0.71.

There could be obtained significant positive results in the correlation test carried out between the multidimensionally perceived social support scale and quality of life. When the relation between the average scores of the patients' quality of life perceived from their family and total quality of life and all subscales of quality of life, there has been found a positive relation between the social support perceived from the family and all scales of the quality of life.

The perceived social support's being the most from the family has proved the family reality. There can be provided educational programmes and financial regulations for the relatives of the patient by the government. Because the social support score from a special person (from nurse) has been found low in our study, there can be held programs, seminars and etc. for the medical staff aiming to increase the quality of life.



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# Sağlık Yöneticileri Tarafından Türkiye'nin Avrupa Birliği Sürecinin Sağlık Politikaları Üzerinden Değerlendirilmesi

Onur Elataş\*

Yrd. Doç. Dr. Sedat Bostan\*\*

## ÖZET

**Çalışmanın Problemi:** Türkiye - Avrupa Birliği ilişkileri uzun ve meşakkatli bir süreçten geçmiştir. 2004 Yılı'nın Aralık ayında Devlet ve Hükümet Başkanları Zirvesi'nde, Komisyon'un rapor ve tavsiyesi ile Türkiye'nin Kopenhag siyasi kriterlerine uyum sağladığı belirtilerek, Türkiye ile katılım müzakerelerinin 3 Ekim 2005'te başlatılması kararı alınmıştır.

Avrupa Birliği'ne tam üyelik sürecinde Türkiye'nin karşılaşabileceği sorunlardan birini de sağlık alanındaki mevzuat uyum konusu oluşturmaktadır. Türkiye, Avrupa Birliği Müktesebatının Üstlenilmesine ilişkin Türkiye Ulusal Programı'nın sağlığı ilgilendiren başlıkları altında belirtilen maddeler doğrultusunda uyum çalışmalarına devam etmektedir.

**Çalışmanın Amacı:** Çalışmanın temel amacı, Avrupa Birliği düzeyinde aday ülke Türkiye'nin sağlık ve sağlık hizmetlerine ilişkin planlama, politika, reform ve mevzuat uyum çalışmaları kapsamında yapılan uygulamaların ve sürecin ilerlemesi hakkında ilgili bürokrat ve yerel sağlık yöneticilerinin bakış açısı, tutumları ve görüşlerini belirlemektir.

**Yöntem:** Bu çalışma yüz yüze yapılandırılmış mülakat yöntemiyle yapılmıştır. Örneklem olarak beş Sağlık Bakanlığı AB Ofisi yöneticileri ve uzmanları ile ve onbeş Trabzon ve Gümüşhane deki yerel sağlık kurumu yöneticilerinden oluşmaktadır.

**Bulgular:** Genel olarak müzakere sürecinin hasta hakları, yaşlı ve sakatların bakımları ve sağlık hizmetlerine ulaşımında sürecin Türk sağlık sistemine katkı yaptığı, yeterli ve başarılı bir süreç yaşandığı ve Türk sağlık sistemi yapılanması Avrupa Birliği'ne üye olabilecek düzeyde olduğu görüşleri ifade edilmiştir.

**Sonuç:** AB sürecine yönelik olumsuz ve isteksiz yaklaşımlar bulunmakla beraber ağırlıklı olarak kazanımları olduğu ve olumlu bir yaklaşım sergilendiği söylenebilir.

**Anahtar Kelimeler:** Sağlık Yönetimi, Sağlık Politikaları, Avrupa Birliği, Müzakere Süreci

## GİRİŞ

Avrupa Birliği'nde, subsidiarite ilkesi (subsidiarity principle) uyarınca sağlık hizmetlerinin organizasyonu, finansmanı ve sunumu üye ülkelerin sorumluluğuna bırakılmaktadır. Birlik üyesi olan ülkeler, sosyal politikalarını değiştirme veya ülkeler üstü bir sosyal politika uygulama yönünde bir düzenlemeye gitmeyi tercih etmemişlerdir. Yani Birliğin, üye ülkelere tek tip bir sağlık politikası uygulatma veya uygulamaları birbirine benzetme yönünde bir zorlaması yoktur. Aksine üye ülkelerin kendi sağlık politikalarına sahip olmasına yönelik çalışmalar yapılmıştır (Akdur, 2003; 51).

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Üye ülkelerdeki sağlık politikaları tamamen ülkelere özgü olmuş ve sağlık hizmetleri ulusal düzeyde organize edilmektedir. Bu sebepten ülkeler arasında sağlığın finansmanı, hizmet sunumu, insan gücü uygulamaları ve sağlık mevzuatı konularında derin farklılıklar bulunmaktadır (Ekmen, 2006; 24).

Avrupa Birliği, son yıllarda artan bir şekilde, halk sağlığı alanında faaliyetlerini yoğunlaştırmış olup vatandaşlarının sağlığını koruma yönündeki çabalarını artırmıştır (The Health Status of The European Union, 2003;3).

AB, yaşam kalitesini yükseltmeyi hedef olarak benimsemiş olduğu halde, bu hedefe ulaşmada en önemli unsur olan insan sağlığına yönelik sağlık politikası oluşturmayı ve hizmetlerin iyileştirilmesine yönelik düzenlemeleri 1990 yılına kadar gerçekleştirmemiştir. Avrupa Birliği'nde sağlık politikaları, 1999 yılından bu yana Komisyon'un yeniden yapılanması çabaları doğrultusunda Sağlık ve Tüketicinin Korunması Genel Müdürlüğü (Health and Consumer Protection General Directorate) tarafından organize edilmeye başlamıştır. Birliğin ortak bir sağlık politikası olmamasına rağmen, sağlık konusuna bakışı kuruluşundan günümüze değin birçok değişime uğramıştır (Ekmen, 2006; 25).

Türkiye - Avrupa Birliği ilişkileri uzun ve meşakkatli bir süreçten geçmiştir. 2004 Yılı'nın Aralık ayında Devlet ve Hükümet Başkanları Zirvesi'nde, Komisyon'un rapor ve tavsiyesi ile Türkiye'nin Kopenhag siyasi kriterlerine uyum sağladığı belirtilerek, Türkiye ile katılım müzakerelerinin 3 Ekim 2005'te başlatılması kararı alınmıştır.

Avrupa Birliği'ne tam üyelik sürecinde Türkiye'nin karşılaşılabileceği sorunlardan birini de sağlık alanındaki mevzuat uyum konusu oluşturmaktadır. Türkiye, Avrupa Birliği Müktesebatının Üstlenilmesine ilişkin Türkiye Ulusal Programı'nın sağlığı ilgilendiren başlıkları altında belirtilen maddeler doğrultusunda uyum çalışmalarına devam etmektedir.

## YÖNTEM

**Veri Toplama Araçları ve Araştırmanın Modeli:** Türkiye'nin Avrupa Birliği üyeliği gerek genel bazda gerekse de sağlık düzeyinin ileri boyutlara taşınması hususunda önemli mihenk taşlarındandır. Bu önem gereği çalışma konusunda ulaşılabilecek sağlık alanındaki yerel üst yöneticilerin (Gümüşhane ve Trabzon illerinde) geneline ulaşılmaya çalışılmıştır. Net şekilde 15 soru yöneltilerek önem durumunun sağlık üst yöneticileri tarafından nasıl algılandığı belirlenmeye çalışılmış aynı zamanda Avrupa Birliği üyelik sürecinin gerek şu an ki mevcut durumda gerekse de gelecek zaman diliminde kazanımları belirlenmeye çalışılmıştır.

**Evren ve Örneklem:** Çalışmamızın evrenini Sağlık Bakanlığı AB ofisi çalışanları, Gümüşhane ve Trabzon illerindeki sağlık kurumları ve sağlık müdürlükleri oluşturmaktadır. Çalışmanın örneklemi de belirtilen bu kurumlarda çalışmaya katılmaya olumlu cevap veren çalışan üst düzey yöneticiler ve uzmanlar oluşturmaktadır.

## BulGulAR

Çalışmaya katılan üst düzey yönetici ve uzmanların statüsel dağılımları aşağıdaki gibidir;

**Tablo 1: Katılımcıların Statüsel Özellikleri**

Görev/Statü	Kişi Sayısı	Yüzdelik Dağılım (%)
-SB AB Daire Başkanı	1	5
-AB Daire BaşkanYardımcısı	1	5
-AB Çalışanı	3	15
<b>AB ÇALŞANI (toplam)</b>	<b>5</b>	<b>25</b>
-HastaneYöneticisi	6	30
-Başhekim	2	10
-Başhekim Yrd.	2	10
-Halk Sağlığı Müdürü	1	5
-İl Sağlığı Müdürü	2	10
-İdari Hizmetler Daire Başkanı	1	5
-Sağlık Hizmetleri Daire Başkanı	1	5
<b>ÜST DÜZEY YEREL SAĞLIK YÖNETİCİSİ</b>	<b>15</b>	<b>75</b>

Mülakat görüşmesinde sorulan sorulara katılımcıların verdiği cevaplar doğrultusunda oluşturulmuş tablolar ve grafikler aşağıda verilmiştir.

**Tablo 2: Türkiye'nin Üyelik Sürecinde En önemli 3 kazanımı**

Verilen Cevaplar	Sayı(N)	Yüzdelik Oran(%)
Temel insan haklarının iyileştirilmesi çalışmaları yapılmıştır.	9	45
Sosyal hayata iyileştirilmesi kapsamında çalışmalar yapılmıştır.	8	40
Ekonomik piyasada canlanmalar yaşanmıştır. (Avrupa Birliği ülkeleri ile Ticaret Hacminin Artırılması)	8	40

Genel olarak insan hakları, sosyal haklar ve ekonomi alanında kazanımlar yaşandığı ifade edilmiştir.

**Tablo 3: Türkiye'nin AB Üyelik Sürecinde En Önemli Kayıpları**

Verilen cevaplar	Sayı (N)	Yüzdelik oran (%)
Otonomi kaybının yaşanması (Türkiye'nin iç işlerine yapılan müdahalelerin olması),	4	20
Ekonomik kayıplar (ithalatın artması ülke içinde yerli üretim payının azalması),	4	20
Kültür kaybının yaşanmış olması (Toplumsal asimile olması) ve yüz kızartıcı suçların artmış olması,	3	15

Sağlık yöneticileri AB sürecinin yönetsel otonomi, kültürel ve ekonomik alanlarda kayıpların olduğu düşünmektedir.

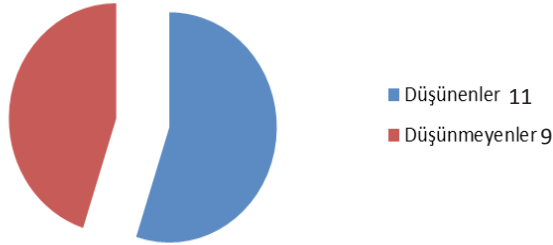
**Tablo 3: Türkiye'nin AB üyeliği Sürecinde Sağlık Alanındaki En Önemli 3 Kazanımı**

Verilen cevaplar	Sayı (N)	Yüzdelik oran (%)
Hasta hakları konusunda çalışmalar yapılmış. Bu doğrultuda birimler oluşturulmuştur.	7	35
Engelli ve yaşlı bakımı konusunda iyileştirmeler yapılmıştır.(Evde Bakım Hizmetleri)	6	30
Daha yaygın ve ulaşımı kolay sağlık hizmeti sunumu sağlandı	6	30

Sağlık yöneticileri AB sürecinin sağlık alanında sağlık hizmetlerine ulaşım ve hasta hakları konusunda iyileşmeler sağladığını ifade etmişlerdir.

**Grafik 1: Türkiye'nin AB'de Aday Ülke Statüsü Kazanacağını Düşünenler ve Düşünmeyenler**

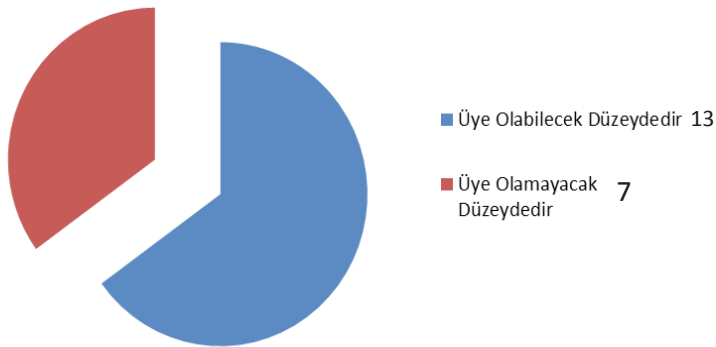
### Aday Ülke Statüsü Kazanacağını Düşünen ve Düşünmeyenler



Katılımcıların %60'ı Türkiye'nin AB'ne katılacağını düşünmektedir.

**Grafik 2: Türkiye Sağlık Sisteminin Avrupa Birliğine Üye Olabilecek Düzeyde Olup Olmadığı Cevabını Veren Katılımcıların Grafiği**

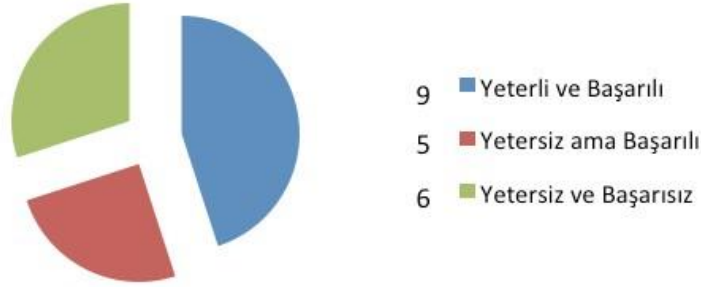
### Türkiye Sağlık Sistemi Düzeyi



Katılımcıların %65'i Türk sağlık sisteminin AB'ye katılabilecek düzeyde olduğunu ifade etmektedir.

**Garařık 3: Saęlık Alanında Yapılan Uyum alıřmalarını Yeterli ve Bařarılı Olup Olmadıęı Cevabını Veren Katılımcıların Grafięi**

### **AB Üyelik Sürecinde Yapılan Saęlık Alanında Uyum alıřmaları**



Katılımcıların %45'i AB sürecinde yapılan saęlık alanındaki uygulamaları yeterli ve bařarılı bulmaktadır.

#### **SONU**

Yapılan alıřmalar doęrultusunda yerel saęlık yöneticileri nezdinde Avrupa Birlięi üyelik sürecinin Türkiye'ye genel anlamda ve saęlık anlamında katkıları olduęu gibi kayıpların da olduęu söylenmektedir. Bunun yanı sıra yerel saęlık yöneticileri çoęunluęuna göre Türkiye'nin saęlık hizmetleri yapılanmasının Avrupa Birlięi'ne üye olabilecek düzeyde olduęu ve saęlık alanında yapılan alıřmaları yeterli ve bařarılı buldukları söylenebilir.

Türkiye'nin Avrupa Birlięi sürecinde yapılan uyum alıřmaları kapsamında duraklama dönemini yaşıyor olduęu ifade edilebilir ancak yerel saęlık yöneticilerinin çoęunluęu Türkiye'nin Avrupa Birlięi'ne üye olabileceğini ve bu sürenin 2020 sonlarında olacağını düşünmektedirler. Yerel yöneticilerin bu pozitif yaklaşımı sürece destek vereceęi söylenebilir.

Saęlık alıřanları ve Saęlık kurumları için Avrupa Birlięi üyelik sürecinin deęerlendirilmesi kapsamında alıřanlara ve kuruma çok fazla etkisinin olmadığı daha çok hasta odaklı yaklaşımı ön plana ıkarttıęı ve hastalar açısından olumlu sonuçlar doğurmakta olduęu ifade edilebilir.



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# Obeziteye Yönelik Kamu Spotu Çalışmalarının Sağlık İletişimi Açısından İrdelenmesi

Selami SEVEN\*

Sümeyye ARSLAN\*\*

Şeyma YILDIZ\*\*\*

## ÖzET

**Amaç:** Bu çalışma; obeziteyi önlemeye yönelik yürütülen kamu spotu çalışmalarını sağlık iletişimi açısından irdelemeyi amaçlamaktadır.

**Önem:** Obeziteyi önlemeye yönelik yürütülen kamu spotu çalışmaları; sağlık iletişimi açısından istenilen sonuçlara ulaşmada etkili bir faktördür. Dolayısıyla bu çalışma bu faktörü ele alması bakımından önemlidir.

**Yöntem:** Çalışmanın amacı doğrultusunda ilgili literatür taranarak, söz konusu etkileşimi ortaya koyan bir içerik analizi gerçekleştirilmiştir.

**Sonuç:** Çalışma sonucunda sağlık iletişimi açısından irdelenen iletişim kampanyalarının her ne kadar obezitenin önlenmesi üzerinde etkisi olsa da; istenildiği kadar etkili olamadığı sonucuna ulaşılmıştır.

**Anahtar Kelimeler:** Sağlık İletişimi, Kamu Spotu, Obezite, Sağlık

## 1.GİRİŞ

Halk arasında “şişmanlık” olarak bilinen obezite, vücutta fazla miktarda yağ birikmesi sonucu ortaya çıkan kronik değişikliklerle karakterize kompleks, çok faktörlü bir hastalıktır (Demiralp 2006). Obezite aynı zamanda artan şehirleşme ve değişen beslenme ile küresel çapta yaygınlığa sahip; genetik, davranışsal ve çevresel faktörlere bağlı bir hastalık olarak da tanımlanmaktadır (Akbaş 2002). Dünya Sağlık Örgütü tarafından, obezite, “sağlığı bozacak ölçüde vücutta anormal veya aşırı yağ birikmesi” olarak tanımlanmaktadır. Dünya Sağlık Örgütü (DSÖ) değerlendirmesine göre vücut ağırlığının boy uzunluğunun karesine bölünmesiyle hesaplanan vücut kitle indeksi 25-29,9 arasında olanlar “fazla kilolu”, 30’un üzerinde olanlar ise “obez” olarak değerlendirilmektedir (Yüksel ve ark.2014:150).

Morbidite ve mortaliteyi arttırma gibi olumsuzlukları olan obezite, Dünya Sağlık Örgütü (DSÖ) raporunda, diyabet hastalığının %44’ünün, kalp hastalıklarının %23’ünün ve kanser hastalıklarının neredeyse %41’inin nedeni olarak ifade edilmektedir. Çağın en tehlikeli hastalıklarından biri olan kanseri tetikleyen obezite, erkeklerde özellikle kolon, rektum ve prostat kanserini tetiklerken; kadınlarda yoğun olarak meme, serviks ve yumurtalık kanserine neden olmaktadır. Bunların yanı sıra, kas, bel, kalça, diz ve eklem ağrıları da obez bireylerin sıkça karşılaştıkları durumlardır. Obez birey, vücutta biriken fazla kilo sebebiyle, uyku sırasında solunum bozuklukları yaşayabilmekte, bu durum uyku apnesi oluşturarak kişinin

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rahatsız olmasına neden olmaktadır (Tuomilehto ve ark., 2009:50). Obezite sadece fiziksel rahatsızlıklara neden olmamaktadır. Fiziksel rahatsızlıkların yanı sıra kişiyi psikolojik ve sosyal açıdan da etkileyebilmektedir. Obezite, özellikle kadınlarda ve genç nüfusta “anoreksiya nervroza (yemek yememe) ve “bulimia” (yediklerini kusarak çıkarma) gibi yeme bozuklukları oluşmasına sebep olabilmektedir (Truswell, 2003:56; Bozbora, 2002).

Obezite aynı zamanda artan şehirleşme ve değişen beslenme ile küresel çapta yaygınlığa sahip; genetik, davranışsal ve çevresel faktörlere bağlı bir hastalık olarak da tanımlanmaktadır (Akbaş 2002). Çalışmalarda, televizyon ve bilgisayarın karşısında zaman geçirmenin de bireyleri hareketsizliğe yönelttiği ve bu durumun beden kitle indeksi artışında etkili olduğu belirtilmektedir (Francis, Lee ve Birch, 2003). Sağlıksız beslenme alışkanlıklarının artışının da obeziteye neden olduğu söylenebilir. Bireylerin yüksek kalorili beslenme ve büyük porsiyon tercih etme eğiliminde artış görülmektedir. İş ve yaşam temposunun bir gerekliliği olarak hızlı yemek yeme alışkanlığı ve sabahları iş yoğunluğundan kahvaltı öğünü atlayarak güne başlamak giderek yaygınlaşmaktadır (Kahraman,2014:8). Kalıtımın önemli bir etken olabileceği tartışma konusu iken, aile üyelerinin birbirlerinden model alarak beslenme, yaşam tarzı ve aktivite alışkanlıklarını değiştirdikleri gözlenmektedir (Saraç, 2010:33; Lyon ve Hirschhorn, 2005:215). Gebelik sürecindeki kadınlarda kilo artışı yaşanmakta, bu kilolar bazı durumlarda doğum sonrasında da devam etmektedir. Hamileliğin de kadınlarda obeziteyi arttırdığı söylenebilir (Samur, 2008). Dünyada yaklaşık 400 milyon erişkin obez olup, bu oranın 2014 yılında 700 milyonun üzerine çıkacağı öngörülmüştür (Kahraman:2014;6).

**Tablo 1. Türkiye Sağlık Araştırması 2012 Raporu 15 Ve Daha Yukarı Yaştaki Bireylerin Vücut Kitle İndeks Değerlerinin Yıllara Ve Cinsiyete Göre Dağılımı**

(%)						
Yıllar	Cinsiyet	Toplam	Düşük kilolu	Normal kilolu	Fazla kilolu	Obez
2012	Toplam	100,0	3,9	44,2	34,8	17,2
	Erkek	100,0	2,7	44,7	39,0	13,7
	Kadın	100,0	5,1	43,6	30,4	20,9
2010	Toplam	100,0	4,7	45,5	33,0	16,9
	Erkek	100,0	3,5	46,1	37,3	13,2
	Kadın	100,0	5,9	44,7	28,4	21,0
2008	Toplam	100,0	4,2	48,2	32,4	15,2
	Erkek	100,0	2,7	48,1	36,9	12,3
	Kadın	100,0	5,9	48,2	27,4	18,5

Kaynak: Türkiye İstatistik Kurumu, Türkiye Sağlık Araştırması, 2012 <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=13490>, E.T: 10.04.2015

Türkiye İstatistik Kurumu’nun Türkiye Sağlık Araştırması 2012 raporuna göre ise Türkiye’de 15 ve daha yukarı yaştaki nüfusun %17,2’si obezdir. Vücut kitle indeksi değerleri incelendiğinde; bireylerin %34,8’i fazla kilolu, %44,2’si normal kilolu, %3,9’u ise düşük kiloludur. Kadınların %20,9’u, erkeklerin ise %13,7’si obez; kadınların %30,4’ü, erkeklerin ise %39’u fazla kiloludur.

İnsan sağlığını bu derece tehdit eden bir hastalık olarak karşımıza çıkan obezite konusunda farkındalığın artırılması gerektiği ve toplumda var olan bu hastalığın halk sağlığı açısından önemli olduğu düşünüldüğünde bilinçlendirme çalışmalarına ağırlık verilmelidir. Sosyal

pazarlama araçlarından bir olan kamu spotlarının bu noktada etkili bir araç olduğu düşünülmektedir. Kamu spotu, Kamu Spotları Yönergesi'nin 3(c) maddesine göre "kamu kurum ve kuruluşları ile dernek ve vakıf gibi sivil toplum kuruluşlarınca hazırlanan veya hazırlatılan ve Üst Kurul tarafından yayınlanmasında kamu yararı olduğuna karar verilen bilgilendirici ve eğitici nitelikteki film ve sesler ile alt bantları" anlamına gelmektedir (RTÜK 2014:5).

Kamu spotları ile sosyal bir fayda yaratmak için birey, grup ve kurumların fikir, tutum ve davranışlarında olumlu yönde bir değişiklik amaçlanmaktadır. Kamu spotları kar amaçlı değil sosyal bir problemin çözümü ile topluma sağlanacak faydadır.

Sağlık iletişimi, sağlığı geliştirme yaklaşımı ile uyumlu olarak, bireylerin, kurumların ve halkın önemli sağlık sorunları hakkında bilgilendirme, etkileme ve motive etme, sanat ve tekniktir. Bilgi, inanç, tutum ve davranışlarda süreklilik yoluyla, davranışların geliştirilmesi ve sosyal değişiklikleri teşvik ederek, sonuçta sağlığı geliştirmeyi hedefler (Mahmud vd., 2013; Redmond vd., 2010). Sağlığı geliştirme, kişinin kendi sağlığı ve sağlık durumunun belirleyicileri üzerindeki kontrolü artırmayı sağlayan bir süreç olup, bireysel ve toplumsal ve davranış değişiklikleri hedeflenir (Tang vd. 2005). Sağlık kampanyaları, çeşitli sağlık problemlerine davranış ve tutum değişikliğine yönelik, birçok izleyici için, sağlık iletişiminin ilgi çekici bir aracıdır. Bir kampanya, nispeten büyük sayıdaki bireyleri etkileyen ya da spesifik sonuçlar oluşturmak niyetiyle, genellikle belirli zaman dilimi içinde, iletişim aktivitelerinin organize bir birleşimidir (Noar, 2006). Sağlık kampanyaları, direkt ya da dolaylı yollarla toplumda davranış değişikliği için çalışır. Birçok kampanya, bireysel alıcıları direkt etkileyerek, bireysel düzeyde karar verme sürecini etkilemeyi hedefler. Bir kampanya, olumsuz sağlık davranışlarını kaldırma ya da bu değişikliğe yönelik engelleri azaltmayı, kişilere sağlıklı benimsetmeyi ya da sağlıklı sosyal normları tanımlarına yardım etmeyi ve başarılı değişikliklere değer gören duyguların birlikteliğini hedefler. Bu değişiklikler değişim niyetini güçlendirir ve yeni davranışlar kazanma olasılığını artırır (Avcı,Avşar,2014:186).

Bu çalışmamız obeziteyi önlemeye yönelik kamu spotu çalışmalarını sağlık iletişimi açısından irdelemeyi ve bu amaçla sosyal pazarlamadan yararlanılarak kişilerin obeziteye yönelik doğru tutum ve davranışlara yönlendirilmesini hedeflemektedir.

## 2.SONUÇ VE ÖNERİLER

Ülkemizde de diğer dünya ülkelerinde olduğu gibi obezite görülme sıklığı gün geçtikçe artmaktadır. WHO (1998) tarafından yayınlanan obezite raporunda kitle iletişim araçlarının obeziteyi azaltmada önemli bir role sahip olduğu belirtilmektedir (Miles ve ark. 2001:358). Ayar'ın yaptığı araştırmaya göre obezitenin eşlik ettiği hastalıklar ile ilgili bilgi düzeyi değerlendirildiğinde ise obez katılımcıların daha bilinçli olduklarını, istatistiksel olarak anlamlı farklılık olmamakla birlikte erkeklerde kadınlara göre daha yüksek bilinç düzeyi olduğu tespit edilmiştir. Yurt dışındaki diğer çalışmalardaki verilere göre obezitenin eşlik ettiği hastalıklar hakkında bilincimizin diğer ülkelere göre daha düşük olduğunu ve bilinçteki bu farklılığın kadınlar arasında daha belirgin olduğu görülmüştür. Ayrıca katılımcıların obezite ve obezite ilişkili hastalıklar hakkında bilgilendirilmesinde doktorların bire bir hasta eğitiminde medyaya göre daha ikincil planda kaldıkları tespit edilmiştir. Televizyondan bilgi edinen kişilerin sayısının azımsanamayacak derecede olduğu görülmektedir. Kişileri bilinçlendirmek için kamu spotu çalışmalarına daha çok yer verilmelidir. Kahraman'ın yaptığı

araştırmaya göre katılımcıların 226'sı (%61,9) kadın ve 139'u (%38,1) erkektir. Katılımcıların sağlık bilgisi edinmede en çok kullandığı kitle iletişim araçlarını belirlemek için frekans analizi yapılmıştır. 207 katılımcı (%56,7) televizyon programlarından bilgi edindiğini, 168 katılımcı

(%46) gazetede ki haberleri takip ettiğini, 217 katılımcı internetten bilgi aradığını (%59,5), 57 katılımcı (%15,6) dergi okuduğunu, 43 katılımcı (%11,8) radyodan bilgi edindiğini ve 14 katılımcı (%3,8) posta yoluyla sağlık bilgisi edindiğini ifade etmişlerdir. Araştırma kapsamında internetten bilgi arama davranışı en yüksek frekansa sahip olurken, televizyonda yayınlanan sağlık programları aracılığı ile bilgi edinme ikinci sırada yer almaktadır.

DORInsight'ın Campaign Türkiye için 8-13 Mart 2013 tarihlerinde gerçekleştirdiği araştırmaya ise 70 ilde 18 yaş ve üzeri 1.124 kişi katılmıştır. Katılımcıların neredeyse tamamı TV'de kamu spotuna rastladığını belirtirken, radyoda rastladığını belirtenler yarı yarıyadır. Araştırmaya katılan kişilerin %98'i TV'de kamu spotuna denk geldiğini belirtiyor. Radyoda en az bir kez dinlediğini belirtenlerin oranı ise %53'tür. Radyoda dinlediğini belirten kişiler içinde 18-24 yaş arası genç kitlenin ağırlığı dikkat çekiyor. TV kanallarının yayınladıkları arasında akla gelen ilk kamu spotu %63 ile "Alo 171 Sağlık Bakanlığı Sigarayı Bırakma Hattı". Bunu %5 ile "Obeziteyle Mücadele" kamu spotu takip ediyor. Araştırmaya göre, kamu spotlarını radyoda en az bir kez dinlediğini belirten kitle içinde ilk akla gelen kamu spotu %55 ile "Alo 171 Sağlık Bakanlığı Sigarayı Bırakma Hattı". Bunu %5 ile "KOA H" ve %4 ile "Obeziteyle Mücadele" kamu spotları takip ediyor (Compaign Dergisi 2013:9 ).

Toplumda sağlık problemi yaşayan kişilerin olumlu tavır içerisinde olsalar dahi nasıl davranışları gerektiğini bilmediği veya bunu gerçekleştirecek iradeye sahip olmadıkları durumlarda kamu spotları kullanılarak sağlığın iyileştirilmesi düşünülmelidir. Kamu spotlarının kişilerde sağlıkla ilgili yeni tutum ve davranışlar oluşturduğu bilinmekte ve bunun en güzel örneği "Alo 171 Sağlık Bakanlığı Sigara Bırakma Hattı" kamu spotu çalışmasının toplumda akla ilk gelen kamu spotu çalışması olmasıdır. Obezite dünyada ve Türkiye'de giderek artan bir hastalık haline gelmekte ve bu hastalığın önlenmesi için çalışmalara ağırlık verilmesi gerekmektedir. İlgili literatür tarandığında kişilerin sağlıkla ilgili bilgi edinmek için kitle iletişim araçlarından yararlandıkları gözlemlenmiştir Bu çalışma sonucunda kamu ve özel kuruluşlar ile sivil toplum kuruluşlarının toplumda obezite hastalığında farkındalığı artırma konusunda yetersiz kaldığı, obeziteye yönelik kamu spotu çalışmalarının istenilen etkiyi yaratmadığı görülmekte; toplumu bilgilendirmek, sağlık davranışlarını değiştirmek, kişileri olumsuz davranışlarından uzaklaştırmak için kamu spotu çalışmalarına ağırlık verilmesi gerektiği düşünülmektedir.

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# Dünyadaki Hasta Haklarının Gelişimi Etik Ve Yasal Düzenlemeler

Çiğdem Koçak Gümüşhane Üniversitesi Beslenme ve Diyetetik Bölümü

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## ÖzET

Çalışmanın **Konusu** : İnsan hakları ve hasta haklarının paralel ilerleyişi , hasta haklarının etik ve yasal yönleri ve Dünya’da hasta haklarının gelişimi konusunda yapılan çalışmalar , etik ve yasal düzenlemelerdir.

Çalışmanın **Amacı** : Hak , sağlık ve hasta haklarının tanımı üzerine bilgi vermek, insanın var olduğu andan itibaren sahip olduğu hak ve sorumluluklara yani diğer bir deyişle sadece hayatta olduğu için bile sahip olduğu menfaatlere, bununla birlikte ; hasta haklarının , insan hakları kavramının doğal bir sonucu olarak ortaya çıktığını savunmak ve açıklamaktır. Ayrıca Dünya’da özellikle 21. yy da gerçekleşen gelişmeleri , yayımlanan bildirileri açıklamak ve hasta haklarının gelişimine dair yayımlanan bildiriler arasında kıyas yaparak , bu konuda geline son noktayı vurgulamaktır.

**Metod** : Bu çalışma konu ile ilgili yerli ve yabancı literatür taraması ile derleme niteliğinde hazırlanmış bir çalışmadır.

**Bulgular ve Sonuçlar** : Sağlık hakkı ve hasta hakkı kavramlarının benzer ve farklı yönleri açıklanabilmiştir. Sağlık hakkı oldukça genel bir kavram şeklinde karşımıza çıkarken , hasta haklarının daha özel olduğu açıklanmıştır. Tarih boyunca hasta haklarını savunan otoritenin çok ilginçtir ki ; doktorlar olduğu belirtilmiştir. Dünya Tabipler Birliği’nin , son yüzyılda insan haklarına dair gelişmeler ışığında, hasta hakları konusunda yaptığı çalışmaların amacı, maddeleri , sonuçları gözlemlenmiştir ve bu durumun Türkiye’ye yansımaları belirtilmiştir.

**Anahtar Kelimeler** : Hasta Hakları, Dünyada Hasta Haklarının Gelişimi, Uluslararası Hasta Hakları Bildirileri



# PATIENT RIGHTS ETHICS AND LEGAL REGULATIONS IN THE WORLD

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## SuMMARY

**The Problem of the Study:** Collaborative progress of human rights and patient rights, ethical and legal aspects of patient rights, researches, ethics and legal regulations about the development of patient rights in the world.

**The Purpose of the Study:** To inform about the definitions of ‘rights’, ‘health’ and ‘patient care’, to explain and defend the rights and responsibilities of humans have from the moment they exist, in other words having these benefits just to be alive, at the same time to show the concept of patient rights is a natural result of human rights. Also to explain the developments and published declarations in the world which especially occurred in the 21 th century and with making comparisons between the declarations about the developments of the patient rights to emphasise the last point that is reached.

**Method :** This research is compilation about the subject gathered from local and foreign resources.

**Findings and Results:** Similar and different aspects of the concepts of ‘health rights’ and ‘patient rights’ are explained. It is also explained that the ‘health rights’ is reasonably a general concept although the ‘patient rights’ is specific. Throughout history, it is specified that the authorities defended patient rights -which is interesting- are the physicians. The purposes, articles and results of the researches made by the World Medical Association with the lead of the developments about human rights in the last century are observed and specified how it reflected Turkey.

**Key Words:** Patient rights, development of patient rights in the world, declaration of international patient rights.

## GİRİŞ

Hak kavramı hakkında yapılabilecek birçok tanım mevcutken, genel anlamda hak ; hukuk düzenince tanınmış , sınırı , konusu , kullanıma şekil ve koşulları belirtilmiş , yararlanılması toplumca sağlanmış özgürlüktür veya başka bir deyişle hukuk düzeninin kişilere tanıdığı yetkidir. ( Yanardağ , 2014 )

İnsan hakları ise , bütün insanların sırf insan olmalarından dolayı sahip oldukları haklardır. İnsan hakları, cinsiyet, etnik köken, dinsel inanç gibi farklılıklar gözetilmeksizin herkesin sahip olduğu haklardır. ( MEB , 2013 )

İnsan haklarının tarihsel gelişimi, temelde birbirini izleyen aşağıdaki üç kuşak içinde gerçekleşmiştir.

**1.Kuşak İnsan Hakları:** Kişisel ve siyasal haklardır. Özelliği koruyucu haklar olmasıdır.

**2. Kuşak İnsan Hakları:** Ekonomik, sosyal ve kültürel haklardır. Temelinde sosyal eşitlik olan bu haklar sanayi devrimi sonrası ortaya çıkmıştır. Bu tür hakların oluşmasıyla “Sosyal Devlet” anlayışı belirlenmiştir. Temel insan hakları, bu kategoride yer almaktadır.

**3 . Kuşak İnsan Hakları:** Dayanışma hakları olarak bilinmektedir. Teknolojinin ve bilimsel ilerlemenin yarattığı sorunlar sonucu gelişmiştir. Bu kuşak haklara örnek olarak, barış hakkı , çevre hakkı , eğitim, çocuk, kadın ve **hasta hakları** sayılabilir. ( ipsala.gov.tr ) Bu haklar insanın “hasta” olması özel durumunda ortaya çıkmaktadır.( Oğuz , 1997 )

**4. Kuşak İnsan Hakları:** Son zamanlarda 4. Kuşak İnsan Haklarının da gelişmeye başladığı varsayılmaktadır. İnsan onurunun korunması hakları olarak tanımlanabilir. Bu kuşakta yer alan haklar da bilimsel ve teknolojik gelişmelerin yol açacağı olumsuz gelişmelere yönelik gündeme gelmektedir. (ipsala.gov.tr ; Mandacı , 2013 ) Örneğin ; Dünya Sağlık Örgütü (DSÖ) “İnsanın Klonlanması”nı etik olarak kabul edilemez bulmaktadır. ( Sayek , 2009 , syf. 87 )

Bu noktada sağlık hakkı ikinci kuşak bir hak olarak ortaya çıkmaktadır. Ancak “sağlık” kavramının tanımı kesin bir biçimde yapılamadığından, bu hakkın sınırları da yoruma açık kalmaktadır. Dünya Sağlık örgütü’nün sağlığı “fiziksel, ruhsal ve sosyal olarak tam bir iyilik hali” olarak tanımlaması, konuya yeterince açıklık getirmemektedir. ( Oğuz , 1997 )

Sağlık hakkı ; kişinin devletten sağlığını koruması , gerektiğinde tedavi edilmesi , iyileştirilmesini isteyebilmesi ve toplumun sağladığı imkanlardan faydalanabilmesi olarak tanımlanabilir.

Hasta hakları ise ; hastaların başvurdukları sağlık kuruluşunda , hastalara verilen sağlık hizmetlerinin nasıl verileceğini , sağlık çalışanları ile hastalar arasındaki ilişkilerin nasıl olması gerektiğini , hastaların sağlık kuruluşundan hizmet alırken neleri talep edebileceğini belirleyen düzenlemelerden oluşur. ( Yanardağ , 2014 )

## HASTA HAKLARININ TARİHSEL GELİŞİMİ

Tıp ahlakının gerçek kurucusu Hippocrates’tir (M.Ö. 460-377). Hasta hakları kavramının felsefesinin temelini oluşturan “Primum Non Nocere” yani ”Önce Zarar Verme” sözü de Hippocrates tarafından söylenmiş ve günümüze kadar önemini korumuştur. (Erdem , 2007)

Ancak hastaların haklarının kavramsallaşıp, günümüze uyarlanması, tüm dünyanın gündemine taşınması ve hukuksal boyutlarının ön plana çıkarılması, “İnsan Hakları Evrensel Bildirgesi”nin

yayınlanmasını takiben gelişen “İnsan Hakları” kavramının ışığı altında olmuştur. ( Erdem , 2007 )

“Hasta hakları hareketi” kavramının oluşması ve ilgili ilk çalışmaların Amerika Birleşik Devletlerinde (ABD) başladığı kabul edilmektedir. ( Erdem , 2007 )

## **DÜNYADA HASTA HAKLARI İLE İLGİLİ UYGULANAN ETİK VE YASAL DÜZENLEMELER**

- Hasta Hakları Beyannamesi 1973 ( Amerikan Hastaneler Birliği )
- Temel Sağlık Hizmetleri Konferansı 1978 ( Kazakistan – Alma Ata )
- Dünya Tabipler Birliği Lizbon Hasta Hakları Bildirgesi 1981
- Dünya Tabipler Birliği Amsterdam Hasta Hakları Bildirgesi 1994
- Dünya Tabipler Birliği Bali Hasta Hakları Bildirgesi 1995
- Hasta Haklarına İlişkin Avrupa Statüsü (Roma Sözleşmesi 2002)
- Dünya Tabipler Birliği Santiago Hasta Hakları Bildirgesi 2005

### **HASTA HAKLARI BEYANNAMESİ 1973**

Amerikan Hastaneler Birliği 1973 yılında Hasta Hakları Beyannamesini ( A Patient’s Bill of Rights ) yayınlamıştır. Ulusal bir beyanname olmasına rağmen, hasta hakları ile ilgili olarak yayınlanan ilk belge olması açısından önem taşımaktadır. ( Erdem , 2007 )

### **TEMEL SAĞLIK HİZMETLERİ KONFERANSI 1978**

#### **( ALMA ATA BİLDİRGESİ )**

6-12 Eylül 1978 tarihleri arasında, Kazakistan’ın Alma-Ata kentinde, Temel Sağlık Hizmetleri Uluslararası Konferansı düzenlenmiştir. ( MEB , 2013 ) Konferans temel sağlık hizmetleri, sağlık ve yaşama hakkı açısından dönüm noktası olmuştur. ( Erdem , 2007 )

### **LİZBON BİLDİRGESİ 1981**

Hasta hakları konusunda uluslar arası alandaki ilk girişim DTB tarafından Eylül-Ekim ayları 1981 yılında Portekiz’in başkenti Lizbon’da 34. Genel Kurulunda gerçekleştirdiği ve benimsediği Lizbon Bildirgesinin kabul edilmesi ile gerçekleştirilmiştir. (Erdem , 2007 )

Lizbon Bildirgesi’nin çizdiği bu genel çerçeve hasta hakları açısından önemli bir adımdır. Ancak tıbbın, teknolojinin de desteğiyle hızla ilerlemesi ve gelişen iletişim olanaklarıyla tıp bilgisinin yaygınlaşması bu bildirgenin kısa zamanda geliştirilmesi gereğini ortaya çıkarmıştır. ( Oğuz , 1997 )

### **AMSTERDAM BİLDİRGESİ 1994**

DSÖ’nün Avrupa Bürosunun 28-30 Mart 1994 tarihlerinde Amsterdam’da gerçekleştirdiği toplantıda kabul edilen “Avrupa Hasta Haklarının Geliştirilmesi Bildirgesi (Amsterdam Bildirgesi) ile DSÖ’ye üye olan Avrupa ülkelerinin hasta haklarının geliştirilmesi amaçlanmıştır.

Bu bildirge ile Avrupa bölgesinde sınırlı kalması eleştirilebilir boyutta olsa da DSÖ bu

bildirgeden sonraki hasta hakları ile ilgili çalışmalarını diğer ülkeleri de kapsayacak şekilde yürütmüştür. ( Erdem , 2007 )

### **BALİ BİLDİRGESİ 1995**

Bu bildirge, 1981 tarihindeki bildirgenin temel anlayışı korunmakla birlikte, kazandığı yeni içerikle, DSÖ’ nün “Avrupa Coğrafyası” ile sınırlı tuttuğu hasta hakları kriterlerini, Dünya Tabipler Birliği aracılığıyla tüm dünyaya yayılmasını sağlamış ve hasta haklarında önemli bir adım olmuştur. (Erdem , 2007 )

### **HASTA HAKLARINA İLİŞKİN AVRUPA STATÜ ( ROMA SÖZLEŞMESİ 2002)**

Sözleşmede hasta haklarına ait toplam 14 madde mevcuttur. Tüm bu hakların amacı olarak “insan sağlığının yüksek düzeyde korunmasını” ve “ulusal sağlık hizmetleri veren kurum ve kuruluşların verdikleri hizmetin yüksek kalitede olmasını sağlamaktır” denilmektedir. ( Erdem , 2007 )

### **SANTIAGA BİLDİRGESİ 2005**

Bu bildirge ile Dünya Tabipler Birliği 171. Konsey Toplantısı’nda uyarlanmıştır. (Santiago, Şili, Ekim 2005) hasta haklarını; nitelikli sağlık hizmeti alma hakkı, seçim yapma hakkı, kendi kaderini belirleme hakkı, bilinci kapalı hastaya yaklaşım, yasal yeterliliği bulunmayan hastaya yaklaşım, hastanın isteğine karşın yapılan girişimler, bilgilenme hakkı, gizlilik hakkı, sağlık eğitimi hakkı, onurunu koruma hakkı, dini destek hakkı ( Sayek , 2009 , syf. 129 )

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# Sağlığın Geliştirilmesi Ve Teşvikinde Birinci Basamak Sağlık Hizmetlerinin Rolü

*Merve YURDAKUL<sup>1</sup>*

## ÖzET

**Amaç:** Bu çalışma; Türkiye’de sağlığın geliştirilmesi ve teşvikinde ‘Birinci Basamak Sağlık Hizmetleri’nin rolünün tespiti amacıyla yapılmıştır.

**Önem:** Bireyin toplumda fiziki ve sosyal açıdan sağlıklı var olabilmesi için altyapı oluşturan ‘Birinci Basamak Sağlık Kuruluşlarının’ sağlık hizmetlerinde yadsınamaz bir paya sahip oluşu, yine halk sağlığı açısından bir farkındalık yaratmış olması değişen ve gelişen sağlık sistemi açısından büyük bir adımdır. Çalışma, bu ilerlemenin dâhil olduğu yapıya kattığı faydayı değerlendirme bakımından önemlidir.

**Sonuç:** Çalışmaya konu olan hizmet sınıfı, taşıdığı amaç doğrultusunda incelenmiş olup gerektirdiği nitelikler; yeterlilikleri, eksiklikleri ve üstünlükleri kapsamında ortaya konulmuştur.

**Anahtar Kelimeler:** Birinci Basamak Sağlık Hizmetleri, Toplum Sağlığı

## 1.Giriş

Ülkemiz değişim, gelişim ve kalkınma planlarına bakıldığı zaman sağlık alanında yapılan çalışmaların ülke stratejisine büyük ölçüde yön verdiği görülmektedir. Temel ve mecburi bir ihtiyaç olmakla birlikte sağlık, sadece hastalıklardan ve mikroplardan korunma değil, bir bütün olarak fiziki, ruhi ve sosyal açıdan iyi olma hali olarak tanımlanmıştır(Dünya Sağlık Örgütü). Bu ihtiyacın arz-talep ilişkisi içinde belirli sosyal, siyasal, ekonomik, eğitim gibi etkileşimde olduğu yapılar dâhilince sınırlandırılıp sunulmasına ise sağlık hizmetleri denilmektedir.

Sağlık hizmetleri içinde bulunduğu toplumun, zamanın ve çağın gerektirdiği gereksinimler doğrultusunda şekillenmekte ve değişmektedir. Bu değişime ayak uydurabilmek ancak verimli bir sistem ve sistemin parçalarının bütünlüğü ile esastır. Sağlık sisteminin işleyişine bakıldığı zaman karmaşık bir yapı değil aksine birbiriyle kolerasyon halinde olan sıralı bir yapı görülmektedir. Yapının amacı hizmet ettiği kitlenin ihtiyacını karşılamak, hâli hazır durumu denetlemek, değerlendirmek ve sunduğu hizmeti iki tarafın faydası açısından geliştirmek olmalıdır. Bu gaye ile bütünlüğü oluşturan ilk yapı, parçası olduğu sistemin temel ve sağlıklı ilerleyebilmesi açısından büyük önem teşkil etmektedir. Sağlık sisteminin bu ilerleyiş içinde durağan bir yapı olması beklenmemektedir. Nasıl ki sağlık temel bir hak ve ihtiyaç ise, yapının da geliştirilmesi ve teşviki de sistemin devamlılığı ve sürdürülebilirliği için zorunlu kılınmalıdır.

Sağlığın teşviki ve geliştirilmesinin tanımları:

*“Bireylerin ve kurumların bilgilendirilmesi, etkilenmesi ve onlara destek verilmesi; böylece*

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*zihinsel ve fiziksel sađlığı etkileyen konularda daha aktif olmaları ve daha fazla sorumluluk almalarını amaçlayan strateji”* (Lalonde, 1974:3)

*“Etkili programlar, hizmetler ve politikalar uygulanmasıyla sađlığın mevcut düzeyinin artırılması ve sürdürülmesi”* (Goodstadt 1987:26)

*“Sađlığı geliştirecek davranış ve çevre değışikliklerini kolaylaştırmak için tasarlanmış kurumsal, politika ve ekonomik müdahaleler ile sađlık eğitiminin birleşimi”* (Green, 1980:20)

*“İnsanların refah içinde yaşaması için sosyal ve çevresel yaşam koşullarını iyileştirmek amacıyla tasarlanmış faaliyet veya program”* (Labonté ve Little, 1992:29)

Görüldüğü üzere, sađlığın teşviki ve geliştirilmesi tanımlarının çođu, sađlığın veya refahın artırılması açısından istenen sonucu (nihai amaç) anlatmaktadır.

Sađlığın gelişmişlik düzeyi, tabana yayılmış sistemin uygulanabilirliği ve uygulamadan alınan artı sonuçlar ile paralellik göstermektedir. Toplum sađlığını oluşturan her bir öge, yine toplumu oluşturan bireylerle de uyumluluk göstermelidir. Bu uyumu yakalamak, oluşturmak ve uygulamak sađlığın geliştirilmesi ve teşviki ile mümkün kılınmaktadır. Bireyden, kendisini parçası hissetmediğı bir sisteme katkı sağlamasını beklemek verimli sonuçlar doğurmayacaktır. İstenilen faydayı elde etmek için bireyin bu konuya dikkatinin çekilmesi, bilgilendirilmesi, bilinçlendirilmesi ve eğitilmesi gerekmektedir. Bu değerler farklılık gösteren gruplara göre tasarlanmalı ve o yönde verilmelidir. Bu açıdan entegre bir sistem oluşturmak, koordinasyonu sağlamak ve tabandaki yapıyı bireyselleştirmek sađlığın geliştirilmesi ve teşvikinde temel bir yol çizecektir. Sađlıklı bir toplum temel sađlık hizmetleri ile şekillenir. Çalışma, bu bakımdan ilgili hizmet sınıfını çatısı altında birleştiren birinci basamak sađlık hizmetlerini ele almakta ve değerlendirmektedir.

## **2.Araştırma ve Bulgular**

Dünya Sađlık Örgütü, 2010 yılına kadar insanların aile ve topluma dayalı temel sađlık hizmetlerine daha iyi ulaşılabilmesini ve 21.yüzyılda “Herkes için sađlık” anlayışını hedefleri arasında saymaktadır. Bu hedefi gerçekleştirmeyi amaçlayan Sađlıkta Dönüşüm Programı, aileye dayalı temel sađlık hizmetlerini gerekli eğitim ve beceri ile donanmış sađlık ekipleriyle, entegre bir şekilde sunmayı öngörmektedir. Dünyanın pek çok ülkesinde aile hekimliği başarıyla uygulanmış olup ülkemizdeki aile hekimliği uygulama çalışmaları da sürekliliğini korumakta ve desteklenmektedir. Programda, temel sađlık hizmetlerinde sorumluluk paylaşımı ve bireye “tek pencere” sistemi ile yaklaşılması, başarıyı arttıracak iki önemli faktör olarak görülmekte olup, bu doğrultuda bireye yönelik koruyucu hizmetler ile birinci basamak tanı ve tedavi hizmetlerinin, bireylerin kendi seçeceği doktorlar yani “aile hekimleri” tarafından yürütülmesi amaçlanmaktadır.

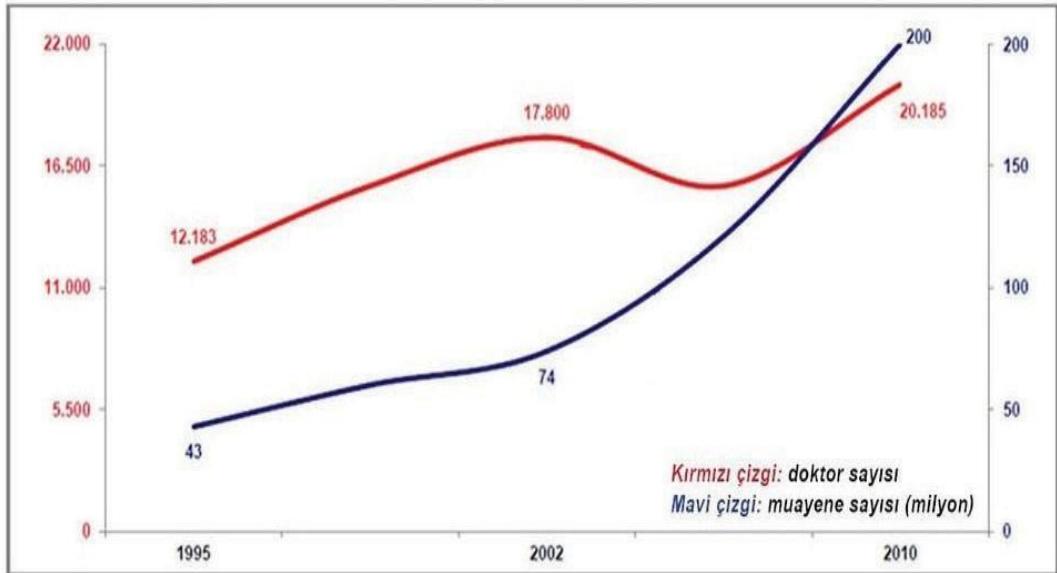
Sađlıkta Dönüşüm Programı, temel sađlık hizmetlerinin kurumsal konumunu diğler hizmet düzeyleri üzerinde yetki ve kontrol sahibi olacak bir yapıya kavuşturmayı hedeflemektedir. Bireylerin ve sađlık çalışanlarının durumlarını iyileştirmek bu konuda yapılacak yeniliklerin hareket noktasını oluşturmaktadır. Sađlıkta dönüşüm programının en belirgin özelliğı bireylerin sađlıklı hayat programlarına erişiminin sağlanması, anne-bebek ölümlerinin azaltılması, bulaşıcı hastalıklarla ve kronik hastalıkların risk faktörleriyle mücadele etmeyi öncelemek bireylerin kendi sađlık durumlarını kontrol edebilme yetilerini geliştirmek ve koruyucu hekimlik yaklaşımını sađlığın merkezine tamamen yerleştirmektir.

Türkiye’de 2010 yılı itibariyle tüm sağlık ocakları, aile hekimliği birimine dönüştürülerek aile hekimliğine geçilmiştir.

Şekil 1:Türkiye’de Yıllara Göre Sağlık Ocağı/Aile Sağlığı Merkezi Muayene Odası Sayısı



Kaynak: Türkiye Halk Sağlığı Kurumu



Kaynak: AKMAN M. Türkiye Aile Hekimliği Dergisi 2014; 18 (2): 70-78



Şekil 3: Türkiye’de Yıllara Göre Birinci Basamak Kuruluşlarında Sevk Oranı

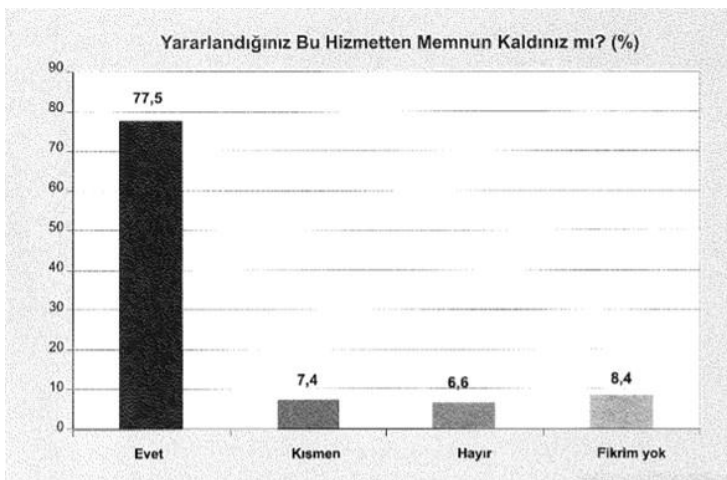


Kaynak: Türkiye Halk Sağlığı Kurumu

Birinci basamak sağlık hizmetlerinde aile hekimliği, sistemin işleyişini kolaylaştıran temel bir yapı taşıdır. Sorumluluğunda olan kitlenin bireysel ve toplumsal birinci basamak sağlık ihtiyacını algılama ve karşılama varoluş sebebi denilebilir. Sağlıkta Dönüşüm Programı ile birlikte yapılan düzenlemelerin de elbette ki eksik yönleri mevcuttur. Bu yapılanmadan sonra aile hekimliği hizmeti ile birlikte yeni bir istihdam alanı oluşturularak pratisyen hekim ihtiyacı karşılanmaya başlanmıştır.

Son dönemde de tartışma konusu olan ‘yetersiz eğitim kaynaklı niteliksiz aile hekimleri’ yargısı dikkat çekmektedir. Kısmî olarak eksik yönleri olan bu yapının alanı ile ilgili bir eğitim almadan veya bu alanda bir beceri kazanmayan kişiler tarafınca yürütülmesi de ortaya çıkan sorunların çözülmesinde set oluşturacaktır. Öte yandan sağlık çalışanları tarafından bakıldığında yaptıkları işin aldıkları eğitimle örtüşmediğini, uyum, koordinasyon ve iletişimde önemli ölçüde sorun yaşadıklarını, yaygın ve kullanılan bir sistem olmasına rağmen belirli bir prosedür ve yönetmeliğe bağlı olmadıkları için karmaşık olduğunu, reformun uygulanıyor olmasına rağmen hâlâ kaygı taşıdıklarını söylemektedirler.

Şekil 4: Aile Hekimliği Uygulaması Memnuniyet Oranı



Kaynak: Düzce İli Aile Hekimliği Araştırması (ANAR)

### 3.Sonuç ve Öneriler

Türkiye’de son 10 yılda birinci basamak sağlık hizmetlerinin finansman ve organizasyonunda köklü bir değişim gerçekleşmiştir. Birinci basamakta iş gücü niteliğini artıracak ve hizmet kalitesini yükseltecek evrensel aile hekimliği ilkeleri ve görev tanımı ile uyumlu uygulamaların çoğaltılmasına ihtiyaç vardır. Sağlık sisteminin iskeletini birinci basamak sağlık hizmetleri oluşturduğunda daha düşük maliyetlerle daha olumlu sağlık çıktıları elde etmek mümkündür.

İstatistiki verilere bakıldığında reformun toplum sağlığını büyük ölçüde iyileştirme de fayda sağladığı, sağlık hizmetine ulaşılabilirliğin kolaylaştırıldığı, demografik, doğurganlık ve ölüm değerlerini daha yakından ve gerçekçi bir yaklaşımla incelediği, açığa çıkan yeni istihdam alanının ülke kalkınmasına ve ekonomisine katkı sağladığı öngörülmüştür. Yapının doğruluğunun ve geçerliliğinin tartışılması gereken taraflarının da olduğu, bütüne bakıldığında içinde bulunduğu sistemle bazı konularda çeliştiği ve pilot uygulamasının yetersiz, yol gösteremeyecek bir uygulama olduğu konusunda yargılar da devamlılığını ilk günden beri sürdürmektedir.

Son olarak ülkemiz koşullarına baktığımız zaman daha net sonuçlara sahip olabilmek için bu yapıda ilerlemenin ve yapının, elde edilen verilerle yeniden değerlendirilmesinin bizi geçerli bir kaniya ulaştıracağı fikrini beyan etmek yanlış olmayacaktır.

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# Sağlığın Sosyal Belirleyicileri Ve Yerel Yönetimlerin Etkileri

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## ÖZET

**Amaç:** Bu çalışma, yerel yönetim birimlerinin sağlığın sosyal belirleyicileri üzerindeki etkisini incelemeyi amaçlamaktadır.

**Önem:** Yerel yönetim birimleri baskı gurupları ve sivil toplum kuruluşları gibi toplumsal aktörlerle ortaklaşa çalışarak sağlığın sosyal belirleyicileri ve sağlık eşitsizliklerinin giderilmesi konusunda; topluma etkin destek sağlayabilmekte geliştirilen politikalar doğrultusunda uygulamaları hızlandırabilmektedir. Dolayısıyla bu çalışma bu etkileşimi ele alması bakımından önemlidir.

**Yöntem:** Çalışmanın amacı doğrultusunda ilgili literatür taranarak, söz konusu etkileşimi ortaya koyan bir içerik analizi gerçekleştirilmiştir.

**Sonuç:** Çalışma sonucunda her ne kadar yerel yönetim birimleri toplumun sağlık kazanımlarını artıracı kaynak ve imkânlarla sahip olsalar da; potansiyelleri dâhilindeki sosyal belirleyicilere ilişkin politikaları uygulamaya bütünüyle dönüştüremedikleri sonucuna ulaşılmıştır.

## 1. GİRİŞ

Sağlığın sosyal belirleyicileri yaşam kalitesinde ele alınması gereken önemli başlıklardandır. ‘Toplumlar hastalıkları kendileri yaratırlar.(Mervyn Susser)’sözü ile sağlığın sosyal belirleyicilerine vurgu yapılmıştır.Dünya Sağlık Örgütü Avrupa Sağlıklı Şehirler Ağı’nın kuruluş değerleri olan sağlıkta eşitlik, sosyal adalet, etik yönetim ve sürdürülebilir gelişme ilkeleri sağlığın sosyal belirleyicilerini ortaya koyar.”Dünya Sağlık Örgütü Avrupa Sağlıklı Şehirler Ağı 5. Faz’ına katılan tüm şehirlerin ana teması Yerel Politikalarda Sağlık ve Eşitliktir. (Eylem Çerçevesi 2009)Bu şekilde yerel yönetimler ve sağlığın sosyal belirleyicilerinin önemi ön planda tutulmuştur.

Sağlıkta eşitsizlik; bireyler ve toplumun değişik kesimleri arasında ekonomik, siyasal, sınıfsal, mesleki, dinsel, kültürel veya benzeri sosyal nedenlerle ve sağlık hizmetlerine ulaşımındaki yetersizlik nedeniyle sağlıkla ilgili önlenemez ve kabul edilemez farklılıklardır. Günümüzde Japonya’da veya İsveç’te doğan bir kız çocuğunun 80 yıldan fazla yaşaması beklenirken, Afrika’nın bazı ülkelerinde doğan bir kız çocuğunu ise 45 yıldan az bir yaşam süresi beklemektedir. Aynı ülke içinde yaşayan insanlar arasında da sağlıkta dramatik farklılıklar bulunmaktadır. Tüm ülkelerde tüm gelir düzeylerinde sağlık ve hastalık bir toplumsal yokuşu izler; daha düşük sosyoekonomik düzeyde olanlar daha kötü sağlığa sahiptirler. Nitekim, en düşük ve en yüksek sosyoekonomik gruplar arasında doğumda beklenen yaşam süresi farklılığı erkeklerde 10 yıla, kadınlarda 6 yıla ulaşabilmektedir (Kocabaş 2014 :10 Toraks Bülteni).

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Sağlıklı ve sürdürülebilir bir toplum oluşturmak için ulusal ve uluslararası toplum sağlığındaki eşitsizliği büyük bir çapta etkileyen sağlığın sosyal belirleyicilerini optimal düzeye ulaştırmak gerekir.

DSÖ'nün önderliğindeki Sağlığın Sosyal Belirleyicileri Komisyonu'nun vizyonu “insanların değer verdikleri hayatları yaşama özgürlüğü bulunan bir dünya” yaratmaktır (World Health Organization, 2008). Amacı, sağlığın sosyal belirleyicilerini ve sağlık eşitliği kavramlarını içinde barındıran küresel bir hareket yaratmak, sağlık açısından gruplar arasındaki sistematik farklılıkları ortadan kaldırmak, sosyoekonomik durum, meslek, eğitim, yaşam alanları, cinsiyet, ırk ve etnik köken gibi eşitsizliklere yol açan kavramlarla mücadele etmektir. Bu konuyla ilgili bir diğer çalışma Lizbon Büyüme ve İstihdam Stratejisi'nde sağlığın sosyal belirleyicilerini iyileştirmenin önemine verimliliğin artırılması, istihdam ve eğitim gibi hususlarda açıkça olmasa da değinilmiştir.

Şekil 1: Hayatın Aşamaları Yaklaşımı



Kaynak: Fair society, healthy lives: strategic review of health inequalities in England post-2010. London, Marmot Review, 2010

Çalışmamız şu şekilde devam etmektedir. İkinci bölümde sağlığın sosyal belirleyicileri detaylı şekilde ele alınmıştır. Üçüncü bölümde yerel yönetimlerin etkileri konusu işlenmiştir. Son olarak sonuç kısmında önemli sonuçlar belirtilmiş ayrıca konu ile ilgili muhtemel araştırma konuları belirtilmiştir.

## 2. BÖLÜM : Sağlığın Sosyal Belirleyicileri

Bir toplumun sağlığının %10'unun fiziki çevreye, %16'nın sağlık hizmetlerinin tedavi edici çalışmalarına, %21'inin biyolojik ve genetik faktörlere ve %53'ünün tümüyle sosyal ve ekonomik çevreye bağlı olduğu belirtilmiştir. (CDC, USA, 1975 ) Sosyal ve ekonomik çevreye bağlı olarak ortaya çıkan sağlığın sosyal belirleyicilerinden bazılarını aşağıdaki gibi sıralamamız mümkündür :

**Cinsiyet Eşitliği:** sağlık alanında eşitliğe erişebilme için kadınla erkek arasında bulunan ve adil olmayan eşitsizliklerin kaldırılması gereklidir. Cinsiyet eşitliğine giden yol gerek ülkeler arasında gerekse ülkelerin içinde büyük ölçüde farklılık göstermektedir. cinsiyet eşitliğinin sağlanması için Komisyon, ülkelere, kurum ve kuruluşlara ulusal ve yerel seviyede politikaların cinsiyet eşitsizliğine sebep olan içerikleri analiz etmesini, bir ülkenin ekonomik performansının ölçümünde kadınların evdeki işlerinin, gönüllü işlerin ve aile işlerinin de dahil edilmesi gerektiğini ve toplum yapısındaki cinsiyet ayrımcılığına sebep olan unsurların kaldırılması gerektiğini tavsiye etmiştir. (Sağlığın Sosyal Belirleyicilerini Ele Almak 2012 )

**Gelir** : insanların sağlıklı yaşamlarını sağlayacak bir gelir düzeyine sahip olması aynı zamanda adil ve dengeli sosyal güvenlik sistemlerine de bağlıdır.Marmot incelemesi, sağlıklı bir yaşam sürdürebilmek için minimum bir gelir önermektedir. Bu gelirin; sağlıklı bir diyet, fiziksel aktivite, ev, sosyal etkileşim, sosyal paylaşım, sağlık, ulaşım ve kişisel hijyen faktörlerini karşılaması beklenmektedir. (London, Marmot Review, 2010)

**Sağlık Bilinci** : 2009 Avrupa Sağlık Raporu, DSÖAvrupa Bölgesi’ndeki hastalıkların %60’ının temelde 7 bireysel faktörden kaynaklandığını göstermektedir: yüksek tansiyon, tütün ürünleri kullanımı, aşırı alkol kullanımı, yüksek kolesterol, aşırı kilo, sağlıksız beslenme ve yetersiz fiziksel aktivite.(The European health report 2009) Bu hastalıklar genelde düşük gelirli ailelerde, daha az eğitilmiş kimselerde ve alt sosyo ekonomik sınıflarda daha sık görülür ve bu hastalıklar temelde, fiziksel koşullardan yoksun insanların hayatla başa çıkma mekanizması olarak geliştirdikleri davranışların bir sonucudur.(Sağlığın Sosyal Belirleyicilerini Ele Almak 2012)

**Çevre**: sağlığı etkileyen çevresel faktörlerin başında içme suyuna erişim imkanları, temizlik, hava kalitesi, iş güvenliği ve kazaları gelir.Avrupada yılda gerçekleşen 1,7 milyon ölüm çevresel faktörlerle alakalıdır. Bilinen çevresel faktörlerin sebep olduğu hastalıklar ülkeler arasında dört kata kadar farklılıklar gösterebilir.(The European health report 2009)

**Erken Çocuk Gelişimi** : birbirine bağlı olan sosyal, duygusal, bilişsel ve fiziksel gelişim için çocuk gelişiminde ilk yıllar son derece önemlidir. Bu alanlarda sağlıklı bir gelişimi ilerleyen yıllardaki eğitim, iş imkanları ve sağlık ile ilgili olumlu kazanımlar anlamına gelir. Bulgular erken çocuk gelişimine yapılan yatırımların, özellikle en yoksun ve dezavantajlı konumda bulunan çocuklar için dengeleyici bir rolü olduğunu göstermektedir.(Geneva, World Health Organization, 2007 )

**Eğitim** : erken bilişsel ve bilişsel olmayan beceri gelişimi, aile, okul ve çevresel faktörler ile birlikte eğitimde başarıyı ve sosyal becerileri etkileyerek dolaylı yoldan fiziksel ve zihinsel sağlığı geliri istihdam ve yaşam kalitesini de etkilemektedir. Eğitim alanındaki başarı Avrupa’da, sağlıklı pozitif bir korelasyon içinde olup, sosyal tabakalarda yükseldikçe artmaktadır. (Sağlığın Sosyal Belirleyicilerini Ele Almak 2012)

Yukarıda belirtildiği üzere sağlığın sosyal belirleyicilerinden kaynaklı olarak ortaya çıkan sağlıkta eşitsizlik sorununun minimum seviyeye indirgenmesi için Marmota göre şu altı politika alanında çalışılması öngörülmüştür (Sağlığın Sosyal Belirleyicilerini Ele Almak: Kentsel Boyut ve Yerel Yönetimlerin Görevleri, 21, 2012)

“Her çocuğa hayata en iyi şekilde başlayacak imkanları tanıyın”

“Bütün çocuk, genç ve yetişkinlere potansiyellerini gerçekleştirebilecekleri ve hayatlarının kontrollerini eline alabilecekleri imkanları sağlayın”

“Herkes için adil ve iyi bir iş imkanı yaratın”

“Herkes için sağlıklı bir yaşam standardı yaratın”

“Herkes için sağlıklı ve sürdürülebilir mekanlar ve topluluklar yaratın”

“Hastalık önleyici uygulamaların rolünü ve etkisini güçlendirin”

### 3.BÖLÜM : Yerel Yönetimlerin Etkileri

Bu gelişmeler dâhilinde, yerel yönetimlerin sağlığın sosyal belirleyicileriyle mücadeledeki görevinin giderek arttığı anlaşılmaktadır. Özellikle AB seviyesinde, yerel yönetimin, iyi uygulamaların paylaşılması ve ilerlemenin ölçülmesine büyük katkıda bulunabileceği fark edilmiştir.(Brussels, European Commission, 2007 ) Bu farkındalığın iki temel sebebi vardır. Birincisi, sosyal sağlık modeli giderek daha dikkat çeker hale gelmiştir, iyi sağlık sonuçları, pozitif sosyoekonomik ve çevresel unsurların bir sonucu olup, sosyal ortam sağlığın büyük ölçüde belirleyicisidir.(Barton H, Tsourou C. Healthy urban planning: a WHO guide to planning for people. London, Spon, 2000.) Literatürde de yerel yönetimlerin, çeşitli yerel aktörleri aynı masa etrafında toplamada sağlık sektörünün tek başına başarabileceğinden çok daha başarılı olduğu dikkat çekmektedir.( Saltman RB, Bankauskaite V. Central issues in the decentralization debate. In: Saltman RB, Bankauskaite V, Vrangbaek K, eds. Decentralization in healthcare. Maidenhead, Open University Press, 2007.)

İkinci olarak,bazı yorumcuların da belirttiği üzere, adem-i merkeziyetçi yapısı itibariyle yerel yönetimin yerel otonomiye arttırıp, merkez etkisini azaltarak değişimi tetikleme potansiyeli daha fazladır. Litvack ve diğerlerinin de( Litvack J, Ahmad J, Bird R. Rethinking decentralization in developing countries. Washington, DC, World Bank, 1998 )gösterdiği üzere, merkezin etkisini azaltıp yerel otonomiye geliştirmek daha esnek ve etkili politikaların oluşturulmasına olanak tanır.De Vries'e göre daha merkezi sistemler, karar verme sürecindeki yükü arttırır ve karar vericiler yerel problemlerin karmaşık yapısını göz ardı ederek karar verme eğiliminde kalır. (De Vries MS. The rise and fall of decentralization: a comparative analysis of arguments and practices in European countries. European Journal of Political Research, 2000)

Yerel yönetimlerin sağlığın sosyal belirleyicileri ve sağlıkta eşitsizlik ile alakalı karşılaşmış olduğu engelleri şu şekilde sıralaya biliriz (Saltman RB, Bankauskaite V. Central issues in the decentralization debate. In: Saltman RB, Bankauskaite V, Vrangbaek K, eds. Decentralization in healthcare. Maidenhead, Open University Press, 2007. De Vries MS. The rise and fall of decentralization: a comparative analysis of arguments and practices in European countries. European Journal of Political Research, 2000): (1)Yerel yönetimlerin konumları itibariyle yerel ihtiyaçlara cevap vermeye daha uygun olsalar da, hareket etme becerilerini şekillendiren şartları oluşturan daha geniş bir yasama çevresinde konumlanmışlardır.(2)Lokalizasyon, adem-i merkeziyetçilik veya temsili güçler yönetimin çeşitli düzeyleri arasında (dikey) gerilimler veya farklı yerel yönetim kuruluşları arasında (yatay) gerilimler yaratabilir. Genel ulusal hedeflerin belirlenmesinde, yerel projeler ve ulusaltı müdahalelerin hedeflerinin farklı olması, tutarlılığa ve sinerjiye zarar verebilir.(3)Direk olarak yerel yönetimlerin sağlık kazanımını maksimize edecek kaynak ve kapasiteye sahip olduğunu, sorumluluklarında bulunan sosyal belirleyicilere ilişkin politikaları hayata geçireceklerini varsaymak da her zaman doğru olmayabilir

### 4.BÖLÜM : Sonuç

Küresel alanda, Sağlığın Sosyal Belirleyicileri Komisyonu, insanların doğup büyüdüğü, çalıştığı, yaşadığı ve yaşandığı fiziksel koşulların iyileştirilmesini, bir bütün halinde yaşayan topluluklar arasındaki psikolojik ve sosyal sağlık unsurlarının adil dağılımının ve insanların hayatlarının kontrolünde olmasının sağlanmasını önermiştir. Bu da sağlık alanında eşitliği, kentsel yönetim ve planlamanın tam merkezine yerleştirir. (Sağlığın Sosyal Belirleyicilerini

Ele Almak, 2012) Adil toplum, sağlıklı yaşamlar ,sağlığın sosyal belirleyicilerine odaklanılması gerektiğini göstermiştir; yani erken yıllara, eğitim ve gelişime, sosyal güvenlik, adil iş, ekonomik konum, gelir, sağlık hizmetleri, konut, ulaşım gibi hizmet ve kaynaklara



ulaşıma ve bireyin sağlıklı ve gelişen toplumun bir parçası olmasına odaklanılması gerektiğini belirtmiştir. (Fair society, healthy lives: strategic review of health inequalities in England post-2010. London, Marmot Review, 2010)

Sağlıklı şehirlerde geçerli olan temel esaslar şunları içerir : (Healthy cities tackle the social determinants of inequities in health: a framework for action. Copenha- gen, WHO Regional Office for Europe, 2012.)Sosyal adalet, sağlık ve sürdürülebilirlik kavramları, ulusal, bölgesel ve yerel tüm politika alanlarının merkezinde olmalıdır.İnsanların sağlığının artırılması ve sağlık alanındaki eşitsizliklerin azaltılması için bireylerin ve toplumların kişisel sağlık, sosyal dayanışma ve eşitlik açılarından güçlendirilmesi gerekir. İnsanlar, süreçler ve mekânlar bu hususların temel boyutlarıdır.Kamu sektörü, insanların ve toplumların kendi hayatlarının kontrolünü ellerine almalarını sağlayacak gerekli siyasi, kentsel ve kamu alanında yeni liderlik şekilleri yaratmalıdır.Sistemin ancak belirli bir parçasına müdahale eden stratejiler istenen değişimin meydana gelmesinde genel olarak yetersiz kalır ya da ancak toplumun küçük bir bölümünde istenen sonuçlar elde edilir. Toplumun tamamındaki sağlığın sosyal belirleyicilerine ilişkin çalışmalar yapılmalı ancak sosyal grupların dezavantajları ve konumuyla orantılı olmalıdır.Strateji ve politikaların, ulusal, bölgesel ve yerel boyutları içermesi gerekir. Sağlık alanındaki eşitsizliklerin sebepleri çok çeşitli ve karmaşık olup, bu eşitsizliklerle mücadelede pek çok kurum ve sektörün çalışması gereklidir. Bu da ancak farklı kurumsal ve sektörel sınırların ötesine geçen gelişmiş ortaklıklarla sağlanabilir.Bu zamana kadar edinilen tecrübeler, geniş kapsamlı çalışmaların geliştirilebileceğini; ancak alınan sonuçların farklı bölge, şehir, kasaba ve köylerde bu bölgelerin kültürel, tarihsel ve coğrafi koşullarına göre farklılık gösterebileceğini, çözümlerin de bu doğrultuda şekillenmesi gerektiğini göstermektedir

Sağlık hizmetlerinde kaynak dağılımının etkinliğinin sağlanmasında özellikle planlama ve denetim açısından merkezi yönetimin etkin olması hem bir gereklilik hem de yerel yönetimlerin kendi başlarına sağlık yatırımlarına girişmelerini kısıtlayıcı bir unsurdur.(Sayın F. Bütçe Dünyasi Dergisi, Sayı 35, 2011)

Bu çalışmada yerel yönetimin tek bir birim değil aksine karmaşık yapıya sahip olduğu bünyesinde çeşitli siyasi ve finansal yapıları barındırdığı ortaya konmuştur.Yalnızca hizmet sağlayıcıları olarak değil, aynı zamanda gerek bireysel seviyede olsun gerekse toplum seviyesinde olsun, vatandaşların daha iyi koşullarda yaşamasına destek veren birimler olarak görülür.Fakat günümüz şartlarına bağlı olarak sağlık işleyişinin yerel yönetimlere temel olarak bırakılmasının mümkün olmadığı merkezi yönetim şeklinin idareciler tarafından daha çok benimsendiğini görmekteyiz. Sonuç olarak yerel yönetimlerin etkisinin farkındalığının oluşması, gerekli şartlar ve uygun hizmet ortamları sağlanması halinde yerel yönetimlerin sağlığın sosyal belirleyicilerinden doğan sağlıkta eşitsizlik kavramının oluşturmuş olduğu farklılıkları kontrol altına alabileceği kanısına varmış oluruz. Buna bağlı olarak yerel yönetimlerin sağlığın sosyal belirleyicileri üzerinde ki etkisinin yok sayılması, sağlıklı bir bakış açısı olmadığı kanısı ortaya çıkarmaktadır.



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# Sağlık Çalışanları Açısından Medikal Turizmin Bilinirliği Ve Farkındalığı

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## ÖZET

**Çalışmanın Problemi:** Son yıllarda tüm dünyada olduğu gibi ülkemizde de önemi artarak devam eden medikal turizmin, Türkiye'nin turizm ve sağlık sektöründeki kazanımlarını olumlu yönde etkileyeceği düşünüldüğünden medikal turizm ülkemiz açısından büyük öneme sahiptir. Türkiye'de yeni gelişmekte olan ve hükümet politikalarıyla düzenlenerek gelişmesine katkı yapılmak istenen medikal turizmin değişik açılardan bilimsel çalışmalarla mevcut durumun tespit edilmesine ihtiyaç duyulmaktadır.

**Çalışmanın Amacı:** Bu çalışmada, turizmin çeşitlendirilmesinde gittikçe artan bir öneme sahip olan medikal turizm alanında dünyadaki ve ülkemizdeki mevcut durumu ortaya koymak, ülkemizin bu sektördeki payını arttırmak için yapılması gerekenleri belirlemek, sektörde yer alan sağlık kurumları ve çalışanlarının niteliklerinin nasıl olması gerektiğini ortaya çıkarmak amaçlanmıştır.

**Yöntem:** Araştırma kapsamında sağlık çalışanları açısından medikal turizm bilinirliği ve farkındalığı ölçeği Trabzon ve Gümüşhane'de uygulanmıştır. Söz konusu ölçek Trabzon merkez ve ilçelerinde 4, Gümüşhane merkez ve ilçelerinde 3 hastanede olmak üzere toplamda 7 hastanede yapılmıştır. Geçerli sayılan toplamda 120 anket SPSS 21 programı ile analiz edilmiştir.

**Bulgular:** Sağlık çalışanları medikal turizm yapılabilecek hastanelerin konforlu olması gerektiğini, %90 oranında hastanelerinde bu konuyla ilgili bir ofis olmadığını, kendilerinin bu konuda eğitim almadıklarını ve yabancı hastayla yeterli iletişim kurabilmek için yetersiz olduklarını beyan etmişlerdir.

**Sonuç:** Sağlık çalışanlarının medikal turizm konusunda ihtiyaç duyulan yeterli bilgi, beceri ve farkındalığı oluşturmak için gerekli eğitim programlarının düzenlenmesi ve hastane mimari ve dizaynlarının medikal turizme düzenlenmesi önerilir.

**Anahtar Kelimeler:** Sağlık Turizmi, Medikal Turizm, Hastane, Sağlık Çalışanı

## GİRİŞ

İnsanların sahip olduğu en önemli varlıkları sağlıklarıdır. Sağlık; yalnızca hastalıklı olmama durumu değil, aynı zamanda bedensel, ruhsal ve sosyal yönden tam bir iyilik hali olarak tanımlanmaktadır. WHO'ya göre sağlığın anlamı acısız, ağrısız ve zamansız gelen ölümden özgür olmak ve bunun sonucunda ortaya çıkan fiziksel, mental, sosyal verimlilik ve iyilik açısından optimal noktada bulunmaktır (Mutlu ve Işık, 2006). Dünyada insanlar sahip oldukları sağlıklarını korumak veya kaybettikleri sağlıklarını yeniden kazanmak için çeşitli

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faaliyetlere katılmaktadır. Bu faaliyetler dünya genelinde medikal turizm kavramının ortaya çıkmasıyla birlikte uluslararası bir boyut kazanmıştır.

Turizm kavramı, kazanç sağlama amacına yönelik olmamak ve sürekli yerleşmemek kaydıyla yabancıların bir yere seyahatleri ve orada konaklamaları sonucunda ortaya çıkan olayların ve ilişkilerin tümünü tanımlamaktadır (**Zengingönül vd. 2012: 3**).

Medikal turizm; turizm sektörü içinde hızla büyümekte olan, insanların uzun mesafedeki ülkelere medikal tedavi olmak için seyahat etmesini ve aynı zamanda birer tatilci olmalarını ifade eden bir kavramdır (**Connell, 2006:1094**). Dünyada son on yıl içerisinde gittikçe önem kazanan medikal turizm pazarı, ülke ekonomisine kazandırdığı ekonomik gelir açısından Türkiye için de büyük bir fırsat yaratmaktadır. Turizmin tüm yıla yayılmasını sağlayabilecek alternatif turizm çeşitlerinden biri olan medikal turizm hem turizm sektörünü hem de sağlık sektörünü olumlu yönde etkilemektedir.

Başka ülkelerin sağlık imkânlarından faydalanmak isteyen medikal turistler kaliteli sağlık hizmetine daha kolay erişebilme ve maliyet avantajı sağlamanın yanı sıra yeni yerler keşfetme eğilimindedirler. Türkiye’de medikal hizmet veren sağlık kurumlarının teknoloji ve insan gücü altyapısının iyi olması, özel hastane sayılarındaki artış, sağlık sektöründe sunulan hizmet kalitesinin artması ve rekabet edilebilir fiyatların varlığı Türkiye’nin medikal turizmde ön plana çıkmasını sağlamaktadır. Bunlara ek olarak Türkiye’nin coğrafi konumu, doğal ve kültürel açıdan zengin kaynaklara sahip olması ve mükemmel bir tatil destinasyonu olması medikal turistleri daha da cezbetmektedir. Fakat bu tercih edilirlğe rağmen Türkiye’nin medikal turizmde henüz istenen düzeye ulaştığı ve medikal turizm pastasından yeteri kadar pay aldığı söylenemez.

Ülkemizde, sağlık hizmetlerinin verimli ve kaliteli bir şekilde yapılabilmesine ilişkin planlama çalışmaları, son yıllarda üzerinde en fazla tartışılan konulardan birisi haline gelmiştir. Sağlık hizmeti veren üretim birimlerinin en büyük alt sistemleri hastanelerdir. Dolayısıyla söz konusu hizmet üretiminin büyük bir bölümünü üstlenmiş olması sebebiyle hastanelerin çağdaş işletmecilik anlayışına göre yönetilmeleri gerekmektedir (**Kılınç ve Tutar: 31**).

## YÖNTEM

**Veri Toplama Araçları ve Araştırmanın Modeli:** Araştırmada iki tür yöntem kullanılmıştır. İlk olarak Medikal Turizm ile ilgili literatür taraması yapılmış, daha sonra da Gümüşhane ve Trabzon illerinin merkez bölgelerinde mevcut sağlık kurumlarında anket uygulaması yapılmıştır. Anket uygulamasında 25 soru uygulanmış olup, geçerlilik analizi sonucu soru sayısı 19 indirilmiştir. Soruların 5’li (kesinlikle katılmıyorum, katılmıyorum, kararsızım, katılıyorum, kesinlikle katılıyorum) likert ölçeğine göre düzenlenmiştir. Ankete cevap vermeyi kabul eden sağlık çalışanlarına uygulanan anket sonucunda 120 anket geçerli sayılmış ve analizlere katılmıştır. Güvenirlilik ve geçerlilik analizleriyle birlikte, frekans analizi, T-testi ve ANOVA testinden faydalanılmıştır. Güvenirlilik analizi Cronbach’s Alpha: ,895 ve geçerlilik analizi olarak faktör analizi uygulanmış ve ifadeler iki faktör altında toplanmış, birinci faktör; Medikal turizm sektöründeki yetkinlikler ve politikalar, ikinci faktör; Sağlık kurumları ve çalışanların medikal turizmdeki yetkinlikleri ve farkındalığı olarak adlandırılmıştır. İki faktör toplamda varyansın 0,60’ını açıklamaktadır.

Kaiser-Meyer-Olkin Örnekle Yeterliliğin Ölçümü		,771
Bartlett's Testi	Yaklaşık Ki-Kare	1955,231
	Df	171
	Sig.	,000

Ölçeğin KMO değeri 0,771(p=0,000) olarak bulunmuş ve faktör analizine uygunluğu tespit edilmiştir.

**Evren ve Örneklem:** Araştırmamızın evrenini Gümüşhane ve Trabzon'un merkez bölgelerinde bulunan 7 farklı hastanede görev alan sağlık çalışanları oluşturmaktadır. Örneklemimiz ise bu kurumlarda farklı birimlerde çalışanlar arasından tesadüfi olarak seçilen ve katılıma gönüllü olan 120 kişi oluşturmaktadır.

## BulGulAR

Bu bölümde örneklem grubunda yer alan katılımcıların demografik özellikleri frekans ve yüzde tanımlayıcı istatistikleri ile gösterilmiş müteakiben sağlık çalışanları açısından medikal turizmin bilinirliği ve farkındalığı incelenmiştir.

Örneklem grubunda yer alan katılımcıların, yaş değişkenine göre dağılımı incelendiğinde, % 63'ünün 21-30, % 28'inin 31-40, % 5'inin 41-50 ve % 4 'ünün 51-60 yaş aralığında oldukları anlaşılmaktadır. Cinsiyet değişkenine göre dağılımı incelendiğinde, % 41'inin erkek, % 59'unun kadın olduğu anlaşılmaktadır. Eğitim düzeyi değişkenine göre dağılımı incelendiğinde, % 28'inin lise, %18'inin meslek yüksekokulu, % 44'ünün lisans, % 11'sinin lisansüstü mezunu olduğu anlaşılmaktadır. Kurumda çalışma süresi değişkenine göre dağılımı incelendiğinde, % 66'sının 0-10, %27'sinin 11-20 ve % 8'inin 21-30 yıl aralıklarında kurumda görev aldıkları anlaşılmaktadır.

**Tablo 1:** Katılımcıların Çalıştıkları Hastanede Medikal Turizm Bürosunun Mevcudiyeti

Medikal Turizm Bürosu	Kişi Sayısı	Yüzde Oranı (%)
Yok	108	90,0
Var	12	10,0
Toplam	120	100,0

Katılımcıların çalıştıkları hastanede medikal turizm bürosunun mevcudiyet değişkenine göre dağılımı incelendiğinde, kurumlarda çalışan katılımcıların % 90'ının medikal turizm bürosuna yok, % 10'unun medikal turizm bürosuna var şeklinde cevap verdiği anlaşılmaktadır.

Genel olarak ülkemizin medikal turizm sektöründeki yetkinlikleri ve politikaları hakkında sağlık çalışanlarının görüşleri incelendiğinde; medikal turizm sektöründe rol alacak hastanelerin, konforlu dizayn edilmesi ve kültürümüzü yansıtmaları ile akredite edilmesinin önemli olduğu ifade edilmektedir. Aynı zamanda sağlık hizmeti fiyatlarının medikal turistlere maddi avantaj sağlayacak düzeyde olduğu fakat hastanelerin medikal turizm tanıtım faaliyetlerini daha etkin yapması gerektiği ifade edilmektedir.

İkinci faktör olan hastane ve sağlık çalışanlarının yeterlilikleri ve farkındalıkları incelendiğinde; sağlık çalışanlarının medikal turizm konusunda ülkemizin altyapısının yetersiz, çalışanların ise bu konuda yeteri kadar bilgi sahibi olmadıkları, sağlık çalışanları yabancı hastalarla iletişim kurmakta zorluk yaşayacaklarını, medikal turizm konusunda eğitim almadıklarını ifade etmişlerdir.

Bağımsız değişkenlerle bağımlı değişkenler arasındaki anlamlılık farkı arandığında cinsiyet açısından anlamlı fark olduğu görülmüştür ( $F=0,76$ ;  $P<0,05$ ), ( $F=0,01$ ;  $P<0,05$ ). Sonuç itibarıyla erkeklerin konuya dair olumlu baktıkları anlaşılmaktadır.

Eğitim düzeyine göre, iki faktör arasında anlamlı farklılık bulunmuştur. ( $F=5,89$ ;  $P<0,05$ ), ( $F=3,69$ ;  $p<0,05$ ). Lisansüstü mezunları konuya daha olumlu yaklaşmaktadır.

Ayrıca, Türkiye'nin medikal turizm sektöründeki yetkinlikleri ve politikaları ile katılımcıların görev ve statüleri arasında anlamlı bir farklılık saptanmıştır ( $F=3,61$ ;  $P<0,05$ ).

Analiz sonuçlarına bakıldığında, birinci faktöre göre Türkiye'nin medikal turizm sektöründeki yetkinlikleri ve politikaları ile katılımcıların çalıştıkları sağlık kurumlarının yatak sayısı arasında anlamlı bir farklılık saptanmıştır ( $F=3,02$ ;  $P<0,05$ ).

Analiz sonuçlarına bakıldığında, ikinci faktöre göre Türkiye'deki sağlık kurumları ve çalışanlarının medikal turizm farkındalığı ile katılımcıların çalıştıkları sağlık kurumlarının yatak sayısı arasında anlamlı bir farklılık saptanmıştır ( $F=3,24$ ;  $P<0,05$ ).

## SONUÇ

Bu araştırma kapsamında sağlık çalışanları açısından medikal turizmin bilinirliği ve farkındalığını ölçmek amacıyla uygulanan anket neticesinde şu genellemeleri yapmak mümkündür:

Örneklem grubunda yer alan katılımcıların çalıştıkları kurumların medikal turizm kapsamında yabancı hastalara sunulacak sağlık hizmeti konusunda personellerine hizmet içi eğitimler vermediği ve örneklem grubunda yer alan katılımcıların çalıştıkları sağlık kurumlarında medikal turizm birimlerinin olmadığı ya da çok azında mevcut olduğu anlaşılmaktadır.

Örneklem grubunda yer alan katılımcıların yabancı uyruklu hastalarla iletişim kurmada zorlanıp zorlanmayacağı irdelenmiştir ve sonuç olarak büyük bir çoğunluğunun dil yetersizliğinden iletişim kurmakta zorlanacağı anlaşılmaktadır.

Örneklem grubunda yer alan katılımcılardan genel anlamda medikal turizm hakkında birtakım sorular sorulmuştur. Verilen cevapların yüzde analizleri doğrultusunda örneklem grubundaki katılımcıların genel olarak medikal turizm hakkında yeterli bilgiye sahip olmadıkları anlaşılmaktadır.

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# Sağlık Kurumlarında Afet Risklerinin Yönetimi “Türkiye Örneği”

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## ÖzET

Türkiye’ de meydana gelen afetler yaşandığı her dönemde can ve mal kayıplarına neden olmuştur. Uzun yıllar boyunca meydana gelen ve ciddi oranda can ile mal kayıplarına neden olan afetlerin katlanılamaz oranda risk taşıdığı, bu nedenle yönetilerek önlem alınması gereken durumlar olduğu ancak 1999 yılında yaşanan ve 18.374 kişinin hayatını kaybedip 48.901 kişinin yaralandığı Gölcük ve Düzce depremleri ile anlaşılabilmektedir. Ülkemizde diğer alanlarda olduğu gibi sağlık alanında da afet risklerinin azaltılmasına yönelik yapılan çalışmalar Gölcük ve Düzce depremlerinden sonra hız kazanmıştır. Afetlerin meydana gelmesi ile devreye giren ve sadece müdahale çalışmalarını içeren kriz yönetimi anlayışı ile afetlerin olumsuz etkilerinden korunmak olanaksızdır. Geçmiş dönemlerde afetler nedeniyle yaşanan can ve mal kayıplarının tekrar yaşanmaması, olumsuz etkiye neden olacak olayların engellenmesi ve meydana gelen olaylarda her türlü kaybın asgariye indirilmesi risk yönetimi ile birlikte kriz yönetimini de içerisinde barındıran bütünlük afet yönetimi ile mümkündür. Bütünlük afet yönetimi kapsamında bulunan ve meydana gelebilecek olaylar hakkında öngörüle bulunup bu olayların olumsuz etkilerini azaltıcı önlemleri almayı hedefleyen risk yönetimi, olay meydana gelmeden önce önlem alabilmeyi mümkün kıldığından afet yönetimi açısından oldukça önemlidir. Bu nedenle sunulan çalışma kapsamında öncelikle afet ve afet yönetimi ile ilgili temel kavramlar, ülkemizde mevcut afet yönetim biçimi ve ilgili mevzuat ile afet yönetiminde ihtiyaç duyulan hizmetler ele alınmıştır. Sağlık kurumlarının afetlere karşı hazırlıklı ve dirençli olmalarını hedefleyen bu çalışma risk yönetiminin önemini ortaya koyarken sağlık kurumları açısından afet risklerinin doğru ve eksiksiz yönetilmesi adına gerekli planlama ve hazırlık çalışmalarına dikkat çekmektedir. Çalışma aynı zamanda afet risklerinin yönetimi ile alakalı güncel bilgiyi “Türkiye Afet Müdahale Planı” çerçevesinde paylaşarak tüm sağlık yönetici ve çalışanlarının yaşanabilecek her türlü afete karşı; hazırlıklı olabilmeleri, müdahale çalışmalarında gerekli niteliğe sahip olabilmeleri ve her an tedbirli olmalarını sağlamak adına rehber olmayı amaçlamaktadır. Olay meydana gelmeden önce önlemek, önlenemeyen olayların ise etkilerini en aza indirmek anlayışının yaygınlaşmasını amaçlayan bu çalışma sağlık kurumlarında afet risklerinin yönetilmesi ve böylece afetler konusunda daha güçlü bir sağlık teşkilatlanmasına sahip olabilmek amacıyla hazırlanmıştır.

**Anahtar kelimeler:** Afet, Afet Yönetimi, Risk Yönetimi, Kriz Yönetimi, Türkiye Afet Müdahale Planı, Acil Durum Planı, Sağlık Kurumları Açısından Afet Riskleri

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## GİRİŞ

Türkiye jeolojik yapısı, tektonik oluşumları ve topografyası nedeniyle geçmişten günümüze kadar birçok afete maruz kalmış ve bu konuda acı tecrübeler edinmiştir. Ülkemizde 1992 Erzincan, 1995 Dinar depremlerinden sonra tartışılmaya başlanan afet yönetimi disiplini, 1999 yılında yaşanan Gölcük ve Düzce depremleri ile bir kez daha gündeme gelmiş ve önemini derinden hissettirmiştir. Ülkemizde meydana gelen bu depremlerin ve diğer afetlerin neden olduğu kayıplar afetlerle mücadele kapasitemizin yetersiz olduğunu ortaya koymuş ve bu konuda yeni bir yapılanmayı gerekli kılmıştır. Bu kapsamda yapılan değerlendirme ve düzenlemeler sonucunda ülkemiz modern afet yönetimi ile tanışmıştır. Modern afet yönetim modelini oluşturan risk ve kriz yönetimi aşamalarında başarıya ulaşmak, afetlerle mücadelede yürütülecek hizmetlerden sorumlu kurumların bu konuda başarılı olmaları ile mümkündür. Haberleşme, sağlık, psikososyal destek, güvenlik, enerji, barınma, beslenme ve ulaşım hizmetleri afetlerle mücadelede yürütülecek hizmetlerin temelini oluşturmaktadır. Birbirinden bağımsız gibi görünen bu temel hizmetlere afet yönetimi disipliniinde çoğu zaman aynı anda ihtiyaç duyulmaktadır. Örneğin, deprem afetinde sağlık hizmetlerine ihtiyaç duyulduğu kadar haberleşme ve güvenlik hizmetlerine de ihtiyaç duyulmaktadır. Tüm bu hizmetleri sunan kurumların afet öncesi hazırlıkları yerine getirmeleri, gerekli önlemleri almaları ve hizmet alanlarını ilgilendiren riskleri belirleyip yönetmeleri afetlerde yaşanacak can ve mal kayıplarının asgariye indirilmesi açısından oldukça önemlidir. Afetlere hazırlık ve mücadele çalışmalarında diğer hizmetlerle birlikte aynı anda sunulması gereken önemli hizmetlerden biri de sağlık hizmetleridir. Bu nedenle çalışma kapsamında sağlık kurumları açısından afet risklerinin belirlenmesi ve yönetilmesi temel alınmıştır. Bu bağlamda önce afet ve afet yönetimi ile ilgili kavramlara yer verilerek, modern afet yönetim sisteminin bileşenleri ele alınacak ve “Türkiye Afet Müdahale Planı” kapsamında güncel afet mevzuatına değinilecektir. Ayrıca bu çalışma kapsamında afetlerde ihtiyaç duyulabilecek zaruri hizmetlerin neler olduğu açıklanacak, sağlık hizmetleri açısından afet risklerinin neler olduğu belirlenecek ve afetlere hazırlık ile mücadele yöntemlerinin belirtildiği acil durum planlamasına yer verilecektir.

## 1. AFET VE AFET YÖNETİMİ İLE İLGİLİ TEMEL KAVRAMLAR

### 1.1 Afet

#### 1.1.2 Afet Türleri

#### 1.1.3 Afetlere Neden Olan Etmenler

### 1.2 Afet Yönetimi

#### 1.2.1 Risk Yönetimi

#### 1.2.2 Kriz Yönetimi

## 2. TÜRKİYE’DE AFET YÖNETİM BİÇİMİ

### 2.1 Afet Yönetiminde Görevli Kurumlar

### 2.2 Afetlere Yönelik Kurumsal Hazırlıklar

## 3. SAĞLIK HİZMETLERİ AÇISINDAN AFET RİSKLERİ

### 3.1 Kurumsal Riskler

### 3.2 Dış Çevre Riskleri

## 4. AFETLERDE İHTİYAÇ DUYULABİLCEK ZARURİ HİZMETLER

### 4.1 Afet Yönetiminde Hizmet Alanları

### 4.2 Afetlerde Sağlık Hizmetleri

### 4.3 Acil Durum Planı

## SONUÇ VE ÖNERİLER

18.05.2015

Sıdkı KÜÇÜKKAYA





# Sağlık Kurumu Yöneticilerinin Zaman Yönetimi Yaklaşımları Araştırması

Süleyman UYSAL\*

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## ÖZET

**Çalışmanın Problemi:** Ülkelerin gelişmişliklerini, politikayapıcıveuygulayıcılarınkarakarlarını etkileyen sağlık faktörü, uzun yıllardır ülkeler arası ayırt edici etmenlerden bir tanesi olmuştur. Ülkelerin sağlığa yönelik yaptıkları yatırım-uygulama harcamaları arasındaki fark yanı sıra sürecin de harcamalarda ki maliyetler açısından önemli bir yer etmektedir. Sağlıkta maliyetler hesaplandığında karşımıza çıkan bilanço içerisinde elle tutulmasa da çok önemli bir yere sahip olan “zaman” maliyeti karşımıza çıkmaktadır. Son dönemde diğer ülkelerde de değerinin farkına varıldığı gibi, Türkiye’de de sağlıkla ilgili planlama, koordinasyon, uygulama, yaygınlaştırma ve kontrol faaliyetlerinin gerçekleştirilmesi esnasında, zaman faktörü önemli bir yere sahip olmuş ve bu stratejilerin uygulanması süreleri de dikkate alınmıştır.

Bu çalışma kapsamında zaman olgusu ve onun alt faktörleri ele alınmıştır. Sağlık yöneticileri ve sağlık kurumlarında zaman faktörünün yönetimi konusunda yeterli ehemmiyetin gösterilmediği ve zaman faktörünün mali bir değerinin farkedilmemesi dolayısı ile sağlık alanındaki uygulama boşluğunun doldurulması hedeflenmiştir. Bu bağlamda sağlık yöneticilerinin zaman yönetimi tutumlarını belirleme, farkındalık yaratma, bu konuyu aydınlatma ve öneriler sunma amacı ile bu çalışma yapılmıştır.

**Çalışmanın Amacı:** Çalışmamızın temel amacı, genel sağlık sistemi içerisinde zaman yönetiminin ve sağlık yöneticilerinin bu konu hakkında tutum ve davranışlarının belirlenmesi ve öneriler sunulması amaçlanmıştır.

**Metot:** Çalışmanın kavramsal çerçeve boyutu derleme metodu kullanılarak oluşturulmuştur. Çalışmanın devam eden sürecinde ise anket yönteminin kullanılması planlanmıştır.

**Anahtar Kelimeler:** Zaman, Sağlık Kurumları Yöneticilerinde Zaman Yönetimi, Zaman Yönetimi, Sağlık Kurumları

## GİRİŞ

Sağlık hizmetleri bireylerin bedensel ve ruhsal sağlıklarının iyileştirilmesi için sunulan koruyucu ve tıbbi hizmetlerdir. Bu hizmetlerin sunumunun gerçekleştirilmesi için makro ve mikro düzeyde iyi koordine edilmiş ve planlanmış bir sağlık sisteminin olması gerekmektedir. Sağlık hizmetlerinin sunulduğu kurumlar oldukça karmaşık yapıdan oluşan örgütlerdir (Tengilimoğlu vd., 2011:70-77).

Sağlık hizmetlerinin özellikleri ile sunumu arasındaki ilişkinin kontrol noktası zamandır. Zaman sağlık hizmeti sunumunda önem arz eden bir faktördür. Sağlık hizmeti planlanmasında ve sunumu sırasında, sağlık ihtiyacının ne zaman belireceği tam olarak kestirilemez. Sağlık ihtiyacının her zaman hazır bir şekilde bulundurulması ve sunumunun kesintisiz sağlanması

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için kaynakların (beşeri ve ekonomik) ve zamanın profesyonel bir şekilde koordinasyonu sağlanmalı ve bu safhada yöneticilere önemli görevler düşmektedir **(Tengilimoğlu vd., 2011: 72-74)**.

Yöneticiler açısından zaman yönetimi, örgüt yönetimlerinin gittikçe karmaşık oluşu, fazla sorumluluk içerir bir hale gelmesi ile birlikte yöneticiliğin zorlanması bununla birlikte yöneticilerin yeterli zamana sahip olmamaları sebebi ile önem kazanmıştır. Bu durum yönetsel zamanın gelişmesine öncü olmuştur. Yönetsel zaman, örgüt hedeflerine ulaşmak amacıyla yerine getirilmesi gereken işlevlerin her biri için harcanan süre beşeri ve maddi zaman toplamıdır. Yönetici burada beşeri ve maddi kaynaklarla birlikte zamanı da yönetmektedir **(Bahçecik vd.,2004:67-68)**.

Hastanelerde günlük yapılan tıbbi ve yönetsel faaliyetlerin planlanması ve burada zaman olgusunun kıt olduğu gözardı edilmemelidir. Bu sebeple hastane personelleri plan ve programlar ile birlikte zaman baskısı altında hareket etmekte, tıbbi ve yönetsel faaliyetlerin yetiştirilmesi esnasında sorun yaşayabilmektedirler **(Menderes, 1995:63)**.

Sağlık kurumlarında hastane yöneticilerine büyük bir görev düşmektedir. Yöneticilerin; hasta yakınlarının beklentilerini, hastaların bekleme sürelerini, tanı ve tedavi teşhis sürelerinin süreleri ve en kısa zamanda en iyi, verimli hizmetin verilebilmesi için zamanı iyi planlamaları, tıbbi ve yönetim faaliyetlerinin eşgüdümünü sağlamaları gerekmektedir.

## YÖNTEM

Yöneticilerin tutum ve zaman yönetimi önemini farkındalığını saptamak amacı ile 40 soruluk beşli likert tipi bir zaman yönetimi ölçeği (iki ayrı çalışmadan derlenmiş) sağlık kurumlarında ki alt, orta ve üst düzey yöneticilere (Gümüşhane, Trabzon ve Hatay) uygulanmıştır. Toplam 120 yöneticiye ulaşılmış olup, 85 geçerli anket geri dönüşü sağlanmıştır. Çalışmanın güvenilirlik katsayısı Cronbach's Alpha 0, 90 olarak hesaplanmıştır. Veriler istatistiksel olarak, frekans analizi, T-testi ve ANOVA ile analiz edilmiştir.

## Bulgular

Çalışmaya katılan alt, orta ve üst düzey yönetici ve uzmanların dağılımları aşağıdaki gibidir:

Tablo 1: yöneticilerin yönetim statüleri		
Yönetim Seviyesi	Kişi Sayısı	Yüzde Oran (%)
Alt Düzey	8	9,4
Orta Düzey	37	43,5
Üst Düzey	40	47,1
Toplam	85	100,0

Anket çalışması sonucunda yöneticilerin ifadelerine katılma düzeyleri incelendiğinde; “Randevulara uyarım, Çalışma koşullarımın iyi olması sosyal hayatıma zaman ayırmamı sağlar, Çay kahve ikram ederim, Öncelikli işlerin listesini yaparım, Her belge ve raporu masamda rahatlıkla bulurum” ifadelerine 4 puan üzerinde bir katılım olduğu tespit edilmiştir. “Astlarıma devrettiğim işlerin yalnızca sonucunu bilmek isterim, İşimi son anda yetiştiririm, Günlük rutin işleri yardımcıma devrederim, Gündelik işleri ve randevuları unuturum, Bir iş için yardım istendiğinde hayır diyebiliyorum” ifadelerine 3 puanın altında bir katılım sağlandığı

anlaşılmıştır. Diğer ifadelerle, 3-4 puan aralığında yer almıştır.

Yapılan anlamlılık testlerine göre, demografik değişkenler açısından ifadeler arasında anlamlı farklılık olan ifadeler aşağıda verilmiştir.

**Tablo 2: Cinsiyete Göre Zaman Yönetimi Araştırmasında Anlamlı İfadeler Tablosu**

Sorular	Cinsiyet	N	Ortalama	Stn. Sapma	F	Sig 2 (p)
1) Ziyaretçilerimle randevülü görüşürüm	Kadın	37	2,97	1,23	0,33	,02
	Erkek	48	3,70	1,21		
2) Görüşme yaparken evrakları imzalarım	Kadın	37	2,81	1,19	0,03	,03
	Erkek	48	3,39	1,26		
3) Yapmam gereken öncelikli işlerin listesini yaparım	Kadın	37	3,94	0,62	6,32	,04
	Erkek	48	4,22	0,83		
4) İşyerinde zamanın çoğunu günlük ve rutin işlere harcıyorum.	Kadın	37	3,13	1,22	1,10	,04
	Erkek	48	3,66	1,11		

Yapılan analizler sonucunda zaman yönetimi ile cinsiyet arasında anlamlı bir farklılık bulunmuştur. Genel hatları ile erkek yöneticilerin kadınlara göre zamanı yönetme konusunda daha iyi oldukları gözlenmiştir.

**Tablo 3: Görev ve Statüye Göre Zaman Yönetimi Araştırmasında Anlamlı İfadeler Tablosu**

Sorular	Statü	N	Ortalama	Stn. Sapma	F	Sig
Toplantıların başlangıç ve bitiş saatlerini planlarım.	Alt düzey yönetici	8	3,25	1,48	3,64	,030
	Orta Düzey Yönetici	37				
	Üst Düzey Yönetici	40				
Görüşmeleri öncelik sırasına göre düzenlerim	Alt düzey yönetici	8	3,25	1,58	3,04	,035
	Orta Düzey Yönetici	37				
	Üst Düzey Yönetici	40				
Çalışırken zor işlerle karşılaştığımda mazeretler arayıp ertelemiyorum	Alt düzey yönetici	8	2,62	1,68	3,38	,039
	Orta Düzey Yönetici	37				
	Üst Düzey Yönetici	40				
Stresli olsam bile zamanı etkin kullanıyorum	Alt düzey yönetici	8	3,12	1,35	3,14	,048
	Orta Düzey Yönetici	37				
	Üst Düzey Yönetici	40				

Elde edilen bulguların sonuçlarında yapılan analizlere göre görev ve statü ile zaman yönetimi arasında anlamlı farklılıklar bulunmuştur.

Tablo 4: Eğitim Düzeyine Göre Zaman Yönetimi Araştırmasında Anlamlı İfadeler Tablosu

Sorular	Eğitim düzeyi	N	Ortalama	Std. Sapma	F	Sig(p)
Telefonla görüşmeden önce görüşeceğim konuyu not alırım.	Lise	4	3,30	1,63	2,78	,046
	meslek yüksek okulu	10	3,60	0,91		
	Üniversite	46	4,00	1,32		
	Yüksek lisans	25	3,84	1,22		
İşleri birine devretmek yerine kendi başıma yapmam bana zaman kaybettirmiyor	Lise	4	3,75	1,89	3,07	,032
	meslek yüksek Okulu	10	3,80	1,03		
	Üniversite	46	2,67	1,11		
	Yüksek lisans	25	2,84	1,28		
Gündelik rutin işler ve randevuları unuturum.	Lise	4	2,56	0,57	3,52	,018
	meslek yüksek okulu	10	3,60	1,26		
	Üniversite	46	2,32	1,29		
	Yüksek lisans	25	1,50	1,24		
Zamanımı daha etkin kullanmak için yöntemler geliştirim.	Lise	4	2,75	2,06	3,02	,034
	meslek yüksek okulu	10	3,95	0,81		
	Üniversite	46	4,00	0,81		
	Yüksek lisans	25	4,24	0,92		

Analizlerin sonucunda zaman yönetimi ile eğitim düzeyi arasında anlamlı farklılıklar bulunmuştur.

## SONUÇ

Sonuç olarak; zaman yönetimi açısından düzenli olmaya ve randevularına dikkat etmeye çalıştıkları gözlenmekle beraber; çay kahve ikramı, astların görev detaylarıyla uğraşma, yetki devretmede sorunlar yaşadıkları söylenebilir. Ayrıca bayan yöneticilerin randevulu görüşme yapma ve işleri listeleme konusundan daha az dikkat ettikleri, erkeklerin ise görüşme yaparken evrak imzalama, zamanın çoğunu rutin işlere ayırmayı daha fazla yaptığı gözlemlenmiştir. “Toplantıların başlangıç ve bitiş saatlerini planlarım, Görüşmeleri öncelik sırasına göre düzenlerim, Çalışırken zor işlerle karşılaştığımda mazeretler arayıp ertelemiyorum, Stresli olsam bile zamanı etkin kullanıyorum” ifadelerinde yönetim kademesi artıkça zaman yönetimini başarma düzeyi de artmaktadır.

Kaynakların verimli ve etkin bir şekilde kullanılması önem arz eden bir yönetim sorumluluğudur. Bu kapsamda kaynakların en kısıtlı olanlarından bir halinde bulunan zamanın yönetiminin yönetici sorumluluğu olarak algılanmalıdır. Özellikle gereksiz detaylarla ilgilenme, yetki devretmeme, çay-kahve ikramlarıyla randevuları uzatma gibi zaman tuzaklarından yöneticilerin kurtarılması için mutlaka zaman yönetimi seminerlerine katılmaları önerilir.

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# HASTANELERDE YALIN YÖNETİM

İzzet DEMİR\*

Yalın Yönetime İsrâf Yönetimi de diyebiliriz. Mekke Döneminde indirilen aşağıdaki 2 ayete bakacak olursak; o dönemden bu yana israf(ihtiyaç olanı al, ihtiyacı olmayanı alma), ediliyor, göz yumuluyor yada önlenmeye çalışılıyor.

-...yiye, için, fakat israf etmeyin. Çünkü Allah israf edenleri sevmez.(A'raf Suresi/31. Ayet)

-... Her biri meyve verince meyvesinden yiye, hasat günü de hakkını (zekat ve sadakasını) verin; ama israf etmeyin, çünkü O, israf edenleri sevmez.(En'am Suresi, 141. Ayet)

İsraf, yasaklanan şeylerde değil, helal olan şeylerde mevzubahistir. İslam, israf yasağı ile özel mülkiyet hakkına bir sınır getirmiş ve servet kimin olursa olsun, onda toplumun hakkı bulunduğulkesinibenimseyerek, israfla bu hakkı yok edilmesine engel olmak istemiştir([http://dinimeseleler.com/soruCevapDetay.aspx?ur\\_id=1198](http://dinimeseleler.com/soruCevapDetay.aspx?ur_id=1198)).

## Yalın Yönetim Terimi nereden gelmektedir?

Toyota yönetim sisteminin kökleri ise 1890'lara kadar dayanmaktadır. Bu tarihte, bir mucit olan Sakichi Toyoda, işçi verimliliğini artırmak ve kumas kalitesini yükseltmek için, elle işletilen, kumas dokuyan tezgâhları dizayn etmiş ve patentini almıştır. 1920'de Sakichinin oğlu Kiichiro mekanizmayı daha da iyileştirmiş ve hatalı üretimden kaçınmak için herhangi bir problem olduğunda makinelerin otomatik durduğu bir sistem geliştirmiştir. 1937 yılında, Japonya'da kurulan Toyota Otomobil Fabrikası, Eiji Toyoda'nın Ford otomobil fabrikasını incelemesine kadar pek bir varlık gösterememiştir. Eiji bu inceleme sonucunda seri üretimin Japonya'da asla başarıya ulaşamayacağına kanaat getirmiştir. Yaklaşık 45 yıllık iş yaşamının tamamını Toyota ailesinin hizmetinde geçiren Taichi Ohno de aynı görüsten hareketle Toyota Motor Şirketinde yalın üretim ve yalın yönetimin temelini atmıştır(akt. Derin, s. 10.).

## Yalın Teoriler

Toyota'daki görüşmelerim sırasında – ister imalatla, isterse ürün geliştirmede, satışta, dağıtımda yada halkla ilişkilerde – Toyota tarzını öteki yönetim anlayışlarından ayırt eden özellikleri sorduğumda, aldığım ilk yanıt hep genchi genbutsu oluyordu. Gidip de kendi gözlemlerinizle doğrudan görmeden iş hayatındaki problemleri gerçekten anlamamız mümkün değildir. Hiçbir şeyi önceden veri kabul edemezsiniz yada başkalarının raporlarına bakarak karar veremezsiniz.(K. Liker, s. 277.) Bir sorun keşfedildiğinde, bu sorunu derhal, meydana geldiği yerde ve bu sorunla mücadele eden insanların katkılarıyla çözmeye odaklanılır. Bir Yalın deyişi, sorunların toplantı odalarında değil, Japoncada işlerin yapıldığı asıl yer anlamına gelen gemba'da çözüldüğünü söyler(Grabau, s. 62.).

Toyota Üretim Sistemi'nin temelini oluşturan “entegre fabrika” tanımıdır. Entegre fabrika teknik boyutlarıyla 6 sıfırdan oluşan bir üretim modelidir. Entegre fabrika ile sıfır stok (sıfır mal fazlası, sıfır depo), sıfır hata, sıfır çelişki, üretimde sıfır ölü zaman, müşteri için sıfır

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bekleme süresi ve en nihayetinde de “sıfır kâğıt” başka bir deyişle, sıfır bürokrasi ve sıfır gereksiz iletişim hedeflenmektedir(akt. Yaman, s. 52.).

Toyota üretim sisteminin bir parçası olarak 7 israf türü belirtilmiştir.(Fazla üretim, ulaşım, hareket, bekleme, aşırı işlem, kusurlar ve stok) İlerleyen zamanda becerilerinden, bilgisinden ve uzmanlığından yeterli ölçüde yararlanılamayan personel olmak üzere sekizinci israf da eklenmiştir. Bu israf, çalışanların bilgisinden, zihinsel ve fiziksel becerilerinden yeterli ölçüde yararlanılamamasını belirtmektedir(Yüksel, s. 30.).

### **Hastanelerde Yalın Yönetim**

Sektörü ne olursa olsun(ister kamu, ister özel...vs.), optimum fikirle, optimum maliyetle, optimum bina inşasıyla, optimum bina donanımıyla, optimum malzemeyle, optimum liyakatli personelle, optimum eğitimle, optimum zamanda, optimum hasta ve çalışan memnuniyeti(%100 herkesi aynı düzeyde memnun etmek imkansızdır.) sağlanarak optimum iş akışları ışığında, adil bir şekilde hizmetin sunulması, birlik içinde, sadakatle, tek vücut halinde, aynı inanç ve kararlılıkla hareket edip stratejik hedefleri de gözönüne alarak disiplinli bir şekilde süreç takibi yapılması ve kalplerimizin de yalınlığına dikkat ederek herkesin, sorumlu olduğu alanda organizasyona dahil olarak işlerin yürütülmesidir.

Bu tanımın uygulamaya geçme süresi sorulduğunda bu sürenin ne alt sınırı vardır ne de üst sınırı vardır. Başladım dediğiniz anda herşeyin optimumunu sağlamak üzere yola çıkmış bulunuyorsunuz. Periyodik olarak haftada bir her birim kendi içerisinde toplantılar düzenlemelidir. Günlük olarak israflar, hastanemiz içerisinde tespit edildiği anda her birimin ayrı ayrı tutacağı ‘İsraf Kayıt Defteri’ne kayıt edilecek. Haftalık yada aylık toplantılarda ise bunların gündeme getirilip bir daha olmaması için gerekli önlemler alınacak. Yani yalınlaşma anlamında her zaman tümevarım treninde çalışmalarımızı sürdüreceğiz.

Geleneksel öneri sistemleri, çoğunlukla yöneticilerin yada görevlendirilmiş bir ekibin her öneriyi okuyup değerlendirdiği aylık(yada daha seyrek) öneri inceleme toplantılarını içerir. Bu toplantılar genellikle öneriyi sunan kişiyle hiçbir doğrudan etkileşim olmaksızın yapılır. Ekip imzasız önerileri değerlendiriyorsa, geribildirim verme yada fikri daha derinlemesine irdeleme ihtimali hiç yoktur.(Graban, s. 247.).

Yalın bir ortamda, öneriler herkesin görebilmesi için görsel olarak bir panoya asılır. Fikirler değerlendirilirken, çalışanlar ve liderler hangi fikirlerin ilerlediğini görmek için panoyu gözden geçirebilirler(Graban, s. 252-253.).

Yalın yönetim; yetki devrinin arttığı, yaptığı isten herkesin sorumlu tutulduğu, sıfır hiyerarsinin hedeflendiği, yalın üretimin gerçekleşmesi için tesis edildiği düşünülen bir yönetim şeklidir(akt. Derin, s. 8.).

Toplam kalite yönetimi yaklaşımına göre, kalite, işletmedeki tüm çalışanların işidir. Ayrıca, bu yaklaşım çerçevesinde, bir sonraki süreç müşteridir; kalite kaynağında üretilmelidir, yan işgörenler kendi hatalarını düzeltebilmelidirler. Üretilmiş ürünlerin bir kalite denetimi bölümü tarafından denetlenmesi, değer eklemeyen bir faaliyet, yani bir israftır. Sonuçların hedeflenen kalite düzeyinden sapma göstermesinin nedeni, süreçlerdeki değişkenliktir. Bu nedenle, tüm çalışanlar, kalite sorunlarını ve bu sorunların ortaya çıkmasına neden olan faktörleri belirleyebilmelerini ve sorunların ortaya çıkmaması için önlemler alabilmelerini sağlayacak araçlarla donatılmalı, yani süreç denetimi konusunda eğitilmelidirler. Amaç, ilk seferinde

doğru yapmak ve sürekli iyileştirme yoluna gitmektir. Kalite sorumluluğunun iş görenlere yüklenebilmesi için çalışanların eğitilmesi ön koşuldur(Üreten, 1998:259).

## TESPİT EDİLEN İSRAFLARDAN BAZILARI

İdarecilerlerden Kaynaklanan İsrarlar

### ÖNCELİKLE KISSADAN HİSSELER

*İki devre Uruguay'ın devlet başkanlığını yapan Mujica Müslüman değildi ama bazı konularda İslam ahlakına sahipti. Aldığı maaşın onda dokuzunu fakirler fonuna yatırıyordu. Başkanlık sarayında değil, kendi iki gözlü fidanlık evinde oturuyordu. Devletin makam arabasını kullanmıyor, 1987 model kendi malı kaplumbağa VW ile geziyordu([http://www.milligazete.com.tr/koseyazisi/Kurana\\_Sor\\_Sunnete\\_Sor\\_Hikmete\\_Sor/23406#.VV2W3Pntmko](http://www.milligazete.com.tr/koseyazisi/Kurana_Sor_Sunnete_Sor_Hikmete_Sor/23406#.VV2W3Pntmko)).*

*Sultan Abdülhamid Han'ın Yıldız sarayında marangozhanesi olup, orada bizzat mobilya yapmıştır. Yine Yıldızda porselen fabrikası kurdurmuştur ([http://www.milligazete.com.tr/koseyazisi/Muslumanin\\_Careleri\\_Cozumleri/23390#.VV2Xafntmko](http://www.milligazete.com.tr/koseyazisi/Muslumanin_Careleri_Cozumleri/23390#.VV2Xafntmko)).*

Beş kişilik otomobillerde sadece bir insanın bulunması ne büyük bir israftır. Yollar yetmiyor... Yakıt ziyan oluyor... Otomobilden 5'te 1 yararlanılıyor ([http://www.milligazete.com.tr/koseyazisi/Ben\\_de\\_Charlieyim\\_Diyen\\_Imamin\\_Arkasinda\\_Namaz\\_Kilindir\\_mi/23212#.VV2YAvtmko](http://www.milligazete.com.tr/koseyazisi/Ben_de_Charlieyim_Diyen_Imamin_Arkasinda_Namaz_Kilindir_mi/23212#.VV2YAvtmko)).

Sağlık kurumlarında ki gereksiz yönetici odaları derhal hasta ve diğer personellerle paylaşılmalıdır(sadece ortak kullanıma uygun birkaç toplantı odası bulundurulabilir) Böylece yöneticiler konfor alanından çıkıp doğrudan sahada hasta ve çalışanlarla iç içe olma *imkanına* kavuşurlar. Sorunları yakından tespit edebilirler. Örneğin TOYOTA Sakarya işletmesinde yöneticilerin belirli bir odası yok. Gün boyu işçilerle aynı ortamı kullanıyorlar ([http://www.gazetesaglik.com/yalin-yonetime-gec-israflardan-kurtul-haberi\\_15523.html](http://www.gazetesaglik.com/yalin-yonetime-gec-israflardan-kurtul-haberi_15523.html)).

Yukarıda belirtilen gerekçeler dikkate alınarak:

- Yöneticilerin makam aracını kullanmaları
- Yöneticilerin makam odalarının olması
- Yöneticilerin makam odalarının tam donanımlı ve ihtişamlı olması. LCD televizyon, koltuk takımı, buzdolabı, hiç yıpranmamış dosya dolapları vs.
- Yöneticilerin odaları 40-60 m<sup>2</sup> iken çalışanların odaları ise 8-40 m<sup>2</sup> arasında 1 kişiden 6 kişiye kadar çıkabiliyor.

Çözüm:

- Makam aracı olmadan bir kurum yönetilebiliyorsa makam aracı tarihe karışmalıdır. Zaten yöneticiler makam aracını genelde şehir içinde kullanıyorlar, bedava oluncada gerek unutulmuş evrak, eşya vs. den tutunda unutulmuş personeli geri dönüp almaya kadar defalarca gidip gelmelerin önünde kesilmiyor. Yöneticilerimiz kendi aracına mazotunu koyacak kadar maaş zaten alıyorlar. (İl içi gezilerde) Bulunduğun il dışındaki görevlerde zaten görev yolluğu veriliyor.(Otobüsle yetişme, gitme imkanı varken uçakla gitmekte israftır) Türkiye'de yöneticiler için kendi malları olarak buluş olarak motorsiklet tarzı 2 kişilik otomobiller üretilerek israf azaltılmalıdır.(Yöneticilerimizin kendi mallarına yönelikte israf yönetimini hayata geçirmeliyiz. Bu hem toplumsal görevimiz olması hemde

personelin kendi cep bütçesinin zarara uğramaması açısından önemli olup kendisinin iş hayatındaki motivasyonunu(düşük motivasyon, düşük performans) etkilemesi bakımından da performans israfının önüne geçilmelidir.

- Esas üretim yapan çalışanların odalarında türlü türlü eksiklikler olmasına rağmen sadece imza ve emir makamı olmaktan öteye geçmeyen bu makam odalarının tam bir israf unsuru olmaktan kurtarılmalıdır.

Yöneticilerimiz artık Fakir Başkan Mujika gibi halkın arasına, TOYOTA yöneticileri gibi çalışanların arasına karışmalı, kendisine oralarda biryer edinmeye çalışmalıdırlar.

*Hepimiz yöneticisinden işçisine kadar herkesin aynı kafeteryada yemek yediği ve çalışmalarının aynı şekilde takdir edildiği Japon firmalarını biliyoruz. Onların başarılarının sırları; insanları kullanmak yerine, onlara saygı duymalarında yatar. “Mükemmeli Arayış” isimli kitaplarında Thomas J. Peters ve Robert H. Waterman, başarılı şirketleri güçlü kılan faktörleri incelediklerinde, onları güçlü kılan en önemli faktörlerden birisinin de çalışanlara önem vermek olduğunu görmüşlerdir. Ayrıca şöyle bir ekleme yaparlar. “Mükemmele ulaşan şirketler; belirli fertlere değil, topluma saygı gösterenlerdir.” Başarıya ulaşan firmalar insanlara saygılı ve ağır başlı davranan ve onları birer alet gibi değilde ortaklarıymış gibi görenlerdir(Robbins, 2008:83-84).*

#### **Kurum personellerinin etkili iletişim kuramamasından kaynaklanan israflar**

- Hastane çalışanlarının birbirleriyle koordinasyonunda gerek birim içi gerekse farklı birimler arası iş organizasyonlarında birbirlerine bağırıp çağırarak diyalog kurmaları personelin motivasyonunu bozar, bu da işgücü ve zaman kaybına neden olacağından israftır.
- Yöneticisiyle bir problemini yada bir önerisini sunmak maksadıyla görüşmek için personel, idarecisinin makam odasına kadar geliyor. Görüşmeden geri birimine dönüyor. Daha sonradan not alınıp ne sekreteri tarafından haber veriliyor ne de yine sekreteri tarafından yöneticiye hatırlatılıyor. Ne de yönetici tarafından talimat(Kim gelirse gelsin not alacaksın, ona randevu vereceksin, benimle görüşmesini sağlayacaksın.) sekreterine veriliyor. Bunun adı çalışanın önemsiz görülmesi. Ondan sonra nasıl çıkartılıyorsa çalışan memnuniyeti % 80-95 arası çıkartılıyor. Yada personel bir şekilde yöneticisiyle görüşüyor. Ya söylemlerinden dolayı azarlanıyor, hakarete uğruyor yada susturuluyor. Ya bağırılıyor ya çağırılıyor yada susturularak odayı terk etmesi sağlanıyor.
- Sanane
- İşine bak
- Yorum yapma
- Eleştirme
- Ben ne dersem onu yap
- Bana karşı mı geliyorsun
- Yalan konuşuyorsun gibi ithamlarda bulunma gibi gayet ciddiyetsiz ve gayriahlaki olaylarla karşı karşıya kalınıyor.

Çözüm:

- Personeller insan okuma sanatından mahrum oldukları için sürekli kalp kırma katliamı yapıyorlar. Herkes birbirine ve işine saygı dahilinde ortada var olan işin yapılması, yaptırılması yada sorunun çözümü için çabalayacaktır.
- Yöneticilerin personele kapısının 24 saat açık olması gerekir. Personelin taleplerini olumlu olarak görmeliler. Önerilen yada istenen şeyler mevzuata uygunsa personelin motivasyonu açısından mutlaka uygulamaya geçirilmelidir. Değilse gerekçeli olarak ifade edilerek güler yüzle uğurlanmalıdır.

### **Sonuç ve Öneriler**

Hastanelerdeki en büyük 1. İsfraf, İnsan İsfrafıdır. İnsan israfı karşımıza 3 değişik boyutta çıkıyor. Fazla personelden dolayı boşa gezen personel, çalışmayan personel, çalıştırılmayan personel. En büyük 2. İsfraf ise, yine insandan kaynaklanan Malzeme İsfafıdır. Bu 2 büyük israfta demek oluyor ki, hastanelerde gerektiğinden fazla donanım, gerektiğinde fazla malzeme, gerektiğinden fazla oda, gerektiğinden fazla insan var.

Hastanelerde Yalın Yönetimi yönetecek yöneticilerin, hastaneyi arabaya, işleri yürüten kişiyi de arabanın anahtarına benzetersek kontak anahtarı gibi arabadan hiç çıkmaması lazım. Yalın Yönetimde ya ekiple birlikte hareket edeceksin yada hiç deyimi vardır.

Hastaneler, Yalın Yönetim organizasyonunda GÜNEŞ gibi olmaları lazım. Gücünü tek bir vücut gibi içerisindeki ihtişamda barındıracak. Sessizce doğup mesai süresince birçok işi yapacak. Hastanelerde nitelikli organizasyonuyla, gürültü-patırtı yapmadan, kimseyi incitmeden, kırmadan, israf etmeden, birlik içinde ‘YALIN YÖNETİM’lerini gerçekleştireceklerdir.

Hastanelerde Yalın Yönetim, A’dan Z’ye İslam’dır.

Yalınlığa selam olsun.

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# HASTA VE ÇALIŞAN GÜVENLİĞİ KAPSAMINDA 112 ÇALIŞANLARININ RİSK ALGISININ DEĞERLENDİRİLMESİ

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Demirer, Ayşegül, Erzincan 112 Komuta Kontrol Merkezi, ATT

**Amaç:** Ulusal ve uluslararası düzenlemelerde ele alınmış olan yaşam ve sağlık hakkı ile ilişkilendirildiğinde genelinde iş sağlığı ve güvenliğinin özelinde ise hasta ve çalışan güvenliği açısından sağlık sektöründeki uygulamalar dikkat çekmektedir. Ülkemizde hasta ve çalışan güvenliği açısından yönetmelik hazırlanmış ve yayınlanmıştır. Çalışanların dikkatsiz ve güvenliksiz bir ortamda hizmet sunmaları hem kendileri açısından hem de hasta açısından risk oluşturmaktadır. 112 istasyonlarında çalışan sağlık personellerinin stresli ve tempolu çalışma koşulları hastalar ve çalışanlar açısından risk oluşturmaktadır. 112 çalışanları acil sağlık hizmetleri istasyonlarında hizmet akışı nedeniyle hızlı ve etkili hizmet sunmak zorundadırlar. Bu durum karşılaşılabilecek risklerin hasta ve çalışan güvenliği açısından daha da önemli hale getirmektedir. Bu amaçla Erzincan il merkezi ve ilçe istasyonlarında çalışanların risk algıları değerlendirilmiştir.

**Yöntem:** Araştırmanın örneklemini Erzincan ili 112 ve komuta kontrol merkezi oluşturmaktadır. Araştırmada kullanılan anket iki bölümden oluşmaktadır. Birinci bölümde sosyo demografik özellikleri belirlemeye yönelik sorular yer almakta olup, ikinci bölümde risk değerlendirme ölçeği yer almaktadır. Risk değerlendirme ölçeği Sağlık Bakanlığı'nın risk değerlendirme çalışmalarında yararlandığı ölçek olup hasta ve çalışan açısından geçerli riskler değerlendirilmiştir. Katılımcılar tarafından yapılan risk değerlendirmelerinde riskler düşük, orta ve yüksek olmak üzere üç alanda kategorize edilmiş olup analizler spss programı kullanılarak yapılmıştır.

**Bulgular:** Çalışmaya il merkez ve ilçe istasyonlarında çalışan yüz yirmi kişiden doksan kişi katılmış olup katılımcıların %53,3'ü att, %15,6'sı paramedik, %6,7'si sağlık memuru, %5,6'sı doktor, %18,9'u şoförden oluşmaktadır. Sağlık çalışanları tarafından hasta açısından değerlendirilen riskler kapsamında yanlış kimliklendirme %51,1, iletişim eksikliği %82,2, bulaşıcı hastalıklar% 58,2, şiddet %76,6 orta düzeyde risk olarak tanımlanmıştır. Hasta mahremiyeti %84,4 oranında düşük düzeyde risk olarak tanımlanırken sedyeden düşme %75,6 ve % 66,7 oranında oksijen sistem arızaları yüksek düzeyde risk olarak tanımlanmıştır. Sağlık çalışanlarının karşılaşacakları olası riskleri değerlendirilmelerine bakıldığında kesici delici alet yaralanması %95,6 oranında yüksek risk olarak değerlendirilmiştir. Islak zemin %80, oksijen tüpleri % 35,2, elektrik çarpması %54,2, ergonomi %68,1 oranında orta düzey risk olarak belirlenmiştir. Sağlık çalışanlarının ambulans hizmetleri açısından risk değerlendirmelerine bakıldığında trafik kazası %75,6 yüksek, evden hasta alınması %93,3 düşük, kaygan zemin %55,6 ve acil girişleri engelleme %52,2 oranında orta derecede risk olarak değerlendirilmiştir. Anova testine göre sağlık çalışanlarının ünvanları ile risk değerlendirmeleri arasında anlamlı farklar bulunmuştur. Hasta taşınmasına yönelik yapılan risk değerlendirilmesinde ATT ve

şoför arasında anlamlı fark bulunmuştur. (F:3.31, P:0,01) ATT hasta taşınmasının daha riskli olduğunu ve travma oluşabileceğini düşünmektedir.

**Sonuç:** Risk değerlendirilmesi açısından yapılan çalışmada uygulama alanları açısından ünvanlara bağlı olarak ortaya çıkan değişiklikler çalışanların risk algılarını farklılaştırmaktadır. Hasta açısından değerlendirilen risk kapsamında en önemli risk sedyeden düşme olarak belirlenirken, hasta mahremiyeti düşük risk olarak değerlendirilmiştir. Sağlık çalışanlarının kesici delici alet yaralanmalarını kendileri için yüksek düzeyde risk olarak algıladıkları belirlenmiştir. Sağlık çalışanların risk algılarında farkındalık oluşturacak eğitim programlarıyla desteklenmeleri gerekmektedir. Düzenlenen eğitimler oryantasyon programlarıyla sınırlı tutulmamalı düzenli olarak ünvanlara göre mesleki gelişimleri destekleyecek yönde yapılmalıdır.