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Project on Commissioning for Secondary and Primary Health Care in Turkey

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Introduction: Beginning of the 1990s, public policy analysts have been drawing attention to the rise of the 'contract state' or 'contractual governance'. These terms are new in the literature of public management. This is a management technique from the private into the public sector by using market forces such as competition and contract as a way of increasing efficiency and choice in the delivery of public services. The introduction of 'managerialism' in healthcare sector and hospitals began in the early 1980s. This was followed in the early 1990s by the introduction of the 'quasi' or 'internal' market between purchaser and provider. Markets rather than bureaucracies are more likely is needed in order achieve efficiency, re organization and sustainability of health services. The new hospital management system shares realignment between management and medicine. The way of this, it is not challenging with the doctors' rights in order to control them. It is creating a space for management rather then. The formal organizational structure involves a "physician leader" and "hospital manager" with equal and overlapping responsibilities for the functioning of treatment center. Medical leadership is top management support for widespread organizational change. The power of consultants in the hospital and their ability to promote or inhibit change in health care is important.

The commissioning of health services is emphasis of primary care led national health services through primary care groups. Commissioning includes assessing need, setting priorities, allocating resources, and influencing providers, involving patients and public. The commissioning of health services is Health Commissioning Project in United Kingdom is about getting the best possible health outcomes for the health of local population managed by primary care centers (GP surgery), by assessing local needs, deciding priorities and strategies, and then buying services on behalf of the population from providers such as hospitals, clinics, community health bodies, etc.

The organizations commissioning health services in England has changed during April 2013. Clinical commissioning groups (CCGs) are responsible for the majority of the National Health Service (NHS) budget, controlling around £69 billion in 2015/16. NHS England is responsible for commissioning primary care (£12

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billion) and specialized health care services in secondary care (£15 billion). As of April 2015, in most parts of the country NHS England shares primary and secondary health care responsibilities with CCGs through co commissioning arrangements. Commissioning support units provide a range of services to CCGs and NHS England to help to manage health care and health cost together. CCGs must work with the new local authority Health and Wellbeing Boards and Strategic Clinical Networks that were established in 2012 in order to give efficient, locally sensitive and customer-focused service to CCGs.

Method: Integration of family practice centers to secondary care hospitals could help to manage primary and secondary care by a cost effective way. This study aimed to identify knowledge of physicians, nurses and health manager of primary and secondary care setting about health commissioning.

273 participants that have been participated in Health Management Congress 2015 in Istanbul/ Turkey were interweaved via a scale by using quantitative techniques. This is 89 % of the total participants.
The study has been also used qualitative data collection techniques by semi-structured interviews. Two groups consisted of six health professionals were created for collecting qualitative data.

The respondents were consisting of health professionals like physician, manager, and nurse. A phenomenological theoretical framework was used enabling the determination of experience and it's meaning in a specific time and place. We looked at the personal experience - the meaning and decisions of the participating trainees when coordinating their burdens. This method was chosen for its inductive nature, providing valuable insight into various perspectives of the study participants. The data was gathered via semi-structured in-depth interviews.

A phenomenological theoretical framework was used enabling the determination of experience and its meaning in a specific time and place. This method was chosen for its inductive nature, providing valuable insight into various perspectives of the study participants. The data was gathered via semi-structured in-depth interviews.
The following research question was asked:
"What does mean Clinical Health Commissioning" ?
"Did you hear about CCGs"?
"Is it Possible to do it in Turkey"
"Please explain why is possible or not possible to do it"

Hypotheses
In summary, we can generate two hypotheses regarding the conditions, under which the different measures.
H1: There is difference / not between Clinical Health Commissioning knowledge and socio demographics variables.
H2: There is difference / not between Clinical Health Commissioning knowledge and health professionals

Results: Barriers to integration were unawareness about health commissioning business models and lack of coordination across secondary and primary care health services, uncertainty about the adequacy of new health care transition systems that could be managed by effective health commissioning services. Main outcome measures financial relationships between clinical health commissioning members and health care stakeholders from their healthcare network; clarifying the role of primary care by analyzing strengths and areas for development of collaborative economic relationship between primary and secondary care.

One hundred twenty-three codes were identified in the first analysis, which were then reduced and gathered by similarities into codes of higher rank and then grouped into 9 themes and into 3 categories. The identified themes were the following: types of commissioning, hear about health commissioning, consequences of health commissioning.

A: No, I think it's all down to the strength of the GPs who are involved in primary care. CCG health care is clear yet. But I think it has not got, you know, any potential.

B: So, in theory CCG is not possible to in Turkey. Nobody believes in referral chain in Turkey. ...Even patients and public consensus.

C: Well CCG is a different relationship, I think if I speak in general terms, management and modernization of public health. CCGs effectively works in partnership, and it helps in the development of local policy and strategy.

The 10-item sustainable development Clinical Health Commissioning Index fared much better, with N = 273. Chronbach α values is 0.91 for both and relatively good average item-total correlations of 0.66 and 0.69. Average item-total correlations of 0.66.Pearson Product-Moment Correlations among Clinical

Health Commissioning Index socio demographic variables, gender, age, education and income.

		Clinical Health Commissioning Index
Age (year)		r: 0.84 ; p=0.000
Experience (year)		r: 0.91 ; p=0.003
Profession	Physician	24 ±2.5
	Nurse	22 ±3.6
	Manager	2.3±1.9

There is statistically difference between health professionals and their CCGs knowledge. Physicians are CCGs knowledge's points are 24 ±2.5; nurses CCGs knowledge's points are 22 ±3.6. Manager's points are 23 ± 1.9 . According to Anova test p=0.001.

Conclusion: Health commissioning services via health integration with primary and secondary care may offer a cost effective and safe form of care for chronic disease management to family medical physicians. Interventions are therefore needed to reduce uncertainty about the implementation commissioning processes and to ensure integrated health service models of primary care. This study provides evidence about the attitudes and beliefs of those currently undertaking formal roles within CCGs.

Responders clearly shared clinical knowledge to improve health commissioning. They also believed that CCGs have the potential to improve quality in primary care, although this will depend crucially on the ability of CCGs to engage their members. There is no a priori reason as to why CCGs should be better than PCTs at engaging the public with the need to close services, and it is at least plausible that those with detailed knowledge of patients' wishes are less likely to take the risk of engaging in difficult service reconfigurations.

Keywords: Clinical Commissioning Groups, Clinical Health Commissioning, Primary Health Care, Secondary Health Care, Health Professionals

The Effect of A-Type Personality Characteristic On Time Management

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Abstract

The purpose of this study, (Turkey-Sivas) Cumhuriyet University Health Application and Research Hospital managers who are nurses (such as, head nurse, head nurse assistant, supervisor, infection control nurses, charge nurses) A-type personality traits to determine the impact on time management. . This hospital serving (N=70) tried to obtain all of the nurse manager and face to face interviews with all nurse manager. Survey was conducted with 63 people. This number constitutes 90% of the population. In order to test the hypothesis of correlation and regression analysis were performed in Research. "given the importance of timing" with "time planning" between (r=0.255) was found positive correlations same way. "away from social activities with"time attitudes" (r=-0.248) were found negative correlation between. "the Importance of work" with "time wasters" between (r=-0.268); "away from social activities" with "time wasters" between (r=-0.268) negative correlations were found. It was found negatively impact on variable management of time of away from social activities. The Importance given speed has a positive impact on time management.

Key words: Personality • Type A personality • Time Management • Health Professionals • Executive Nurses.

In recent years, effective and productive use of time which means you can "time management" concept has gained importance. Time can not be bought, not sold, can not be rented, can not be borrowed, can not be duplicated, non-produced non-replaceable and is a resource that can only be used or spent. Time has a different property from other sources, and directly affects the productivity of the purpose of human life the productivity of personality (Tanrıseven & Aykaç, 2014, p.88). Biological time is limited and scarce resources, can not be stored, it can not be used when required. Biological time is required to use the best of the individual. Psychological time may vary difference according to different individuals, culture and society. Psychological time, when people's favorite things to do, short time ends; if the individual does not like things, you think will finish its. Both biological and psychological time not manage time it is important that individual manage oneself in time. Therefore, time management is made to shorten the time spent on getting things done (Gürbüz & Aydın,2012, p.10).

The time separation to every job is not possible, but make time for the most important works, it saves a lot of time to individuals who work to make urgent and important distinction. Time management, It is not to spend

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time on trivial things, which it is always important to be able to take the time and means to achieve the non-emergency work. The effectiveness of managers is that the proportional with benefit to how much time. An administrator who can manage a good time is an administrator who can give the best of today's decisions, and can think of tomorrow (Karadağ, 2013, p.103).

There are many factors that affect time management. These are external factors such as the socio-cultural, political and economic structure, business environment, business policies, have a lot of work to be done, work environment, corporate policies, personal attitudes and habits are factors such as external factors. One of these factors is that personality traits. One of these factors is that personality traits. For example, who can not control himself, hasty, scattered, starting from the other end of the job, mistrustful, and has the authority to transfer the personality type. Another example is slow and calm temperament, trusting others, and can delegate authority, the quantity, and his emphasis on social life, in the long and difficult decisions and has personality type(Batmaz, 2014, p. 41).

Personality refers to the way of life of the individual. Personality, which are established by the individual's internal and external environment, distinctive from other individuals, consistent and structured, is a relationship style. Personality is one of the most important factors in the individual's life, and affecting the working environment(Erdem et al., 2009:107). Since the original work of M. Friedman and Rosenman in the 1950s (Ganster et al., 1991). Friedman and Rosenman's (1974) initial research on the Type A and Type B profile differences yielded some alarming findings. In particular, they suggested that Type A's were much more likely to get coronary heart disease than were Type B's. In recent years, however, follow-up research by other scientists that the relationship between Type behavior and the risk of coronary heart disase is not all that straigtforward (Griffin & Moorhead, 2001, p.180; Ganster et al., 1991, pp. 143-145; İbrahimoğlu & Karayılan, 2012, p. 252). The importance within the subject of stress is that individuals exhibiting Tye A personality characteristics are more prone to experience stress acutely in contrast to Type Bs. (French et al., 2011, p.102.)

Ambitious, rigidly organized, highly status conscious, impatient are usually Type A personality. High-achieving 'workaholic' are usually type A personality who multi-task, push themselves with deadlines, and hate both delays and ambivalence. On the other hand Type B personality includes people who live at a lower stress level and typically work steadily, enjoying achievements but not becoming stressed when they are not achieved. Furthermore, Type B personalities may have a poor sense of time schedule and can be predominately right brained thinkers (Hisam et al,2014, p. 1305). Type A people are overly aggressive, hostile, given the urgency of time and effort that competitive success, demonstrate features such as time pressure(Heilbrun Jr. et al.,1986, pp. 525-526; Griffin and Moorhead, 2011, p.195). A-type people, the planning see it as a waste of time, they do not like to rest(Aktaş, 2001, p.31). Always in motion, impatient and, at the same time two or more things they try to do and thinking, leisure time is not for them, they are obsessed with numbers(Robbins & Judge, 2012, p.143).

In individuals with Type B personality feature-type unlike the individuals with a personality trait, dealing with the environment, happy in the relationship of social life, the less time separates for work, looking for quality work, competitiveness care less, gives importance to friendly ties(Aktaş, 2001, p. 31). B-type people will never

have the feeling of racing against time and suffering do not attract due to the feeling of impatience, and without guilt can act freely (Robbins & Judge, 2012, p.143).

A common sense expectation might be that Type A people are more successful than Type B people. In realty, however, this is not necessarily true-the Type B person is not necessarily any more or less successful than the Type A. There are several possible explantions for this. For example, Type A people may alienate others because of their drive and may miss out on important learning opportunities in their quest to get ahead. Type B's, on the other hand, may have better interpersonal reputations and may lean a wider array of skills (Griffin & Moorhead, 2001, p. 180).

Time is defined as the passing time for the occurrence of an action. It is assumed that everything has stopped moving for a moment in the world, it can not talk about the case time such a static environment(Tengilimoğlu et al., 2003, p. 6). The time another definition, time is not out of a space to go through; obtained, source to be used, and given to human life is the greatest wealth. (Genç, 2012, p. 341).

Time can not be sold, not bought, can not be borrowed, can not be rented, it can not be replicated, not manufactured, can not be changed. It is a resource that can only be used or spent. Therefore, with different characteristics from other sources "time" directly affects the efficiency of the purpose of human life and personality(Tanrıseven & Aykaç, 2014, p.88).

Time management concept, born in Denmark, is said to spread across the world. This concept, in order to help the workforce to better organize their time busy of executives. Time the purpose of human life and it is to accept that the efficiency of the people directly affected (Özdemir at al.,2015, p.83). Managers, one of the most important factors affecting the effectiveness and efficiency is time management. Every manager is under the influence of different duties and powers, different personality, characteristics of different organizations and environmental impact. Research has revealed that most managers are not that her contribution and work, on many issues are taking time (Özer, 2010, p. 17).

In the working environment, A-type individuals, even if time constraints are seen working, trying to do not complain too much, and they use less fatigue statement. In this case, A-type individuals are said to be more successful, in working life according to B-type people more advantageous and efficient in terms of time management (Ramazanoğlu et al., 2005, p.113). However, Yılmaz (2003) refers that individuals with type-A personality trait; aggressive, impatient for too much work, too want to succeed, likes the time pressure, he feels to do things all the time, and these people can not say the time is very well managed.

In the literature about A-type personality and time management, Erdem et al., (2009), in their research for the hospital staff was found that employees reflects that more A-type personality the characteristics; especially of the single employee reflect that more A-type personality traits; employees, the forms of time use are found to have monochorionic perception of time. monochorionic perception of time refers to the perception of time, which, more planned, orderly, sequential and work within a specific program.

Sezen (2013) in research, upper-class students' found that the higher the scores time management inventory. Also, it was a statistically significant correlation between time planning with age, class, points total time inventory management. In another study, was found that A-type personality and emotional exhaustion between positive correlation (Arı & Bal,2008:138). İbrahimoğlu and Karayılan(2012) in their research, students who have the Type-A personality trait could not be detected the time management skills significant differences in gender, class and business conditions. According to the housing where the students and of the species faculty were found to be significantly different. Trueman and Hartley(1996), in their research, the women students reported making greater use of time-management strategies than did the men students, but this difference was only significant for the Daily Planning scores and, consequently, for the total Time-Management scores. There were no significant interactions between the sex and age groups on any of the time-management scales.

A-type personality is extremely competitive, devotion to work, time urgency is strong, are people who want to achieve as soon as possible (Griffin & Moorhead, 2011, p. 180). Reported physical and mental health were both greater in Type B than in Type A individuals, and reported health was also greater in those with an internal rather than an external locus of control(Kirkcaldy et al., 2002, p.1369). The Type A person will benefit most from any approaches or methods that help to slow down and take life easy, and occasionally drop back into "B" land. More preparation, organization, and planned relaxation breaks can be very helpful in managing time more effectively. Perhaps more importantly, these techniques will help the A person come to realization that they are strong, dynamic, and succssful without having to prove it all the time (Warner, 2010, p.16).

The type A behavior pattern refers to hard-driving, competitive, agressive persons who are preoccupied with deadlines and work have a feeling that time is passing too quickly for them to do all they to do all they desire. In contrast, persons characterrized as displaying the Type B behavior pattern are relaxed and easygoing. Thus, it was expected that Type A's would be more likely than Type B's to attend time management training programs in search of ways to handle their harried life-style (Macan, 1994, p.384). Starting from this point, it is thought that there are significant relations between A-type personality and time management. Accordingly the hypothesis of study was formed as follows.

H1: Given the importance of the work has a significant effect on time planning
H2: Away from social activities has a significant effect on time planning
H3: Given speed the importance has a significant effect on time planning
H4: Given the importance of timing has a significant effect on time planning
H5: Given the importance of the work has a significant effect on time attitudes
H6: Away from social activities has a significant effect on time attitudes
H7: Given speed the importance has a significant effect on time attitudes
H8: Given the importance of timing has a significant effect on time attitudes
H9: Given the importance of the work has a significant effect on time wasters
H10: Away from social activities has a significant effect on time wasters
H11: Given speed the importance has a significant effect on time wasters

H12: Given the importance of timing has a significant effect on time wasters

H13: Given the importance of the work has a significant effect on time management

H14: Away from social activities has a significant effect on time management

H15: Given speed the importance has a significant effect on time management

H16: Given the importance of timing has a significant effect on time management.

Purpose

The purpose of this study, (Turkey-Sivas) Cumhuriyet University Health Application and Research Hospital managers who are nurses (such as, head nurse, head nurse assistant, supervisor, infection control nurses, charge nurses) A-type personality traits to determine the impact on time management. The findings obtained in this research, provide information about managerial positions with employees, the relationship between personality traits and time to use skills. Therefore, is expected to make contributions important information literature and practice.

Method

Universe and Sampling

The universe of the study consists of nurse managers working that in the University of the Republic Health Services Research and Application Hospital (Turkey, Sivas). 70 managers who work in hospitals have tried to reach all of the nurses manager, and face to face interviews with 63 nurses person survey was conducted. This number constitutes 90% of the population. In addition, prior to the study, permission was obtained from both the hospital management Non-invasive Clinical Research Ethics Committee of the University of the Republic. Research data were collected between March and May 2015.

Data Analysis

In the study, the datas was collection by survey method consists of three parts. In the first part there are 15 questions regarding demographical properties of manager nurses. The second part of the survey on time management scale 27, the third chapter in the A-type personality traits scale consists of 25 items. This questionnaire was applied to the participants in April 2015. The relation between correlation analysis and variables were checked and in order to test hypotheses regression analysis was benefitted.

Time Management Scale: Time management scale, In 1991, Britton and Tesser by the developed, originally consisted of 35 items (Britton & Tesser, 1991). Turkish validity of scale was done by Alay and Kocak(2002) . The number of items, the scale ranged from 27 scale total score of 5-135. The scale consists of three dimensions, as time planning, time attitudes, and time wasters. (Batmaz, 2014, p. 81). Cronbach alpha security coefficient of scale was found as 0.854.

Type-A Personality Scale: Batıgün and Sahin (2006) by the developed and validated by considering the relevant literature. High scores indicate the intensity of the individual A-type personality. A-type personality scale consists of 25 items. The scale consists of four dimensions, as given the importance of the work, away from social activities, given speed the importance, given the importance of timing.) Cronbach alpha security coefficient of scale was found as 0.888.

Table 1.

Distribution of the Nurse Manager of Introductory Information.

Age	***N***	***%***	**The current working time**	***N***	***%***
26-30	9	14,3	0-5 years	34	54,0
31-35	13	20,6	6-10 years	12	19,0
36-40	22	34,9	11-15 years	3	4,8
41 and above	19	30,2	16-20 years	12	19,0
			21 and above	2	3,2
Gender			***Marital status***		
Woman	62	98,4	Married	47	74,6
Male	1	1,6	Single	16	25,4
Working Time in Occupation			***Education Status***		
6-10 years	12	19,0	Master	21	33,3
11-20 years	33	52,4	License	39	61,9
21 and above	18	28,6	Associate degree	3	4,8
Title			**Tasks performed Units**		
Head nurse	2	3,2	Nursing services	13	20,6
The head nurse assistant	3	4,8	Surgical units	16	25,4
Supervisor	4	6,3	Internal units	26	41,3
Infection control nurse	2	3,2	Other units	8	12,7
Responsible nurses	42	66,7			
Other	10	15,9			
Working time in the institution			***Monthly income level***		
0-5 years	3	4,8	1500-2499	6	9,5
6-10 years	13	20,6	2500-3499	54	85,7
11-15 years	11	17,5	3500-4999	2	3,2
16-20 years	19	30,2	4500 and above	1	1,6
21 and above	17	27,0			
Weekly working hours			***Multiplicity of the workload level***		
Less than 45 hours	51	81,0	My workload is moderate	28	44,4
45-50 hours	12	19,0	The workload is heavier	35	55,6
Total	63	100,0	**Total**	63	100,0

When the results in Table 1 are examined, it was determined that 34,9% of the participants in the 36-40 age group, 98,4% are male, 74,6 % them are married, 61,9% them have university degree, 66,7% the nurse in charge of the hospital,41,3% served in the internal units, 54% of the current working time is in the range of 0-5 years, between 2500-3499 TL the income level of 85.7%, 45% of weekly working time of 81 hours is less, and 55.6% of the participants to be heavy workload.

Table 2.

Distribution of the Nurse Manager Satisfaction Features

The satisfaction level						
Satisfaction from this job			**Pleased to work in this hospital**		**Satisfaction from this Unit**	
	N	***%***	***N***	***%***	***N***	***%***
Very Low	0	0	1	1,6	0	0
Low	5	7,9	10	15,9	3	4,8
Middle	17	27,0	22	34,9	15	23,8
Good	36	57,1	27	42,9	34	54,0
Very good	5	7,9	3	4,8	11	17,5
TOTAL	63	100,0	63	100,0	63	100,0

When the results in Table 2 are examined, it was found good that the level of satisfaction with the work of the participants 57.1% , the level of satisfaction with 42.9% to be working in this hospital, the level of satisfaction with 54% to be working in this unit.

Table 3.

Defining Statistics.

Variable	Average	Std. Deviation	Correlations								
			1	2	3	4	5	6	7	8	9
1. Given the importance of the work	2,53	0,60	1,000								
2. Away from social activities	2,11	0,82	0,599**	1,000							
3. Given speed the importance	3,46	0,63	0,316*	0,344**	1,000						
4. Given the importance of timing	3,84	0,73	0,353**	0,302*	0,309*	1,000					
5. Type-A Personality(Overall)	2,84	0,51	0,883**	0,767**	0,603**	0,548**	1,000				
6. Time planning	3,77	0,60	0,006	-0,162	0,215	0,255*	0,058	1,000			
7. Time attitudes	3,78	0,53	-0,224	-0,248*	0,193	0,109	-0,113	0,507**	1,000		
8. time wasters	4,00	0,78	-0,265*	-0,268*	-0,038	0,052	-0,201	0,456**	0,379**	1,000	
9. time management (overall)	3,81	0,50	-0,128	-0,244	0,167	0,195	-0,048	0,924**	0,717**	0,648**	1,000

*p<0,05, **p<0,01

In Table 3 when Type-A Personality and time management subdimensions were examined, there found positive correlations in the same direction between given the importance of timing with time planning (r=0,255). Between away from social activities with time attitudes (r=-0.248) were found negative correlation. The Importance of work with time wasters between (r=-0,265) ; away from social activities" with time wasters between (r=-0.268) negative correlations were found. There is a negative relationship between A-type personality and time management, but it was not significant (r = -0.048).

Table 4.

The effect of A-type personality characteristics on time planning.

Independent variables	The dependent variable	Summary of the Model		ANOVA		Regression coefficients			Hypothesis	Results
		R	R^2	F	P	Beta	t	P		
Given the importance of the work	Time Planning	0,41	0,17	2,973	0,027	0,09	0,61	0,541	H1	Reject
Away from social activities						-0,29	-1,9	0,058	H2	Reject
Given speed the importance						0,22	1,69	0,096	H3	Reject

Given the importance of timing						0,26	2,00	0,050*	H4	Accept

*P<0,05, ** P<0,01

When the results in Table 4 are examined, Type A personality dimensions between time planning established multiple regression model were important(F=2,973, P=0.027).In this model, 17% of the variance in time planning variables (R2 = 0.17) explains. Given the importance of timing variable affecting the time planning and there is a significant and positive relationship between these two variables (H4: ß = 0.26, t = 2.00, P = 0.05). Accordingly, the type of personality the size of given the importance of timing, has a positive effect on time planning. A-type of personality dimensions, Given the importance of the work (H1: ß = 0.09, t = 0.61, P = 0.09), Away from social activities (H2: ß = -0.29, t = -1.9, P = 0.058) and Given speed the importance (H3: ß = 0.22, t = 1.69, P = 0.09) was not significant effect on the planning time. Thus, while accepting the hypothesis H4; H2, H3 and H4 hypothesis is rejected.

Table 5.

The effect of A-type personality characteristics on time attitudes

Independent variables	The dependent variable	Summary of the Model		ANOVA		Regression coefficients			Hypothesis	Results
		R	R^2	F	P	Beta	T	P		
Given the importance of the work	Time attitudes	0,47	0,23	4,318	0,004	-0,229	-1,479	0,145	H5	Reject
Away from social activities						-0,284	-1,907	0,061	H6	Reject
Given speed the importance						0,396	3,051	0,003*	H7	Accept
Given the importance of timing						0,096	0,758	0,452	H8	Reject

*P<0,05, ** P<0,01

When the results in Table 5 are examined, Type A personality dimensions between time attitudes established multiple regression model were important(F=4,318, P=0.004). In this model, 23% of the variance in Time attitudes variables (R^2=0.23) explains. Given speed the importance variable affecting the Time attitudes and there is a significant and positive relationship between these two variables (H7:ß=0.39, t=3.051, P=0.003). Accordingly, the type of personality the size of given speed the importance, has a positive effect on time attitudes. A-type of personality dimensions, Given the importance of the work (H5:ß=-0.22, t=-1.47, P=0.14), Away from social activities (H6:ß=-0.28, t=-1.9, P=0.06) and Given the importance of timing (H3: ß = 0.22, t = 1.69, P = 0.09) was not significant effect on the time attitudes. Thus, while accepting the hypothesis H7; H5, H6 and H8 hypothesis is rejected.

Table 6.

The effect of A-type personality characteristics on Time wasters

Independent variables	The dependent variable	Summary of the Model		ANOVA		Regression coefficients			Hypothesis	Results
		R	R^2	F	P	Beta	T	P		
Given the importance of the work	Time wasters	0,43	0,19	3,433	,014	-0,113	-0,713	0,479	H9	Reject
Away from social activities						-0,401	-2,630	0,011*	H10	Accept (negative)
Given speed the importance						0,181	1,360	0,179	H11	Reject
Given the importance of timing						0,116	0,892	0,376	H12	Reject

*P<0,05, ** P<0,01

When the results in Table 6 are examined, Type A personality dimensions between time wasters established multiple regression model were important(F=3,433, P=0.014).. In this model, 19% of the variance in time wasters variables (R^2=0.19) explains. Away from social activities is a variable affecting the time wasters. But, Away from social activities negatively affects in a negative way the time wasters variable(H10:ß=-0.40, t=-2.63, P=0.01). Accordingly, away from social activities has a negative impact on time wasters. A-type of personality dimensions, given the importance of the work (H9:ß=-0.11, t=-0.71, P=0.47), Given speed the importance (H11:ß=0.18, t=1.3, P=0.17) and Given the importance of timing (H12:ß=0.11, t=0,89, P=0.37) was not significant effect on the time wasters. Thus, while accepting the hypothesis H10; H9, H11 and H12 hypothesis is rejected.

Table 7.

The effect of A-type personality characteristics on Time management (overall).

Independent variables	The dependent variable	Summary of the Model		ANOVA		Regression coefficients			Hypothesis	Results
		R	R^2	F	P	Beta		P		
Given the importance of the work	Time management (overall)	0,47	0,22	4,105	0,005	,019	,124	0,902	H13	Reject
Away from social activities						,380	-2,540	0,014*	H14	Accept (negative)
Given speed the importance						311	2,381	0,021*	H15	Accept
Given the importance of timing						238	1,870	0,067	H16	Reject

*P<0,05, ** P<0,01

When the results in Table 7 are examined, Type A personality dimensions between time management (overall) established multiple regression model were important(F=4,105, P=0.005). In this model, 19% of the variance in time management variables (R^2=0.22) explains. Away from social activities is a variable affecting the time management. But, Away from social activities negatively affects in a negative way the time management variable (H14:ß=-0.38, t=-2.54, P=0.01). Accordingly, away from social activities has a negative impact on time

management. Given speed the importance variable affecting the time management and there is a significant and positive relationship between these two variables (H15:ß=0.31, t=2.38, P=0.02). Accordingly, the type of personality the size of Given speed the importance, has a positive effect on time management. A-type of personality dimensions, Given the importance of the work (H13:ß=-0.01, t=-0.12, P=0.90), and Given the importance of timing (H16:ß=0.23, t=1,87, P=0.06) was not significant effect on the time management. Thus, while accepting the hypothesis H14(negative effect), and H15; H13, H16 hypothesis is rejected.

Results

The purpose of this study, Type-A personality traits is to study the impact on time management. With this aim, in the study correlation and regression analyses were benefitted. When the data analysis of the findings obtained from the evaluation, participated in the study 63 nurse managers, the satisfaction levels were good.

In general, the relationship between dimensions of personality and time management as a result of the correlation analysis was found on small and low. There is a negative relationship between A-type personality and time management, but it was not significant (r = -0.048). Therefore, the increase of A-type personality features, in general on the time management levels does not result in an increase.

A-type personality dimensions, which, away from social activities with time attitudes between (r = -0.248) were negative correlation. Away from social activities, lead to a decrease in the time attitudes. A-type personality dimensions, which, the importance of work with time wasters between (r=-0,265); away from social activities with time wasters between (r=-0.268) negative correlations were found. Accordingly, when increases given the importance of the work and away from social activities, it causes a decrease at the time wasters.

The results of regression analysis: the given the importance of timing(Type A personality size) has a positive impact on the time planning; the importance given to the speed has a positive impact on the time attitudes; Away from social activities has a negative impact on time wasters; Away from social activities has a negative effect time management (general); given speed the importance has a positive effect time management (general).

Discussion

Bond and Feather (1988) found that time structure (total TSQ score) was positively related to sense of purpose in life, self-esteem, and type A behaviour, and negatively to neuroticism and anomie(Bond and Feather,1988, p. 266 as cited in Claessens et al., 2007). Macan et al., (1990, p. 765) investigated time management behaviours, perceived control of time, role ambiguity, role overload, job-induced tension, job satisfaction, somatic tension, Type A-B behaviour, job performance. The Type A-B behavior pattern was significantly correlated with only one of the time management factors, Factor 1 (Setting Goals and Priorities). Those who indicated that they set goals and priorities tended toward the Type A behavior pattern. Between the variables Time management (general) and type A-B, relationship could not be found. These finding were similar to our research.

A-type personality dimensions which, given the importance of timing and time planning(r = 0.255) between was found positive correlations same way. An increase in given the importance of timing, leads to an increase in the time planning. In researches, is stated that people who given the importance of timing that they can experience

problems with health and personality (Yazıcı & Altun, 2013, p. 1453).However, time planning is an important variable for effective time management.

As increases, the timing of the importance and given the importance of speed, it was found that positive impact the time management(time planning and time attitudes) . As increases, Away from social activities, it was found that decreased the time wasters. Accordingly, individuals with type-A personality trait can be caused trying to escape from the time traps(time wasters). This situation is a positive effect on the time management.

However, as another result, as increases away from social activities, time management (general) did not adversely affect. On the one hand, while away from social activities has contributed on Time management(reducing the time wasters), on the other hand on time management (general) negative impact. In other words, on the one hand, while away from social activities, is seen as lose time (time use, spend), on the other hand, participate in social activities, in effective and efficient use of time, its benefits, can be said.

The reason for this is the existence of social activities is a condition that reward people. Therefore, people will feel better about themselves, morale and motivation will be high, it will increase job satisfaction. Thus, the individual's own time, can be used more efficiently. Because, you can reduce morale and energy, when it is working continuously. You are using the time by working, but it does not use time efficiently. Only more time is spent… Therefore, we can say that the negative impact on time management. Findings of research conducted by Yazıcı and Altun (2013, pp. 1453-1454) supports this; as increases scores related away from social activities personality trait, it decreased job satisfaction. In addition, as increases given the importance of timing, Job satisfaction is also increasing.

As a result; the effect of time management of type A personality traits were investigated in our study. In general, except for some dimensions, significant relationship between personality type and time management could not be found. Therefore, the increase of A-type personality characteristics does not cause an increase in overall time management. A-type people with personality traits can be very trying, but all of these people may not have really effective time management. In other words, some type people more planned and better time management, while others may not be so. Also, between time management and A-type personality, because of we find insignificant negative correlation, A-type people can not say that really manage time better**.**

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The Effect of JCI (Joint Commision International) on Patients Coming From Abroad in the Context of Health Tourism

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Abstract

To evaluate the effect of the JCI quality document on the potential of patients coming from abroad in these cope of health tourism from the point of view of administrators. Studies examining the effects of JCI on health tourism are limited, the geographical position of our country is suitable for tourism, and there are new policies in the health sector. For these reasons, we were motivated to conduct this study. The opinions of 60 administrators working in different positions in Group 4 A, JCI certificated hospitals on the Anatolian side of Istanbul were evaluated. The study was carried out over two months between February and March. For the reliability of collecting instruments, the value of Cronbach alpha was calculated and found to be 0.93. Thus, the survey had internal consistency. Validity analyses were conducted. It was established that the data were compatible with normal distributions, and parametric significance tests were used. 80% of those participating in the study were females and 20% males. 30% were in the age group of 20 -29; 53% between 30 -39; and 16.7% between 40-49. 65% were married. 36.7% had Bachelor's degrees; 25% had tertiary training; 20% had postgraduate degrees; and 18.3% were high school graduates. 40 % had 1-5 years of service in the institute, 36.7 %, 6 - 10 years; 16.7%, less than one year; and 6.7%, more than 10 years. 43.3 % worked as middle level managers; 36.7 as middle level managers and 20% as top level managers. There is an inconclusive attitude about whether JCI is cost effective. In terms of JCI to the cost effectiveness, most administrators were undecided. The managers remained uncertain about whether better communication would be made between health professionals and the patients and their families and whether patients and their families would participate in all processes. Administrators were undecided about time loss occurring in the course of patient care.Administrators agreed with the view that JCI provided an image of international reliability and competitiveness.

Keywords: JCI, Health Tourism, Quality, Accreditation, Hospital Accreditation, Administrator

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Introductıon

The concept of quality in medical services has gained an importance in our country just like all over the world in recent years. Rapid development of the medical technology, developments in the phases of diagnosis and treatment, general increase of knowledge and culture levels, and higher interest of individuals in their health have caused the change of the viewpoints about medical services, increase of expectations and increase of the importance of medical services. The increase of individuals' purchase power has caused the extension of the demand of a quality care in medical services, which has made people favor the good one and unwittingly put other treatment institutions in a competition with the good one. *(Çoruh 1994:2)* One of the most important factors in providing the quality is to set written standards defining the quality. In this context, JCI accreditation standards aim to constantly follow the processes and improve them when necessary in order to provide the satisfaction of patients, patient relatives, employees, as well as a convenient physical environment and a safe environment. Patients and their relatives no more prefer the cohesiveness of national boundaries and the health institution welcomes their patients coming from a long way. Health companies that desire to prove their quality with a document have been able to also pull patients from abroad by means of the JCI quality document. Accreditation is an official procedure involving the examination and approval of the concordance of an organization, program or a group with either standards or characters by a public authority. *(Kuş,2000:3-4).*Accreditation standards are generally classified under certain titles such as: Political values; organization, management; service activities; services being rendered, environment; communication, information; operational policies; skills of workers, education; quality management. At this point, the accreditation will create a control system and provide its continuity and permanence. The term accreditation can not be considered differently from the term "standard". Standard could be defined as a model or example that is determined by an authority, tradition or partner, and requires to be followed. Based on these definitions, accreditation signifies the determination of the efficiency of an agency or institute to render a certain service within the scope of the determined standards. Standards and accreditation signify the existence of a certain authority. They could be defined within the scope of this authority or a common understanding.*(http://www.yok.gov.tr/akredit.htm).* Today, majority of European Union member countries either apply the accreditation programs or are interested in developing accreditation programs. (Heaton, 2000:177-182). Accreditation standards signify the responsibility of a business to develop the quality of the treatment being provided for patients and provide a safe treatment environment. Decision makers are required to remain independent in this process and this independent committee makes a decision regarding to what extent the health institutions abide by the predetermined and estipulated standards.*(Sur,2005:15-16).* Medical services are also among many goods and services being used by individuals. Health care services, on the other hand, have been added to the present competition as one of the services being rendered. Consumers demand the quality product/service at a discount. The measurability of services to make a quality and cost-effective production could only be provided through complying with the product/service standards in the production and service delivery and applying the standards of the quality management system *(Şahin; 2006:2).* Today, many countries pay a great attention to the healthy population increase and provision of the health care. Developing countries try to create a health care system for the increasing population by either distributing or separating the main services required by the population. Studies being conducted in such countries show that those making plans with care succeed the maximum profit (Heıdemann, 1993:5). The increase of individuals' purchase power has caused the extension of the demand of a

quality care in medical services, which has made people favor the good one and unwittingly put other treatment institutions in a competition with the good one. (Çoruh, 1994:2). In spite of the gradual increase of the cost of medical services, there are some disadvantages about outputs such as the information about the service quality that is accessible via the internet and the sensitivity showed by multinational companies to their employees in various countries for a safe and efficient medical service. The service, which could be preferred according to the regard of the patient, in other words the customer receiving the service in nonemergency cases, is usually received from the nearest health institution in emergency cases. Patients and their relatives no more prefer the cohesiveness of national boundaries and the health institution welcomes their patients coming from a long way. Health companies that desire to prove their quality with a document have started to make an effort in order to meet certain criteria. Another reason of all these is the fear of the public opinion not to be favored when medical services will easily be met by the private sector in the course of time. Considering the fact that there is a limited number of doctors per person and even there are no doctors in various regions today, it will take some time to reach this level. Today, the greatest accreditor of the world is (<20.000 health institutions) JCAHO (Gökmen, 2005:122). Accreditation system at hospitals will contribute to the quality of the medical service delivery aimed at patients; encourage the constant quality development in the health system; enable the objective and systematic evaluation of hospitals on the basis of providing explicit standards; and create a consistency and justice in medical services for patients (Özalp et al. 2000:8). In parallel with the increase of interest in developing the accreditation and quality in the world, Joint Commission prepared the international accreditation program in 1999. JCI accreditation standards had an international consensus and a single form, and they were developed according to achievable expectations in structural conditions, processes and outputs of hospitals. The accreditation process was designed in an attempt to accord the legal, cultural and religious factors that were special to the country.(Özalp 2000:9). JCI accreditation is a type of initiatives being designed in such a way to satisfy the increasing demand regarding the evaluation based on the standards in the medical service in the entire world. It aims to present objective processes based on standards in order to evaluate the health institutions for the international society. The goal of the program is to encourage the constant and sustainable development in health institutions by applying the international consensus standards, International Health Safety Goals and the data measurement support (www.jointcommissioninternational.org, 10.02.2012). A health institution desiring to be accredited starts the accreditation process by filling and sending the application to study. This document provides the essential information about the health institution, such as its possession, demographic features, as well as the type and dimension of services being rendered (JCI,2003:7). An accreditation decision is valid for three years unless repealed by JCI. The accreditation decision retrospectively takes effect as from the first day when the JCI completes the study of the institution or when a necessary study is completed on condition that a follow-up is required. At the end of the three-year accreditation cycle of the institution, it is required to reevaluate the institution in order to renew the accreditation document. If a change is made in either the structure, possession or services of the institution in the accreditation process, it is required to inform the JCI. Then, JCI will determine that the institution is reinvestigated and a new accreditation decision is made(JCI,2003:6). It is required to provide exact and accurate information for the institution in every moment of the accreditation process. If the institution distorts the information about the accreditation either intentionally or carelessly, the accreditation document is immediately terminated or the institution gets unable to be reevaluated for a year in case of a new application. Distortion is the complete or partial falsification of any information being

presented to the JCI by the applicant or accredited institution. This falsification includes changing the content of documents by rewriting, reforming or emitting the content (JCI,2003:8). Accreditation decisions are based on the compliance level of the institution with relevant standards and objective statements at the moment of the study. Each standard is scored as “completely met”, “partially met” or “unmet”. The standards being completely and partially met will require a follow-up activity. The accreditation decision is mailed to the institution as an official accreditation decision report.(JCI,2003:8). As a result of the interview with the Quality - Accreditation Consulting Company, we obtained information about the protection of the condition of accreditation. According to these information, an accreditation decision is valid for three years unless repealed by JCI. JCI will not renew the accreditation of an institution after three years automatically. An institution that requires the continuation of its accreditation should complete another accreditation study, analyze the follow-up conditions and be in a satisfying compliance with the standards.(Mutlu, 2009:11-14). Health tourism involves crossing the international borders and travelling from one country to another in order to use the medical services. Besides, health tourism also involves the international travel of medical service providers in order to provide the health care services. (Defined by Wikipedia-encylopedia). Turkey is required to develop services not only for the solution of health problems of tourists visiting the country, but also for all kinds of physical, labor force, technological and legislative services for visits aimed at health tourism. The most imporant economic dimension of the classic mass tourism is the low level of expenditures. On the other hand, tourism types addressing to special market segments have very high levels of individual expenditures. Because these tourism types are generally preferred by wealthy sectors with a potential of expenditure. Among these types, the most important ones are the health tourism and medical tourism. The relationship between health and tourism has both positive and negative aspects. From the positive aspect, this relationship is about the health travel and treatment of tourists, which comprises the study subject. From the negative aspect, on the other hand, this relationship is about the tourist health, which may considerably damage the tourism. The most important example to the tourist health is the case of SARS disease that was experienced in the far east countries in 2002. According to the estimations of the World Travel and Tourism Council (WTTC), this disease caused a revenue loss of 20 billion dollars in countries like China, Hong Kong, Vietnam and Singapore, and caused 3 million industrial workers to lose their job (Kuo et al., 2008). Similarly, the epidemic of Avian Flu that was experienced in the recent past caused a demand decrease of 12 million people in the regions of Asia and Pacific (Wilder, 2006). Similarly, the Swine Flu that has recently emerged firstly in Mexico and then spread in North America and Europe, as well as countries like Spain poses a very important danger for the international tourism especially due to the fact that it rapidly gets contaminated from person to person. There are also crucial decreases in the tourism demand of Mexico, which shows the importance and sensitivity of the relationship between health and tourism. This study approaches the positive aspect of the relationship between health and tourism, in other words, the medical tourism that emphasizes the dimensions of the contribution to human health and the treatment. (İçöz:2007)

Material And Method

The study was conducted at 4 hospitals from the group A operating in the Anatolian Side of İstanbul. A two-month study was performed on 60 managers of these hospitals, which have the JCI document. This study was designed in a cross-sectional and descriptive way. The information about the activity data of hospitals were obtained from the Statistics Almanac of Inpatient Treatment Institutions of the Ministry of Health. Hospitals that

stopped the activity and had no activity data during the period when the study was conducted were excluded from the study. Besides, those who did not accept to participate in the study, and those who had report, permission or were sick were also excluded from the study. Random sampling method was used as the sampling method and 100 individuals were determined as the sample size in the study; however, due to the limitation of finance and time and the fact that 60 out of 100 questionnaires being distributed were returned, the study sample consisted of 60 individuals. In the study, a total of 60 managers were reached (22 Low-Level, 26 Moderate-Level, 12 Senior Managers). The study gave a place to the thoughts of managers about the positive effect of the JCI document on patients abroad who come within the scope of health tourism in terms of the study model during the application, as well as the relevant questions and the examination of the relationship between them. The Cronbach alpha value was calculated and found as 0.93 for the reliability of the collection tool in the study. Thus, the questionnaire has an internal consistency. A factor analysis was performed for the validity. Even though 4 dimensions were revealed as a result of the factor analysis, it was evaluated as a single-factoral structure as the first factor explained more than 30% of the total variance (44.5%). *(Büyüköztürk 2007)* The data that were obtained in the study were transferred to the electronic environment and analyzed in the spss 20 statistical packaged software. The convenience of the data with the normal distribution and the histogram drawing were examined with the one sample kolmogorov-smirnov test. The data were determined to be convenient for the normal distribution and parametric significance tests were used. Center of frequency tables and extensity criteria were used in the analyses and evaluations, and the t-test and one-way variance analysis were used in independent groups. Statistical significance tests were taken as 0.05. Hospitals with JCI documents receive the information about the positive effect on health tourism from managers, which is among the important limitations of the study. Even though it was convenient to measure the thoughts of manager groups in terms of the positive effect of hospitals with JCI documents on patients coming from abroad within the scope of health tourism here, a thought score was obtained from the manager in terms of the limitation of finance and time and the feasibility. Besides, a stratified sampling was performed in the calculation of the sample size and the sample as the hospitals were not homogeneous, and even though it was required to calculate the sample size, it failed to be performed due to the feasibility and limitations. It is required to consider these limitations in the evaluation and generalization of study results.

Findings

Table 1.

Some sociodemographic and occupational features of study participants

FEATURES	**CATEGORIES**	**N**	**%**
GENDER	**FEMALE**	48	80
	MALE	12	20
AGE GROUP	**20-29**	18	30
	30-39	30	53
	40-49	10	16.7
	50-59	0	0.0
MARITAL STATUS	**MARRIED**	39	65.0

	SINGLE	21	35.0
EDUCATION	**HIGH SCHOOL**	11	18.3
	ACADEMY	15	25.0
	UNDERGRADUATE	22	36.7
	POSTGRADUATE	12	20.0
WORKING PERIOD IN THE INSTITUTION	**LESS THAN 1 YEAR**	10	16.7
	1-5	24	40.0
	6-10	22	36.7
	MORE THAN 10 YEARS	4	6.7
POSITION	**LOW-LEVEL MANAGER**	22	36.7
	MODERATE-LEVEL	26	43.3
	SENIOR MANAGER	12	20.0
	TOTAL	60	100,0

Regarding the study participants; 80% are female, 20% male; 30% are aged 20-29, 53% aged 30-39, 16.7% aged 40-49; 65% are married; 36.7% are undergraduate, 25% academy, 20% postgraduate, 18.3% high school graduate; 40% have worked in the institution for 1-5 years, 36.7% for 6-10 years, 16.7% for less than 1 year and 6.7% for more than 10 years; 43.3% work as low-level managers, 36.7% moderate-level managers and 20% senior managers.

Table 2.

Comparison of the thoughts about the positive contribution of JCI to health tourism according to the gender of study participants (t test was used in independent groups).

Gender	**Average**	**St. Deviation**	***T***	***p***
Female	4,10	0,46	0,645	0,522
Male	4,00	0,56		

No statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the gender of study participants ($p>0.05$).

Table 3.

Comparison of the thoughts about the positive contribution of JCI to health tourism according to the age groups of study participants (Post Hoc Tukey test was used).

Age Groups	**N**	**Average**	**St. Deviation**	***F***	***p***
20-29	18	3.83	0.57	3.503*	0.037
30-39	32	4.18	0.39		
40-49	10	4.17	0.44		

A statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the age groups of study participants. Accordingly, as a result of the Post Hoc Tukey test, it was determined that the difference was caused by the age groups of 20-29 and 30-39 ($p<0.05$).

Table 4.

Comparison of the thoughts about the positive contribution of JCI to health tourism according to the marital status of study participants (t test was used in independent groups).

Marital Status	**Average**	**St. Deviation**	***T***	***p***
Married	4.14	0.38	1.388	0.171
Single	3.96	0.62		

No statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the marital status of study participants (p>0.05).

Table 5.

Comparison of the thoughts about the positive contribution of JCI to health tourism according to the educational status of study participants (One-way variance analysis was used).

Educational Status	**N**	**Average**	**St. Deviation**	***f***	***p***
High School	11	3.96	0.27	2.515	0.068
Academy	15	3.91	0.57		
Undergraduate	22	4.08	0.50		
Postgraduate	12	4.38	0.37		

A statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the educational status of study participants. (p>0.05).

Table 6.

Comparison of the thoughts about the positive contribution of JCI to health tourism according to participants' working period in the institution (One-way variance analysis was used).

Working Period in the Institution	**n**	**Average**	**St. Deviation**	***f***	***p***
Less than 1 Year	1	4.01	0.67	0.252	0.860
1-5 Years	2	4.04	0.51		
6-10 Years	2	4.13	0.39		
More than 10 Years	4	4.16	0.27		

No statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to participants' working period in the institution (p>0.05).

Table 7.

Comparison of the thoughts about the positive contribution of JCI to health tourism according to the working position of study participants (One-way variance analysis was used).

Position	**n**	**Average**	**St. Deviation**	***f***	***p***
Low-Level Manager	22	4.03	0.49	0.579	0.564
Moderate-Level Manager	26	4.15	0.56		
Senior Manager	12	4.00	0.17		

No statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the working position of study participants (p>0.05).

Discussion And Conclusion

The desire of providing a quality medical service and related interventions in the health sector of our country are gradually increasing each day. The attempts of obtaining the certificate of quality proves that this desire has transformed into a motivation. In this sense, there is an increasing interest in the JCI certificate of quality. JCI accreditation standards target the improvement of processes in order to provide the satisfaction of patients, patient relatives, employees, as well as a convenient physical environment and a safe environment.

In this study that was conducted in an attempt to examine the positive effect of the JCI certificate of quality, which is internationally accepted in medical services, on patients that may come from abroad within the scope of health tourism, the following findings were obtained:

The study population consists of hospitals with the JCI certificate of quality among the private enterprise hospitals operating in the Anatolian Side of İstanbul. Hospitals that stopped the activity and had no activity data during the period when the study was conducted were excluded from the study. Random sampling method was used as the sampling method in the study. In the study, a total of 60 managers were reached (22 Low-Level, 26 Moderate-Level, 12 Senior Managers). The study gave a place to the thoughts of managers about the positive effect of the JCI document on patients abroad who come within the scope of health tourism in terms of the study model during the application, as well as the relevant questions and the examination of the relationship between them. We have conducted this study due to the limited number of studies examining the effects of JCI on health tourism in medical services, as well as the available geographical position of our country that is convenient for tourism and the existence of new policies concerning health. According to the questions that were formed based on the patient and organization oriented standards of JCI, the opinions of managers are as follows:

A statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the age groups of study participants ($p<0.05$). Accordingly, as a result of the Post Hoc Tukey test, it was determined that the difference was caused by the age groups of 20-29 and 30-39. Managers in the age group of 30-39 think that JCI has more positive effects on patients coming from abroad within the scope of health tourism, compared to the managers in the age group of 20-29.

A statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the educational status of study participants. Accordingly, as the educational level increases, the viewpoints about the JCI and health tourism become more positive.

No statistically significant difference was determined as a result of the comparison of the thoughts about the positive contribution of JCI to health tourism according to the gender, marital status, educational status and working position of study participants, as well as their working period in the institution. ($p>0.05$)
In the study;

There is an undecided attitude towards the positive contribution of the JCI to costs. Managers are apparently undecided about the positive effects of the JCI on costs. They are also undecided about the possibility for a more qualified communication between employees and patients and their relatives, and the possibility for patients and

patient relatives to participate in all processes. Besides, they have some doubts about the loss of time that occurs in the processes of patient care. However, the managers agree on the following subjects, which are important in the validity of our hypothesis.

- JCI provides an international security image,
- It is an instrument of competition aimed at conscious consumers to be preferred in the international area,
- It is a certificate of quality featuring the institution in the field of health,
- It is a certificate that is sought for the equivalence of patients that may come from abroad,
- JCI causes the loss of cohesiveness of national boundaries in the preferences of patients and their relatives.

Majority of participants expressed positive opinions regarding the questions above.

In the study, there was a consensus about the factors supporting our hypothesis and our hypothesis was supported. JCI has a positive effect on the patient potential as it contributes to the development of the quality of patient care, decreases the risks by providing a safe environment, provides an assurance for patients who may come to the institution for the continuity of constant studies and serves in such a way to provide an international equivalence. In order to enable the JCI to increase its contributions to the institution and provide a better service for patients coming from abroad within the scope of health tourism, the institutions are required to emphasize the following studies;

- As a result of our studies, it has ben determined that the in-house personnel are overshadowed by managers and thus fail to play an active role in the JCI process and it is required to give a greater place to the process of adaptation in orientation programs,
- It is required that the international patient unit and the marketing unit act in concert and emphasize the promotion organizations in health tourism,
- It is required to concentrate on studies in order to develop the communication between the employees and patients and patient relatives. As a consequence, managers who participated in the study gave positive answers to the questions in the questionnaire. It is thought that the JCI increases the potential of patients coming from abroad within the scope of health tourism.

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Prohibitions in Cigarette Economics and The Role of Government: A General Framework

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Abstract

As of its discovery and manufacturing; in other words, since the agriculture revolution, tobacco has caused an addiction for people due to its pleasure-inducing feature. The mostly commonly consumed tobacco substance in the world is cigarette. The damages of cigarette which had been used for long years without any control and conscious were decisively determined at the beginning of 20th century and health organizations started to raise awareness for consumers. Tobacco addiction which is defined as one of the biggest epidemics of our day by international health institutions is considered as the primary reason of severe diseases, mainly cancer and thousands of people lose their lives every year due to cigarette.

Both international health and non-governmental organizations conduct awareness-raising activities related to the damages of cigarette being a remarkable threat for the health of people and society, and they make effort to put an end to cigarette consumption. These efforts based on voluntariness and mostly remaining on discourse level do not seem to yield any efficient result. This study discusses whether an efficient limitation is possible on the consumption of cigarette and other tobacco products taking stand from the regulatory role of state.

Key Words: Cigarette, Cigarette economics, Regulation

Introduction

Tobacco has been considered as a pleasure-inducing substance in human civilization since the very first ages of history. Previous studies show the traces of this harmful addiction even in the oldest civilization. In time, consumption ways of tobacco have changed, become popular gradually and the cigarette which is the mostly consumed tobacco product today has taken place in human life regardless of culture, age and gender.

By the development of modern medicine, damages of this old addiction were realized and combating tobacco consumption started. However, no clear decrease was observed in cigarette consumption despite all well-known damages due to its effect of addition. Methods of combating tobacco such as medicine, therapy, acupuncture etc. developed in medical terms still have very limited effect.

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On the other hand, a powerful economics of cigarette being such an old and common consumption substance in the world has been created. It became powerful in national and international market with its manufacturing and consumption sides, market, monopoly, trusts and employment capacity.

Cigarette and in general terms, tobacco products threat the health of people and society; result in the death of thousands of people every year; on the other hand, it gives spirit and pumps blood to economy with its manufacturing, exportation and employment means. Policies of states which are in this dilemma have strategies to release manufacturing and to limit consumption. However, it is clearly seen that in a case when each state prevents the cigarette consumption of citizens, no one can manufacture. Today, there is no state which completely prohibits cigarette yet, each country carries out a policy within that country's limits; although developed countries being more aware of the damages of cigarette have a significant share in cigarette consumption; developing countries have higher rates of cigarette consumption. This fact shows that the abovementioned strategy is partly valid; while developed countries manufacture, developing ones consume.

This study investigates not only economics dimension of cigarette but also state policies which have power to bring efficient solutions to this issue. What steps can be taken by states for cigarette consumption is analyzed through the concept of regulation and a series of recommendations are submitted in the conclusion.

Cigarette Economics

The science of economics is related to meeting unlimited human needs with limited resources and researching and analyzing optimization ways. Being a science branch of social sciences, economics is always in interaction with other science branches and has a dynamic structure. The main fields of economics are microeconomics and macroeconomics, international economics, foreign trade and international economy and macro economy (Elbek et al, 2013).

Today, economy tendencies which bring a micro-based perspective to macro issues in economics started to prevail. New fields which were created with a micro perspective have emerged in economics. As an example, art economics, sport economics, opera economics, cancer economics can be mentioned.

Taking stand from this perspective, we can talk about a cigarette economics due to the place and size of cigarette in economy. The fundamental factors of cigarette economics are as follows:

- Cigarette manufacturers: supply side
- Cigarette consumers: demand side

The structure of cigarette economics is shaped by factors which determine supply and demand. The manufacturing is made in amounts being equal to cigarette demand; manufacturing and prices are determined at this balance point. Economic size of cigarette economics can be counted as follows:

- Economic size of cigarette manufacturing: manufacturing size
- Size of those employed in cigarette economics: employment size
- The effect of cigarette economics on GDP: National Product size

Manufacturers, consumers and state are the main market actors in cigarette economics. States affect both national and international cigarette market with their tax policies. Cigarette consumption was under the control of a monopoly or terrorists. Today, these monopolies have turned into multinational companies/chains towards

cigarette and other tobacco products, and they affect tax policies and consumption limitations of states by their lobbying activities, in this way, they aim to get a bigger share from manufacturing in this profitable market. (Yurekli et al, 2010).

Dimensions of Cigarette Economics in Turkey

Manufacturing Side

The place of tobacco in agricultural sector is very important to affect employment structure and income of Turkey. It is predicted that the number of tobacco workers being employed with mostly family working is above 1.5 million in Turkey. Being known as "Turkish Tobacco" in international markets, Oriental tobacco ranks the first in tobacco manufacturing in the world. Its annual exportation profit for Turkey is around $ 400-500 million. Of all tobacco manufacturing in Turkey, 40% takes place in Aegean Region. In addition, tobacco can be cultivated in Marmara, Black Sea, Eastern and Southeastern Anatolia Regions of Turkey (Ozkul ve Sari, 2008).
Analyzing the rates of exportation and importation, we can see the contribution of alcohol and tobacco products to economy. On the other hand, public revenues obtained through alcohol and tobacco products constitute a great source for the Budget of Central Management. This is because of the high amounts of taxes taken from these products. The added value of tobacco and alcohol products industry is very high in Turkey. Following figures related to tobacco product shed light on this issue (Sevilmis, 2014: 13-16):

- Tobacco exportation amount of 2012: $ 842.4 million
- 60% of exportation companies in Turkey are İzmir-based.

Problems asserted by alcohol and tobacco manufacturers:

- High taxes
- Retail sales prohibition between 22:00-06:00
- Advertisement prohibition on alcohol products
- Bureaucratic problems which result from routine legal notifications

Consumption Side and Health Status

According to studies conducted throughout Turkey, there has been a decrease in cigarette consumption since 2006. Although cigarette consumption decreases, the rate of smokers is still very high. It is a positive finding that the consumption between the ages of 15-24 is low. Despite all, Turkey is one of 10 countries which consume most cigarette even though its place in ranks changes by year.

Table 1:

The Rate of Smoking between 1993-2008 in Turkey (Translation: Kadın: Female; Erkek: Male; Toplam: Total)

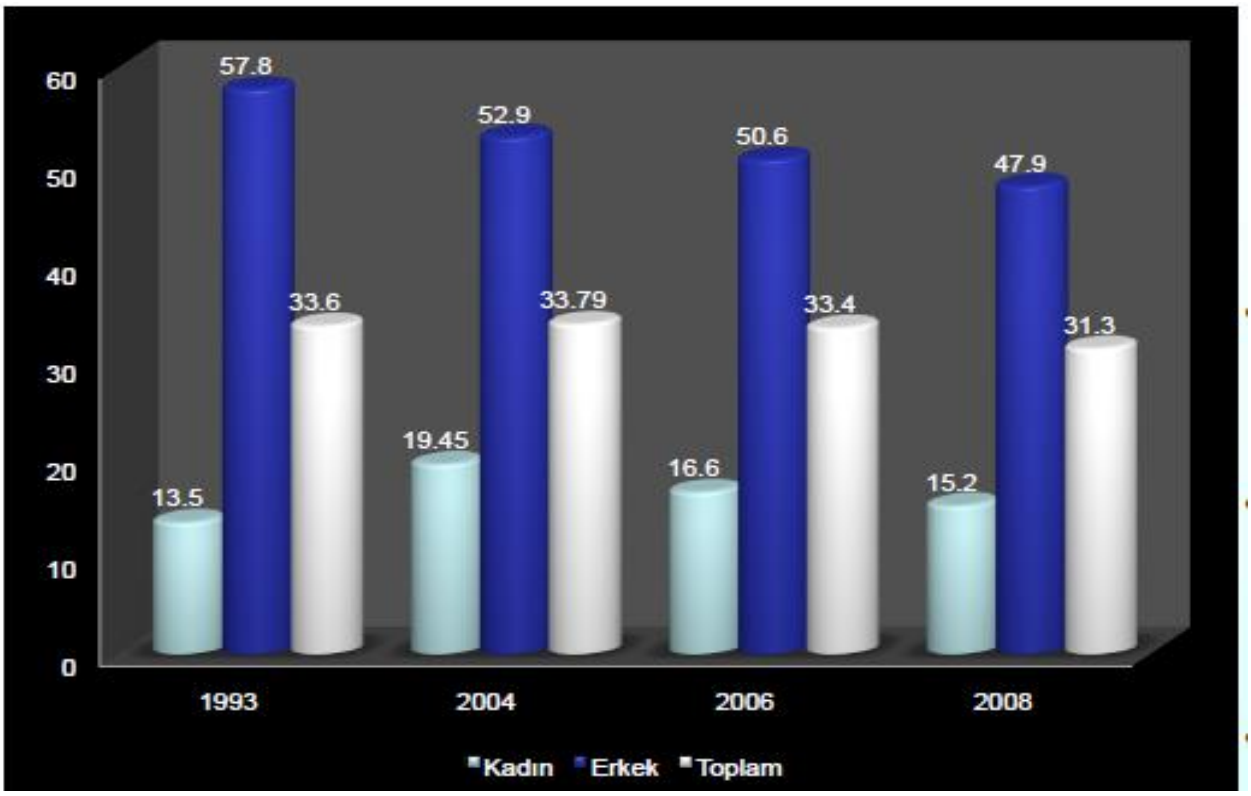


Table 2:

Smoking Rate by Age Groups in Turkey (Translation: Kadın: Female; Erkek: Male; Toplam: Total)

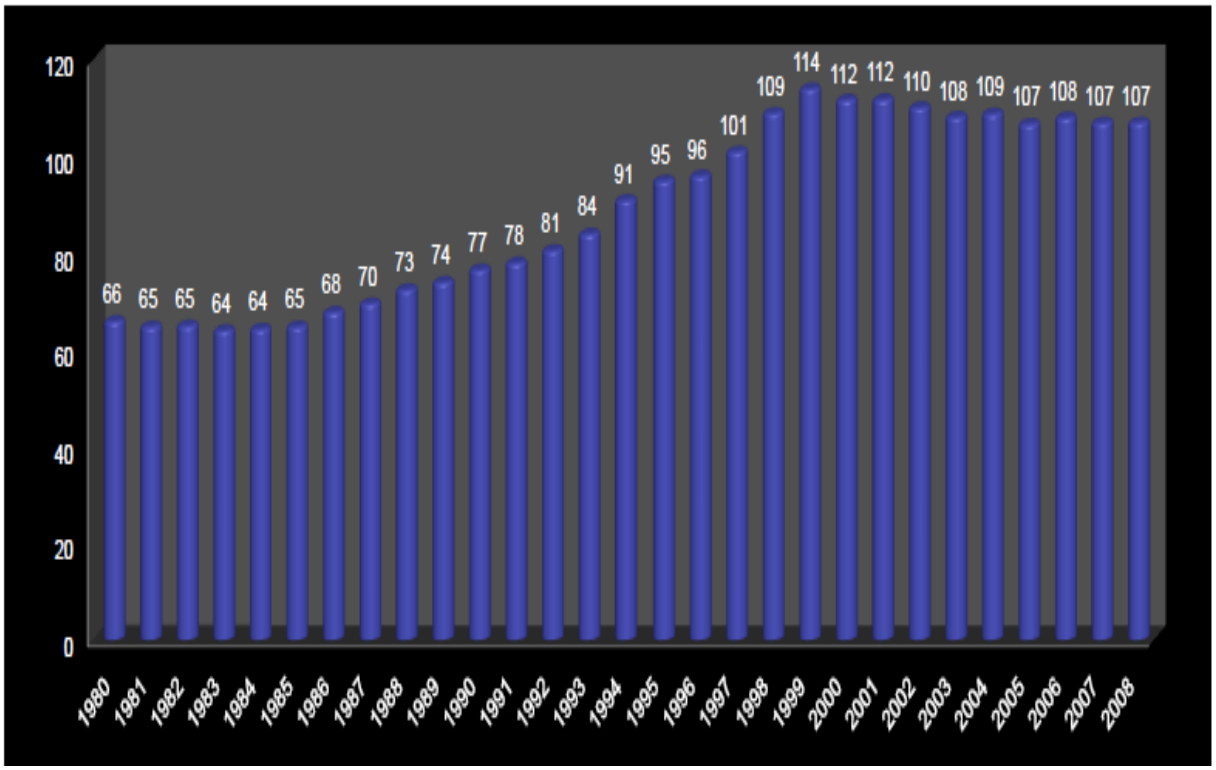


Table 3:

Tobacco Consumption between 1980-2008 in Turkey (a thousand tones)

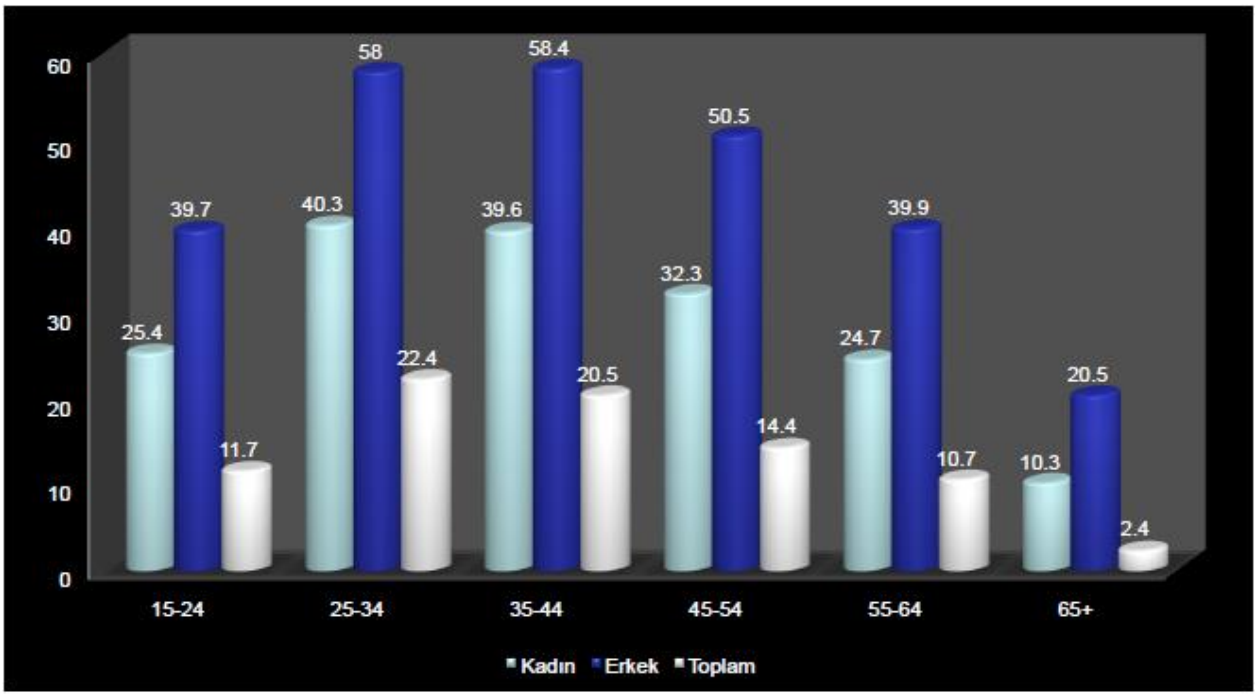


Table 4:

Smoking Rates in Turkey

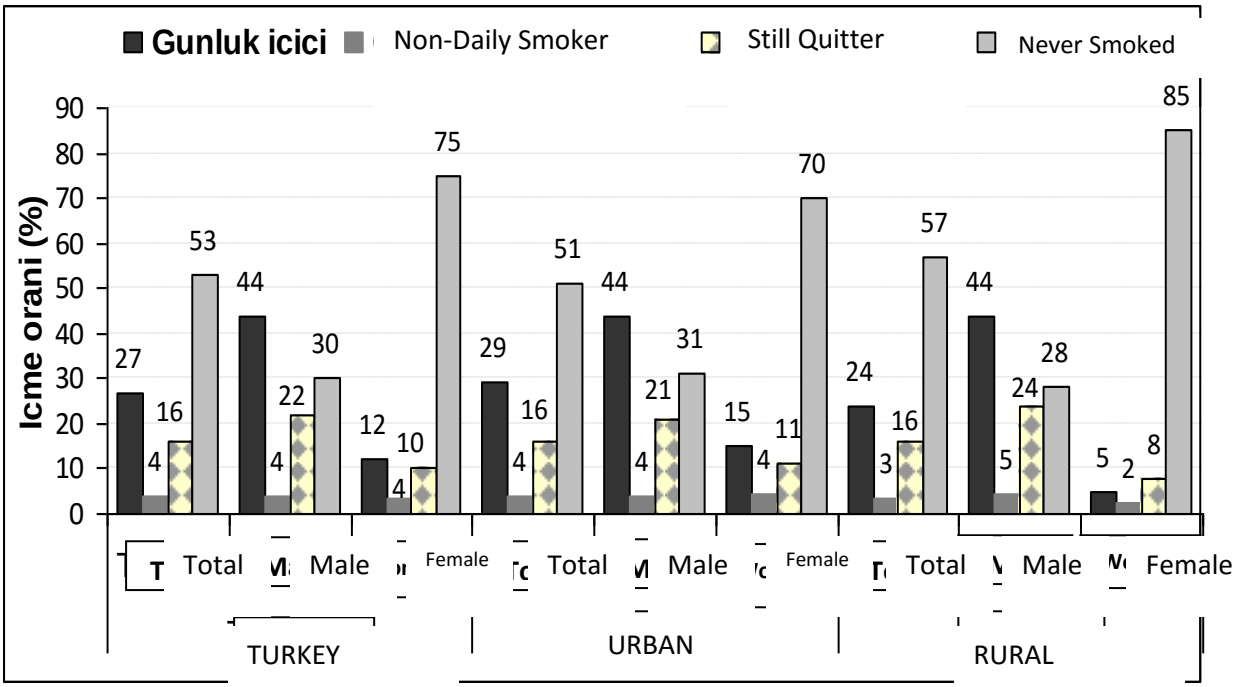
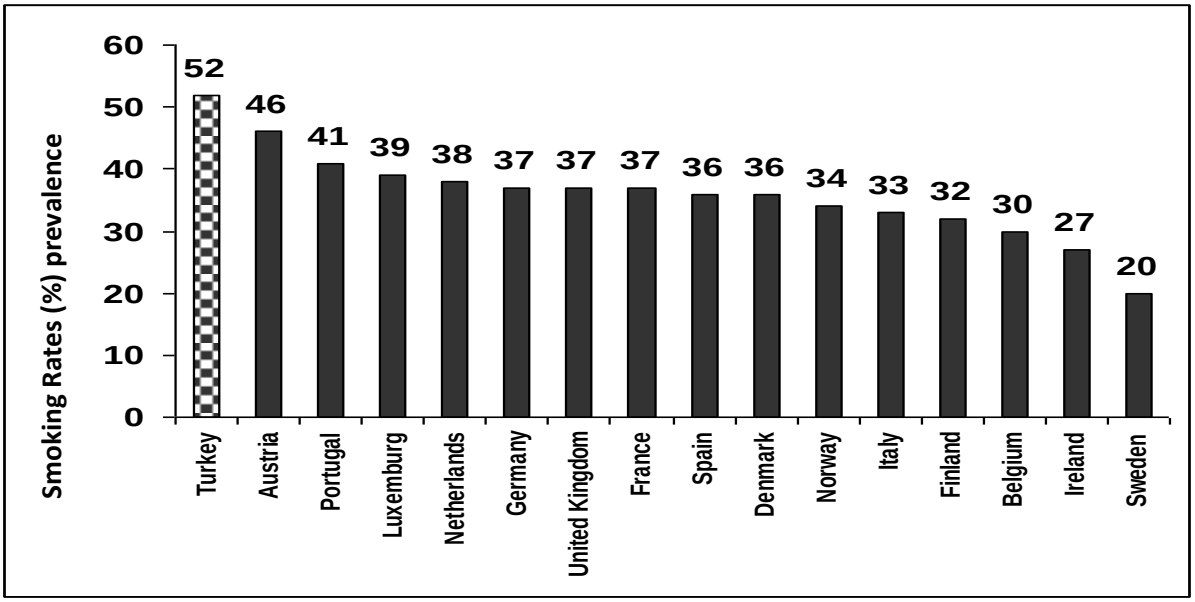


Table 5:

Males Who Consume any Tobacco Product in Selected Countries



Although Table 1, 2, 3 and 4 seem to have a downtrend, they show how high tobacco use in Turkey is. Table 5 shows that the highest smoking rate among males is in Turkey compared to other selected countries.

Health organizations consider cigarette and other tobacco products as threatening factors for public health. Cigarette gives damage both directly (to smoker) and indirectly (to passive smokers and atmosphere). Coronary heart diseases, cancer cases, brain, vascular and circulatory diseases occur due to cigarette. The mortality of lung cancer being one of the most common cigarette-related diseases is very high.

As can be seen from the data, malign tumors in respiratory tract take place within the cancer types which lead to the highest number of deaths. Cigarette-derived death number in Turkey is estimated to be 100.000 per year.

Figure 1:

Cause of Death Statistics in Turkey (TUIK (Turkish Statistical Institute))

Total	Total %	Male %	Female %
Circulatory system diseases	100,0	100,0	100,0
Malign and benign tumors	39,8	35,8	44,6
Respiratory system diseases	21,3	25,3	16,5
Endocrine, nutrition and metabolism-related diseases	5,6	4,3	7,2
External injuring reasons and poisoning	5,5	7,3	3,3
Neural system and sense organ diseases	4,1	3,4	4,9
Others (infection and parasite diseases, mental and behavioral disorders, musculoskeletal system and connective tissue diseases etc.)	13,9	13,2	14,8
Note: The figures in this table may not be equal to the total due to rounding			

Figure 2:

Malign Tumor-Derived Death Statistics in Turkey (TUIK (Turkish Statistical Institute))

	Total %	Male %	Female %
Malign tumors	20,9	24,8	16,0
Sub-groups	100,0	100,0	100,0
Malign tumor of throat and trachea/bronchitis/lung	31,3	41,1	12,7
Malign tumor of stomach	8,9	8,8	8,9
Lymphoid and hematopoietic malign tumor	8,2	7,2	10,1
Malign tumor of colon	6,9	6,1	8,3
Malign tumor of pancreas	5,9	5,2	7,1
Other	38,9	31,5	52,9
Note: The figures in this table may not be equal to the total due to rounding			

The Concept of Regulation and Independent Management Authorities in Turkey

Regulatory boards and Independent Management Authorities have been established since the beginning of 1980s in some countries, especially in the USA; states started to get away from the manufacturer position. Leaving the manufacturer role of state, in other words liberalization has made it compulsory to inspect technology-based and complex manufacturing fields such as communication, telecommunication, energy and finance. Regulatory boards have duties and authorities to give permission, make a rule, monitor, impose sanction, inform the public, ask for information, conduct, research development activities and resolve conflicts in abovementioned fields (Tekinsoy, 2007: 120-130).

The reason why states undertook manufacturer role was to manufacture public goods and services which were not manufactured by the market, supply goods and services which are needed due to the lack of capital, set up an infrastructure and manufacture goods and services which require a monopoly by nature. However, as societies started to develop and economies improved, the manufacturer role of state turned into a regulatory and supervisor identity. States have developed regulations, rules and mechanisms that can ensure complete competition conditions between states and protect consumers by preventing excessive pricing in accordance with free market economy. The regulatory role of state being called as "regulation" have economic, social and administrative aspects (Tekinsoy, 2007: 120-130).

The aim of regulation is to ensure effective performance of the market as stated above. To this end, it offers complete competition conditions and cost efficiency for manufacturing companies. It also arranges activities such as excessive pricing, profit, stock and black marketing for customers. It also aims to guide private companies to invest.

Independent Management Authorities in Turkey: Capital Market Board, Council of Bank Audit and Regulation, Telecommunication Institution, Energy Market Regulatory Authority, Competition Authority, Sugar Authority, Tobacco Products and Alcoholic Beverages Market Regulation Board, Radio and Television High Council, Public Procurement Authority (Karakaş, 2008)

Criticisms towards independent management authorities are emphasized as follows:

- These authorities' positions which oppose to classical management structure,
- The failure or lack of management regulation ways on these authorities,
- Broad powers,
- Their ability to impose significant sanctions,
- Judgmental similarity or semi-judgmental structure of the conducted procedures.

The Control on Tobacco Consumption in Turkey

Being a developing country, Turkey is considered to have appropriate and efficient policies which are conducted on tobacco control due to high mortality risk related to tobacco and diseases such as lung cancer having high mortality rate due to tobacco consumption. Control policies on cigarette consumption conducted in cooperation with Independent Management Authority; Tobacco and Alcohol Market Regulatory Authority and Ministry of Health and Finance are very effective and they pose an example for other countries, mainly for the developing ones.

We can summarize practices which have been conducted on tobacco control since 2008 as follows (Başol and Can, 2015)

- Tobacco consumption was prohibited in all closed areas being open to public in 2008 and in closed areas of private enterprises in 2009.
- Today, tobacco consumption is prohibited in all closed areas except for individual houses.
- Pictorial warnings have been used on cigarette packets since 2010 and it was made compulsory to cover minimum 65% of a side of tobacco packets and hook a glasses with a warning in 2012.
- It is prohibited to sell tobacco products to those under the age of 18.
- A phone line and smoking cessation polyclinic were opened in 2010.
- Free medicine was supplied for suitable patients in smoking cessation polyclinic.
- The use of tobacco on driver's seat has been prohibited as of the law enacted in 2013.
- Tax rate was increased to 81.79% in cooperation with the Ministry of Finance (as of 2013).
- In order to raise awareness, media campaigns named Smoke-Free Zone and Protect Your Air were conducted and the damages of cigarette were explained through public service ads, advertisements, posters and brochures.
- Any kind of advertisement and sponsorship of tobacco products have been prohibited and the image of cigarette has been prevented on the TV.

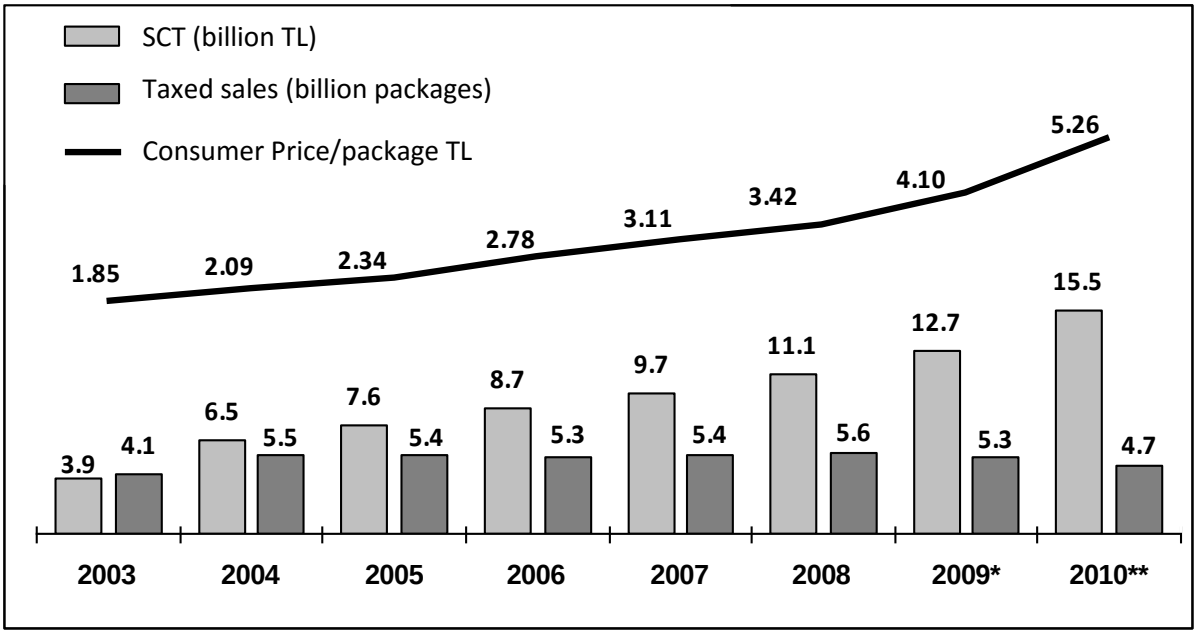
At the end of the all the measures taken from 2008 to 2012 and practices translated into life, smoking rate fell to 27.1% from 31.2%. By tobacco control, the number of smokers in the population above the age of 15 in Turkey was decreased 2.2 million. All the world closely follows Turkey being the first and only country which implements Mpower policy package very successfully. Activities started on a second action plan which will be valid from 2014 to 2018. According to the Action Plan against tobacco between 2014-2018, practices which are expected for tobacco control for upcoming period are as follows (Başol and Can, 2015):

- Cigarettes will be packaged in one color and in a flat shape and there will be no significative sign such as brand, emblem on the package in accordance with the black package practice.

- Instead of a brand name, code will be used for the sales of cigarettes.
- The areas where smoking is allowed in open areas will be restricted by the proportion of ¼.
- Cigarette inspection will be assigned to governorships and this control will be made by the police.

Figure 3.

Special Consumption Tax Taken from Tobacco Products in Turkey



Conclusion and Suggestions

Being a very harmful addition for human and public health, cigarette solely constitutes an economics due to the fact that it is very widespread. We can say that there is a cigarette economics in Turkey due to its manufacturing and consumption size, share in exportation and employment capacity.

States may conduct their regulatory role through taxes in order to limit cigarette consumption. A tax boost of the Ministry of Finance can be much more effective than 10-year-long international and national awareness activities conducted by health organizations and non-governmental organizations.

As a matter of fact, policies which have been conducted since 2008 in Turkey could reduce consumption in significant amounts and Turkey has set an example for other countries. However, figures show that there is still a long way to go in combating cigarette.

Our suggestions developed in this matter are as follows (Yurekli and Chaloupka, 2010):

- Special consumption taxes must be increased at regular intervals in proportion with inflation.
- Cigarette prices must be increased by the inflation rate.
- Special consumption tax rates must be increased at minimum 70% of retail sales prices.
- On the basis of the price flexibility of cigarette demand, the increase of cigarette taxes at this rate will
    - Increase government's revenues,
    - Enable adults to give up smoking and
    - Prevent children and young people from starting smoking.

- It will also minimize health and economic losses related to cigarette in Turkey.
- Some part of the excessive tax revenues must be allocated for health care and tobacco control programmer.
- Preventive activities must be increased in order to prevent trafficking of tobacco products.
- To reduce trafficking will maximize government's revenues and health benefits to be obtained from the increase in cigarette taxes.
- In order to reduce trafficking and forgery, regional cooperation's must be increased and empowered.

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Operating Room Personnel at Risk of Injury and Investigation of The Factors Affecting It With Tools Of Surgery

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Abstract

Purpose: Health professionals who work in the operating room in surgical tools, the frequency of injury, the factors that cause injury, health care workers and prevent injury after injury applications is to determine the knowledge, skills and practices.

Materials and Methods: Research, Konya training and research hospital, has been applied to run in the operating room. Developed by KUTLU a collection of research data, participants ' demographics, personal habits, physical conditions of their operating rooms, professional practice with injuries during their surgical tools if they're alive, and they take measures that queries a data collection form used in coaching questions, 37. In the analysis of the arithmetic mean of the data and frequency analysis, Chi-square was used in the comparison of groups. Error level is set at $\alpha = 0.05$.

Results: 63 of the 106 people who participated in the study (59.4%) at least once during their professional life surgical instruments has survived with injuries. Then, cleaning staff nurses of 25.5% and 80% of hepatitis vaccine has given the wrong answer to the virus protect. The doctors then 55,2% 87.5% nurses ' si, cleaning personnel, 50% of the injury has not reported.

Conclusion: Employee status report should be developed and a form for employees to 24-hour access to medical and psychological help, a unit should be created. Identifying risk factors, injury cases, employees record, measures to be taken should be given relevant training.

Key Words: Operating room, Operating room employees, Surgical Instruments Injury

Healthcare services include all the planned work conducted to protect the health of individuals and societies, treat them when they fall ill, ensure that those who have not recovered fully and become disabled live without being dependent on others, and raise the living standards of societies. Therefore, they constitute a more complicated structure than many businesses. This situation also causes the risks and dangers that healthcare

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employees encounter in their workplaces to be higher in number and variety. Health officers are at risk of contracting many infectious diseases from patients in their daily working environment. Physical factors such as infection pathogens, changes in temperature, noise and radiation, chemical substances, gases and toxins are some of the factors that negatively affect healthcare officers (Kutlu 2007). Hospitals are quite rich environments in terms of infection pathogens. Healthcare employees working in these institutions are exposed to infected blood or bodily fluids during their professional practices through contact with blood and blood products or as a result of sharp object injury. This situation puts healthcare officers at a high risk in terms of infectious diseases (Kürtünlü, 2013:3). Although all kinds of protective measures are taken, infection through occupational contact still continues. Infection occurs mainly percutaneously or through mucosa. Percutaneous infection (contagion) takes place when the skin loses its integrity when syringes or other pointed tools prick, the skin is cut or grazed by sharp objects, or damaged due to burns or other reasons, but it can also happen through mucosa when blood spurts on mucosa in the nose or mouth (Bozkurt et al. 2013). Today, more than 20 pathogens that pass from people to people through blood are known to exist (Erol et al. 2005). All kinds of microorganisms that exist in blood may infect people. However, Hepatitis B virus (HBV), Hepatitis C virus (HCV), Hepatitis D virus (HDV) and Human Immunodeficiency Virus (HIV) are the most important pathogens because they can lead to systemic infections due to infection and are currently relevant and important. The primary means for such infections is injury by sharp objects (Erol et al. 2005, Kuruüzüm et al. 2008). Healthcare officers run the risk of injury by sharp objects in the operation room, at the patient's bedside (taking blood, injection, small interventions, resuscitation), in polyclinics (small interventions, medical dressing), in laboratories (tube breaks), in short in all areas of their work. Naturally, the risk of injury varies by the branch, occupation and the work done (Dokuzoğuz 1999). It is argued that, of the health care personnel, doctors and nurses, who are in direct and more intensive contact with patients, are at a higher occupational risk than laboratory employees, technicians and auxiliary staff in terms of DKAY (Kürtünlü, 2013:3). It is pointed out that the rate of DKAY is 18.1 % among nurses whereas it is 70-75 % among nurses who work in operating rooms and emergency units (Korkmaz 2008). Operating rooms are different from other units in terms of isolated and busy work schedule as well as equipment. Operating rooms are at the same time highly technical areas and therefore working there requires more responsibility. Prolonged operations, massive bleeding during operations and too many people in a small area raise the level of risk. Employees as well as hospitals are affected by risks that may be encountered in this field. Working environment and problems in working conditions influence individuals' job satisfaction, achievement, efficiency and health (Demircan 2008, Dişbudak 2013). Among the health care workers, especially "employees in operating rooms" are, as they are in direct contact with patients' blood, at constant risk of bloodborn viral infections such as Hepatitis B virus, Hepatitis C virus and HIV, which cause mortality and morbidity (Merih et al. 2009). The factors that threaten employee health most are dirty sharp object injuries and spatter. The most frequent one is needle prick (Aren 2008). The purpose of this study is to determine the frequency of injury by surgical tools among health care employees working in operating rooms at Konya Training and Research Hospital, the factors that cause injuries, and knowledge, skills and practices aimed at preventing injuries among health care workers and practices followed after injury. The study is important in that it will reveal how big a part the frequency of injury by sharp objects plays in infections that occur through blood and blood components. It is also important in terms of the relevant literature in that it is one of the rare studies conducted on operating rooms.

Research Method

This is a descriptive and cross-sectional study conducted on December 15-30 2014 to determine the risks of employees working at Konya Training and Research Hospital with contaminated surgical tools and the factors that affect this. The research population consists of doctors, nurses and cleaning personnel who constitute the operating room personnel at Konya Training and Research Hospital. Personnel working in the anesthesia department were not included in the study because cutaneous tissue is open and infection risk increases due to direct contact with bodily fluids. On the other hand, cleaning personnel were included in the study because they are as much exposed to injury by blood and bodily fluids as doctors and nurses working in the operating room since they assume the task of carrying the surgical equipment and removing the waste. Apart from hospital personnel who could not be reached due to reasons such as being on leave or sick leave, 106 operating room staff members consisting of doctors, nurses and cleaning personnel who agreed to take part participated in the study. A 37-item data collection form developed by Kutlu which questioned the participants' demographic features, personal habits, physical conditions of the operating room where they work, whether they have experienced injury by surgical tools or not during their professional practice and the precautions they have taken was used in the study. The data obtained from the health care workers were evaluated on computer using statistical package program. Comparisons according to the groups were made using chi-square test. Margin of error rate was chosen to be α=0,05 for analyses. P value smaller than this value or equal to it was interpreted to be "statistically significant", whereas values greater than that were interpreted to be "statistically insignificant".

Research Findings

Within the scope of the research findings, first descriptive statistics about the demographic features of the participants were presented in the form of a table. Then, basic statistics questioning whether or not they had experienced injury by surgical tools during their professional practice and the precautions they had taken were obtained and presented in the form of a table.

Table 1. Demographic Features of Operating Room Personnel (n=106)

Demographic Features		Doctor (n= 43)		Nurse (n= 48)		Cleaning Personnel (n= 15)		Total	
		Numbe	%*	Numb	%	Numb	%	Numb	%
Age	20-25	1	2,3	9	18,8	1	6,7	11	10,4
	26-35	20	46,57	29	60,4	7	46,7	56	52,836,8
	36-55	22	51,2	10	20,8	7	46,7	39	36,8
Gender	Male	40	93,0	15	31,3	13	86,7	68	64,2
	Female	3	7,0	33	68,8	2	13,3	38	35,8
Length of Employment in	0-5	12	27,9	23	47,9	8	53,3	43	40,6
	6-10	14	32,6	16	33,3	4	26,7	34	32,1

the Operating Room	>11	17	39,5	9	18,8	3	20,0	29	27,4
Total Length of Employment (in Years)	0-5	10	23,3	15	31,3	4	26,7	29	27,4
	6-10	14	32,6	16	33,3	4	26,7	34	32,1
	11-15	6	14,0	5	10,4	5	33,3	1616	15,1
	>16	13	30,2	12	25,0	2	13,3	27	25,5
Level of Education	Primary Education	-	-	-	-	7	46,7	7	6,6
	High School	-	-	5	10,4	5	33,3	10	9,4
	Associate Degree	-	-	23	47,9	1	6,7	24	22,6
	Bachelor's Degree	-	-	19	39,6	0	0	19	17,9
	Postgraduate Degree	43	100	1	2,1	0	0	44	41,5
	Other	-	-	0	0	2	13,3	2	1,9

* Percentage of the Column

Of the 106 operating room personnel in the research group, 43 were doctors, 48 were nurses, and 15 were cleaning personnel. Median age of the doctors was 36,3; nurses' median age was 31,6 and median age of the cleaning personnel was 34,6.

Table 2. Distribution of Operating Room Personnel's Frequency of Injury by Occupational Groups (n=106)

Status of Injury	Doctor (n=43)		Nurse (n= 48)		Cleaning Personnel (n=15)		Total		X^2	P
	Number	%*	Number	%	Number	%	Number	%		
Yes	32	74,4	29	60,4	2	13,3	63	59,4	17,246	0,000
No	11	25,6	19	39,6	13	86,7	43	40,6		
Total	43	100,0	48	100,0	15	100,0	106	100,0		

* Percentage of the Column

There was not a statistically significant difference among the occupational groups in terms of having or not having at least one sharp object injury ($p<0,05$). 74.4 % of the doctors (n=32) and 60,4 % (n=29) of the nurses were injured by surgical tools whereas 13,3 % (n=2) cleaning personnel experienced at least one injury by surgical tools.

Table 3. Distribution of Operating Room Personnel's Status of Injury by Their Level of Education (n=106)

Status of Injury	Primary – High School		Associate – Bachelor's		Postgraduate - Other		Total		x^2	p
	Number	%*	Number	%	Number	%	Number	%		

Yes	5	7,9	24	38,1	34	54,0	63	100	10,589	0,005
No	12	27,9	19	44,2	12	27,9	43	100		
Total	17	16,0	43	40,6	46	43,4	106	100		

* Percentage of the Column

In Table 3, there was not a statistically significant difference in terms of educational level among the participants who stated that they had experienced an injury at least once during their working life (p>0,05). 54 % (n=34) of the employees with postgraduate degree and other educational levels stated that they had been injured at least once. Doctors were included in the group that had postgraduate degree educational level.

Table 4. Comparison of Operating Room Personnel by Gender In terms of Injury (n=106)

Status of Injury Yes	Gender				Total		x^2	p
	Male		Female					
	Number	%*	Number	%	Number	%		
No	39	57,4	24	63,2	63	59,4	0,559	0,681
Total	29	42,6	14	36,8	43	40,6		
Status of Injury	68	100,0	38	100,0	106	100,0		

* Percentage of the Column

63,2 % (n=24) of the women working in the operating room stated that they had been injured at least once whereas 57,4 % (n=39) of the men also stated that they had been injured. There was no statistically significant difference between the sexes (p>0,05).

Table 5. Comparison of the Operating Room Employees' Frequency of Injury by Occupational Groups (n=63)

Number of Injuries	Doctor		Nurses		Cleaning Personnel		Total	
	Number	%*	Number	%	Number	%	Number	%
1-5 injuries	20	62,5	25	86,2	2	100,0	47	74,6
6-10 injuries	5	15,6	2	6,9	0	0	7	11,1
>11 injuries	7	21,9	2	6,9	0	0	9	14,3
Total	32	100,0	29	100,0	2	100,0	63	100,0

* Percentage of the Column

63 of the 105 participants stated that they had experienced injury before. 62.5 % of the doctors (n=20), 86,2 % of the nurses (n=25), and 100,0 % of the cleaning personnel (n=2) stated that they had experienced five or fewer injuries. 21,9 % of the doctors (n=7) stated that they had experienced 11 or more injuries.

Table 6. Comparison of Operating Room Employees' Frequency of Injury by Age Groups (n=63)

Number of Injuries	<25 Years old (n=6)		26-35 Years old (n=31)		>36 Years old (n=26)		Total	
	Number	%*	Number	%	Number	%	Number	%
1-5 Injuries	6	12,8	25	53,2	16	34,0	47	100,0
6-10 Injuries	0	0	4	57.1	3	42,9	7	100,0
>11 Injuries	0	0	2	22,2	7	77,8	9	100,0
Total	6	9,5	31	49,2	26	41,3	63	100,0

* Percentage of the Column

53,2 % of those who had 1-5 injuries (n=25) were in the 26-35 age group, whereas 77,8 % those who had 11 or more injuries (n=7) were in the 36 or older age group. 12,8 % of those aged 25 or younger operating room employees (n=6) had 1-5 injuries.

Table 7: Distribution of the Types of Tools That Cause the Most Injuries in Operating Room Personnel by Occupational Groups (n=63)

Status of Injury	Doctor (n=32)		Nurse (n=29)		Cleaning Personnel (n=2)		Total	
	Number	%*	Number	%	Number	%	Number	%
Perforating or Pricking tools	29	90,6	25	86,2	2	100,0	56	88,9
Sharp Tools	3	9,4	4	13,8	0	0	7	11,1
Totals	32	100,0	29	100,0	2	100,0	63	100,0

* Percentage of the Column

90,6 % of the doctors working in operating rooms (n=29), 86,2 % of the nurses (n=25), and 100 % of the cleaning personnel (n=2) stated that they had predominantly been exposed to injury by perforating-pricking tools.

Table 8: State of Operating Room Personnel's Reporting Injuries (n=63)

State of Reporting	Doctor (n=32)		Nurse (n=29)		Cleaning Personnel (n=2)		Total	
	Number	%*	Number	%	Number	%	Number	%
Reporting	4	12,5	13	44,8	1	50,0	18	28,6
Not Reporting	28	87,5	16	55,2	1	50,0	45	71,4
Total	32	100,0	29	100,0	2	100,0	63	100,0

* Percentage of the Column

When the operating room personnel were asked about the state of reporting their injuries, 87,5 % of the doctors

(n=28), 55,2 % of the nurses (n=16), and 50 % of the cleaning personnel (n=1) stated that they had not reported their injury.

Table 9: Reasons Why Operating Room Personnel Did Not Report Their Injuries (n=45)

State of Injury	Doctor (n=28)		Nurse (n=16) (n=15		Cleaning Personnel (n=1)		Total	
	Number	%*	Number	%	Number	%	Number	%
Not knowing that reporting is necessary	9	32,1	1	6,3	0	0	10	22,2
Not having time for it	2	7,1	3	18,8	0	0	5	11,1
Not thinking that the patient is at risk	9	32,1	5	31,3	1	100,0	15	33,3
Not thinking that reporting will work	8	28,6	7	43,8	0	0	15	33,3
Total	28	100,0	16	100,0	1	100,0	45	100,0

* Percentage of the Column

32.1 % of the doctors and 31.3 % of the nurses stated that they had not thought that the patient's situation was risky after injury. While 43,8 % thought that reporting would not work, 28.6 % of the doctors also thought the same.

Table 10: Distribution of the Procedures Conducted After Injury by Occupational Groups (n=63)

Procedures	Doctor (n=32)		Nurse (n=29)		Cleaning Personnel (n=2)		Total	
	Number	%*	Number	%	Number	%	Number	%
Reporting to a higher authority	3	9,4	12	41,4	1	50,0	16	25,4
Having tests performed	12	37,5	4	13,8	0	0	16	25,4
Looking for infection in the patient	9	28,1	11	37,9	1	50,0	21	33,3
Bleeding	1	3,1	1	3,4	0	0	2	3,2
Washing with water and soap	0	0	1	3,4	0	0	1	1,6
Washing hands with alcohol	3	9,4	0	0	0	0	3	4,8
Not being able to do anything	1	3,1	0	0	0	0	1	1,6
Washing hands with Batticon	3	9,4	0	0	0	0	3	4,8
Total	32	100	29	100	2	100	63	100

* Percentage of the Column

50 % of the cleaning personnel stated that they had reported the injury to their superiors. 37.5 % of the doctors

had tests performed whereas 37.9 % of the nurses investigated whether the patient had an infectious disease or not. 41,4 % of the nurses and 9.4% of the doctors stated that they had reported the injury to a higher unit. Washing with water and soap was low in all three groups. 9.4 % of the doctors stated that they preferred to wash with alcohol. 3.1 % of the doctors stated that they did not do anything.

Table 11: Injury during the Operation of A patient Known to Have an Infectious Disease (n=89)

State of Injury	Doctor (n=43)		Nurse (n=40)		Cleaning Personnel (n=6)		Total	
	Number	%*	Number	%	Number	%	Number	%
Yes	4	9,3	3	7,5	0	0	7	7,9
No	39	90,7	37	92,5	6	100,0	82	92,1
Total	43	100,0	40	100,0	6	100,0	89	100,0

* Percentage of the Column

In Table 11, 9.3 % of the doctors and 7.5 % of the nurses stated that they had been injured during an operation on a patient who they knew had an infectious disease.

Table 12: Distribution of Operating Room Employees with or without Hepatitis B Vaccination by Occupational Groups

State of Immunization	Doctor (n=43)		Nurse (n=48)		Cleaning Personnel (n=15)		Total		X^2	P
	Number	%*	Number	%	Number	%	Number	%		
Immunized	39	90,7	43	89,6	14	93,3	96	90,6	0,190	0,910
Not Immunized	4	9,3	5	10,4	1	6,7	10	9,4		
Total	43	100	48	100	15	100	106	100		

* Percentage of the Column

It is seen in Table 12 that 90.7 % of the doctors, 89.7 % of the nurses and 93.3 % of the cleaning personnel had Hepatitis B vaccination. It is observed that about 10 % of the doctors and nurses did not have Hepatitis B vaccination.

Table 13: Distribution of Reasons for Not Having Vaccination among Operating Room Employees by Occupational Groups (n=10)

Reasons for Not Having Vaccination	Doctor (n=2)		Nurse (n=5)		Cleaning Personnel (n=1)		Total	
	Number	%*	Number	%	Number	%	Number	%

Not Having Time for it	0	0	0	0	1	100,0	1	10,0
Excessive Procedures	0	0	1	20,0	0	0	1	10,0
Natural Immunity	4	100,0	4	80,0	0	0	8	80,0
Total	4	100,0	5	100,0	1	100,0	10	100,0

* Percentage of the Column

All of the operating room doctors who did not have Hepatitis B vaccination (n=4) and 80 % of the nurses (n=4) stated that they had natural immunity.

Table 14: Distribution of Level of Knowledge of What Virus Hepatitis B Vaccination Protects against by Occupational Groups (n=106)

Virus against which Hepatitis B Vaccination Protects	Doctor (n=43)		Nurse (n=48)		Cleaning Personnel (n=15)		Total	
	Number	%*	Number	%	Number	%	Number	%
Wrong Answer	0	0	12	25,0	12	80,0	24	22,6
Correct Answer	43	100,0	36	75,0	3	20,0	82	77,4
Total	43	100,0	48	100,0	15	100,0	106	100,0

* Percentage of the Column

25 % of the nurses (n=12), and 80 % of the cleaning personnel (n=12) answered wrongly to the question what virus Hepatitis B vaccination protected against. 22.9 % of the nurses (n=11) and 60 % of the cleaning personnel (n=9) responded saying that it protected against all hepatitis varieties, while 20 % of the cleaning personnel (n=3) said it protected against HCV.

Table 15: The State of Wanting to be Informed Pre-operationally about Patients Who Had Infectious Diseases (n=106)

State of Wanting to be Informed	Doctor (n=43)		Nurse (n=48)		Cleaning Personnel (n=15)		Total	
	Number	%*	Number	%	Number	%	Number	%
Yes	31	72,1	43	89,6	7	46,7	81	76,4
No	7	16,3	2	4,2	1	6,7	10	9,4
Does not Matter	5	11,6	3	6,3	7	46,7	15	14,2
Total	43	100,0	48	100,0	15	100,0	106	100,0

* Percentage of the Column

When a patient was known to have an infectious disease before the operation started, 16.3 % of the doctors did not want to be informed about it whereas 6.3 % of the nurses (n=3) and 46.7 % of the cleaning personnel (n=7) said it did not matter.

Table 16: State of Operating Room Employees' Use of Special Gloves and Protective Glasses (n=106)

Protective Measures		Doctor (n=43)		Nurse (n=48)		Cleaning Personnel (n=15)		Total	
		Number	%*	Number	%	Number	%	Number	%
Using Special Gloves	Never	5	11,6	4	8,3	0	0	9	8,5
	Always	19	44,2	27	56,3	14	93,3	60	56,6
	Sometimes	19	44,2	17	35,4	1	6,7	37	34,9
Using Protective Glasses	Never	4	9.3	7	14,6	0	0	11	10,4
	Always	8	18,6	7	14,6	3	20,0	18	17,0
	Sometimes	31	72,1	34	70,8	12	80,0	77	72,6
Total		43	100,0	48	100,0	15	100,0	106	100,0

* Percentage of the Column

In Tables 16 and 17, the percentage of the parameter in each line was calculated within itself. According to the data obtained, 11.6 % of the doctors (n=5) never wore both gloves in a pair. Again, 9.3 % of the doctors (n=4) and 14.6 % of the nurses (n=7) stated that they never wore protective glasses. Since all the personnel in an operating room wear aprons, masks and bonnets, they were not included in protective measures. Moreover, since gloves were necessarily worn during an operation, the use of special gloves was questioned.

Table 17: Operating Room Personnel's Opinions about Using a Pair of Gloves and Protective Glasses (n=106)

Protective Measures		Doctor (n=43)		Nurse (n=48)		Cleaning Personnel (n=15)		Total	
		Number	%*	Number	%	Number	%	Number	%
Necessity of Protective Measures	Always	25	58,1	32	66,7	15	100,0	72	67,9
	In patients with infectious dieasesBulaşıcı hastalığı olan	18	41,9	16	33,3	0	0	34	32,1
	Never	0	0	0	0	0	0	0	0
Their Protection Against Infectious Diseases	Yes	35	81,4	37	77,1	14	93,3	86	81,1
	No	2	4,7	2	4,2	0	0	4	3,8
	Partial	6	14,0	9	18,8	1	6,7	16	15,1
Total		43	100,0	48	100,0	15	100,0	106	100,0

* Percentage of the Column

4.7 % of the doctors (n=2) and 4.2 % of the nurses (n=2) were of the opinion that protective measures such as wearing special gloves and protective glasses did not protect from infectious diseases.

57.1 % (n=8) of the employees stating that they never used pairs of gloves or protective glasses pointed to a lack of equipment whereas 42.9 % of them (n=6) said they did not use them because they could not move

comfortably in them.

Table 18: Relationship between Duration of Surgery and Injury by Surgical Tools (n=106)

Effect of Duration of Surgery	Those who had injury (n=63)		Those who did not have injury (n=43)		Total	
	Number	%*	Number	%	Number	%
Yes	53	84,1	38	88,4	91	85,8
No	10	15,9	5	11,6	15	14,2
Total	63	100,0	43	100,0	106	100,0

* Percentage of the Column

It was found that 84.1 % of those how had injury by surgical tools (n=53) and 88.4 % of those who did not have injury (n=38) thought that duration of surgery affected injury.

Table 19: Distribution of the Views of Personnel about Operating Room Conditions (n=106)

Features of Operating Rooms	Sufficient		Insufficient		Total	
	Number	%*	Number	%	Number	%
Width of the Room	47	44,3	59	55,7	106	100,0
Air Conditioning	37	34,9	69	65,1	106	100,0
Lighting	65	61,3	41	38,7	106	100,0
Resting Place	15	14,2	91	85,8	106	100,0

* Percentage of the Column

65.1 % of the operating room personnel regarded the air conditioning of the operating room as insufficient while 85.8 % thought the resting place was insufficient.

Table 20: Personal Habits of Operating Room Personnel (n=106)

Personal Habits	Yes		No		Sometimes		Total	
	Number	%*	Number	%	Number	%	Number	%
Regular Breakfast	53	50,0	29	27,4	24	22,6	106	100,0
Sufficient Sleep	56	52,8	26	24,5	24	22,6	106	100,0
Sparing time for a meal at the hospital	51	48,1	19	17,9	36	34,0	106	100,0
Smoking	26	24,5	77	72,6	3	2,8	106	100,0
Needing to smoke during surgery	10	9,4	90	84,9	6	5,7	106	100,0
Sufficiency of the Resting Break	30	28,3	61	57,5	15	14,2	106	100,0

* Percentage of the Column

27.4 % of the operating room personnel (n=29) stated that they did not have regular breakfasts and 24.5 % (n=26) said they could not sleep sufficiently whereas 17.9 % % (n=19) said they could not spare time for a meal while working and 57.5 % (n=61) stated that resting break was not enough. 24.5 % of the operating room personnel (n=26) smoked whereas 9.4 % (n=10) said they felt the need to smoke during surgery.

Analysis of The Study

The study group consisted of 43 doctors, 48 nurses and 15 cleaning personnel working at Konya Training and Research Hospital. 47.9 % of the nurses held associate degree whereas 39.6 % held a bachelor's degree. 23.3 % of the doctors, 23.3 % of the nurses and 26.7 cleaning personnel had been working for 0-5 years. 27.9 % of the doctors, 47.9 % of the nurses and 53.3 % of the cleaning personnel had been working in the operating room for 0-5 years (Table 1). Average period of employment in the operating room was 10.1 years for doctors, 7 years for nurses and 6.7 years for cleaning personnel. Employees' low duration of occupational experience is cited among risk factors for injuries. 59.4 of the personnel working in the operating room at Konya Training and Research Hospital stated that they had been injured at least once by perforating-sharp tools during their occupational lives. 74.4 % of the doctors, 60.4 % of the nurses and 13.3 % of the cleaning personnel stated that had experienced injury at least once. In the study conducted by Kutlu in 2007, it was found that 75.6 % of the employees had been injured at least once in their occupational lives by perforating-sharp tools and 77.6 % of the doctors, 79.2 % of the nurses and 50 % of the cleaning personnel stated that they had been injured at least once (Kutlu 2007). In a study conducted by Demircan in 2008 on nurses working in operating rooms, it was found that 86.5 % of the nurses reported that they had experienced injury at least once in the past one year (Demircan 2008). A study conducted by Kürtünlü in 2013 found that all of the surgeons, 86.96 % of the nurses, 80 % of the cleaning personnel and 40 % of the sterilization personnel had experienced injury by surgical tools at least once; it was found that 80 % of the nurses and 42.11 % of the surgeons had been injured while giving or taking perforating-sharp tools (Kürtünlü 2013). A study conducted by Omaç on nurses in 2006 revealed that 62.7 % of the nurses participating in the study had experienced an injury by perforating-sharp tools during the past three months (Omaç 2006). In a study conducted by Gücük et al. in 2002 on personnel working in general surgery clinic, it was found that 46 % of the health care personnel had had injury at least once (Gücük et al. 2002).

In the light of data obtained in this study, it is seen that the occupational group members that are most exposed to surgical tools contaminated by blood and bodily fluids are doctors. The tools that cause the highest number of injuries, on the other hand, are perforating-pricking tools. This finding is in support of the results of the studies conducted by Kutlu and Kürtünlü. It was found that almost none of the three occupational groups reported the situation after injury. 87,5 % of the doctors, 55.2 % of the nurses and 50 % of the cleaning personnel stated that they had not reported the situation (Table 8). In Kutlu's study, 91.1 % of the doctors, 94.7 % of the nurses and 75 % of the cleaning personnel stated that they had not reported the situation after injury. Kürtünlü's study, on the other hand, found that 89.47 % of the surgeons, 72.50 % of the nurses and 50 % of the sterilization personnel had not reported the injury. In a study conducted by Mangırlı and Özşaker in 2014 on nurses working in surgical clinics, it was found that only 3.9 % of the nurses had reported injury by perforating-sharp (Mangırl and Özşaker 2014). In light of these studies, it can be said that the reporting rate after exposition to injury is low. 9.3 % of the doctors and 7.5 % of the nurses stated that they had been injured during the

surgery of a patient who they knew had an infectious disease (Table 11). In Kutlu's, study, on the other hand, 18.5 % of the doctors and 9.1 % of the nurses stated that they had been injured during the surgery of a patient who they knew had an infectious disease. 72.1 % of the doctors, 89.6 % of the nurses and 46.7 % of the cleaning personnel want to be informed of the situation before the operation of a patient who has an infectious disease. In Kutlu's study, on the other hand, 94.8 % of the doctors, 87.5 % of the nurses and 50 % of the cleaning personnel want to be informed in this regard.

Conclusion and Suggestions

In this study, the purpose is to determine the injury risk of operating room personnel working at Konya Training and Research Hospital by contaminated surgical instruments and the factors affecting this. 43 doctors, 48 nurses and 15 cleaning personnel participated in the study and the following conclusions were drawn.

1. The median age of the doctors, the nurses and the cleaning personnel were 36.3, 31.6 and 34.6, respectively. The average duration of employment in the operating room was 10.1 years for the doctors, 7 years for the nurses and 6.7 years for the cleaning personnel.
2. 63 (59.4 %) of the 106 participants experienced injury by surgical instruments at least once in their professional lives. 74.4 % of the doctors reported that they had been injured by surgical instruments before.
3. 25 % of the nurses and 80 % of the cleaning personnel responded wrongly to the question about the virus which hepatitis B vaccination protected against.
4. 57.1 % of the personnel who stated that they never used pairs of gloves or protective glasses as protective measure cited insufficient equipment as the cause whereas 42.9 % said they did not use them because they could not move comfortably in them.
5. 93.4 % of the operating room personnel referred to the operating room as the riskiest clinic.
6. 87.5 % of the doctors, 55.2 % of the nurses and 50 % of the cleaning personnel did not report the injury.
7. 54.7 % of the operating room personnel stated that they were distracted after the 3rd hour during an operation.
8. 65.1 % of the operating room personnel regarded the air conditioning of the operating room as inadequate while 85.5 % thought the same about the resting.
9. 57.5 % of the operating room personnel stated that the length of the resting break was not enough.

The following suggestions were made in accordance with the findings of the study.

- Operating room personnel should be allowed to improve their professional education, knowledge and skills, in-service training programs should be organized and experienced operating room personnel should not be appointed to other units of a hospital unless necessary.
- A form should be developed for the personnel to report the situation and a unit should be established

where the personnel can receive medical and psychological assistance 24 hours a day. Procedures that the personnel should follow regarding post-injury period should be determined and they should be informed in this regard.

- The operating room personnel should be given training about how to determine risk factors, record cases of injury and take measures.
- Training should be provided to personnel who have not had Hepatitis B vaccination and it should be ensured that they have the vaccination; the personnel with the vaccination should be checked to see to what extent the vaccination is protecting and new employees should definitely be made to undergo serological tests.
- Given that injuries increase after the 3rd hour in operations, members of the surgical staff should be allowed to rest in turns or if this not possible a new team should continue the operation.
- Instruments that cause injury should be replaced with safer ones as far as the institution can afford and efficient and safe protective gear (glasses, gloves, aprons etc.) should be supplied.
- Due to the fact that inadequate air conditioning and insufficient resting place and time increase injury risks, physical conditions of the operating rooms should be improved and the length of resting time for the employees should be increased as far as possible.

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Autonomy for Adolescents with Diabetes I: A Psychosocial Nursing Approach

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Introduction

Diabetes is a chronic and debilitating disease. According to World Health Organization , "it occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. This leads to an increased concentration of glucose in the blood (hyperglycaemia). Type 1 diabetes (previously known as insulin-dependent or childhood-onset diabetes) is characterized by a lack of insulin production" (www.who.int).

Type 1 diabetes accounts for over 90% of childhood and adolescent diabetes. According to International Diabetes Federation (IDF), it is described as a "chronic, debilitating and costly disease associated with major complications that pose severe risks for families, countries and the entire world" (IDF/ISPAD, 2011).

Adolescence is a development stage in which young people with diabetes I have difficulties and its management is challenging. Autonomy is defined as the development of responsible independence, and is a central factor in adolescence (Comeaux & Jaser, 2010). Naturally diabetes has a profound psychosocial impact, as does any other life-threatening disease.

Adolescence and Diabetes

During adolescence, many physical, psychological and cognitive changes occur (Karlsson, Arman & Wikblad, 2006). Eriksson, (1982) supported "It involves existential identity, which implies awareness of the ego and confirmation of others" occur (Karlsson, Arman & Wikblad, 2006). It is a difficult developmental stage, but it is even more difficult for young people suffering from type 1 diabetes mellitus. Diabetes management during adolescence is challenging and has a psychological impact on young patients and their families.

If the treatment regimen is complex, the impact on theses young patients is even greater, since misunderstandings may occur and external influences may be brought to bear on the patients (e.g. patients who are accepted or rejected by the community), not to mention the needs imposed by the disease itself (Hanna& Guthrie, 2003). Some adolescents have difficulties managing their disease, while others accept responsibility and follow treatment instructions.

However, successfully managing type 1 diabetes cannot be equated with young patients adhering to treatment requirements (Herrman, 2006) .

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Autonomy and Adolescence

Adolescents with chronic illnesses have described their situation as “hard”. Not many adolescent diabetes patients feel that they live up to the expectations others have of them with respect to management of their disease. During the process of developing their autonomy, the road to adolescence as experienced by these youngsters is based on a combination of parent and peer assistance which they can rely on (Steinber & Silverberg, 1986).

Eriksson (1988) further suggests that adolescence is a period in which the childhood position of dependence is transformed into feelings of increased self-reliance and autonomy occur (Karlsson, Arman & Wikblad, 2006).

Transition has been defined in terms of a life-span development in which marker events occur.

Significant life events result in a lack of balance, occuring in between the more balanced phases of a person’s life. An important factor in arriving at the desired transition is the ability to learn new skills and attitudes. Healthy changes of this kind have been described as involving a sense of personal wellbeing, feeling at ease with one’s own role and comfortable in relationships with others. These aspects were shown to be significant for all kinds of transitions occur (Karlsson, Arman & Wikblad, 2006).

Transition to Autonomy

Parents play an important role in encouraging autonomy, but at the same time they are expected to help teenagers manage their diabetes. Self-management has been shown to involve shifting and shared decision-making and responsibility for diabetes treatment tasks between teenagers and parents.

An interdependent model of autonomy involves making individual decisions to act on the basis of one’s own free will and having been given realistic opportunities to perform actions occur (Karlsson, Arman & Wikblad, 2006).

Teenagers with type 1 diabetes constantly struggle to gain autonomy, but are forced to keep in mind the limitations caused by their illness. The shift of responsibility for their diabetes from parents to the teenagers themselves needs to occur gradually and requires continuous involvement on the part of parents [8]. This process is related to age, psychological and physical maturity, but also to serves the purpose of minimizing hassles and conflicts (Palmer et al, 2004).

Autonomy-seeking teenagers may perceive demanding parental behaviour as a threat to their autonomy, which is not helpful.

Teenage patients have been able to achieve improved awareness and caution, as well as good metabolic control, when their mothers worked with them rather than trying to control their approach to dealing with diabetes management. In order to arrive at the best possible level of self-management in terms of nutrition and well-being in general, teenagers need to interact with peers in a support group, i.e. with other youngsters who lead a life in tune with the restrictions of diabetes but nonetheless feel good about themselves occur (Karlsson, Arman & Wikblad, 2006).

Psychosocial and Behavioral Interventions

As members of an interdisciplinary health care team, nurses should be able to recognize, identify and provide information as well as provide counseling on psychosocial problems related to diabetes.

A number of studies have proven the efficacy of psychosocial and behavioral interventions for adolescents with diabetes. Most of these interventions have included the family as an integral part of treatment.

The results of these studies indicate that family-based behavioral procedures such as goal-setting, self-monitoring, positive reinforcement, behavioral contracts, supportive parental communications and appropriately shared responsibility for diabetes management lead to improvement of regimen adherence and glycemic control (Delamater, 2009) In addition, these interventions lead to better results in parent-adolescent relationships and to improved regimen adherence.

Recent studies of behavioral family systems therapy with diabetes-specific tailoring have shown improvements in family conflict and regimen adherence as well as improved glycemic control over an 18-month period. A critical aspect of behavioral family management of diabetes is that of finding ways for parents and family members to remain involved and supportive - but not intrusive - in their youngsters' daily care (Delamater, 2009).

Another intervention based on family-focused teamwork increased family involvement without causing family conflict or adversely affecting youngsters' quality of life, while at the same time helping to prevent a worsening of glycemic control. A psycho-educational intervention delivered by a "care ambassador" at regular outpatient visits was shown to improve the frequency of outpatient visits, as well as reducing acute adverse outcomes, such as hypoglycemia and trips to the emergency room (Delamater, 2009).

Peer group interventions have also been evaluated and indicate that peer group support and problem solving can improve short-term glycemic control. Training in group coping skills improved glycemic control and quality of life for adolescents involved in intensive insulin regimens.

Stress management, problem-solving and training in coping skills delivered in small groups of youths has reduced diabetes-related stress, improved social interaction and increased glucose monitoring and improved glycemic control.

Long-term contact with families is of paramount importance, since research has shown that young patients who are not regularly monitored by health care professionals are almost certain to develop problems with metabolic control. Let us also not forget that the onset of puberty has been defined as a crucial, high-risk point in time for diabetes management, at which a lack of appropriate parental involvement can result in a deterioration of adherence over time (Delamater, 2009).

Conclusions

The interdisciplinary team should aim to provide preventive interventions for patients and families (include parent training in effective behavior management skills) at key developmental stages, particularly post-diagnosis and prior to adolescence. Existing psychological problems in young persons or family members should be seen

to by a qualified diabetes treatment team, while support and expert attention must be offered by mental health professionals as well.

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Palliative Care: Current Situation In The World And In Turkey

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Abstract

Aim: The aim of this study was to examine the existing palliative care services situation in Turkey.

Importance: This study is significantly important in terms of examining current situation and pointing out deficiencies.

General Description: The developments in the field of medicine has extended duration of life and has retarded death and has risen the time to be spent suffering from terminal illness more and more. This increase in the life time of incurable patients or patients who don't respond to treatment has increased the need for palliative care. Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

Method: This study has been generated by reviewing the literature about the topic. The research has the qualification of descriptive survey model and it is a compilation study.

Findings: There has been an increase in the number of patients in need of palliative care. Correspondingly with the aforementioned increase, the numer of the centers serving in palliative care field has been increasing as well. According to Directorate General of Health Services, while the number of active palliative care centers was 17 in 2013, this number went up to 130 in 2015. The number will increase in coming years.

Conclusion: The number of palliative care centers in our country is far away from satisfying the need currently. The need of patients in need of care is generally satisfied by their families. Besides, the legal lap in setting up and managing institutions to serve in this field poses another problem. To solve the problems, the awaraness of the society must be raised and new institutions to satisfy the need must be set up. Regulating curriculum and filling legal gaps are among other requirements in order to raise palliative awareness.

Kew Words: Quality of life, Palliative Care, Hospice

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Introduction

A century ago, most people died of infections, accidents, and other rapidly lethal conditions (Kuebler et al, 2005). But now, tens of millions of people worldwide are affected by life threatening illnesses such as HIV/AIDS, heart disease, cancer, stroke, chronic obstructive pulmonary disease (COPD), and dementia which cause them and their families great suffering and economic hardship. The majority of the cases occur in the developing world where quite often there is little accessibility to prompt and effective treatment for these diseases (Sepúlveda, 2002). The field of palliative care has grown rapidly in recent years in response to patient need and clinician interest in effective approaches to managing chronic life-threatening illness (Morrison and Meier, 2004). The development of palliative care through effective, low cost approaches is usually the only feasible alternative to respond to the urgent needs of the sick and improve their quality of life (Sepúlveda, 2002).

Palliative care practitioners provide expert symptom management, psychosocial support, and assistance with provider-patient communication and complex decision-making, as well as help with transitions of care. Palliative care has been associated with improved outcomes for patients and families and has experienced a rapid expansion in available services. Despite this, palliative care consultation continues to be underutilized. As the number of patients living with complex and serious illness burden continues to increase, palliative care specialists will play an important role in providing timely access to critical supportive services and the provision of high-quality care (Litrivis et all, 2011).

1.1. What is Palliative Care?

All dying patients should receive palliative care (Sarah, 1997). Palliative care is important to consider throughout the course of serious chronic illness (Bernard et all,1999). Palliative care focuses on providing patients with relief from the symptoms, pain, physical stress, and mental stress of a serious illness-whatever the diagnosis. The goal of this therapy is to improve the quality of life for both the patient and the family (https://en.wikipedia.org/wiki/Palliative_care). Palliative care is a venerated system of care, which uses an interdisciplinary approach to address the medical, psychosocial, and spiritual issues that arise in the treatment of terminally ill patients. This interdisciplinary strategy for symptom control is necessary to ensure that dying patients and their families are afforded dignity and quality of life through death and the period of familial bereavement (Rousseau, 1995). WHO defined palliative care is as follows; palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual(www.who.int).

Palliative care is not unlike other domains of medicine where the focus is on the underlying disease, despite being identified as a specialty in the management of disease associated symptoms. However, symptoms may receive their meaning, importance, and treatment options based on the specific disease with which they are associated. Palliative care is not characterized by the explanation of a specific disease state or its therapeutic interventions, but rather a distinction in the identification and management of the symptoms associated with an underlying disease for which there is no cure. In other words, palliative care may be distinguished from curative care by using interventions that predominately aim to change or improve how the patient can live with his or her

illness(es). These “supportive” treatments and interventions aim to change how the patient lives with his or her disease(s) until death. Palliative care therefore, allows the patient to “live better with his or her disease (Keubler et all., 2005)”

Palliative care give to person a chance to live them life more comfortably. Palliative care provides relief from distressing symptoms including pain, shortness of breath, fatigue, constipation, nausea, loss of appetite, problems with sleep and many other symptoms. It can also help the sick deal with the side effects of the medical treatments you’re receiving. Perhaps,most important, palliative care can help improve your quality of life (www.ninr.nih.gov).

Many studies have indicated that specialist palliative care teams achieve better outcomes for patients with progressive illness than do existing conventional services. Teams also improve general care in the hospital or community. A systematic literature review identified 18 relevant experimental or quasiexperimentalstudies, including five randomized control trials. Studies were from the USA, Canada, the UK, Italy and Australia. Patients cared for by a multiprofessional palliative care team showed better outcomes in terms of the amount of time spent at home, satisfaction, symptom control, overall cost and the likelihood of dving where they wished. The studies included not only cancer patients but also those with other advanced conditions. Palliative care services score highly for satisfaction when compared wvith general practitioner and hospital services (Higginson, 1998) .

In a study published in August 2010 in the *New England Journal of Medicine*, researchers at Massachusetts General Hospital found that advanced lung cancer patients who received early palliative care actually had lower rates of depression and better quality of life than patients who received standard treatment only. The study of 151 patients, who were randomly assigned to get standard lung cancer care alone or to get standard care and palliative care at the same time, also yielded a surprise: The palliative care patients tended to live about 2.7 months longer. This may have been due to more effective treatment of depression, better management of symptoms, or less need for hospitalization (http://www.webmd.com).

A palliative philosophy of care, as embraced by the Last Acts Palliative Care Task Force, the National Hospice and Palliative Care Organization, and the World Health Organization, includes these elements (www.who.int):

- Provides relief from pain and other distressing symptoms
- Affirms life and regards dying as a normal process
- Intends neither to hasten or postpone death
- Integrates the psychological and spiritual aspects of patient care
- Offers a support system to help patients live as actively as possible until death
- Offers a support system to help the family cope during the patients illness and in their own bereavement
- Uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated
- Will enhance quality of life, and may also positively influence the course of illness

- İs applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.

1.2. Where is palliative care provided?

Palliative care is delivered, where possible, where the person wants to be. It can be provided: in the person's own home, a hospice, a hospital or a nursing home (Taylor and Box, 1999).

Home; Terminal patients spend most of their last year of life at home and prefer to die there (Hanratty, 2000) . Some people choose to stay at home for as long as they can. Family members, with support from the health care team, may decide that they want to be the main caregivers in the home. Many communities have supports in place and services to help patients and families provide care at home (www.virtualhospice.ca/).

Hospital; Many hospitals have staff with special training in palliative care. These people provide support and work with the patient and the patient's health care providers. Some hospitals have special palliative care units or wards to help manage symptoms that are more difficult. These units offer privacy and a more home-like environment, however they are generally not meant for long-term stays. Instead, symptoms are brought under control so that patients may be transferred to another unit of the hospital, to a hospice or home (www.virtualhospice.ca/).

Personal care home (Nursing homes): Personal care homes, also known as nursing homes, regularly provide palliative care services. You don't have to be a long-time resident to receive palliative care in a personal care home. People with advanced illnesses will sometimes move into a personal care home so that they can receive palliative care. Personal care homes may have access to teams that have special training in palliative care. These consultants provide support and work with the patient, the family and the patient's health care providers to help with symptom management. They also offer support in difficult decision making to ensure that the best care is provided (www.virtualhospice.ca/.)

Hospice: The term *hospice* comes from the Latin *hospitum*, which means hospitality and an inn or lodging and, as a noun, refers to a place of refuge for travelers, a home for the sick or poor, and a homelike facility to provide supportive care for terminally ill persons (Plumb and Ogle, 1992). Hospice a place devoted to care of the terminally ill, staffed by specifically trained doctors, nurses, social workers, physiotherapists, and volunteers; offering total care for patient and family, including physical, emotional and spiritual support (Taylor and Box, 1999) Hospice care embodies the principles of palliative care and reflects a philosophy rather than a specific structure or place (Rousseau, 1995: 775). The purpose of hospice is to effectively provide palliative care to terminally ill patients and their families, which includes meeting patients' physical, social, spiritual, and emotional needs. The goal of hospice is neither to prolong life nor to hasten the dying process, but rather is to maximize patients' quality of life as they travel along this last journey (Stephen et all., 2007).

Palliative care is different from hospice care. Palliative care is available to you at any time during your illness. Remember that you can receive palliative care at the same time you receive treatments that are meant to cure your illness. Its availability does not depend upon whether or not your condition can be cured. The goal is to make you as comfortable as possible and improve your quality of life. You don't have to be in hospice or at the end of life to receive palliative care. People in hospice always receive palliative care, but hospice focuses on aperson's final months of life. To qualify for some hospice programs, patients must no longer be receiving treatments to cure their illness (www.caringinfo.org).

Table 1.

Comparison of palliative care and hospice

Question	Palliative Care	Hospice Care
Who can receive this care?	Anyone with a serious illness, regardless of life expectancy, can receive palliative care	Someone with a serious illness and a life expectancy measured in months not years
Can I continue to receive treatments to cure my illness?	You may receive palliative care and curative care at the same time	Treatments and medicines aimed at relieving symptoms are provided by hospice. The goal is comfort not cure.
How long can I receive care?	This will depend upon your care needs, and the coverage you have through Medicare, Medicaid or private insurance	As long as you meet the Medicare's criteria of an illness with a life expectancy of months not years
What organization provides these services?	Hospitals Hospices Nursing Facilities Healthcare Clinics	Hospice organizations Hospice programs based out of a hospital Other healthcare organizations
Where are services provided?	Home Assisted living facility Nursing facility Hospital	Usually, wherever the patient resides. In their home, assisted living facility, nursing facility, or hospital. Some hospices have facilities where people can live, like a hospice residence, or receive care for short-term reasons, such as acute pain or symptom management.
Who provides these services?	It varies. However usually there is a team including doctors, nurses, social workers and chaplains, similar to the hospice team.	A team – doctor, nurse, social worker, chaplain, volunteer, home health aide and others.

1.3.Palliative Care Team

There is a need for team work in which the whole health staff must participate for palliative care services and the leader of this team may change depending on issues of patients and local factors (Erdine, 1993). Teams have a

significant place in palliative care services, besides, there is a need for a multidisciplinary team (Elçigil, 2012). This team looks after the patients, makes decisions in accordance with ethical principles, performs monitoring, evaluating, researching, education, quality improvement practices (SB, 2013). The team must be responsive to culture. In other words, they must be learn how to treat towards patients with different culture and religions and they must do their best to provide obey this (WHO, 2011).

A palliative approach should be a core skill of every clinician, who may seek expert specialist help to ensure the best possible quality of life for the patient. Palliative interventions aim to improve the control of symptoms-for example, palliative surgery, radiotherapy, or chemotherapy. They are usually carried out and monitored by specialists in the relevant discipline. Specialist palliative care is delivered by clinicians who have specialist accredited training. Specialist palliative care teams are multidisciplinary and relate to both general and hospital practice, being available to provide advice and support that bridges the divide between home and hospital and to provide hospice care (Finlay and Jones,1995).

Palliative medicine integrates disciplines such as medical oncology, neurology, psychiatry, anesthesiology, nursing, nutrition, and rehabilitation. The rehabilitation of terminally ill patients has received little attention, and there is scarce data to support its efficacy (Palma and Payne, 2001). Care is provided from an interdisciplinary approach, with core team members representing medicine, nursing, social work, the clergy, and volunteers. Additional and vital team members include dietary, allied therapy (physical, art, music), 22 pharmacy, and nursing aides(Rousseau, 1995: 784).

Figure 1. Palliative Care Team

Taylor and Box, 1999

2.Palliatıve Care In The World And In Turkey

Currently, there's been great improvement in palliative care services both in improved countries and improving countries. In addition to improved countries such as USA, England, Germany and France, improving countries like India overemphasise as this kind of services are cost-effective.

2.1 Situation in the World

Palliative care began in the hospice movement and is now widely used outside of traditional hospice care. *Hospices* were originally places of rest for travellers in the 4th century. The first hospice identified specifically for care of the dying was established in 1842 in Lyon, France. In 1879, the Irish Sisters of Charity opened their first hospice in Dublin, and in 1899 Calvary Hospital was opened in New York City as a facility for care of terminally ill patients. It was not until the latter decades of the 1900s that palliative care was redefined with the birth of the modern hospice movement. Dame Cicely Saunders integrated her training as a nurse, a social worker, and a physician when, in 1967, she opened St. Christopher's Hospice in London. She defined dying patients' pain as physical, psychological and spiritual. The first hospice activity in North America began as a 1969 nursing study by Dean Florence Wald in New Haven which led to the formation of the Connecticut Hospice in 1974. Dr. Balfour Mount established the Palliative Care Unit at the Royal Victoria Hospital in Montreal a year later. Good palliative care is being provided with increasing frequency (Lipman, 2000). Dr Balfour Mount, the first to define the term *palliative care,* opened the first hospital-based Palliative care ervice at the Royal Victoria Hospital at McGill University in Montreal in 1975 (Doyle et all., 2003).

The hospice movement has grown dramatically in recent years. In the UK in 2005 there were just under 1,700 hospice services consisting of 220 inpatient units for adults with 3,156 beds, 33 inpatient units for children with 255 beds, 358 home care services, 104 hospice at home services, 263 day care services and 293 hospital teams. These services together helped over 250,000 patients in 2003 & 2004. Funding varies from 100% funding by the *National Health Service* to almost 100% funding by charities, but the service is always free to patients (www.wikipedia.org)

Currently, there are ore than 1,400 hospital palliative care programs in the U.S., according to Meier. About 80% of large U.S. hospitals with more than 300 beds have a palliative care program, she says. Among smaller hospitals with more than 50 beds, about 55% have programs (Kam, 2016). However, palliative care delivery is often inadequate. Pain and other suffering often are unrelieved, and hospice care is begun only in the last week of life in 16% of cases (Chiristakis, 1994), Hospice in the United States has grown from a volunteer-led movement to a significant part of the health care system. In 2005 more than 1.2 million persons and their families received hospice care. Hospice is the only Medicare benefit that includes pharmaceuticals, medical equipment, twenty-four-hour/seven-day-a-week access to care and support for loved ones following a death. Most hospice care is delivered at home. Hospice care is also available to people in home-like hospice residences, nursing homes, assisted living facilities, veterans' facilities, hospitals and prisons (https://en.wikipedia.org/wiki/Palliative_care)

Palliative care started with the founding of hospices, became institutive in many countries, academic institutions were founded in countries like Australia, Canada, England, and it was accepted as medical speciality in England (Erdine, 1993). Up to 2009, more than 4200 doctors majored in palliative care branch, up to 2010, palliative care services were founded in 220 hospitals and 170 hospice centers were founded (SB 2009).

Following the foundation of first palliative care service in Germany in 1983, various units have been founded within institutions providing home care services and inpatient healthcare services to undertake palliative care services (SB 2013). The data in 2005 shows that 111 hospice services, 131 hospice facilities with beds, 40 home care services, 116 palliative care units at hospitals provide services in Germany included in home care services (Schindler 2006, as cited in Bag 2012: 148). Palliative care movement in Germany was improved by a citizen action committee supporting people's right to die in a peaceful and reputable way, in addition, providing practical help via tendering care and mourning services to their friends and relatives (Akyüz, 2014).

Table 2.

Palliative Care Situation Around the World (SB 2013)

Countries	**Number of Clinics**
The USA and Canada	3600
England	933

36 European Countries	1200
Other Countries	477
Total in 84 Countries	6560

The number of localised palliative care centers around the world has been displayed in Table 2 according to data in 2013, and it can be seen that there are a total of 6560 palliative care centers, 3600 of which are in the USA and Canada, 933 in England, 1200 in 36 European countries, 477 in other countries.

2.2 Situation in Turkey

Palliative care is a new approach in our country and it's been maintained with an effective team approach in certain centers (Akçiçek et al., 2013). Palliative care didn't become an issue in Turkey because of traditional Turkish family structure, lack of awareness of doctors and patients, traditional crowd and male-dominated family structure and deficiency in human resources. That's why, the number of palliative care is definitely limited in our country (SB 2013). It's required to fill the deficiency in palliative care services as soon as possible and to perform necessary studies towards needs.

In a study carried out by Gültekin et. al (2010), the situation of palliative care centers in our country in 2010 were determined. According to the data gathered from the Health Governor of each province, there are only 9 palliative care service across the whole country and a great majority is located in university hospitals (7/9). There were a total of 72 pain centers in different 33 province. Of these 72, 35 were in governmental hospitals, 31 were in university hospitals and the remaining 6 were in the private sector. Among all, 28 centers were located in Ankara and Istanbul (38,9%) and 56 centers were located in the Middle and Western Anatolia (77.7%).

Recently, various activities have been carried out to make progress in palliative care by both Ministry of Health and nongovernmental organizations. For instance, Supportive Care Working Group was established within Turkish Oncology Group (TOG) in 1999, and this working group with 40 members from 18 different centers have been providing educational and constructive contribution about palliative care via various meetings and studies. Besides, Palliative Care Association was established with the aim of providing multidisciplinary care to terminal cancers in 2006 (Turgay 2010). "Palliative Care Working Group" and "Palliative Care Draft Organization Model 2011" was generated and it was displayed in "Healthcare Services Requiring Speciality Planning in Turkey Report" (SB 2011).

Ministry of Health Department of Cancer prepared The Pallia-Turk project in 2010 (SB 2013). The partners of this project consist of Ministry of Health (Turkey Public Health Association, Turkey Public Hospitals Institution, General Directorate of Healthcare Services, Turkish Medicines and Medical Devices Agency), Ministry of Family and Social Policies, Turkish Directorate of Religious Affairs, Nongovernmental organizations, and volunteers. This project is the first society-based palliative care project in the world to separate via nurses, family physicians, Cancer Early Diagnosis, Screening and Education Center (KETEM) staff and it's perceived as an example to follow (TUBA 2014).

In our country, Ministry of Health started Home Care Services as the first step of palliative care and the first "Extensive Palliative Care Center" towards adult patients was established in Ulus State Hospital (Kabalak 2014). "Instruction to Procedures and Principles of Practicing Palliative Care Services" was published with the aim of determining standards of establishing, managing and inspecting palliative care services and their physical conditions and staff and equipment they must have by Ministry of Health.

The treatment expenses of patients receiving palliative care was included in repayment cover by Social Security Institution (SSI) on December 24th 2014. The patients accepted in palliative care and repaid are as follows: cancer, advanced COPD, paralysis (lost at least 50% of functions), end stage renal failure, advanced cardiac insufficiency, (serious coronary failure, cardiomyopathy, coronary artery disease, etc.) other diseases shortening the life: motor neuron and progressive neurologic disorders, ALS, Alzheimer, other advanced organ failure (liver, brain), HIV/AIDS, genetic, congenital and progressive disorders of children.

Ministry of Health's strategies towards palliative care services have been determined as increasing palliative care awareness among healthcare staff and public, extending palliative care service units around the country, providing all cancers in need of palliative care (SB 2011). The ministry sought for cooperation with various agency and institutions for extending and improving palliative care services. The agencies Ministry of Health cooperated are Ministry of Education, Ministry of Family and Social Policies, Turkish Directorate of Religious Affairs, Police Departments, Universities, Municipalities, Medical Oncology Association, Oncology Nurses Society, Psycho-Oncology Society, Social Service Specialists Association, Turkish Society for Radiation Oncology, Palliative Care Society and patient relative societies.

Ministry of Health already prescribe palliative care services to be carried out in palliative care centers in healthcare facilities with bed, apart from healthcare facilities with bed, to be carried out by family physicians and home care service units. Moreover, palliative care service is provided for those who live in nursing homes by healthcare facilities with bed, with condition of making a protocol and being approved by health directorates. In the future, it's planned to provide care services in nursing care centers and hospices.

The palliative care services are planned to be founded in the way as below:

First step in centers; family physicians and doctors and nurses of home care services work in an integrated system with municipalities, nongovernmental organizations, social service specialists, and religious functionaries. Palliative care units with 2 to 4 beds are to be founded in almost every city for the use of the doctors if necessary.

Secondary and third steps in centers; Comprehensive Oncology Centers (COC) to be established in accordance with oncologic service planning and Oncology Diagnosis and Treatment Centers are going to be established. These centers are going to be with 15 to 20 beds and perform more complex care with regards to palliative care. They are going to be centers where many disciplines are going to work together such as oncologic surgeons, medical oncologists, radiation oncologists, algologists, physiotherapists, physical therapists,

psychologists, social service specialists, etc. in a multidisciplinary approach. Hobby rooms, kitchens peculiar to patients, living rooms, playrooms, massage rooms, internet rooms and praying rooms are going to be planned to exist in these centers having home atmosphere.

Fourth step: Hospice; They are the units with home-like atmosphere where symptom control of terminal patients who don't response to treatment more is provided within Ministry of Health and universities.

Information about present palliative care centers and number of beds belonging to them and palliative care services planned to open within the frame of 2023 vision of Ministry of Health have been displayed in the tables below.

Table 3.

Current Situation of Palliative Care Centers and Hospital Planning

Institution	**Number of Centers**	**Number of Beds**
Registered ones	130	1461
At the stage of application	29	287
At the stage of planning (the ones whose hospital names have been determined)	115	1256
Total	274	3004

Table 4.

Palliative Care Centers Planned to Open within the frame of 2013 vision of Ministry of Health

Type of Institution	**Ministry of Health**	**University**
1st level: Palliative Care Unit (PCU)	216	7
2nd level: Palliative Care Center (PCC)	38	22
3rd level: Comprehensive Palliative Care Center (CPCC)	19	17
Hospice	54	-

4.Conclusion

Unfortunately, palliative care had been disregarded for long years in our country. However, great progress has been made in the manner of generating institutions which our country mostly need thanks to the investments that has been made recently. As the number of patients in need of palliative care services has increased at the present time, it's necessary to take available care to accurate patient with a systematic organization and to monitor and control the patient via raising the awareness of his relatives in accordance with their necessities. Based on this,

it’s required to found agency and institutions to provide coordination with all state agency and institutions through palliative care team aimed to be determined (Akçiçek et al., 2013).

Palliative care is a cost-effective approach. Thanks to palliative care centers and home care services, it’s possible to increase life quality via practicality, prevent unnecessary use of emergency services, unnecessary examinations, unnecessary staying in hospital, unnecessary worries of patient and patient’s relatives, and as a result, to provide saving in health economy for at least 30%. 40% of the deaths in our country happen at home, 60% of patients with cancer die in hospitals and each terminal care lasts in average of 15.8 days, and the care costs 1365 Turkish Liras each day and it totally costs 21842 Turkish Liras. A decrease in rate of 30 to 65 percent is expected if support is received from palliative care services or home care services (Kaya 2015).

Palliative care is performed in many countries and each country has tried to develop a model available to its own values. It’s also required in Turkey to organize palliative care services taking our own values into consideration. It must be determined that what size of palliative care service will be established in which hospital by planning the centers. The required equipment for home care services must be supplied in order to meet the need of palliative care and home care services must be qualified. It must be determined via specialists’ opinions what kind of palliative care the patient must get and where he must get it. It must be provided to satisfy the needs of patients receiving treatment in Ministry of Family and Social Policies in the best way as Ministry of Family and Social Policies work coordinately with Ministry of Health.

In order to raise the awareness of healthcare staff towards palliative care services, it’s required to generate in service and continuing training about palliative care, and this training must include all professions related to patients (healthcare staff, social worker, etc.). Palliative care topic must be provided to be included in the bachelor and master curriculum of faculties of Medicine, Schools of Nursing and related profession groups. Palliative care knowledge and skills in medium level must be gained by those who work in oncology area. Training program can be generated about all palliative care topics towards staff serving in palliative care services (break the news, communication skills, ethical and legal subjects, pain management, symptom control, dealing with mourning process and so on).

There’s recently been development in presenting palliative care services in our country. Policies towards palliative care must be developed and legal gaps must be filled. The necessary care team must be generated with determining the necessities towards palliative care around the country, its opioid analgesic necessities must be supplied, palliative care staff must be continuously and commonly trained about the public, researches must be carried out to develop models available to cultural structure of our country.

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Preference Reasons of Dialysis Centers by Dialysis Patients: Sample of Konya

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Abstract

The objective of this study is to determine the preference reasons of dialysis centers by the patients who receive hemodialysis treatment. "Dialysis center preference survey", which was prepared by survey researchers, was used as data collection tool in this study. Applied survey questions are composed of two parts. In the first part there are items related to socio-demographic characteristics, and in the second part there are items related to the determination of the dialysis center's preference reasons by the patient. The survey was applied to 389 patients who receive treatment at public and private dialysis centers in Konya. During the analysis of the surveys, SPSS 20.0 statistics programme was used, descriptive statistics were determined, and chi square analysis was conducted. According to the findings of the analysis, 164 participants were female, and 224 participants were male. 73,5 percent of the participants were aged above 50, and 20,1 percent of participants were illiterate. 19,6 percent of the patients receive treatment at public dialysis centers, and 80,4 percent of them receive treatment at private dialysis centers. As a result of the study, it was seen that 90,8 percent of patients receiving treatment at public centers indicated that they did not prefer the dialysis center that their doctor recommended; 61,2 percent of the patients receiving treatment at private dialysis centers indicated that they preferred the dialysis center that their doctor recommended. 28,9 percent of the patients who applied to public dialysis centers made a selection at the recommendation, and 31,1 percent of the patients who applied to private dialysis centers made a selection at the recommendation.

Key Words: Dialysis Center, Hemodialysis, Preference Reason, Private Dialysis Center, Public Dialysis Center

Introduction

Chronic kidney disease includes conditions that damage your kidneys and decrease their ability to keep you healthy by doing the jobs listed. If kidney disease gets worse, wastes can build to high levels in your blood and make you feel sick. You may develop complications like high blood pressure, anemia (low blood count), weak bones, poor nutritional health and nerve damage. Also, kidney disease increases your risk of having heart and blood vessel disease. These problems may happen slowly over a long period of time. Chronic kidney disease

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may be caused by diabetes, high blood pressure and other disorders. Early detection and treatment can often keep chronic kidney disease from getting worse. When kidney disease progresses, it may eventually lead to kidney failure, which requires dialysis or a kidney transplant to maintain life (National Kidney Foundation, 2016).

Chronic kidney disease is a worldwide public health problem, with adverse outcomes of kidney failure, cardiovascular disease, and premature death. A simple definition and classification of kidney disease is necessary for international development and implementation of clinical practice guidelines (Levey et al., 2005, p.2089). Acute renal failure is long recognized as a severe and devastating disorder (Hoste & Schurgers, 2008, p.146). Chronic kidney disease is a global health care burden affecting billions of individuals worldwide. The kidney has limited regenerative capacity from chronic insults, and for the most common causes of CKD, no effective treatment exists to prevent progression to end-stage kidney failure (Hickson, Eirin, & Lerman, 2016, p.1).

Hemodialysis is the most common method used to treat advanced and permanent kidney failure. Since the 1960s, when hemodialysis first became a practical treatment for kidney failure, we've learned much about how to make hemodialysis treatments more effective and minimize side effects. In hemodialysis, your blood is allowed to flow, a few ounces at a time, through a special filter that removes wastes and extra fluids. The clean blood is then returned to your body. Removing the harmful wastes and extra salt and fluids helps control your blood pressure and keep the proper balance of chemicals like potassium and sodium in your body (U.S. Department Of Health And Human Services,2016).

Hemodialysis utilizes an artificial kidney machine with a special filter to remove waste products and fluid from the blood. The machine is connected to the patient through a fistula or shunt, usually in the forearm, or a permanent catheter in the arm or chest. The permanent catheter is more cost effective and better for the patient. A needle is used to access the patient's blood. The blood is pumped from the patient's access site through the special filter or dialyzer that is washed with dialysate and then returned to the patient through a second needle placed near the first one in the forearm. The process usually lasts 4-5 hours and is repeated three times a week (Lawler, Doeksen, & Eilrich, 2003, p.16).

Method

The aim of this study is to determine the preference reasons of dialysis centers by dialysis patients receiving treatment in Konya. The study having descriptive qualification was carried out in 2015. The target of the study consists of 1125 dialysis patients living in Konya. Besides, 388, patients were included in the sample group who accepted to participate in the research. Questionnaire method was used in gathering research data process. Face-to-face questionnaire method was utilized in filling up. The questionnaire used in gathering data in this research consists of two sections. In the first section, there is information about socio-demographic features of patients participating in the research. In 2nd section, there are articles towards determining the preference reasons of dialysis centers by patients generated by utilizing from the literature. The conclusion accomplished was evaluated and analyzed via SPSS programme and descriptive statistics and Chi-square test was performed on data.

Findings

Table 1.

Socio-demographic features of the patients participating in the research

Gender	**n**	**%**	**Age**	**n**	**%**
Male	224	57,7	50 years old and below	103	26,5
Female	164	42,3	51-60	111	28,6
Marital status	**n**	**%**	61-70	111	28,6
Married	355	91,5	71 years old and over	63	16,2
Single	33	8,5	**Educational status**	**n**	**%**

Type of organization he receives treatment	n	%	Illiterates	78	20,1
State	76	19,6	Primary school	246	63,4
Private	312	80,4	Secondary school and and above	64	16,5
Total	**388**	**100,0**	**Total**	**388**	**100,0**

57.7% of patients participating in the research are male (n=224) and 42.3% of them are female (n=164). 91.5% of participants (n=355) are married, and %80.4 of them receive treatment in private dialysis centers. It's been determined that 73.5% of patients participating in the study consist of 51-year-old and older patients and 63.4% of them are primary school graduate.

Table 2.

Frequency analysis about preference reasons of dialysis centers

Why did you prefer this dialysis center?					
	n	**%**		**n**	**%**
As the dialysis center is well-known	103	26,5	As the insurance company has a	89	22,9
As the dialysis center is close to my	88	22,7	As I was satisfied with the service I	89	22,9
Satisfaction with former services	74	19,1	As the doctor was suggested by	109	28,1
At the recommendation	119	30,7	Urgently consulting	106	27,3
As you recognize the doctor	79	20,4	As my doctor referred me to there	198	51,0
Advertisements on TV, newspapers	80	20,6	As I thought I would receive a better	85	21,9
What are the features distinguishing this dialysis center from other dialysis centers?					
	n	**%**		**n**	**%**
Experienced and gracious staff	221	57,0	Comfortable building	73	18,8
High quality	306	78,9	Building cleanliness	75	19,3
High speed of service	75	19,3	As it covers my insurance	73	18,8
Accessibility	85	21,9			

While 51% of patients participating in the study (n=198) state that they prefered the dialysis center with the reference of their doctor, 30.7% of them (n=119) state that they preferred the dialysis center where they receive treatment at the recommendation. While the most important feature distinguishing the dialysis centers they prefer from other dialysis centers is their staff's experience and graciousness according to the patients (57,0%), it can be seen in Table 2 that the least important features are comfortable buildings (18.8%) and the fact that health insurance pays for treatment services (18.8%)

Table 3.

Findings obtained in consequence of Chi-square analysis related to preference reasons of dialysis centers

What are the features distinguishing this dialysis	**Type of Dialysis**	**Answer**	**Total**	**Chi-**	**p**

center from others?	Center		No	Yes		square	
High quality	State	**n**	35	41	76	35,210	,000
		%	46,1%	53,9%	100,0%		
	Private	**n**	47	265	312		
		%	15,1%	84,9%	100,0%		
	Total	**n**	82	306	388		
		%	21,1%	78,9%	100,0%		
Fast service performing	State	**n**	53	23	76	7,245	,007
		%	69,7%	30,3%	100,0%		
	Private	**n**	260	52	312		
		%	83,3%	16,7%	100,0%		
	Total	**n**	313	75	388		
		%	80,7%	19,3%	100,0%		
Accessibility	State	**n**	42	34	76	28,793	,000
		%	55,3%	44,7%	100,0%		
	Private	**n**	261	51	312		
		%	83,7%	16,3%	100,0%		
	Total	**n**	303	85	388		
		%	78,1%	21,9%	100,0%		
Comfortable Building	State	**n**	56	20	76	3,482	,047
		%	73,7%	26,3%	100,0%		
	Private	**n**	259	53	312		
		%	83,0%	17,0%	100,0%		
	Total	**n**	315	73	388		
		%	81,2%	18,8%	100,0%		
As it covers my insurance	State	**n**	40	36	76	50,449	,000
		%	52,6%	47,4%	100,0%		
	Private	**n**	275	37	312		
		%	88,1%	11,9%	100,0%		
	Total	**n**	315	73	388		
		%	81,2%	18,8%	100,0%		
What are the features distinguishing this dialysis center from others??	**Marital Status**		**Answer**		**Total**	**Chi-square**	p
			No	**Yes**			
Gracious and experienced staff	Single	**n**	23	10	33	10,453	,001
		%	69,7%	30,3%	100,0%		
	Married	**n**	144	211	355		
		%	40,6%	59,4%	100,0%		
	Total	**n**	167	221	388		
		%	43,0%	57,0%	100,0%		
High quality	Single	**n**	12	21	33	5,019	,026
		%	36,4%	63,6%	100,0%		
	Married	**n**	70	285	355		
		%	19,7%	80,3%	100,0%		
	Total	**n**	82	306	388		
		%	21,1%	78,9%	100,0%		

The answers to the question “What are the features distinguishing this dialysis center from others?” have been compared in accordance with type of dialysis center and marital status via Chi-square test and significant results have been displayed in Table 3. Examining the answers given to the question about type of dialysis center, it’s seen that 53.9% of patients receiving treatment in a dialysis center belonging to state have picked the answer “yes” for high quality, 84.9% of patients receiving treatment in private dialysis center have picked the same answer. 78.9% of the patients think that the most important feature distinguishing the dialysis center from others is “high quality”. The other articles found significant for private and state dialysis centers are fast service performing, accessibility, comfortable building and the fact that it covers their insurance. Any significant difference couldn’t be found for the other articles of the aforementioned question. Examining it with regards to marital status, significant difference has been found in two articles. Accordingly, 30.3% of single patients have

answered the question what the most important feature of the dialysis center they receive treatment distinguishing it from other dialysis center is “experienced and gracious staff”, while 59.4% of married patients have answered same. It can be concluded that married patients regard experienced and gracious staff more. While 63.6% of single patients have picked “high quality” for the same question, it’s seen that 80.3% of married patients have picked same. It can be concluded that married patients regard high quality more than single patients.

Table 4.

Findings obtained as a result of Chi-square analysis related to preference reasons of dialysis centers

What are the features distinguishing this dialysis center from	**Age**		**Answer**		**Total**	**Chi-square**	p
			No	**Yes**			
Fast service performing	50 years old and younger	**n**	82	21	103	11,486	,009
		%	79,6%	20,4%	100,0%		
	51 to 60 years old	**n**	79	32	111		
		%	71,2%	28,8%	100,0%		
	61 to 70 years old	**n**	97	14	111		
		%	87,4%	12,6%	100,0%		
	70 years old and older	**n**	55	8	63		
		%	87,3%	12,7%	100,0%		
	Total	**n**	313	75	388		
		%	80,7%	19,3%	100,0%		
What are the features distinguishing this dialysis center from	**Educational status**		**Answer**		**Total**	**Chi-square**	p
			No	**Yes**			
Experienced and gracious staff	Illiterate	**n**	44	34	78	7,130	,029
		%	56,4%	43,6%	100,0%		
	Primary school	**n**	98	148	246		
		%	39,8%	60,2%	100,0%		
	Secondary school and over	**n**	25	39	64		
		%	39,1%	60,9%	100,0%		
	Total	**n**	167	221	388		
		%	43,0%	57,0%	100,0%		
Building cleanliness	Illiterate	**n**	70	8	78	7,348	,025
		%	89,7%	10,3%	100,0%		
	Primary school	**n**	197	49	246		
		%	80,1%	19,9%	100,0%		
	Secondary school and over	**n**	46	18	64		
		%	71,9%	28,1%	100,0%		
	Total	**n**	313	75	388		
		%	80,7%	19,3%	100,0%		

Examining the question “What are the features distinguishing this dialysis center from others?” with regards to age, it’s seen that the difference among groups in the article “fast service performing” is significant. It’s been determined that the group with the highest rate is 51-to-60-year-old age group and the group with the lowest rate is 70-year-and-over age group. Any other significant difference hasn’t been found between age and other articles of the same question. Comparing educational status and the articles of aforementioned question, the difference among groups in the articles “experienced and gracious staff” and “building cleanliness” have been found significant. It’s been determined that the group with the highest rate related to article “experienced and gracious staff” is secondary school and over group, while the one with the lowest rate is the group consisting of illiterate people. It’s also been seen that secondary school and over group has the highest rate for the “building cleanliness” article and the group consisting of illiterate people has the lowest rate.

Table 5.

Findings obtained as a result of Chi-square analysis related to preference reasons of dialysis centers

Why did you prefer this dialysis center?	**Type of dialysis center**		**Answer**		**Total**	**Chi-square**	**p**
			No	**Yes**			
Satisfaction with former services	State	**n**	53	23	76	7,669	,006
		%	69,7	30,3%	100,0%		
	Private	**n**	261	51	312		
		%	83,7	16,3%	100,0%		
	Total	**n**	314	74	388		
		%	80,9	19,1%	100,0%		
As the insurance company has a contract with dialysis center	State	**n**	36	40	76	47,143	,000
		%	47,4	52,6%	100,0%		
	Private	**n**	263	49	312		
		%	84,3	15,7%	100,0%		
	Total	**n**	299	89	388		
		%	77,1	22,9%	100,0%		
As the doctor was suggested by others	State	**n**	46	30	76	6,060	,011
		%	60,5	39,5%	100,0%		
	Private	**n**	233	79	312		
		%	74,7	25,3%	100,0%		
	Total	**n**	279	109	388		
		%	71,9	28,1%	100,0%		
As my doctor referred me to there	State	**n**	69	7	76	66,147	,000
		%	90,8	9,2%	100,0%		
	Private	**n**	121	191	312		
		%	38,8	61,2%	100,0%		
	Total	**n**	190	198	388		
		%	49,0	51,0%	100,0%		
Why did you prefer this dialysis center?	**Gender**		**Answer**		**Total**	**Chi-square**	**p**
			No	**Yes**			
As I was satisfied with the service I received from the dialysis center before	Female	**n**	119	45	164	3,256	,047
		%	72,6	27,4%	100,0%		
	Male	**n**	180	44	224		
		%	80,4	19,6%	100,0%		
	Total	**n**	299	89	388		
		%	77,1	22,9%	100,0%		
As the doctor was suggested by others	Female	**n**	120	44	164	,225	,361
		%	73,2	26,8%	100,0%		
	Male	**n**	159	65	224		
		%	71,0	29,0%	100,0%		
	Total	**n**	279	109	388		
		%	71,9	28,1%	100,0%		
Urgently consulting	Female	**n**	123	41	164	,770	,223
		%	75,0	25,0%	100,0%		
	Male	**n**	159	65	224		
		%	71,0	29,0%	100,0%		
	Total	**n**	282	106	388		
		%	72,7	27,3%	100,0%		

The question “Why did you prefer this dialysis center” has been compared with regards to kind of dialysis center and gender and the articles found significant among groups have been displayed in Table 5. Accordingly, it’s been determined that examining in view of kind of dialysis center, the rate of patients receiving treatment in state dialysis centers is higher in the articles “satisfaction with former services”, “as the insurance company has a contract with dialysis center”, and “as the doctor was suggested by others”, while the rate of the article “As my doctor referred me to there” is higher for the patients receiving treatment in private dialysis centers. Evaluating the same questions in view of gender, it’s been seen that the rate of the article “As I was satisfied with the service I received from the dialysis center before” is higher for female patients, while the rates of the articles “As the doctor was suggested by others” and “Urgently consulting” are higher for female patients.

Table 6.

Findings obtained as a result of Chi-square analysis related to preference reasons of dialysis centers

Why did you prefer this dialysis center?	**Marital status**		**Answer**		**Total**	**Chi-square**	**p**
			No	**Yes**			
As the insurance company has a contract with dialysis center	Single	**n**	21	12	33	3,678	,049
		%	63,6%	36,4%	100,0%		
	Married	**n**	278	77	355		
		%	78,3%	21,7%	100,0%		
	Total	**n**	299	89	388		
		%	77,1%	22,9%	100,0%		
As my doctor referred me to there	Single	**n**	23	10	33	6,201	,010
		%	69,7%	30,3%	100,0%		
	Married	**n**	167	188	355		
		%	47,0%	53,0%	100,0%		
	Total	**n**	190	198	388		
		%	49,0%	51,0%	100,0%		
Why did you prefer this dialysis center?	**Age**		**Answer**		**Total**	**Chi-square**	**p**
			No	**Yes**			
As I know the doctor	50 years old and younger	**n**	74	29	103	9,145	,027
		%	71,8%	28,2%	100,0%		
	51 to 60 years old	**n**	96	15	111		
		%	86,5%	13,5%	100,0%		
	61 to 70 years old	**n**	85	26	111		
		%	76,6%	23,4%	100,0%		
	70 years old and older	**n**	54	9	63		
		%	85,7%	14,3%	100,0%		
	Total	**n**	309	79	388		
		%	79,6%	20,4%	100,0%		
As my doctor referred me to there	50 years old and younger	**n**	67	36	103	18,885	,000
		%	65,0%	35,0%	100,0%		
	51 to 60 years old	**n**	53	58	111		
		%	47,7%	52,3%	100,0%		
	61 to 70 years old	**n**	50	61	111		
		%	45,0%	55,0%	100,0%		
	70 years old and older	**n**	20	43	63		
		%	31,7%	68,3%	100,0%		
	Total	**n**	190	198	388		
		%	49,0%	51,0%	100,0%		
Why did you prefer this dialysis center?	**Educational Status**		**Answer**		**Total**	**Chi-square**	**p**
			No	**Yes**			
As I thought I would receive a better service	Illiterate	**n**	70	8	78	8,854	,012
		%	89,7%	10,3%	100,0%		
	Primary school	**n**	188	58	246		
		%	76,4%	23,6%	100,0%		
	Secondary school and over	**n**	45	19	64		
		%	70,3%	29,7%	100,0%		
	Total	**n**	303	85	388		
		%	78,1%	21,9%	100,0%		

Chi-square analysis of the question “Why did you prefer this dialysis center?” in view of marital, age and educational status and the articles found significant have been displayed in Table 6. Accordingly, examining aforementioned question with regards to marital status, significant difference has been found for two articles. While 36.4% of single patients perceive the article “As the insurance company has a contract with dialysis

center" as the preference reason, 21.7% of married patients perceive the same article as the preference reason. The rate of married patients' preferring dialysis center with reference from doctors has been found more than single patients'. Examining with regards to age, while 50-year-old-and-younger group has become the group with the highest rate of preferring dialysis centers because of knowing the doctor, it's been determined that 70-year-old-and-older group is the group with the highest rate of preferring dialysis centers with the reference of other doctors. Examining with regards to educational status, it's been determined that secondary school and over group preferred as "they thought they would receive a better service".

Results and Evaluation

Dialysis centers are among the institutions having significant place in health services. The external customers of dialysis centers are patients. The customers taking dialysis centers' kind of serving their services and their differences with other dialysis centers into consideration consult to dialysis centers with the expectations of service they want to receive. Customer satisfaction bring customer loyalty with itself. Dialysis centers aim to become accessible, improve their technological equipments as much as they can, work with experienced staff, be reliable, access their patients on time and properly, make their physical environment in such a level to make their patients feel comfortable and secure as long as they are at dialysis centers, in order to provide customer satisfaction and customer loyalty as a result, in the fierce competition environment.

In this study, it's been aimed to determine preference reasons of dialysis centers by dialysis patients. Studies about this subject in the literature cannot be often encountered. Some of the conclusions of this study are as follows:

- ✓ The main reason distinguishing the dialysis center the patients prefer from other dialysis center are "high quality" and "experienced and gracious staff" features (see Table 2).
- ✓ It's been determined that the patients generally prefer dialysis centers after reference by doctors and suggestions (see Table 2).
- ✓ The rate of being reason for preference of advertisements on newspapers, TV etc. is low for the preference reason of dialysis centers by dialysis patients. (See Table 2).
- ✓ Examining the features distinguishing dialysis centers from others in view of type of dialysis center; significant difference has been found among groups in features of high quality, fast service performing, accessibility, comfortable building, and the fact that health insurance covers the treatment (see Table 3)
- ✓ Examining the features distinguishing the dialysis center patients prefer from others in view of marital status, significant difference has been found in experienced and gracious staff and high quality features and married patients have been found more than single patients in both groups (see Table 3).
- ✓ Examining the question "What are the features distinguishing this dialysis center from other dialysis centers?" with regards to age, it's seen that the difference among groups is significant in the article "fast service performing". It's been determined that the group with highest rate is 51-to-60-year-old group, and the one with the lowest difference is 70-year-old-and-over group (see Table 4).
- ✓ Examining the features distinguishing the dialysis center from other dialysis centers in view of educational status, significant difference has been found in the features experienced and gracious staff and building cleanliness and secondary school and over group has been found higher for both features (see Table 4).
- ✓ Examining preference reasons of dialysis centers by patients in view of type of dialysis centers, significant difference has been found between the factors satisfaction with former services, insurance company's contract with the dialysis center, doctor's being suggested by others and doctor reference and groups.
- ✓ Examining preference reasons in view of gender, it's been seen that the rate of female patients is higher on the article "As I was satisfied with former services of this dialysis center" and the rate of male patients is higher on the articles "As the doctor was suggested by others" and "Urgent consulting".
- ✓ While 36.4% of single patients perceive their insurance companies' contracts with dialysis centers as preference reason, 21.7% of married patients perceive the same article as preference reason. The rate of married patients preferring dialysis center with doctor reference has been found more than single patients.

- ✓ Examining with regards to age, while 50-year-old-and-younger group is the group with highest rate preferring dialysis center because of knowing the doctor, it's been determined that 70-year-old-and-older group is the group with the highest rate preferring the dialysis center with doctor reference.
- ✓ Examining with educational status, it's been determined that secondary school and over group prefer dialysis centers with the thought of receiving better services with highest rate.

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Analysis of The Study

The study group consisted of 43 doctors, 48 nurses and 15 cleaning personnel working at Konya Training and Research Hospital. 47.9 % of the nurses held associate degree whereas 39.6 % held a bachelor's degree. 23.3 % of the doctors, 23.3 % of the nurses and 26.7 cleaning personnel had been working for 0-5 years. 27.9 % of the doctors, 47.9 % of the nurses and 53.3 % of the cleaning personnel had been working in the operating room for 0-5 years (Table 1). Average period of employment in the operating room was 10.1 years for doctors, 7 years for nurses and 6.7 years for cleaning personnel. Employees' low duration of occupational experience is cited among risk factors for injuries. 59.4 of the personnel working in the operating room at Konya Training and Research Hospital stated that they had been injured at least once by perforating-sharp tools during their occupational lives. 74.4 % of the doctors, 60.4 % of the nurses and 13.3 % of the cleaning personnel stated that had experienced injury at least once. In the study conducted by Kutlu in 2007, it was found that 75.6 % of the employees had been injured at least once in their occupational lives by perforating-sharp tools and 77.6 % of the doctors, 79.2 % of the nurses and 50 % of the cleaning personnel stated that they had been injured at least once (Kutlu 2007). In a study conducted by Demircan in 2008 on nurses working in operating rooms, it was found that 86.5 % of the nurses reported that they had experienced injury at least once in the past one year (Demircan 2008). A study conducted by Kürtünlü in 2013 found that all of the surgeons, 86.96 % of the nurses, 80 % of the cleaning personnel and 40 % of the sterilization personnel had experienced injury by surgical tools at least once; it was found that 80 % of the nurses and 42.11 % of the surgeons had been injured while giving or taking perforating-sharp tools (Kürtünlü 2013). A study conducted by Omaç on nurses in 2006 revealed that 62.7 % of the nurses participating in the study had experienced an injury by perforating-sharp tools during the past three months (Omaç 2006). In a study conducted by Gücük et al. in 2002 on personnel working in general surgery clinic, it was found that 46 % of the health care personnel had had injury at least once (Gücük et al. 2002).

In the light of data obtained in this study, it is seen that the occupational group members that are most exposed to surgical tools contaminated by blood and bodily fluids are doctors. The tools that cause the highest number of injuries, on the other hand, are perforating-pricking tools. This finding is in support of the results of the studies conducted by Kutlu and Kürtünlü. It was found that almost none of the three occupational groups reported the situation after injury. 87,5 % of the doctors, 55.2 % of the nurses and 50 % of the cleaning personnel stated that they had not reported the situation (Table 8). In Kutlu's study, 91.1 % of the doctors, 94.7 % of the nurses and 75 % of the cleaning personnel stated that they had not reported the situation after injury. Kürtünlü's study, on the other hand, found that 89.47 % of the surgeons, 72.50 % of the nurses and 50 % of the sterilization personnel had not reported the injury. In a study conducted by Mangırlı and Özşaker in 2014 on nurses working in surgical clinics, it was found that only 3.9 % of the nurses had reported injury by perforating-sharp (Mangırl and Özşaker 2014). In light of these studies, it can be said that the reporting rate after exposition to injury is low. 9.3 % of the doctors and 7.5 % of the nurses stated that they had been injured during the surgery of a patient who they knew had an infectious disease (Table 11). In Kutlu's, study, on the other hand, 18.5 % of the doctors and 9.1 % of the nurses stated that they had been injured during the surgery of a patient

who they knew had an infectious disease. 72.1 % of the doctors, 89.6 % of the nurses and 46.7 % of the cleaning personnel want to be informed of the situation before the operation of a patient who has an infectious disease. In Kutlu's study, on the other hand, 94.8 % of the doctors, 87.5 % of the nurses and 50 % of the cleaning personnel want to be informed in this regard.

Conclusion and Suggestions

In this study, the purpose is to determine the injury risk of operating room personnel working at Konya Training and Research Hospital by contaminated surgical instruments and the factors affecting this. 43 doctors, 48 nurses and 15 cleaning personnel participated in the study and the following conclusions were drawn.

10. The median age of the doctors, the nurses and the cleaning personnel were 36.3, 31.6 and 34.6, respectively. The average duration of employment in the operating room was 10.1 years for the doctors, 7 years for the nurses and 6.7 years for the cleaning personnel.
11. 63 (59.4 %) of the 106 participants experienced injury by surgical instruments at least once in their professional lives. 74.4 % of the doctors reported that they had been injured by surgical instruments before.
12. 25 % of the nurses and 80 % of the cleaning personnel responded wrongly to the question about the virus which hepatitis B vaccination protected against.
13. 57.1 % of the personnel who stated that they never used pairs of gloves or protective glasses as protective measure cited insufficient equipment as the cause whereas 42.9 % said they did not use them because they could not move comfortably in them.
14. 93.4 % of the operating room personnel referred to the operating room as the riskiest clinic.
15. 87.5 % of the doctors, 55.2 % of the nurses and 50 % of the cleaning personnel did not report the injury.
16. 54.7 % of the operating room personnel stated that they were distracted after the 3rd hour during an operation.
17. 65.1 % of the operating room personnel regarded the air conditioning of the operating room as inadequate while 85.5 % thought the same about the resting.
18. 57.5 % of the operating room personnel stated that the length of the resting break was not enough.

The following suggestions were made in accordance with the findings of the study.

- Operating room personnel should be allowed to improve their professional education, knowledge and skills, in-service training programs should be organized and experienced operating room personnel should not be appointed to other units of a hospital unless necessary.
- A form should be developed for the personnel to report the situation and a unit should be established where the personnel can receive medical and psychological assistance 24 hours a day. Procedures that the personnel should follow regarding post-injury period should be determined and they should be informed in this regard.

- The operating room personnel should be given training about how to determine risk factors, record cases of injury and take measures.
- Training should be provided to personnel who have not had Hepatitis B vaccination and it should be ensured that they have the vaccination; the personnel with the vaccination should be checked to see to what extent the vaccination is protecting and new employees should definitely be made to undergo serological tests.
- Given that injuries increase after the 3rd hour in operations, members of the surgical staff should be allowed to rest in turns or if this not possible a new team should continue the operation.
- Instruments that cause injury should be replaced with safer ones as far as the institution can afford and efficient and safe protective gear (glasses, gloves, aprons etc.) should be supplied.
- Due to the fact that inadequate air conditioning and insufficient resting place and time increase injury risks, physical conditions of the operating rooms should be improved and the length of resting time for the employees should be increased as far as possible.

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Problems of Private Hospital

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Abstract

According to 2014 statistics of Ministry of Health, there are 556 private hospitals in Turkey and 36% of hospital sector consists of private hospitals. That's why, it's significantly important to determine and solve the problems of private hospitals having a significant part in serving health services with regards to increase quality of health services. This study has been carried out with the aim of determining present problems of private hospitals. Literature review model has been utilized in the study. As a conclusion of the study, it's been determined that private hospitals have some problems in view of finance, management and human resources.

Keywords: Private hospital • Problems • Problems of health • Common problems • Health sector

Introduction

Management of private hospitals having a significant place in presenting service dates back to 1930's. The first legal regulation about it was arranged in 1933. Private Hospitals Act numbered 2219 and dated 1933 (Official Gazette, 1933) indicates this topic. Later on, the provisions of the act failed to satisfy and disruptions occurred. Private Hospitals Regulations were established to resolve the aforementioned problems. Private Hospitals Regulations (Ministry of Health, 2015) involves many terms from establishing private hospitals to functioning of them. It's seen that private hospital organizations which were few in number in the beginning years of the republic started increasing just after the law which became valid in 1987. 5th article of 3359 numbered Health Services Fundamental Law becoming valid in 1987made it possible for all the health organizations belonging to state agency and institutions except of The Ministry of Defense to be converted into health organizations with public entity (Temel, 2003). The changes in health services in Turkey has mainly provided possibility to make room for private sector with priority in presenting services (Pala, 2007).

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Beginning from 1980's, private sector in Turkey begun to show interest in health field by establishing polyclinics and dispensaries (Kerman, Demirgil, Altan & Büyüksavaş**,** 2011). 1990's, on the other hand, became a year when the number of private hospitals increased. In 2000's, branch hospitals and centers such as eye hospital, microsurgery, otorhinolaryngology, orthopedics, physical therapy were started to be established (Temel, 2003). Private hospitals have maintained their growth in recent years and have improved their role in presenting qualified, accessible, and productive health services.

Treatment institutions owned by natural people and private law legal entities, serving ambulatory care and bed rest, examination, analysis, investigation, medical intervention, and other care services and having capacity of at least ten beds are called private hospitals (Ministry of Health, 2015). At the present time, private sector is in service in curative and rehabilitating healthcare services as well as protective healthcare services.

According to Ministry of Health (2015b), Health Statistics Yearbook 2014; there are currently 556 private hospital managements in Turkey. Among total number of hospitals, private hospitals have percentile of 36%. These signs prove that private hospitals have significantly important market share. While there is a rate of 18.3% held by private hospitals, the number of consulting to private hospitals is 0.9 per capita. While 30% of inpatients have stayed in private hospitals, 33.1% of surgical operation have been carried out in private hospitals. Handling the subject with regards to human resources, while 77876 doctors work in hospitals associated with Ministry of Health (57.5%), 28245 doctors (20.8%) work in private hospitals. Checking the number of specialist physicians, it's seen that 36886 (49%) work in hospitals associated with Ministry of Health, and 22479 (29.9%) specialist physicians work in private hospitals. Nurses and midwives working in private hospitals generate a significant rate.

Method

In this study, the importance of private hospital managements, their current problems, and their share in Turkish health sector are discussed. Description of the problems faced in private hospital management, detection of the source of these problems, and offering suggestions to solve these problems are among the objectives of this study.Within this context, private hospital managements in Turkey were researched from past to present, and the literature was examined. Secondary data was used in this study, and it has qualitative features.

Findings

Problems of Prıvate Hospıtals

Within the context of the study, the studies carried out with the aim of determining the problems of private hospitals have been evaluated. The studies in literature are as follows:

Selvi (2014) stated in his study called "The Research of A Sample Event in Süleymanpaşa Central District, in Tekirdağ" that private hospitals had financial problems in some periods of time, and had difficulties in finding

qualified healthcare staff and administrative personel. Morever, he concluded that failures occurred during online study because of connection failures. On the other hand, marketing limittations deriving from statutes are among the problems private hospitals in Tekirdağ have.

Kerman et al. (2011) stated in their study as "A Research Towards Administrative Problems of Private Hospitals: Antalya and Isparta Sample" that substainal increase occurred in the number of private healthcare institutions thanks to haronizing legal structure for establishing private healthcare institutions. However, he also stated that private hospitals encountered many problems as transition period hadn't been completed yet. It was emphasized that problems such as establishing hospital in places for rent, difference between date of entering into service and authorisation, existence of technological devices more than required in the hospitals, existence of serious insufficiencies in garden and environmental planning, insufficiency of human resources planning and managemental functioning, incapability of automatisation services and performance measures could occur. As a result of the research carried out in Antalya and Isparta private hospitals sample, the findings showing that there were serious problems in finding professional administrators and financing, legal structure, and involving in this process were obtained.

Şahman,Tengilimoğlu, and Işık (2008) emphasized on the point that most of private hospitals in Turkey were family-run businesses and this situation brought managemental problems with it in their study called "Field Study Towards Determining The Effect of Professionalizing of the Managements of Private Hospitals on Instutionalization Process". The fact that the members of board of management consists of people who aren't specialist in ths field may be the reason of the problem. It's undeniable that the institutions that are managed with the thought of capital owner-boss or administrator-boss are faced with many administrative problems. It can't be expected in institutions where administrators don't have a say as well as bosses to order properly.

Büyüksavaş (2010) presented the fields with problems in his quite detailed thesis study under the heading "Problems of Private Hospitals Presenting Public Services and Solution Recommendations: Isparta and Antalya Sample" as follows:

- Bureaucratic procedures
- Difficulties in providing healthcare staff and attending physician
- Difficulties in providing professional hospital administrators
- Staff limitation by Ministry of Health
- Financial issues
- High level of taxes
- Frequently changed legal regulations
- Restrictions on marketing operations
- Seasonal variations in patient potential
- Pay amount of state, its stoppage and delay
- Unfair competition against state hospitals; diffrential fee
- Perception of private hospitals as state hospitals by patients of SSI

- Unnecessary number of hospitals

Kırımlı (2013) mentioned about the problems which patients with private health insurance had during receiving of services in private hospitals in his thesis study named "Functioning and Problems of Private Health Insurance in Private Hospitals". It was concluded that misinformation and payment issues within the context of insurance policy standarts occurred as private health insurances weren't designed as suitable to private hospitals in Turkey in general sense.

Yücel and Önal (2015) described in their study "Financial Issues and Reconstruction in Private Hospitals: A Practice in Adana" the reasons of financial issues of private hospitals. Financial risk factors in this study were approached as sudden change of policies, poor administration, global economical crisis, overcapacity investment, qualified staff's quitting their jobs, intense competition, seasonal fluctuations, and new rival's entrance into the sector.

Evaluating the studies performed, we can sort out the problems private hospitals have as follows:

- Financial issues
- Issues of finding qualified staff
- Issues of finding doctors
- Pricing policy of SSI
- Issues encountered in MEDULLA system
- Advertisement and marketing problems deriving from regulations
- Unnecessary number of private hospitals
- Redundant technology investments in hospitals and problems encountered in using them regularly
- Unability to institutionalization and the fact that most of the hospitals are family-run businesses
- Staff limitation by Ministry of Health
- Seasonalfluctuations in demand
- Staff turnover
- Extensive competition

Suggestions

It's thought that it will be useful to take the cases below into consideration to solve the problems:

The main reason of financial issues the hospitals encounter is the insufficiency of the number of patients. Because of the fee differences received in private hospitals, patients mostly prefer state hospitals. However, it can be said that private hospitals serve in a more qualified way comparing to state hospitals in view of presentation of services and physical possibilities. Within this context, it's crucial for private hospitals to maintain the fee differences in minimum level and arrange regulations to increase customers' satisfaction.

It'll also provide a great contribution to solve the problems to institutionalize and employ professional administrators in administrative level.

In order to prevent staff turnover, the hospitals must arrange staff's wages in accordance with market conditions, keep work hours in an acceptable level, present education and career opportunities.

If control, assessing and supervision employees consist of inspectors specialist in hospital management, they may have qualification of advisor about how to realize troubles in hospitals and how to solve them.

Rather than flexing state restrictions in marketing field, private hospitals can use marketing organizations as an effective way with the aim of make it easy for patients to decide who are service receiver, in fields such as kinds of services presented, comfortable and qualified physical environment, qualification and quantity of staff presenting service.

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Elder Abuse

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Introduction

It is difficult for people to take care of the elderly. The requirements, as well as the needs of elder persons can create situations, in which abuse is more likely to happen.

Elder abuse is a single or repeated action - or lack of appropriate action - resulting in any relationship where there is an expectation of trust, which action causes harm or distress to an elderly person. (Patterson and Malley-Morison, 2006)

The elder abuse is a violation of human rights and a violation of the Article 25 of the European Charter of Fundamental Rights, which recognizes and respects the rights of the lderly to live with dignity and independence and to participate in social and cultural life. [Gordon and Brill, 2001)

The recognition of abuse is difficult in some cases (e.g. physical abuse, violence), however, the situation is complicated when there are no immediate and visible effect on the life of the victim. Also very common and in increasing are the emotional / psychological abuse of the elderly, which may have determinative and harmful consequences in the elderly.(Cooper et al., 2008; Kemp and Liao, 2006)

This review highlights the impact of abuse on elder people's health.

The methodology of this study included search of review studies and research in leading databases such as PUBMED, MEDLINE and IATROTEK. The criterion for the selection of the articles was the Greek and English language, with keywords: elderly, abuse, prevention and treatment.

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Talking about elder abuse

Unfortunately, those people who abuse mistreat or exploit the elderly are not easy to be identified. Moreover, their victims may not be physically or mentally capable or they may be even isolated, afraid or embarrassed to inform what is happening to them.

The type of abuse differs depending on the relationship, and in some cases, there is domestic abuse. Also, various types of abuse may be present in any institution undertakes care or treatment of the elderly. (Plati et al. 2016)

At the beginning, serious signs of elder abuse may not be recognized. Warning signs of some kind of elder abuse are the following (Kourkouta et al., 2015):

· Disputes or tension between a person and the elderly

· Changes in the personality or the behavior of the elderly

· Sense of fear that is evident in his/her reactions.

The signs that show that there is abuse, mistreatment or exploitation of the elderly are many and can be integrated in various forms of abuse: physical, sexual, emotional or economic.

Physical abuse

Is the use of force in an elderly that can lead to physical pain, injury or malfunction including cardiovascular and musculoskeletal problems? (Spatharakis, 2007) The exact cause of physical abuse is not known. Poor or crowded living conditions may be one of the reasons it occurs. The following may increase your risk of physical abuse (Giatokos and Tsiliakou, 2008):

- You have learning or memory problems.
- You have a long-term condition, such as dementia, diabetes, paralysis, or stroke.
- You have no relatives or friends who can take care of you.
- You have difficulty getting along with others.
- The carer depends heavily on you for things such as money or housing.
- The carer drinks alcohol or uses illegal drugs.
- The carer has a personality disorder, depression, or another mental illness.
- The carer has a history of family violence, such as physical or sexual abuse.
- The carer has stress due to work, taking care of you, or financial problems.

Psychological / Emotional abuse

Bullying with loud voices and threats is an oral form of emotional abuse of the elderly. Verbal attacks, rejection, isolation or degrading leads or could cause mental pain, anguish or distress to an elderly. It can be difficult to identify, because there aren't necessarily any physical signs of elder emotional distress. (WHO, 2002)

Sexual Abuse

The sexual abuse of elderly is the contact with that person without his consent. Elder sexual abuse is an aspect of elder maltreatment that can involve multiple forms of abuse. It can include types of elder physical abuse and emotional abuse. Furthermore, it can be difficult to seek justice for elder sexual abuse. (Acierno et al., 2010)

Economic exploitation

It is the illegal use of funds or property of an elderly without his/her authorization. Elder financial abuse is a growing threat to our nation's older adults. Research suggests that at least 20 percent of adults age 65 and over have been victimized by financial fraud and abuse. (Liapi, 2016)

Other types of abuse are considered also the following:

Negligence: This happens when the caregiver, either family or the persons from the nearby environment of the elderly, for some reason do not meet their obligations or their duties towards him/ her. Abusers of older adults are both women and men, and may be family members, friends, or "trusted others." and the failure by those responsible to provide food, shelter, health care, or protection for a vulnerable elder. (Aravanis et al., 1993; Alpine, 2008)

Self-neglect ion: Self-neglect among the elderly is a growing problem that commonly goes unreported, according to a new survey of elder care experts. The 6 warning signs of self-neglect most often cited by care managers are (Spatharakis, 2007; Tzonichaki, 2013):

Poor medication management or refusing to take medications

Signs of dehydration, malnutrition or other unattended health conditions

Unsanitary of very unclean living quarters

Signs of unpaid bills, bounced checks or utility shut-offs

Lack of adequate food in house or signs of weight loss

Abandonment: Abandonment of elderly by the persons who intend to abandon them or leave them helpless in one place for a long time is likely to jeopardize their well-being or their health. Some caregivers will simply abandon an elderly person, much the same way one might abandon a newborn (Iliadis et al, 2015; Kourkouta et al, 2015). They may leave the victim at a hospital or nursing home, or they may leave the victim at a shopping mall (Tsaloglidou, 2015)

Civic abuse: It is the abuse of the political rights of the elderly, sometimes depriving him/her of the rights to the society (Chrysospathis, 2006).

Risk Factors

Risk factors that may increase the potential for abuse of an older person can be identified at individual, relationship, community, and socio-cultural levels. Both the requirements of the care and needs of elderly can create situations where abuse is most likely to occur (Spatharakis, 2007; Wolf and Wolf, 2002)

Individual: Risks at the individual level include poor physical and mental health of the victim, and mental disorders and alcohol and substance abuse in the abuser (Giotakos and Tsiliakou, 2008). Other individual-level factors, which may increase the risk of abuse, include gender of victim and a shared living situation (Koukourikos, 2008).

Relationship: A shared living situation is a risk factor for elder abuse. It is not yet clear whether spouses or adult children of older people are more likely to perpetrate abuse (Plati et al, 2016; www.who.int)

Community: Social isolation of caregivers and older persons, and the ensuing lack of social support, is a significant risk factor for elder abuse by caregivers. Many elderly people are isolated because of loss of physical or mental capacity, or through the loss of friends and family members (www.who.int).

Often, compared with other groups in society, older people are presented as vulnerable, weak and dependent on others or even on their own families, and are targeted to exploitation and extermination (Onaitis, 2016; Fradelos, 2014).

Political changes: The signs that have been proposed as risk factors which have affected the overall health and psychopathology of people (Chrysospathis, 2006).

Treatment for elder abuse Once it is suspected, elder mistreatment should be reported to adult protective services. Referral to social services and Adult Protective Services are also vital to decrease morbidity and mortality and to further guide patient care after the ED encounter (www.emedicine.medscape.com).

Therapists can assist vulnerable elderly persons to resolve tension, cope with trauma, assess available resources, and make plans for safety. Sessions are available in individual, family, or group settings. In therapy, victims of abuse can overcome feelings of denial or shame, gain valuable education on the subject, and build stronger social support networks (www.goodtherapy.org).

Perpetrators of abuse can also benefit from therapy. For example, in therapy an abusive caregiver may learn productive ways to deal with stress, develop coping skills, gain social support, or treat underlying mental such as anxiety or depression (Daly et al, 2012).

Conclusions

The abuse of older people is a multidimensional and often a covered problem that occurs in families of all races, ethnicities and economic groups.

The reduction of the phenomenon of elder abuse needs a lot of effort and understanding by each and every person but especially by those ones who are directly connected with this situation such as the elderly themselves as well as their close environment.

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Can Turkey's Window of Opportunity be a Solution for the EU's Health Workforce Problem?

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Abstract

The population of the world has dramatically increased within the last 50 years due to the advances in the quality of health services, food sector and hygiene issues. This period of transition caused aging of the population due to the change in fertility and mortality rates from high numbers to low numbers in both of them. The increase in the number of old people in society resulted in several problems such as the decrease in labor force participation and the increase in the dependent population. This decrease in labor force participation causes some shortfalls in the number of qualified staff working for many sectors including the health sector in many industrialized countries. It is predicted that this deficit will continue to increase especially due to the fact that aged population benefit from health services more than the other age groups of the society. Almost all members of the European Union (EU) encounter with the problems relating health workforce as a result of aging population. It is considered that EU would need more immigrant workers in order to deal with this problem. Within this scope, Turkey, as a candidate country to the EU, could be considered as a potential source for the health workforce needed by EU. Although it's claimed that there will be an excessive labor flow from Turkey to the EU, researches display that it would be only between 2,7 to 4million. However, according to some evaluations, the Union needs almost 6 millions of workers in order to meet its labor deficit.

The main research question in this study is "can Turkey's window of opportunity be a solution for EU's health workforce problem?" In order to answer this question the age related demographics of Turkey and the EU will be analyzed. The projections concerning the requirement about health workforce both for Turkey and the EU will be assessed. Accordingly, through the comparison of data gathered from both parties a conclusion about whether Turkey can provide a window of opportunity for the EU health workforce tried to be reached.

Keywords: Health Workforce • European Union • Health Policy

Introduction

The population of the world has dramatically increased within the last 50 years due to the advances in the quality of health services, food sector and hygiene issues. This increase happened within a period which is called as

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demographic transition period, in which the rates of births and deaths increased to higher degrees, resulted in aging of the population. The increase in the number of old people in society resulted in several problems such as the decrease in labor force participation and the increase in the number of dependent population. This decrease in labor force population causes some shortfalls in the number of qualified staff working for many sectors including the health sector in numerous industrialized countries. It is predicted that this deficit will continue increasing in the future especially due to the fact that old people benefit health services more than the other sections of the society.

Almost all EU members encounter with the problem about health workforce due to aging of the population. It is considered that EU could need more migrant workers in order to deal with this problem. Within this scope, as a candidate to the EU membership, Turkey could be considered as a potential sourceforthe health workforce needed by EU. Although according to some studies there will be an excessive labor migration from Turkey to EU, some researches display that it will be only between 2.7 – 4 millions. However, according to some evaluations, the Union needs almost 6 millions of workers in order to meet the deficit.

Health Workforce

Health workforce could be briefly defined as the personnel providing health care services in public or private sectors planning health workforce is a complicated process including planning the labor force to provide health care services, their trainings, employment and management in consideration of the relation between geographical, economic and socio—cultural properties and a potential provision of cost effective health service in order to meet the current needs of society(DPT, 2010: 3). Actually, planning of health workforce is not different from the current human resource planning of other sectors. But there are some methods and factors that make health workforce planning different from other sectors. First of all, health workforce planning is a process to project the required quantity, skills and talents of medical personnel in order to achieve permanent targets of the sector and accomplish the expected outcomes. Due to this fact, planning of health workforce is one the most significant tools for providing quality health care services. On the other hand, 'health services' is one of the most significant items in GDP expenditures. Therefore, the planning of health workforce is also important for the sustainability of national budget (European Commission, 2012: 112).

Another factor that makes health workforce important is that the education of physician, nurses and other medical personnel is a long-term and complicated process and need considerable funds. This process should be planned well in order to achieve a convenient supply and demand balance of medical personnel within short, middle and long terms. The health workforce planning convenient with budget constraints does not only serve as a political guide for medical education but also important for evaluating possible impacts of the re-planning of health services in order to meet changing medical needs (Ono et al., 2013: 6).

Different Approaches Of Health Workforce Planning

The main target of health workforce planning is to achieve a convenient balance between medical supply and demand. Achieving this balance, usually, cannot be possible due to some structural problems in health sector. Accordingly, many factors should be taken into account while conducting health workforce planning. First of all, health workforce planning should be updated periodically. The analysis of supply and demands for doctors,

nurses and other medical personnel for the upcoming 10-15 years includes many uncertainties and so it is a complicated process. Thus, the projections should be reviewed in consideration of changing situations, data and politics. Moreover, it is only possible to determine the targets precisely with having realistic data about current situation of health workforce. Especially in supply oriented labor force planning, the focus point is the entries of medical personnel to the system while ignoring the ones who are out of the system due to an incident like retirement. Moreover, health workforce planning should have a regulatory effect on medicine and nursing educations with the adequate geographical distribution of medical personnel (Ono et al., 2013: 6). Within this scope, health workforce planning should be conducted in consideration of supplies, demands and needs.

DEMAND ORIENTED APPROACH: Demand oriented approach of health workforce planning analyzes the quantity of possible future demand of health services and focuses on the population per doctor and foreseen quantity and type of services. This approach is based on making a projection for the future, evaluating the current demand for health services inside a country. There is a need for comprehensive data about the current demands in order to conduct this in accurate way. Demographic factors, morbidity, epidemiology, the opportunities within the sector, presentation models of different health services and the increasing expenditures in line with the developing economy are some factors affecting health services and thus the health workforce (European Commission, 2012: 113; Ono et al., 2013: 19).

SUPPLY ORIENTED APPROACH: This approach focuses on the supply of health workforce. This supply is determined by some factors such as gaining and losing personnel and the working hours. The entries inside the profession that creates the supply for health workforce are obtained through the institutions providing medical education, migrant professionals and the personnel returning to service after being far for a while. Decreases in the labor force supply are caused by the staff leaving this profession for working in other sectors and the ones who retire or immigrate. Finally, the working hours are determined by calculating headcounts or the number of personnel working full time (Ono et al., 2013: 19). This approach is conceptually easier than demand oriented approach. However, both the flows of medical human resource and the estimations about the current situation should be acknowledged precisely and comprehensively. Moreover, supply oriented models have to include a mobility, organization and motivation which affect the decisions related to health workforce through human resource politics. It should also analyze and observe some changes such as the transition to a society based approach, effects of population aging including the medical staff, labor market and social changes like feminization, the effects of EU laws, roles of new technologies and the common grounds of long-term maintenance and health care (European Commission, 2012: 121).

NEED ORIENTED APPROACH: This approach involves calculations of the needs of society in terms of health services and the supply of these needs. The needs that are not adequately demanded by the society should be determined according to the epidemiologic data while the needs of society are determined by professionals. The minimum need for health services for babies, children, mothers, the old and the workers who are under certain risks should be determined together with their environments. (DPT, 2010: 4). Besides being regarded as an upgraded version of demand oriented approach, this approach focuses on determining the number of needed labor force, the medical deficits and the projects in order to supply optimum standards. Cost-effective methods have to be determined for a convenient calculation and that should be used consistently with the level of medical needs (European Commission, 2012: 121).

The Impact of Demographic Change on the Health System

20th century has witnessed significant developments in medicine. There has been an increase in the old age population particularly due to the developing health system. Actually, the worldwide population had been balanced and stable until 19th century. However, mortality rates started to decrease due to the developments in medicine and precautions provided for public health. The population of the world has doubled in only 50 years since the beginning of this century. This increasing trend of population has caused some changes especially in age composition and dependency rate. The population growth rate of children was 1.57% between the years 1955 and 1975, 0.6% between 1975 and 1995 and predicted to be 0.25% between 1995 and 2025 (Ko, 2001: 75).

This situation is called as demographic transition process and stands for the transition from high to low in birth and mortality rates. It has four phases. In the first phase, birth and mortality rates are high and economic growth and development decrease mortality rates and increase life expectancy with developing food, hygiene and health services. Within the second phase, mortality rates are low while birth rates are high. This situation can be explained with the conventional trend in a public to give importance to high fertility and birth rates and the awareness of causes of deaths. In the third phase, social and economic developments result in decreasing birth and mortality rates. And in the last phase, the demographic transition is completed by achieving a balance between low birth and mortality rates (WHO, 2006: 4).

It is projected that between the years 2006 and 2050, the number of people over 60 will increase from 650 million to 2 billion, the rate in world's population from 11% to 22% and be higher than the rate of the population under 14 (Plouffe, 2008: 3). All countries encounter demographic changes. Generally, developed countries have low birth and mortality rates. However, most of the developing countries have an increasing trend in birth rates and a significant change in mortality rates. This fact creates some challenges related to financing of health services (Gottretand Schieber, 2006: 28).

Researches show that old people benefit health services 3-5 times more than the young and this fact shows that old age population forms almost half of the workload of hospitals. It is also known that a proportion of medical expenditures changing between one-third and half is made by the old. For instance, the population over 65 makes almost one-third of the expenditures for sickbeds in England (Rechel et al.,2009: 8-9).

According to a research conducted by European Council, the expenditures on health services have been increasing within the last decade and will further this trend in line with the demographic changes. The long-term projections display that, aging has an increasing effect on the expenditures made for health services and results in an increase in the share of health services inside gross domestic product from 1% to 2%. This fact is regarded as a result of the increase in the demand for long-term health care services and the decrease in the rate of working age due to the increasing life expectancy (European Commission, 2007: 11).

As a result, the demand for health services is increasing due to the aging of population. Medical needs of old people are relatively increasing especially for the ones over 75. This fact creates problems in terms of resources allocated for health services. While the retirement pension, health services and the demand for other social welfare expenditures are increasing, the number of people who contribute to the funds in parallel with the number of workers. Especially the participation of people at the ages between 55 and 64 in the labor force is generally at a low level (Saltman and Figueras, 1999: 24).

Demographic Change and the Situation of Health Workforce in the EU

EU region has one of the most rapidly aging populations in the world. Since the beginning of the second half of 20th century, decreased mortality and birth rates have resulted in a rapid increase in old age population. As a result of this increase, dependency rate of old age population which was 26% in 2010 will reach to 53% in 2060 (INTERREG IVC; 2013: 2010). Moreover, it is expected that the life expectancy that was 76.7 for men and 82.5 for woman will rise to 84.6 and 89.1 in 2060. This rapid aging of the population creates negative effects especially on manpower and health services.

It is seen that the first concrete step in order to solve the problems caused by aging in EU was taken in Stockholm European Council held in 2001. In this meeting, some decisions were taken about increasing employment and efficiency in order to decrease public depths and make some reforms in retirement, health services and long term health care services. In addition to this, it was aimed in Lisbon Strategy to increase the age of retirement by 5 years and increase the participation of people at the ages between 55 and 64 into the labor force up to the rate of 50% until 2010. And in Europe 2020 Strategy, it was aimed to increase the employment rate of the age group of 20-64 together with a special target for 55-64 ages. (Rechelet al., 2013: 8-9).

One of the most significant factors of population aging is the increase in the demand for health workforce in parallel with the increase in the need for health services. However, it is also known that high number of old population generally causes a decrease in the rate of labor force participation. This fact creates a deficit in health services sector in a similar way to the other sectors. On the other hand, as a need due to the structure of health services, the education of doctors and nurses has a complicated and long process. And this fact requires health workforce to be planned early in line with predictable targets.

It is seen that the first regulations of EU about health workforce was by one of the founding agreements of the union, Treaty of Rome. However, health workforce was not regarded in a same category with other labor force sectors within this period and only evaluated in terms of free flows of the labor force. Within this scope, article 57 of the Treaty of Rome foresees that the constraints in medicine, medicine-related professions and pharmacy have to be removed gradually and these professions have to be conducted through coordination of conditions of different member states (Roma Treaty, 1957).

However, labor force sector is too important and complicated to be regarded only as labor mobility for EU. The demographic aging in almost every member state and its rise especially within the last 50 years has made health services and health workforce more significant. The member states encounter with some problems while searching new methods to meet the increasing need for health workforce caused by population aging. Obviously, there are some factors other than population aging, such as working conditions and low salaries, which affect the insufficiency in supply for health workforce. The higher need for long term health care services for the old population and new advances in medical technologies have also increased the labor force need in health services sector (European Commission, 2012b: 1).

Actually, health services sector is one of the most labor intensive sectors in the EU. Almost, 10 percent of all workers are employed in this sector within the EU (Kidd, 2009: 21). Especially between 2000 and 2010, 4 million of new opportunities were created in health services sector and this number represents an increase of 21%. Moreover, while other sectors have experienced a recession due to the crisis between 2008 and 2010,

health services sector created more than 770.000 new employment opportunities (European Commission, 2012b: 1). Although, the positive developments occurred in the EU, the deficit in health workforce has not been solved. The Green Paper, published by the European Commission in 2008 presented the problems concerning the health workforce and it has proposed solutions for them. According to this document, the core problem in health workforce issue has to be aging of the population and thus aging of the health workforce. In other words, the lack of supply, as a natural result of population aging, results lacking of young population to meet the deficit caused by the old medical personnel. On the other hand, there are other factors such as the indifference of new generation for health services sector, immigration of medical personnel, movements towards some other developed countries, unequal labor force mobility within the union and the brain drain from the countries out of the Union (Commission of the European Communities, 2008: 4).

There are some methods proposed in this Document in order to meet the deficit in health workforce such as using telemedicine in rural areas, providing better working conditions for medical personnel, boosting morale and motivation of the staff, re-organizing chronic illnesses and long-term health care services, providing a more efficient distribution of health workforce , providing incentives in order to attract the ones stay out of the labor force and raise awareness of the young population about having a career in medicine sector. Moreover, it is stated in this Document that almost 75% of the health workforce is consisted by females and in some countries half of the medicine students are females and accordingly some measures about gender equality should be taken (Commission of the European Communities, 2008: 17).

It is projected in a report prepared by European Commission in 2012 that the demand for health workforce will increase as the population gets older in the EU. It is also projected that the population over 65 will be doubled within 50 years and the need for long-term health care services will increase in line with the changes in family structures. On the other hand, it is predicted that the current health systems will remain incapable of meeting the needs of patients due to these demographic changes. Especially the chronic illnesses that increase in line with the population aging and new treatment methods will increase the need for qualified medical personnel (European Commission, 2012b: 3).

The retirements in health workforce also create a significant problem for the European Union. 30% of the physicians were over 55 and the average age of nurses were about 41-45 in 2009.It is foreseen that 3.2% of the doctors will retire every year until 2020. But, the level of education for new medical professionals to meet the deficit caused by the old personnel is not adequate. For instance, 13.400 nurses retired in Italy in 2010 and only 8500 nurses completed their trainings in 2008 and 2009. Some other factors such as the competition with other sectors in terms of the choices of the youth, relatively low salaries, long working times, stress and the imbalance between work and life results in resignations. Unless the required measures are taken in order to solve the problems stated in the report, the health workforce deficit, which is predicted as 1 million, will increase to two millions by 2020. Due to this fact, it is proposed that the member states should act in coordination with each other in order to solve such problems (European Commission; 2012b: 3-5). Within this scope the objectives are listed below;

- To predict the needs for health workforce and make a planning,
- To predict the qualifications of medical professionals that will be needed in the future,
- To share some successful instances about efficient employment and protection strategies related to medical professionals.

Demographic Change and the Situation of Health Workforce in Turkey

The demographic process of Turkey can be divided in three periods. High birth and low mortality rates had been observed from the foundation of the Republic of Turkey until 1950s except for the period of World War II. Especially, due to the government supports to increase labor supply, which was decreased in the period of wars, the population of Turkey doubled in this period. The second period is between 1955 and 1985. The population growth rate reached to its climax in this period. Although the fertility rate was relatively lower than the first period, the population continued its growth due to the low rate of mortality. During the last period, including present days, the increase in fertility and mortality rates continue to decrease. This period is also regarded as the last phase of the demographic transition (TÜİK; 1995: 4-5).

Turkey has a young population. The rate of population at working age is 67.7%, the rate of 0-14 ages is 24.6% and rate of over-65is 7.7% (TÜİK, 2014). Although this profile is under the average of OECD countries, the life expectancy, which was 55 years in 1970, has increased to 70 years in present. The rates of infant and maternal deaths decreased respectively by 80% and 75%. In this period, Turkey has also entered in an epidemiologic transition process. Within this process, the rate of deaths caused by contagious diseases decreased, while the ones caused by non-contagious diseases increased (Refik Saydam Hıfzıssıhha Mektebi Müdürlüğü, 2007: 3).

Beside this demographic change process, the economic developments and the aim to found a comprehensive health care system throughout the country has necessitated the health workforce planning together with the re-organization of health care system. In the contemporary history of Turkey, the first policies concerning health workforce planning had been the limited actions made in the period of Refik Saydam, who was the first Minister of Health of the Turkish Republic. The law named as“Tababet ve Şuabatı Sanatlarının Tarzı İcrasına Dair Kanun” (The law on the Profession of Medicine) was enacted within this period in order to regulate the working conditions of medical professionals. The objectives to train medical professionals had been set in the “First Ten Year Health Plan” of Turkey (Karabulut, 2007: 153). Due to the policies conducted within this period, the number of doctors, which was 344 in 1923, increased to 1625 by 1935. Other health workforce also experienced a limited increased within this period (Karabulut, 2007: 153).

In post-World War II era, in line with most of the world, the developments in welfare state concept encouraged Turkey to create policies for increasing the number of health workforce for providing more efficient health care services. The Second Ten Years Health Plan was prepared in this period. The first Five Years Plan of Development, has also emphasized the insufficiency in the numbers of medical professionals, additionally, the inequality in distribution and inadequate quality of the professionals had been stressed. It was aimed, in this development plan, to increase the number of senior officials by 2.5 times, allied health personnel by 6 times and the expenditure per person by 2 times (DPT, 1963: 39-408). The Law for Socialization of Health Services (Sağlık Hizmetlerinin Sosyalleşmesine Dair Kanun) that was enacted in 1961 included policies on regional distribution, number and qualifications of medical personnel in convenience with the concept of being a welfare state. Moreover, the law defined Physicians, nurses, midwife and allied health personnel in a hierarchical manner and within a certain geographical distribution (OECD, 2008: 22).

The post-1980 era has witnessed a re-organization of Turkish health system and health workforce according to neo-liberal politics. Objectives for full time working of medical professionals and purchasing of health services

by the state from self-employed physicians had been set in the Fourth and the Fifth Development Plan. In the same period, within the scope of projects prepared in cooperation with the World Bank in 1990, 1994 and 1997, training programs for the health workforce had been held. "Turkey Health Transformation Program" which has been adopted in 2003 can be labeled as the milestone in health services. In this period, creating a qualified and motivated health workforce has been demonstrated as one of the most significant objectives of Turkey. (Ministry of Health, 2003:26–36).

However, all these developments could not be enough to bring health services to the expected level. The Strategy Plan of 2013-2017 which was issued by the Ministry of Health in 2012 presented that Turkey has the worst indicators of Europe in terms of health workforce. Turkey was ranked 52nd among 53 countries in terms of the number of physicians per person. While there are 326 doctors for a hundred thousand of people in Europe, this number is only 169 in Turkey. Moreover, there are some inequalities in regional distribution of health workforce. On the other hand, there is a significant unemployment in health services sector. The proportion of medical personnel in the total labor force was 2,8 in 2011 and it is aimed to be increased to 3,3% and 4,3% in 2017 and 2023 respectively. New objectives have been set in the report in order to overcome the negative situation, such as: upgrading distribution, qualification and motivation of the health workforce and providing sustainability for health workforce. (Ministry of Health; 2012: 41,95)

Health workforce indicators are to the detriment of Turkey compared to the EU. A comparison between Turkey and EU has been conducted by the Situation Report on Health Workforce published in 2014. According to this report, the number of physicians per a hundred thousands of people is only 27 in Turkey, while the average number is 267 in EU. And the numbers for general practitioners are 48 and 79 respectively. Accordingly, the indicators concerning the numbers of dentists, pharmaceutics, nurses, physical therapists, midwifes medical technicians and other medical staff in Turkey is way below the EU average. For instance, while there are 80.2 physiotherapists per a hundred thousands of people in Europe, this number is only 7.7 in Turkey (Ministry of Health, 2014: 33-97).

Could Turkey's Window of Opportunity Be a Solution for the Health Workforce Problem of the EU?

EU encounters with the lack of labor force due to the population aging. The projections conducted for the upcoming years also show that half of European population will be over 65 and even the number of people over the age of 100 will have a significant increase by 2050 (Salihşahin, 197). None of EU member states has an adequate birth rate to regenerate the population. This situation displays that the labor force is being aging gradually. It is expected that almost 45% of the labor force will be over the age of 65 in 2020. This means that there will not be adequate supply in terms of the labor force. And this fact will affect competitiveness of EU adversely. According to the estimation made by the OECD, there will be a significant loss of labor force in member states until 2050. Some important countries of the EU will be affected adversely by this situation. For instance, it is projected that the loss of labor force will be 18% in Germany, 11% in France, 12% in England and 39% in Italy. However, a significant increase by 33% is foreseen for the USA (Şahin, 2008: 197).

One of the most significant results of population growth is the problem of meeting demands for health systems due to the aging of the population. Accordingly, the health system of EU should be reorganized in convenience with the anticipated aging of the population. However, the upmost significant effect of the aging is the decrease

in labor force participation due to decrease in population in working age. The health sector will be affected by this lack of labor force like all other sectors. However, a certain deficit in labor force is inevitable for health workforce in the EU due to the fact that health sector is a labor intensive sector and the health technologies can be used conveniently by qualified health workforce (Sönmez, 2010: 54-56).

Despite all these developments for the EU, it is predicted that Turkey will further its advantage of having a young population. While it is expected that 22.8% of the population of EU will be over 65 by 2025, this rate will be only 10.8 in Turkey. Long term projections demonstrate that the rate of working age population in Turkey (age 15-65), which was 66% in 2005, will be increased to 69% by 2030 (OECD, 2008: 97). It is also anticipated that the labor force will grow to 48.7millions between 2010 and 2023 and Turkey would pursue its situation as window of opportunity for the EU (Sönmez, 2010: 56).

The advantages of Turkey, as presenting a window of opportunity, could provide an important source of health workforce for the EU. Although there are no agreements between Turkey and EU about workers' freedom of movement, it is assumed that the labor force needed in the EU could only be supplied by migrant workers. According to a research conducted by the United Nations, between the years of 2015 – 2040 the EU countries will need more than 6 millions of workers in order to preserve its current working-retired proportion. On the other hand, if Turkey became a member of the Union, it is anticipated that 2.7 to 4 millions of people will immigrate to the EU member states from Turkey (Gökçe and Akın, 2009: 35). But even this number demonstrates that the workforce requirements of the EU cannot be met only by Turkey (Sönmez, 2010: 56).

However, Turkey has to improve its training infrastructure in order to be a source of health workforce for the EU. Although, health services sector is a labor intensive sector, the high technologies in health sector require highly qualified labor force. Therefore, the legislation on health workforce training of Turkey has to be harmonized with the EU acquis. Accordingly, it was announced by the Ministry of Health that the curriculums for the education of physicians, dentists, pharmaceutics, nurses and midwifes are in accord with the EU, although any standards have not been set by the EU on free movement of health workforce (Ministry of Health, 2010: 21).

Actually, figures of Turkey concerning health workforce seem worse compared to the EU. Thus, firstly Turkey has to employ the required health workforce in its own. On the other hand, Turkey has to have a qualified labor force in order to be an opportunity for the EU. However, some researches demonstrate that Turkey is worse than the EU in terms of training, as well (Öz et al., 24). Therefore, Turkey should increase its human capital investment and its potential of a qualified labor force to use the high technology in order to be an opportunity for EU rather than a threat. Health services sector employs female labor force intensively. Bearing the low rate of work force participation among females in mind, policies to improve females to participate workforce have to be prioritized in Turkey.

Conclusion

Turkey would be an important source for the EU in providing required health workforce. It seems unavoidable for the EU to take advantage of Turkey's young labor market, especially considering the ongoing membership negotiation process. The projections show that EU needs more than 6 million of migrant workers in order to meet its labor force deficit. Turkey is regarded as a significant country to meet this demand. However, in order to

exploit this situation, Turkey should have a more qualified and talented labor force. Although health services sector is a labor intensive sector, there is a need for well-informed and talented labor force in order to use the high technology diagnosis and treatment devices.

Actually, it seems quite difficult for Turkey to meet the health workforce deficit of the EU. Although Turkey has a sufficient number of young populations, it's hard to say that this young population has the required knowledge and skills. On the other hand, the fact that Turkey has an insufficient amount of health workforce in proportion to its population compared to the EU makes hard for member states to regard Turkey as a potential source of health workforce. Therefore, Turkey has to implement some measures to enhance the quality and quantity of health workforce to reach the level of the EU standards. These measures would be also essential for the integration of the EU and Turkey, in general. Consequently, the infrastructure for the training of physicians, nurses and all other medical personnel should be constructed and some measures have to be taken for making health sector more attractive for the younger population.

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The Impact of Income Inequality and Economic Growth on Health in OECD Countries: A Panel Data Analysis

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The link between income inequality and health has been discussed in the empirical literature for a long time. However, the empirical results are very mixed and umbiguous. This paper investigates the impact of income inequality and economic growth on health using panel data models for a panel of 12 OECD countries over the period 1991-2007. In other words, this paper examines the cointegration and causal relationships between the variables. In the study, life expectancy at birth measures health status. The results of panel unit root test show that the series are stationary at their first difference. This means that they are integrated at $I(1)$. The results of Pedroni and Kao cointegration tests show that there exists a long run relationship between income inequality, economic growth and life expectancy at birth. We find that there exists a positive and statistically significant relationship between economic growth and life expectancy at birth in the long run. We also find that there exists a statistically insignificant relationship between income inequality and life expectancy at birth in the long run. There exists a bi-directional causal linkage between economic growth and life expectancy at birth in the long run. There also exists a long run causality running from income inequality to life expectancy at birth.

Keywords: Health ● Income Inequality ● Economic Growth ● Panel Data ● OECD Countries

1. Introduction

The income inequality-health hypothesis suggests that income distribution significantly influences population health and mortality (Torre and Myrskyla, 2011). Several studies in the relevant literature suggest that income distribution is associated with health variables such as life expectancy and infant mortality (Preston, 1975; Rodgers, 1979; Wilkinson, 1992; Lynch et al., 2004). According to the absolute income hypothesis there exists a positive link between individual's health and income meaning that an increase in income level improves health quality (Wagstaff and Van Doorslaer, 2000).

The empirical literature indicates that there exists several determinants of health. These are genetic endowment, nutrition, environment, education, real prices, technological progress, economic growth and income inequality (WHO, 2004).

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Gerdtham et al. (1992) analyse the relationship between GDP, institutional and socio-demographic factors and health care spendings by using panel data on 20 OECD countries over the period 1960-1987. They reveal that income elasticity of health is larger than one implying that health is a main luxury good.

Mellor and Milyo (2001) examine the link between income inequality and health by using a panel data of 12 OECD countries. The results do not provide evidence for the income inequality-health hypothesis.

Beckfield (2004) deals with the relationship between income inequality, economic growth and health by applying a panel data analysis for 115 countries over the period 1947-1996. Panel OLS results show that there exist a negative link between income inequality and health. The results also show that economic growth is positively associated with health.

Tosetti and Moscone (2007) deal with the long-run relationship between health care expenditures and economic growth in the USA at a state level by employing a panel data of 49 US states from 1980 to 2004. The results of panel OLS reveal that there exists a positive and significant relationship between the variables over the period.

Tacke and Waldmann (2009) investigate the link among income inequality, infant mortality and health care expenditures by employing cross-national data of 98 countries. The empirical findings show that income inequality is positively correlated with infant mortality.

Baltagi and Moscone (2010) explore the long-run relationship between health care expenditures and economic growth by employing a panel of 20 OECD countries over the period 1971-2004. In this study, the non-stationarity and cointegration properties between the variables are tested by panel cointegration and regression analyses. Panel OLS results show that economic growth positively affects health expenditures in the long run.

Applying a panel data analysis, Cukur and Bekmez (2011) investigate the relationship between income, income inequality and health in Turkey from 1975 to 2001. Panel OLS results reveal that per capita GDP negatively affects infant and under five mortality rates in Turkey.

Herzer and Nunnenkamp (2011) examine the link between income inequality and health for 35 countries from 1970-1995. The study uses panel cointegration and DOLS approaches. The results show that there exists a long run relationship between the variables. The results also show that income inequality is positively correlated with health. It is found that there exists significant cross-country differences.

Torre and Myrskyla (2011) investigate the impact of income inequality on health for 21 developed countries over the period 1975-2006. Panel OLS results indicate that income inequality is positively linked with mortality rate. This means that income inequality decreases health quality in the long run.

The aim of the present study is to investigate the impact of income inequality and economic growth on health using panel data models for 12 OECD countries over the period 1991-2007. We use Im, Pesaran and Shin (2003) (IPS) unit root test to test for unit root properties of the series. Pedroni (1999) and Kao (1999) cointegration approaches are employed to analyse the presence of a long run relationship between the variables. The long run estimates of the variables are conducted by panel OLS method. Finally, panel VECM Granger causality test is used to investigate the long run and short run causality between the variables.

The rest of the study is organized as follows. The next section presents the model and data. The third section deals with the econometric methodology. The fourth section provides the empirical results and the last section concludes the study.

2. Model and Data

Following Torre and Myrskyla (2011), we analyze the long run relationship between economic growth (GDP), income inequality (GINI) and health (HEALTH) by employing log-linear model as follows:

$$LHEALTH_{it} = \alpha + \beta_1 LGDP_{it} + \beta_2 LGINI_{it} + \varepsilon_{it} \quad (1)$$

Income inequality is proxied by Gini coefficient, economic growth is measured by real GDP per capita in constant 2005 international dollar and health is proxied by life expactancy at birth. The ε_{it} are white noise residual terms. t is time; i is the cross section unit (ith country). All variables are expressed in the natural log form. β_1 and β_2 are the long-run parameters for health with economic growth and income inequality, respectively. The sign of β_1 is expected to be positive because economic growth is a main determinant of health quality. The expected sign for β_2 is negative because income inequality decreases health quality.

The data for the Gini coefficient are obtained from the University of Texas Inequality Project (UTIP). The coefficient suggests that how equally income is distributed across the population and is derived from the Lorenz curve. The data for real GDP per capita and life expactancy at birth are taken from World development indicators (World Development Indicators, 2016) online database. This study employs panel data of 12 OECD countries over the period 1991-2007. OECD countries in the panel data analysis are Austria, Canada, Finland, Ireland, Japan, Italy, Czech Republic, Korea, Norway, Spain, Turkey and United Kingdom. 12 OECD countries are selected on the basis of data availability. The descriptive statistics and correlation matrix of the variables are reported in Table 1. Fig. 1 indicates trends in the series.

Table 1: Descriptive Statistics and Correlation Matrix
(Panel data: 1991-2007)

Statistics/Variables	***HEALTH***	***GDP***	***GINI***
Mean	77.106	29.159	37.251
Median	77.854	30.067	36.628
Std. dev.	3.277	14.299	4.503
Min.	64.783	4.964	26.160
Max.	82.507	69.094	49.568
Skewness	-1.431	0.387	0.816
Kurtosis	5.445	3.189	4.369
Observations	204	204	204
HEALTH	1.000		
GDP	0.677	1.000	
GINI	-0.288	-0.275	1.000

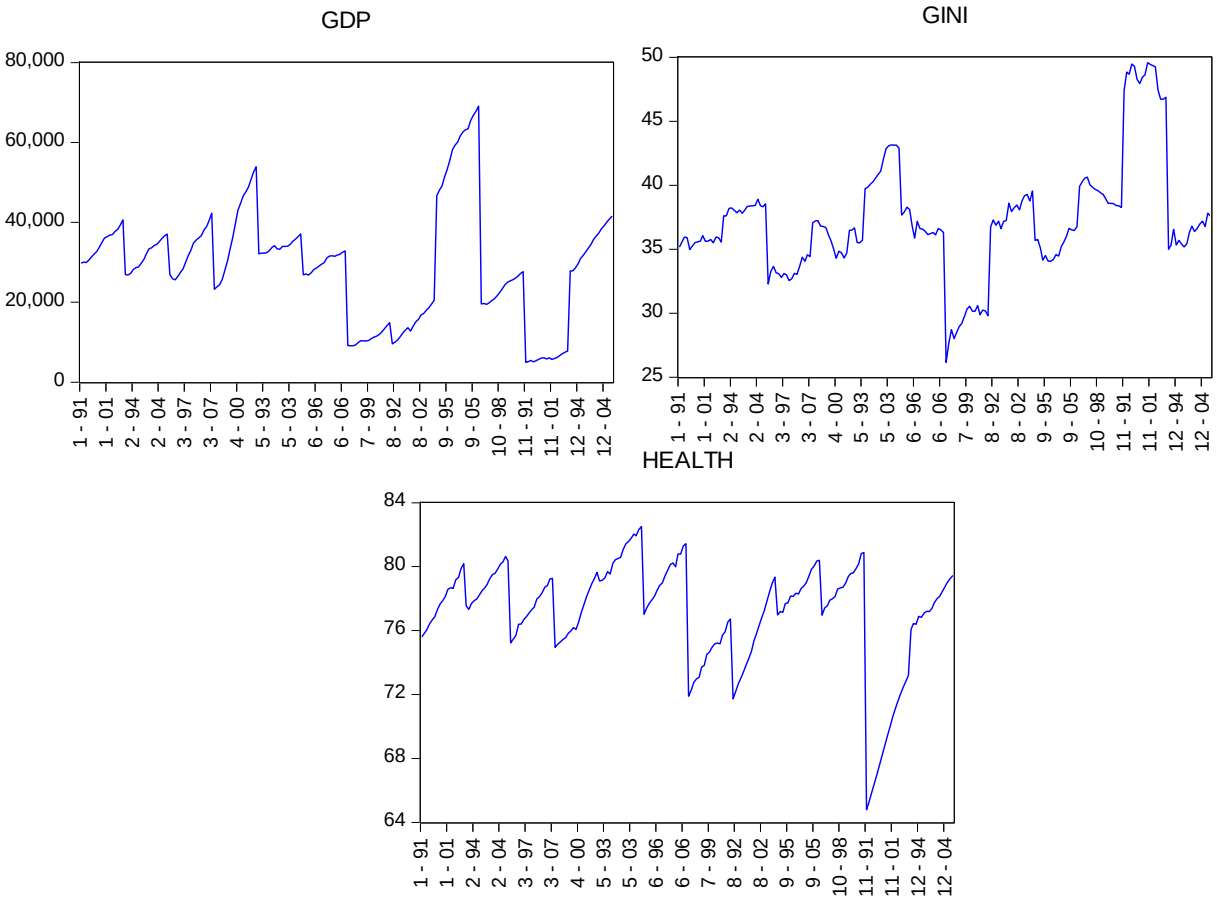

Fig. 1: Trends in GDP, GINI and HEALTH

3. Econometric Methodology

3.1. Panel Unit Root Tests

In the empirical literature, several unit root tests are extensively employed to test for the unit root properties of the variables. These are Hadri (2000), Breitung (2000), Levin, Lin and Chu (2002) and Im, Pesaran and Shin (2003) tests. In this study, we use the panel unit root test developed by Im, Pesaran and Shin (IPS) (2003) to check the stationarity properties of the series.

The main characteristic of IPS test is that it makes the usage of a heterogeneous autoregressive coefficient under the alternative hypothesis possible. IPS test begins with the ADF-type regression as follows (Hossain, 2011):

$$\Delta y_{it} = \alpha_i y_{it-1} + \sum_{j=1}^{p_i} \gamma_{ij} \Delta y_{it-j} + \varepsilon_{it}, i = 1,..., N;\ t = 1,2,.....T \qquad (2)$$

In this test the null hypothesis that there exists a unit root is tested against the alternative hypothesis that some cross-sections do not have a unit root. In this approach, firstly the separate ADF regressions are estimated. Secondly, the average value of the individual ADF *t*-statistic for each of the countries in the sample is computed, which is given by

$$\bar{t}_{NT} = \frac{1}{N}\sum_{i=1}^{N} t_{iT\,i}(pi) \tag{3}$$

where t_{iTi} (pi) is the computed ADF test statistic for each country (i). Thirdly, the standardized *t*-bar statistic is calculated, which is given by

$$Z_{\bar{t}\,nT} = \frac{\sqrt{n}\left[t_{nT} - \frac{1}{n}\sum_{i=1}^{n} E(t_{iT}(\bar{p}_i))\right]}{\sqrt{\frac{1}{n}\sum_{i=1}^{n} \mathrm{var}(\bar{t}_{iT}(p_i))}} \approx N(0,1) \tag{4}$$

IPS test indicates that the standardized *t-bar* statistic will converge to the standard normal distribution as N and $T \to \infty$. IPS test also indicates that *t-bar* test presents better performance when N and T have a small sample.

3.2. Panel Cointegration Tests

3.2.1. Pedroni Cointegration Tests

We can use Pedroni (1999) cointegration tests since the variables are *I*(1). Pedroni cointegration methods allow us for individual-specific fixed effects and deterministic trends to test for a cointegration between the variables. In these tests, the following regression equation is employed:

$$y_{it} = \alpha_i + \phi_{it} + \lambda_1 x_{1,it} + \lambda_2 x_{2,it} + ... + \lambda_{ki} x_{kit} + u_{it} \tag{5}$$

where *t = 1,…., T; i = 1,….N.* α_i, *k* and *t* indicate the intercept term, the number of independent variables and the number of observations over time, respectively. λ_1, λ_2 and λ_k are slope coefficients. Under the null hypothesis of no cointegration, the residuals u_{it} will be *I* (1). In this test, the residuals are obtained from Equation (5).

Pedroni (1999) developed seven statistics for heterogeneous panels. These are four within dimension statistics and three between dimension statistics. Panel v-statistic, panel ρ-statistic, panel PP-statistic and panel ADF-statistic are the within dimension tests. Group ρ-statistic, group PP-statistic and group ADF-statistic are the between dimension tests. These test statistics are derived from the residuals. Pedroni shows that the standardized statistics is asymptotically normally distributed.

3.2.2. Kao Cointegration Test

Kao (1999) deals with cross-section specific intercepts and homogeneous coefficients during the first-stage regressors. Kao (1999) uses Dickey-Fuller and Augmented Dickey-Fuller type tests. These tests begin with the following model

$$y_{it} = \alpha_i + \beta x_{it} + e_{it}, i = 1,....., N; t = 1,....., T \tag{6}$$

$$y_{it} = y_{it-1} + u_{it} \tag{7}$$

$$x_{it} = x_{it-1} + \varepsilon_{it} \tag{8}$$

For the Augmented Dickey-Fuller test, the residual is estimated as follows:

$$\hat{e}_{it} = \rho \hat{e}_{it-1} + \sum_{j=1}^{p} \varphi_j \Delta \hat{e}_{it-j} + v_{itp} \tag{9}$$

Under the null of no cointegration, the ADF test is computed as follows:

$$ADF = \frac{t_{\bar{p}} + \sqrt{6N\hat{\sigma}_r}/(2\hat{\sigma}_{0r})}{\sqrt{\hat{\sigma}_{0r}^2/(2\hat{\sigma}_r^2) + 3\hat{\sigma}r_r^2/(10\hat{\sigma}_{0r}^2)}} \tag{10}$$

3.3. Panel VECM Granger Causality Approach

The panel cointegration tests provide evidence for the presence of a long run relationship between the variables. They do not present information about the direction of causality between the variables. We can use the Granger causality based VECM approach since the variables are cointegrated. In this method, both long run and short run causal relationships between the variables can be investigated. This method uses the error correction term (ECT) included to the VAR system as an additional variable. The VECM specifications can be expressed as follows:

$$\begin{bmatrix} \Delta CO_{2it} \\ \Delta ENERGY_{it} \\ \Delta URBAN_{it} \end{bmatrix} = \begin{bmatrix} C_1 \\ C_2 \\ C_3 \end{bmatrix} + \sum_{k=1}^{p} \begin{bmatrix} \beta_{11k} \beta_{12k} \beta_{13k} \\ \beta_{21k} \beta_{22k} \beta_{23k} \\ \beta_{31k} \beta_{32k} \beta_{33k} \end{bmatrix} \begin{bmatrix} \Delta CO_{2it} \\ \Delta ENERGY_{it-k} \\ \Delta URBAN_{it-k} \end{bmatrix} + \begin{bmatrix} \gamma_1 \\ \gamma_2 \\ \gamma_3 \end{bmatrix} ECT_{it-1} + \begin{bmatrix} \varepsilon_{1it} \\ \varepsilon_{2it} \\ \varepsilon_{3it} \end{bmatrix} \tag{11}$$

Where Δ is the first difference operator, ECT_{it-1} is the lagged error correction term obtained from the long run equation and ε's are the error terms. The coefficient of ECT shows the existence of a long-run equilibrium relationship among the variables. A short run causality is detected by applying a joint test of the coefficients based on the the *F*-test. A long run causality is determined through the significance of the lagged error correction term based on the *t*-test.

4. Empirical Findings

Table 2 reports the findings of IPS test. The results reveal that the variables are not stationary at the level but stationary at the first difference. This means that the variables have a panel unit root and are integrated at *I*(1). This allows us to use the panel cointegration tests.

Table 2: The Results of Panel Unit Root Test

	Level	**First difference**
Im, Pesaran and Shin W-stat		
LHEALTH	-0.319	-1.905**
LGDP	1.432	-1.862**
LGINI	-1.132	-2.945***

Notes: The optimal lag lengths are obtained automatically with the AIC.
*** indicates significance at 1% level.
** indicates significance at 5% level.

The results of Pedroni cointegration tests are presented in Table 3. The results reveal that most of the statistics reject the null hypothesis of no cointegration. This means that there exists a long run relationship between economic growth, income inequality and health over the period. The results of Kao cointegration test are reported in Table 4. The finding of ADF test statistic shows that there exists a long run relationship between the variables.

Table 3: The Results of Pedroni Cointegration Test

Sample: 1991-2007		
Observations: 204		
Cross-sections: 12		
Lag selection on SIC: Automatic		
Test statistics	*LHEALTH* model	*Probability*
Alternative hypothesis: common AR coefs. (within-dimension)		
Panel v-statistic	21.863	0.000
Panel rho-statistic	0.454	0.675
Panel PP-statistic	-3.672	0.000
Panel ADF-statistic	-4.881	0.000
Alternative hypothesis: individual AR coefs. (between-dimension)		
Group rho-statistic	1.535	0.937
Group PP-statistic	-5.992	0.000
Group ADF-statistic	-5.067	0.000

Table 4: The Results of Kao Cointegration Test

Sample: 1991-2007		
Observations: 204		
Cross-sections: 12		
Lag selection on SIC: Automatic		
Test statistics	*LHEALTH* model	*Probability*
ADF	-2.336	0.009

The long run coefficients of the variables are estimated through panel OLS method. The long run findings are presented in Table 5. It is found to be positive and significant link between economic growth and health. This implies that economic growth increases health in the long run. It is also found that there exists no statistically significant link between income inequality and health. The diagnostic tests show that the long run model is appropriate.

Table 5: The Results of Panel OLS

Variables	**Coefficients**	**t-statistics**	**Probability**
Dependent variable	*LHEALTH*		
ΔLGDP	0.059	6.099	0.000
ΔLGINI	0.005	0.117	0.907
Diagnostic tests			
R^2		0.693	
$Adj.R^2$		0.689	
F		226.871***	

Note: *** indicates significance at 1% level.

In the study we use panel VECM Granger causality method to investigate the causal linkages between the variables. There exists a long run causality running from income inequality to health. This means that income inequality Granger causes health in the long run. In addition, there exists a bi-directional causal linkage between economic growth and health in the long run. Finally, in the short run there exists a causality running from economic growth to income inequality (Table 6).

Table 6: The Results of Panel Granger Causality Test

	Short-run (*F*-statistic)			**Long-run (*t*-statistic)**
Dependent variable	*ΔLHEALTH*	*ΔLGDP*	*ΔLGINI*	*ECT(-1)*
ΔLHEALTH	-	0.038	0.277	-0.017**
ΔLGDP	0.014	-	0.629	-0.030*
ΔLGINI	1.114	2.348*	-	-0.018

Notes: ** indicates significance at 5% level.
* indicates significance at 10% level

5. Conclusion

This study deals with the impact of economic growth and income inequality on health in 12 OECD countries over the period 1991-2007. IPS panel unit root test is used to examine the unit root properties of the variables. Pedroni and Kao cointegration tests are used to investigate the presence of cointegration between the variables. The long run analysis is conducted by using panel OLS method. Finally, the causal linkages between the variables are determined by panel VECM Grangar causality approach.

The findings indicate that the series are integrated at *I*(1) meaning that the series are statioanry at their first difference. Therefore, Pedroni and Kao cointegration tests are used. The findings confirm the presence of a long run relationship among economic growth, income inequality and health over the period. It is observed that economic growth positively affects health in the long run. It is also observed that there exists no statistically significant link between income inequality and health. The study reveals that there exists a bi-directional

causality between economic growth and health in the long run. The study also reveals that there exists a long run causality running from income inequality to health.

The empirical findings reveal that economic growth and income inequality are the main determinants of health quality in 12 OECD countries. The governments may apply several policies to improve health quality. Firstly, a number of measurements increasing economic growth may be conducted. Secondly, a number of measurements decreasing income inequality may be designated.

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Patients with Health Professionals (Physicians and Nurses) Communication Between The Problems and Solutions

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Abstract

Contact people breathe it everywhere and always has. After birth, the baby starts to communicate with noticing around and continues until death. Verbal or nonverbal expression is absolute in itself in order to survive, and one of the most basic human needs. Communication in our age has a greater significance than ever before. The reason is attributable to the contact of the base information transmission device of a power source today. Communication between health care worker and patients are under the influence of many factors. Determine the nature of this communication is sometimes influenced by the characteristics of patients can sometimes as the characteristics of health care.

Health systems in many of the health care worker and patient outcomes closely the quality of communication is affected. Physician and nurse satisfaction, patient satisfaction, and quality is important for the development. In this study, it is considered within the scope of communication of health care workers, especially physicians and nurses with patients. In addition, the aim of this study was to determine the communication problems between patients and health care workers and make suggestions for solutions.

Key Words: Communication, Health Care Worker, Patient, Physician

Introduction

Communication is an indispensable element. . In order to survive mankind, fundamentally if he needs the water and oxygen, the most essential need for providing, it is also communication. The person who is patient have need more communication and self-expression. Also, he desire to sure that opposite side understand him. Accordingly, at this stage health staff, especially the physician meeting the patient and listening the problem, and nurse contributing the remedy fall to tasks. Communicational achieve depends on understanding the opinions that patient have by physicians and nurses and what they tell correctly by patients.

Definitions

Patients can be defined as someone who has lost his goodness and health. Disease is being in patient status. ‘Disease is discomfort occurring on body or in mind, is a term given for an anormal specific condition causing trouble and malfunction. According to the definition of disease of Turkish Language Institution ‘In organism, deformation condition of health as a result of occurring several changes, the opposite of discomfort, lad, trouble,

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evil.(Atıcı, 2007) Wrongly or chaotically, health is some arising problems as a result of deteriorating systems of organ or body.2,3 Disease is occurring of deterioration or paralysation in the mechanism of body. Disease which change the individual's self-perception and deteriorate the self-integrity and even keep the possibilities like loosing life can be a scary and worrisome life for individual.

Communication is conveying and transferring emotions, opinions, and knowledge through the way that the patient can understand easily. 'Communication is transferring, from a source (person, people or organization), through a instrument (with written, verbal, visual or body language), knowledge, news, opinion, condition, emotion or culture to people or human communities (Atıcı, 2007)

Importance of Communication

There is the communication in all moment of life. There is the communication on basic of the needs which is at all levels of Maslow's hierarchy of needs. In order to survive, self-expression of human as verbally or non-verbally is absolute and self-expression is one of the most essential requirements. In order to be together, understanding and affecting each other namely, humans contact each other for socialization.

Health Communication

Emerging the concept of health communication is in United States of America fundamentally. Health communication has begun to develop and generalize as of 1970's, have developed as multidirectional communication. Beginning of discussion the subject in Europe coincides after almost thirty years from that. In Turkey, this can be considered as new scope. 'The first study concerning health communication was realized in 1972 by International Communication Association (ICA). During 1970's with realized studies and conferences by ICA and following pressed books and publications about this subject, health communication gained an interdisciplinary dimension. And in 1985, Speech Communication Association (SCA) established the first communication commission. Acceleration of the studies about health communication realized in 1992 as a result of the powers of this two association (ICA and SCA) and national-international researches conducted gained high speed. So, health communication found an important place in discipline of communication which have large field. Primarily, this process launching with campaign of informing the public massified with the inclusion of medicine, marketing and the scopes providing health care services. Social learning and diffusion the innovations in all scopes has gained scientific approach by using theories.(Çiftçioğlu ve Ordun, 2010)

Health communication is not a stable process. Human life is an interactive and renewed process affecting his life. This communication may incur losses because of asymmetric information. 'The communication realizing between physician and patient has asymmetric structure because of public-institutional authority and the knowledge concerning solution of health problems. Asymmetric communication closes to dialogue, unless it convert to the symmetry and has gain a balance. The side having the information manages and directs the communication. Consequently, health communication which is important one of the scopes awaits for strong and effectual relevance of all health care workers and the pedagogues of health care workers.

Evaluation of The Problems Between Patient and Physician

The patients contact to their physician to tell their problems when the patients come to hospital. Efficiency and goodness of communication between the patients telling disorders in their health and the physician listening and launching to diagnose. Communicational problems may emerge between the patients who couldn't express

themselves because of some reasons and the physician hurrying up because of lack of time. ‘Four important point on the patient- physician relationship; goal of patient-physician interaction, physician’s responsibility, role of patient values and concept of patient autonomy’. This four point constitutes the basis of communication between patient and physician.

While the problems of communication between patient and physician is evaluated, these could be sourced from the patient, disease, physicians or system. It is better to handle these one by one.

Sourced from physicians:

The body language of pyshcians who meet te patient is consist of features such as; used expressions, cloths, physical appearance, the environment that they are in and also physician’s personality, roles, financial and spiritual satifaction, the perspective of physician and burnout level. As it is known, people make their decision in early minutes evaluating the physical appearance and then the communication is shaped through this impression. Mutual support, respect and reliance have important roles in physician-patient communication. Because of the physicians are the professional side of this relation, they direct the relation, ensure the effective participation of patient and determine the context of the relation. The source of medical implications is physician-patient relation. The better and more effective patient- physician communication, the more positive treatment will be.(Özkan, 2011)

If a effective and strong communication between patient and pyshcians has been established, this provide faster diagnosis and decisions, shorter recovery time and better psychological situation for patient and physicians. Using the terms that patient can not understand and accepting patients as cases are the communication barriers sourced from physicians. The physician’s hasty and not listening to patients or not asking patient how they understand and not telling them all things, are the barriers as well. Professional experience, daily working time, workload, time management, age, gender, marital status, health status , expectations from the future and goals effect the level of satisfaction and burnout of physicians. This situation is reflected on communication. When the patient go in physician’s room, physician’s attitude such as; eye contact, smiling, welcoming kindly, calling them with names will have a positive effect on patients and it will be easy to express themselves for patients.

Sourced from patients;

Patient’s age, educational level, socio-cultural conditions, personality, financial situations, beliefs, consciences, ideas and values effect the patient-physician communication. So the attitudes of patients and the effect of treatment on the same diseases are different from each other. It is difficult to have communication and maintain it with some groups of patients. It requires professionalism and patience. Besides the patient’s literacy, the educational level is a important point in communication. The higher educational level patients have, the easier they can explain themselves.

Sourced from disease;

Diseases does not consist of only the psychical problem but psychological, social and economic problems as well. Also patients have fears which sourced from lack of information and uncertainty. The problems such as; inadeqacy, anxiety, anger, hypersensitivity, despair, occurs while the condition of patient gets worse and process of the recovery prolongs.

Sourced from system;

People need the most support in the illness period. The support of the state, heath insurance and financial support come to the fore in this period. Not being covered a health insurance or insufficient covers cause communicational problems. This lack of covarage cause delays in accessibility to healthcare, undermine the equality, reduce the level of health status and cause higher treatment costs. But this conditions occur independent from patients and physicians. Except these another issue is discrepancy between private and public hospitals. Private hospitals are better than public hospitals in many areas such as; communication, time, cost, quality and attention.(Çiftçioğlu, 2010)

At the present time the danger sourced from focusing on science, technology and health economics by physician caused trained physicians who cannot be kindly as patient desire and can not understand the patien's situation.

The Evaluation of Problems between Patient and Nurse

Patients are in touch at most with nurses in hospitals. Nurses are the most active group and they serve 24 hour 7 days. They serve at the preventive, curative, rehabilitative and promoting level as the most active member of the health care staff. So it is a requirement to know and implement effective communication in nursing care.

Results of the Study and Consequence Assessment

In the study of Basol's: the purpose of research named communication in health facilities, communication between patient and health staff is to be informed of health communication between patients and health staff with using the current communication extent data of them at Namik Kemal University Medicine Faculty Hospital.

The results of this study in terms of health staff; most of the health staff are the age between 21 and 32, single and female, more than half have bachelor degree and nurse, their income between 2000 and 4000 TL and more than half have experience between 1 and 5 years. More than half of the participants of the research who are health staff had negative communication experience before. Health staff report that they treat patients who have connection with high status employee privileged. At the research the rate of negative communication between patients and nurses seems higher because of nurses have more time with patients.

The average of negative communication of health staff; while there is no difference according to age and occupational variables marital status, gender, education shows significant differences according to income level and experience variable. The average of communication perception; while there was no difference based on education and income variables there are significant difference in the experience variable according to marital status, gender, age, occupation variable. The below recommendations which based on the results of this research and other research's is important.

The results of this study in terms of patients; patients are the age between 21 and 54, most of them are married, more than half of them have secondary education and bachelor degree, their income is between 1000 and 2000 TL and irregular income. The patients who are in this research communicate first with patient admissions office and after physician and nurse. Most of the patients stated that they had communication difficulties mostly when they had information from physicians. The mean frequency of patients who is going to the hospital; while there was no difference according to age and occupational variables gender, education, shows significant differences according to income and benefit primary variables. The average of communication perception; while there was

no difference according to age and occupational variables there are significant differences in marital status, gender, education according to income and benefit primary variables.

Solution Offers

There are some features and behaviors to provide well connection between patients and health staff (physician/nurse):

- **Being Relevant and Respectful:** Patients who comes to hospital need relevancy. Relevancy, respect, smiling face and love used by health staff feel patients safe. After those behaviors of the health staff, patients will help them, respect them and help them to make their works easier.

- **Being Patient, Smiling Face and Tolerant:** Smiling is the oldest and universal way to show satisfaction in all the world's cultures. It is important to be patient, relevant and tolerant when listening patient's troubles and smiling when they come. In this way good communication began with patients. It will be indicated listening patients be patient, seriously and without heckle when patients telling their problem or complaints.

- **Treating Everyone Equally and Establish Confidence:** The sick person is in distress because of the situation given by both the disease and obscurity. Therefore there is insecurity. Here, to gain the confidence of patient health staff is an important factor. Technologically adequate level of health institutions and informed and experienced health staff make confidence to patients. Health is a fundamental human right and must be served without any discrimination. Health staffs should also thought and act to be equitable and equal.

- **Empathy:** Empathy can be defined as Instead of putting the right people across a person to understand his thoughts and feelings. The person who can empathy may be more helpful and more support to the person in psychological sense. Health staff able to cope with the patient's bad psychological situation however establishing empathy.

- **Helpful and Unprejudiced Communication:** People who lost their health need help. Helping is finding solution to problems with understanding people feelings and thoughts. it will lead to a negative start the communication when both patient and health staff have negative prejudice.

- **Establishing Authority:** Authority is gain respect at the end of impressing and establishing the opposite by the people who is expert, experienced and have knowledge. To have positive communication between patients and health staff, health staff must be effective on patients with the knowledge. Health staff who is using forced authority against will increase the anxiety and fear in patients. Because of this it would be better to use expertise, work and deal authority against to patients by health staff.
- **To Manage Stress:** Patients are afraid of the unknown, feel anxious and stressed. Stress is a psychological condition that takes part in all areas of human life and causes mental fatigue. Dragging the patient to a mental crisis, stress causes behavioral disorders and patients may refuse to cooperate with health workers. Therefore, it will be more difficult to communicate with these patients. In this regard, health workers should be

more tolerant, empathetic, helpful and patient. And, it is crucial to know and apply the methods of coping with stress.

- **Image:** Patients who come to the health facilities have prejudices. These prejudices can be changed only with improvements in the physical structure of health institutions, and the quality of services provided by health professionals. The appearance of health workers is also an important point in the image. Employees are required to be knowledgeable about the rules of the body language in effective communication. Even facial expressions of the medical staff have a positive or negative effect on elimination patient's fear and anxiety.

Communication advices for physicians:

- Integrated assessment (in terms of biopsychosocial); diseases have impact not only on physical condition, but also on psychological, social and economic conditions of patients. Therefore, it is appropriate to evaluate the patients in terms of biopsychosocial conditions.
- It is important to build trust and empathy.
- It would be appropriate to include information to medical education curriculum such as; human resources, body language, effective and healthy communication techniques and human psychology.
- It is important to recognize that patients are individuals and they should not be seen as just a medical case.
- Physicians should be optimistic especially for oncology patients.
- In-service trainings and meetings should be organized.
- SBAR communication technique may be suggested (Will be explained).
- It is important that answers should be understandable given by physicians, to spare adequate time to the patient, to listen them, to give opportunities patients for asking questions, taking notes about the patient if it necessary.
- Physicians should have sufficient information about patient rights and body language.
- Bad effects of technological developments affect communication adversely. Subjective dimension of physician-patient communication is being ignored. This point also needs to be considered.

Communication advices for nurses: (Uyer, 2000**)**

- Holistic assessment of the patient by the nurses is also important. Nurses are responsible for the patient. Responsibility should not attribute entirely to the physician and it is not right to do whatever physicians order without questioning.
- Nurses are more and continuously in touch with patients. Therefore, they should be knowledgeable about effective communication and in-service training should be carried out if necessary.
- In nursing practice, nurses should know and apply ethical principles and patient rights.
- Nurses should receive body language communication training especially about special patient groups.
- SBAR communication technique may be suggested.
- Timeliness is important in nursing education.

SBAR communication technique (http://www.saferhealthcare.com/sbar/what-is-%09sbar/)

SBAR which is an evidence-based practice for patient safety, quality and effective communication is a technique that recommended and preferred to use among health workers in health institutions. To have extensive knowledge about the patient, the following information can be noted in a notebook:

- Situation (For example: Patients credential, physician name, allergy presence, arrival complaint, admission date)
- Background (For example: Admission diagnosis, biography, used drugs, pain condition)
- Assessment (For example: Vital signs, system evaluation findings, risk assessment results, used catheter / drain / dressing, critical test results, consultations)
- Recommendation (For example: Planned care, medical workup)

Sbar is established as a simple but effective way to standardize communication. This is a system that increases the efficiency and accuracy of communication in clear, complete, concise and structured way in the sharing of patient information between staff and physicians. It also strengthens the communication between nurses and physicians. Safe and effective care of patients depends on the perfection of communication and continuity between employees. When a health worker transferring information about her patient to other health care worker, misunderstandings and incomplete information that will occur are at risk for patient safety.

In line with target patient safety Joint Commission International (JCI) have become mandatory standardized use of effective communication techniques. Technique of sbar;

- For a short time, at period that staff leave their work place
- At transfers, from the operating room to the post-anesthesia care units or the other unıts with bed
- At the transition to another level of care (As the transition from the emergency department to the intensive care unit)
- In transfer of outside the hospital
- In consultation process
- At the transmission of critical laboratory and radiology results
- In the process of discharge
- With the purpose of patient's examination and treatment to transfer another department (physical therapy etc.)

S	**What is the general problem/incident?**
	* Indicate your name and the department where you work. * Indicate details about patient (name, gender, protocol, date of birth). * Describe briefly the problem.
B	**Vital signs concerning the situation**
	* Admission diagnosis, and current diagnosis. * The patient's pain severity * Indicate allergies, drugs used, and IV fluids (if there is). * Indicate the laboratory results to be attention (if there is). * Other important clinical information.
A	**What do you think is the problem?**
	*The latest assessment of patient (exp: vital signs, pain score, the patient's mental health, skin condition, emotional condition, saturation-oxygenation condition etc.) * Symptoms of the problem (exp: cardiac/infection/neurologic/respiration), If you are not sure what the problem is, there are some things you worry about.
	What you need to do?
R	* Physician will be asked to see patients * İndicate the specific time * You can ask your physician what is the next step.

Source: Improving Clinical Communication Using SBAR; http://www.1000livesplus.wales.nhs.uk/sitesplus/documents/1011/T4I%20%283%29. %20SBAR.pdf, (11.01.2016)

Result

Firstly self-knowledge required for healthy, effective and sustainable communication. Knowing and recognition of, personality, the weaknesses, strengths, responses, intention, objectives and expectations, how to express their feelings, how he communicates with his own, the expectations of life, perspective to health and disease, whether

helpful or not are important. Anyone who knows himself is better in communicate. Rule of the effective communication; firstly move away from stereotypes, paying attention to the body language of the other person that you care about him and show him to considered important, listen to what they tell you and provide feedback without interrupting. Effective communication is made by without judging and interrupting, giving proper body form and establishing eye contact with the person which in communication. Actually being a good listener is the right way of good communication. Listening is more necessary than talking. There are few people natural good listener. To be a good listener; conscious effort and learning new skills are required.

In health institutions, medical personnel which providing the service contact patients directly or in-directly in providing health care services. Physicians and nurses as medical personnel providing service are first contact with patients. Communicating is important in line with the expectations of patients. Studies shows positive effects on patients, medical personnel establishing in effective interpersonal relationships and improving of communication skills. This gives positive results, such as increasing the motivation, adherence to treatment and satisfaction with the services. Therefore, the length of stay hospital is decreasing and treatments of patients completed in less time so, provide a big contribution to heal.

Despite developments of incredible high-technology and scientific progress, it is still consider that communication is core of patient diagnosis and clinic operation; because quality of relationship with health care workers of patients, behavior pattern affects satisfaction strongly. The type speech of health care workers, whether they behave well towards patients determine the satisfaction providing from their relationship with patients.

Consequently, as basis of an effective communication, effective listening, effective speaking and saying, empathy, effective body language should be displayed. Whatever the sector is, core and nature of effective communication doesn't change. In relationship between physician and patient, in effective communication, during first the meeting, displaying the relevance and smiling face, after that, effective listening, verbal and non-verbal, consistent and effective communication, evaluating the clues of body languages that patient displays non-verbally, understanding health care workers by avoiding medical terminology, and using simple language, creating a environment that patients can express themselves, that patients can intimate thoughts and feelings easily, empathy, revealing whether they perceive the information given by way of verbal and non-verbal communication ensure healthy communication.

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Social Skills Training in Chronically Mentally Ill Patients under Psychosocial Rehabilitation

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Abstract

Introduction: Social skills training is a process that resembles the nursing process and its stages. It is one of the many social rehabilitation programs for chronic mental patients. It is also a process by which a health practitioner tries to diversify the existing state of chronic mental patients. It is a "set of cognitive-behavioral methods of social rehabilitation, which in a direct and active education, enhance and promote existing social skills. Alternatively, teaching new skills in chronic psychotic patients enables them to cope with the everyday demands of life, one the one hand, and to be protected from any symptoms of disease deterioration, on the other".

Purpose: The purpose of this study is for mental health professionals to learn and to teach ways of communication, behaviors, and socialization between chronically mentally ill patients and other people, as well as to enhance their capacity for independent life in the community.

Results: Social skills training, tailored to a patient's individual needs can help the patient to: (a) Develop and maintain personal relationships with other individuals, (b) take responsibility for medication, (c) find and maintain stable employment, (d) find and maintain permanent housing, ability to choose his/her preferred mode of recreation, and the opportunity to enjoy spare time, and (e) Maintain a level of functionality that enables the patient to live within a community and provides him/her with a minimum level of social skills, thereby enhancing his/her quality of life.

Keywords: Social skills • Chronic psychotic • Social skills training • Rehabilitation • Training methods

Chronic psychotic patients, in addition to experiencing psychopathological symptoms, also face a gradual reduction of functionality and ability to participate in everyday life roles. In this significantly contributes the lack or limitation of skills in one or more areas such as the motor, the mental, the perceptual, activities of everyday life as well as work, social and emotional field. (Karidi, 2007)

The main goal of rehabilitation for a psychotic patient is to achieve a healthy balance of roles by developing skills that will allow him to function at a satisfactory level in his personal and interpersonal life. To achieve these goals using the social activity which is the main therapeutic means of a therapist. (Koukorious et al, 2007; Ragia,

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2009). Social activities are those skills that are learned and that are related with the improvement of one's social behavior and interpersonal interactions. Since these skills are learned, they can therefore be taught.

The gradual decline of social skills may be due to:

- Lack of standards.
- Lack of learning opportunities.
- Poor guidance.
- The existence of a significant disease or disability, or of emotional difficulties.

A deficit in social skills may in turn lead to the further development of social and/or psychological problems. Social skills training is a process by which a health practitioner attempts to diversify the existing condition of a mentally ill individual.

Social skills training is an organized educational process that gives particular importance to:

- The planning and implementation of social skills training programs.
- The interpretation of everyday roles, usually followed by feedback.
- The support of acquired social skills and attitudes.

Whether appropriate activities are applied or not is a major factor in provoking improvement and positive changes in mentally ill behavior. The correct choice of appropriate activities is based on analysis of characteristics and in combination with the individual´s needs. The activities most commonly used are selected based on the functional and patient's personal needs. These activities can be either individual or collective. Also, the activities determined by the structure, philosophy and objectives of the framework in which rehabilitation services are provided. (Koukorious et al, 2007; Kandilis, 1993; Tsiantis and Manolopoulos, 1998)

Field Exercise of Social Skills in Chronic Psychotic Patients

The aim of training in issues related to chronic psychotic patients is to improve practitioners' knowledge and social skills in the following areas of functioning.

Hygiene and personal appearance	Refers mainly to residual patients
Education in medication	Aims to make the patient take responsibility in managing his medication and in being able to cope with side effects
Management leisure	Aims for the patient to acquire the ability to choose activities and places that will bring him/her joy and satisfaction

Learning of basic conversation skills	Involves teaching a patient the necessary social skills that will enable him/her to start, continue, and complete a conversation
Symptoms control	Teaching a patient how to reduce symptoms' intensity and avoid being annoyed by them
Also taught	• The ability to recognize symptoms of an approaching crisis • The ability to seek help • The ability to understand the risks of alcohol and drug use

(Karidi, 2007; Wilkinson and Canter, 1991; Esagian, 1993)

Training Methods

Social skills training is a process divided into smaller steps, starting with the easiest and most simple step and gradually progressing upward to more complex and difficult steps. For each step, instructions and explanations are provided and are then followed by a demonstration.

After the demonstration, the patient is asked to demonstrate the skill by representing a behavior, for which s/he receives feedback. Once the skill has been successfully acquired, it is then implemented in the patient's living environment.

Guidance

The instructor initially describes the behaviors to be taught and explains their significance and importance in daily practice. Instruction should be given in a simple and understandable language supplemented with many examples.

Model Demonstration

A chronically mentally ill patient has difficulty understanding and imitating behaviors taught only by means of verbal explanation. As such, it is necessary to for the instructor or a staff members demonstrate the desired behavior.

Representing the Behavior

Representing a behavior is among the key elements of successful social skill training. The challenge in this process is for the patient to be himself and to react as he would in daily life. Different responses to a behavior and experiences will enable the patient to form the basis for a change in his/her "social skills." The patient should be encouraged by the trainer both verbally and by example.

Strengthen

Social relations, which manifest as feedback or reward, are molded and fixed during the training process.

Feedback

Feedback a process by which a patient comes to realize and understand the outcome of his/her behavior. During this process, the patient participates actively, expressing his/her views or objections. Feedback should focus on the behavior and not on the patient's person, and should focus on positive aspects.

Rewards

Rewards are the most efficient form reinforcement and should be done through praise and encouragement. Their effectiveness is greater when administered immediately after the representation of a behavior.

Just as goals should be realistic, in-line with the patient's everyday life, and within the patient's capacities, so should they neither be too general in their description or formulated in behavioral terms. The objectives should be ordered by difficulty and should be sufficiently detailed. [Koukourikos et al, 2007; Bellack et al, 1984; Granholm et al, 2005)

Program Design

The design and development of social skills training programs should be based on individuals' real needs. These needs arise from the assessment of the patient's problems mainly through the interview itself, from input by the patient's relatives, friends, or other health professionals. After collecting information, what goals are hoped to be achieved should be identified and it should be determined as to whether the individual's education should be done individually or in a group setting.

Individual Education

- ✓ Allows one to focus on specific individual problems.
- ✓ Is preferable for anxious, phobic, and shy people.
- ✓ Ensures the exclusive attention of the instructor.

Group education offers the following advantages:

- ✓ The group is a miniature of the society in which one lives, thereby offering a venue for "real" interactions.
- ✓ Provides the possibility of coming together with different types of people.
- ✓ Offers greater intensity during feedback.
- ✓ Creates a supportive environment.
- ✓ Reduces negative feelings, such as shame.
- ✓ Participants experience that they are not alone and that there are others in a similar position.
- ✓ There may be members in the group who have already gone through the education process and whose situation has improved. These members may set an example for others in the group

- ✓ Allows optimal usage of trainers' time. (Karidi, 2007; Bustillo et al, 2001; Bellack, 2004)

Types of Programs

The choice of program to be applied to an individual is based exclusively on that individual's specific needs, difficulties, and peculiarities. There are two types of training programs, personalized and standardized. Both of these types use the same training methods.

Individualized programs, which focus on dealing with the person's difficulties and on achieving specific targets, are organized in collaboration with the therapist.

In each session, some of the difficulties are dealt with in a step-by-step process, progressing from the simpler to the more complex steps.

The standard program is a structured series of courses that aim to improve or to retrain social skills, starting from the simplest behavior and progressing to the most complex.

The content of these programs depends on:

- ✓ The type of population.
- ✓ The designated purpose.

Standard programs are best used in a group setting than in individual training.

The advantages of standardized programs are as follows:

- ✓ The application is simpler in groups than in individuals.
- ✓ The education provided by therapist is easier to grasp.
- ✓ They benefit a large number of clients simultaneously.
- ✓ They still a sense of security in members.

The disadvantages include the following:

- ✓ There is the probability of not covering all members' needs in a satisfactory manner.
- ✓ They are not always practical, especially in round robin cases.

In practice, these programs are usually combined. For example, the first part of a program consists of general education that is then followed by individualized work in subsequent sessions. The point is that programs should be flexible and taught by a therapist sensitive to his/her patients' needs. [Koukourikos et al., 2007; Wellace and Liberman, 1985; Liberman, 1982; Presly et al., 1982)

Handling of the Educational Process

Patient Preparing

The therapist's aim before the beginning of the process is three-fold: (1) to make the goals absolutely clear to the patient, (2) to describe the form that the process will take, and (3) to define what the patient should expect to

achieve upon completing the program. The level and the details of the explanation should be adjusted to fit each individual patient's level of understanding and done so without using scientific terms.

There is a need for precision in time, regular monitoring, and full cooperation. For patients suffering from chronic psychotic illnesses, not only should there be a plan of mobilization that includes rewards for regular monitoring sessions, it should be known and understood by the patient.

If the patient is to participate in a group, s/he should be informed about the group's other participating members. [Splhy et al., 1978; Kopelowicz et al., 2006)

The Trainer

One quality that is necessary for a therapist to have is the ability to communicate. Through communication, a therapist will attempt to reach the patient, to know him/her, and to establish a relationship of trust, all of which are prerequisites for a successful therapy process. Although having knowledge of the subject is important, it is even more important that the instructor have experience, which he has obtained either by participation in educational groups or as an experienced instructor's assistant.

In individual sessions, usually only one trainer is needed. In group sessions however, it is better to have a minimum of two trainers. Honesty should characterize the relationship between the two trainers themselves. Also, it is necessary them to know what their role in the session is.

Social skills training is a special, highly structured form of guidance education that requires on the one hand a careful definition of patients' problems, and on the other a detailed organization, and preparation of programs, from therapists.

A great deal more love, concern, and respect is needed when engaging with patients suffering from chronic psychotic illnesses. [Bellack et al., 1976; Baker and Intagliata,1982; Sullivan et al. 1990)

Conclusion

Acquiring social skills is a process that begins in childhood and progresses gradually. It is based on learning and imitation models. Equally important is environmental influence.

Activity as a therapeutic means helps significantly to trigger development and change in chronic psychotic patients. This to be effective requires the efficient and close cooperation of a multidisciplinary team. The basic knowledge of analysis and synthesis activity principles from the group members is necessary in order to be used a wide range of activities. [Benton and Schoeder, 1990; Hogarty et al., 1986; Spence and Spence, 1980)

As a result of such therapeutic activities, a person:

- ✓ Obtains information about his/her strengths and weaknesses in relation to practical skills, the influence of other people and events, and how to perceive reality.
- ✓ Develops new skills or improves existing ones.

- ✓ Improves physical, cognitive, and perceptual abilities.
- ✓ Extends the range of roles that s/he can undertake and acquires confidence in his/her ability to organize, control and fulfill goals.
- ✓ Is able to express his/her feelings.
- ✓ Is able to fulfill his/her physical and emotional needs.
- ✓ Fosters communication skills.
- ✓ Learns to set realistic goals.(Rimm et al., 1974; Sood et al, 1996; Eisler, 1978)

The importance of social skills training is that in addition to improving patients' functionality, it also helps to reduce relapses, re-hospitalization, and emotional stress in one's family.

As a result, patients are able to experience their most fundamental human right: the ability to chose to live as a responsible citizen with rights and obligations, gradually setting up a life plan. The user of health services is a person who does not represent a disease, but one suffers from a disease. (Liberman et al., 1984; Smith et al., 1996)

Epilogue

As rehabilitation is defined the continuous process that begins with the diagnosis of disease and continues until the final positioning of the individual to a work with the appropriate living conditions. As part of the rehabilitation process, patients' active and constant participation are of prime importance.

Psychological rehabilitation aims to endow people with mental difficulties the opportunity to use physical, social, and cognitive resources to live and work with the least possible amount of outside care and support.

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Evaluating The Perception of Organızational Justice in Healthcare Services in Terms of Healthcare Professionals

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Abstract

This descriptive study has been conducted in an attempt to determine the perception of organizational justice and the state of exhaustion in nurses that work at public, private and university hospitals. A total of 56 questionnaires have been applied to healthcare professionals that work at university hospitals and private hospitals within the boundaries of the province of Kahramanmaraş. The study data have been collected by using the "Organizational Justice Scale". Cronbah Alpha coefficient is calculated as 0,938 ($p=0,000<0,05$) for the dimensions of healthcare professionals in the Organizational Justice Scale and 0,93 ($p=0,000<0,05$) for the general reliability of the scale. In the process of data analysis; frequency analysis is used for descriptive statistics, reliability analysis for determining the reliability of the scale and variance analysis for comparing the scale, and the frequencies of scales are also indicated. It is observed that there is no significant difference between the perceptions of organizational justice in healthcare professionals that have participated in the study, in terms of age ($p>0,05$). Healthcare professionals aged 18-25, 26-30, 31-40 and 41-49 state that they are not satisfied with administration's perception of organizational justice. It is observed that there is no significant difference between the perceptions of organizational justice in healthcare professionals that work at public, private and university hospitals ($p>0,05$). It is also observed that healthcare professionals that work at public and private hospitals are not satisfied with administration's organizational justice. Perception of justice in healthcare professionals differs according to the perception that is displayed by institutions toward workers. As healthcare professionals have lower perceptions of organizational justice regarding institutions; they have given lower points to institutions.

Introduction

In the organizations opened world market via globalization, with the formation of competitive environment, the importance of the factor human has been understood. Thıs, in every working setting, in which there is a relationship superior – subordinate, the perceived justice and burnout seen in the vocational group working with human one by one have extremely gained importance.

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In terms of organizations, the value of human producing and using information increases every passing days. Organizations consisting of humans coming together to realize certain aims should effectively use he element human, which forms one of the most important resources for being able to reach their aims, adapt to the rapid change and developments the age brings, and provide their continuities in the competitive world (Yazıcıoğlu 2009:3-16) . For human resource in organizations to be able to be effective and efficient, it is necessary to provide the perceptions of organizational justice for employees (Tutar 2007: 97-120)

Organizational justice is that "individual perceives justice related to the applications in organization" (Grenbergj, 2005). The justice perceived in associated with justly having distributed the outcomes such as wage, bonus, and upgrade the employees obtain from an organization are expressed as distributional justice; justice perceived as associated with justly perceiving the processes and policies related to the distribution of these outputs, as procedural justice; and the perception that is focused on the relationships between the people in organization and that develops as a result of that the attitudes decision makers exhibit and explanations related to the decisions made affect the justice perceptions of people, as interactional justice (Grenbergj, 2005).

The perception of the employees regarding the rules determining the working condition in organization and whether or not the people applying these rules behave justly largely affect their attitudes and behaviors toward the work they do (Baş and Şentürk, 2011). While the employees, whose organizational justice are positive, go toward exhibiting the positive behaviors, the employees, whose these perceptions are negative, can give negative reactions against their institutes (Işık O, 2012). As a result of this, on employees, the behaviors such as low performance, being late to the work, dissatisfaction, disappointment, resentment-aliment may be seen. Depending on the tendency in the perceptions of organizational justice, psychological disconformity that occur leads to wears in the attitude, behavior, energy, sense of belonging, and efficacy sense he/she develops against work and, thus this results in burnout .(Yeniçeri and Demirel 2009: 83-99). Thus, as a result of emotional collapse the individual experiences, desensitization occurs against the attitude he/she works.

Due to the team of health employees are the people, who are interested in every kind of problem of the patient over 24 hours and first applied, they have key importance.. Also, the person, who undertakes the role of bridge iin making communication between the members of team and patient is health staff. Therefore, the profession of health worker is qualified as a stressed profession having heavy work load due to many negative factors (Uğur, Uçak,2008).

Hence, raising the perceptions of organizational justice of the health staff working in health institutes and especially in hospitals will increase their intention to stay in organization and their organizational engagements and will reduce turnover rates. At this stage, especially managers should undertake important duties. Managers, in hospitals, first of all, should be fair in policies and applications of management and stand at an equal distance to all employees Aghaei, Moshiri and Shahrbanian suggested that in the study they carried out in 2012 on 117 employees serving in Ministry of Youth and Sports, the perception of high organizational justice among the employees, significantly affecting

burnout, reduced burnout in workplace and subsequently, that efficiency and effectiveness may increase. .

In the study carried out by Liljegren ve Ekber on 662 employees serving in the department of national labor market of Sweden in 2008, they found that work mobilization, health, and burnout had a meaningful relationship with organizational justice. They concluded that organizational justice had a direct relationship with health and that the best way of raising health was job mobilization (change of workplace and hierarchical upgrade)

In a study, in which Yeniçeri, Demirel and Seçkin examined the relationship perception of organizational ustice –burnout of the employees in 2009 in 502 manufacturing industry, they concluded that the negative developments occurring in the perceptions of the interactional and distributional justice of the employees made an effect increasing their burnout tendency and that in-organization applications regarding procedural justice , n case that it creates positive impression on the employees, would create an effect reducing burnout emotion. In a study carried out by Şeşen in 2011 on 175 teachers, it was found that the burnout of teachers was affected from social relationships and justice sense perceived as a result of these relationships..

In order to examine the relationship between perception of organizational justice and burnout, Karaman, in a study he carried out in 2009 on 244 teachers, stated that there was a negative directional relationship between perception of justice and burnout and, also in the study by Gürboyoğlu, carried out in 2009 on 59 municipal workers, the similar results were obtained. In addition, in the study by Gürboyoğlu, in case that managers create an environment supporting the employees and increase interactions with them, it was emphasized that the perceptions of organizational justice developed in the positive direction.

Therefore, providing efficacy sense of health workers working 7 days and 24 hours in hospitals and raising their justice sense should be one of the duties of managers.

Method of The Study

56 surveys were administered to health workers in university hospital taking place in the borders of the province Kahramanmaraş and private hospitals,

In the study, the method of field survey was used; then, literature review was made, and the secondary data were analyzed. In this field survey, in the light of information obtained from literature, the technique of structured study was used. The data collected were analyzed on SPSS package program.

In the study, in collecting data, "Organizational Justice Scale" was used.: In the light of the relevant literature, the legislation of health workers was examined and, considering this legislation, this scale was formed. In this context, organizational justice of health workers were measured.

In order to measure the perceptions of organizational justice, the questions toward evaluation were asked as 5-point Likert type (I definitely disagree with it = 1; I definitely agree with it = 5). At the end of the scale, the questions related to educational level, the number of working years in the relevant hospital, form of working, unit worked in, position in the unit worked in, and age variable were asked (Devebakan, 2007). In order to test the reliability of survey used in the study, reliability analyses was conducted on SPSS package program at the reliability level of 95% . In the context of ISG, for the

dimensions of scale related to the obligations of Employers and Employees, the coefficients of Cronbach Alpha were calculated as 0.938 (p=0,000<0,05)). On the other hand, Coefficient of Cronbach Alpha, calculated for general reliability was found as 0.93 (p=0,000<0,05). In analyzing data, frequency analysis for the descriptive statistics, reliability analysis to identify the reliability of the scale, and frequencies of scale was stated (Devebakan, 2007).

Findings Of The Study

In the scope of the findings of the study, first of all, the statistics of demographic characteristics of participants were presented as a summary table and table of organizational engagement

Table 1 Demographical data belonging to workers

Age	**N**	**%**	**Gender**	**N**	**%**
18-25	30	52,8	Male	23	40,4
26-30	17	29,8	Female	34	59,6
31-40	8	14,0	**Your working duration**	**N**	**%**
41-49	2	3,5	1-5	51	89,5
School graduated from	**N**	**%**	6-10	6	10,5
Vocational school of health	13	22,8	**Your working form**	**N**	**%**
Open education	2	3,5	In daytime	22	388,6
Two -year degree	13	22,8	In night	6	10,5
License	20	35,1	In Shift	27	47,4
Post graduate	9	15,8	Other	2	3,5
Marital Status	**N**	**%**	**Unit you work in**	**N**	**%**
Married	24	42,1	Nurse	24	42,1
Single	33	57,9	Anesthesia	9	15,8
Hospital you work in	**N**	**%**	Secretary	3	5,3

Private	4	7	Radiology	6	10,5
Public	14	24,6	Laborant	3	5,3
University	39	68,4	Physician	4	7
Total	**57**	**100**	Assistant Physician	6	10,5
			Family Doctor	1	1,8
			Data Processing	1	1,8
			Total	**57**	**100**

When we regard to Table 1, 52.8% of those participating in the study were in the ages 18-25; 29.8% in the ages 26-30; 14%, in the ages 31-40; and 3.5% in the ages 41-49. 40.4% of those participating in the study were male and 59.6 % female. 22.8% of those participating were graduated from Vocational School of Health; 3.5% from open education, and 22.8% from two-year degree. 35.1% of them had license degree ; and 15.8 % postgraduate degree. 7% of those participating in the study work in private hospital; 24.6 % in public hospital, and 68.4% in university hospital Working durations of 89.5% of those participating in the study was 1-5 years; 10.5%, 6-10 years. 39.6% of those participating in the study are working in continuously in daytime ,10.5 in night continuously, 47.4% in shift, and 3.5% in the other forms. 42.1% of those participating in the study were nurse; 15.8%, anesthesia specialist,5.3%, secretary; 10.5%, radiologist, 5.3%, laborant, 7%, physician; 10.5%, assistant doctor; 1.8%, family doctor; and 1.8%, specialist of data processing

Analysis Of The Study

In the study, hypotheses toward analyzing health workers in terms of the perception of organizational justice were formed. The hypotheses formed were analyzed by the appropriate statistical methods and their results were assessed.

Table 2: Variance Analysis and t-test, conducted for the differentiation of organizational engagement scores related to the demographical data of the participants

			N	Mean	F/t	P
Organizational engagement	Age	18-25	29	2,86	0,332	0,802
		26-30	17	2,63		

score		31-40	8	2,63		
		41-49	2	2,55		
		Total	56	2,75		
Organizational engagement score	School graduated from	Vocational School of Healtth	13	2,76	1,254	0,3
		Open education	2	3,22		
		Two-year degree	13	2,73		
		License	20	2,94		
		Postgraduate	9	2,21		
		Total	57	2,75		
Organizational engagement score	Hospital worked in	Private	4	2,51	0,164	0,849
		Public	14	2,73		
		University	39	2,77		
		Total	57	2,75		
Organizational engagement score	Working form	Continuously in daytime	22	2,67	2,573	0,064
		Continuously in night	6	3,2		
		In shift	27	2,6		
		Other	2	4,07		
		Total	57	2,75		
Organizational engagement score	Gender	Male	23	2,63	-0,804	0,425
		Female	34	2,82		

Organizational engagement score	Marital Status	Married	24	2,75	0,51	0,959
		Single	33	2,76		

When we regard to the mean scores of the perception of organizational justice –engagement of those participating to the study according to the age, we see - that there is no significant difference between them ((p>0,05).The perceptions of health workers taking place in the range of ages 18-19 are low i.e. negative

According to the schools, from which the participants graduated, when we regard to the mean scores of organizational justice –engagement, we see that there is a significant difference between them (p<0,05),. In the perception of organizational justice –engagement of those graduating from open education, while a instable attitude is exhibited, we see that the perceptions of organizational justice –engagement of those graduating from vocational school of health, two-year degree, licens, and postgraduate are low and negative.

According to the hospital, in which the participants work, there is no significant difference between the mean scores of perception of organizational justice- engagement (p> 0.05). We see that the mean scores of perception of organizational justice- engagement of health workers working in the private, public, and university hospitals are low and negative

According to the working form of the participants, between their mean scores of perception of organizational justice- engagement, there is a significant difference (p < 0.05). While the perceptions of organizational justice- engagement of those working in daytime continuously and in shift are low and negative, While the perceptions of organizational justice- engagement of those working in night continuously are instable.

According to gender of the participants, between their mean scores of perception of organizational justice- engagement, there is no significant difference (p > 0.05). the perceptions of organizational justice- engagement of the females and males health workers working in the institute are low and negative.

According to marital status of the participants, between their mean scores of perception of organizational justice- engagement, there is no significant difference (p > 0.05). perceptions of organizational justice- engagement of the married and single health workers working in the institute are low and negative.

Conclusion and Discussion

According to the results of the study carried out as descriptive in order to the perception of organizational justice and burnout states of the heath workers working the public, private, and university hospitals, among the perceptions of organizational justice, interpersonal justice perception received the highest score and distributional justice perception the lowest score.. According to this, while the health workers think of that their managers unjustly behave then in the issue such as wage and upgrade, they largely perceive that their managers do not behave them respectfully and kindly not value in the meaning

of interpersonal relationship. According to the analyses, the perceptions of organizational justice- engagement of health workers taking place in the range of age 18-49 are low i.e. negative; while those graduated from open education exhibit an unstable attitude in the perceptions of organizational justice-engagement, the perception of organizational justice -engagement of those graduated from vocational school of health, two-year deggree, license, and postgraduate are low and negative; the perceptions of organizational justice-engagement of health workers working in the private, public, and university hospitals are low and negative.

For the dimensions of organizational justice scale regarding health workers, Cronbach alpha was calculated as 0,938 (p=0,000<0,05). Cronbach Alpha calculated for the general reliability of the scale was found as 0,93 (p=0,000<0,05).

When we regard to the perceptions, of organizational justice of health workers participating in the study according to the age, we see that there is no significant difference between them (p > 0.05) Health workers in the range of ages 18-25, 26-30, 31-40, and 14-49 say that they are not satisfied with perception of organizational justice of the management. It is seen that there is no significant difference between the perceptions of organizational justice the health workers working in the public, private, and university hospitals (p > 0.05)

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Flexible Working and Health Care Workers

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Ayşegül Yildirim Kaptanoğlu[b]

Introduction

The traditional work schedule for a health employee has long been 9 a.m. to 5 p.m. monday to friday if there is not night or weekend shift. Contemporary changes in the healthcare system are impacting health care. The last decades are challenging times for health care work force. These changes include financial pressures, uncertainty of the direction of healthcare reform, orders from central administrations to lower the expenditures, to emerge workforce shortages, and changes in the patient population (Zeytinoglu, 2005). These changes can challenge health care workforce by creating opportunities for physicians, nurses and the health care professionals.

The cost of conducting standardized tasks has been reduced in health care. Owing to the fact that, most of the routine roles that were once performed by health care staff have become automated, while other roles have become more complex (Martinez- Sanchez et all., 2007). The growing pressures of working life are causing more health care workers especially in big cities to manage their own time, while technological developments are enabling new forms of productivity independent of office-based work such as radiology, dermatology, pathology, laboratory investigations.

According to Turkish (Dereli, 2013). Labor Law no. 4857 regulate flexible work with clause no. 14. Employers find it hard to utilize flexible workforce, integrate these people into the system and maintain employee loyalty. Private employment agencies were not given the right to find temporary employment in Turkey. This method would have been effective in reducing informal employment while establishing the legal framework for the employment agencies. Employees in Europe could belong to a syndicate while working for an employment agency as a flexible worker. Syndicates in Turkey strongly oppose to Temporary Employment Agency falsely declaring flexible work as a 'slave trade.'

Modernizing health care and its workforce in order to meet the needs of contemporary people must be fit to modern labor force. For finding a sustainable work in multi-professional and disciplinary teams of healthcare, obtaining required validation and revalidations are necessary (Lauzun et all., 2010) . So, modernizing health education and training, working time, working team, maximizing the contribution of health care team could be resolved by flexible working. For understanding job description of workforce could be explanatory in Table 1.

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Compressed Work Week: A work schedule that condenses one or more standard workweeks into fewer, longer days

Flexible Working :A Work Schedule With Variable Starting and Ending Time Within Limits Set By One's Supervisor/Manager. Employees Still Work The Same Number of Scheduled Hours As They Would Under A Traditional Arrangements.

Job-Sharing : An arrangement in which two or more part-time (or occasional) employees share the responsibilities of one full-time job at a pro-rated salary.

Part-time Work :A work schedule that is less than full-time but is at least half of the regularly scheduled full time work week.

Personal or Family Leaves : A block of time off while retaining one's job. These leaves may be paid or unpaid.

Telecommuting : A work arrangement in which employees regularly work at home or at an alternative worksite during part or all of a work schedule.

Figure 1: Terminology of job description for workforce

Making health care transitions upon needs and request of society and new working principles according to new health plans are inevitable nowadays in a society (Allen, 2001). In a labor life of 21st century, especially those who want to combine work and family interface are content to use these working conditions. In figure 2.

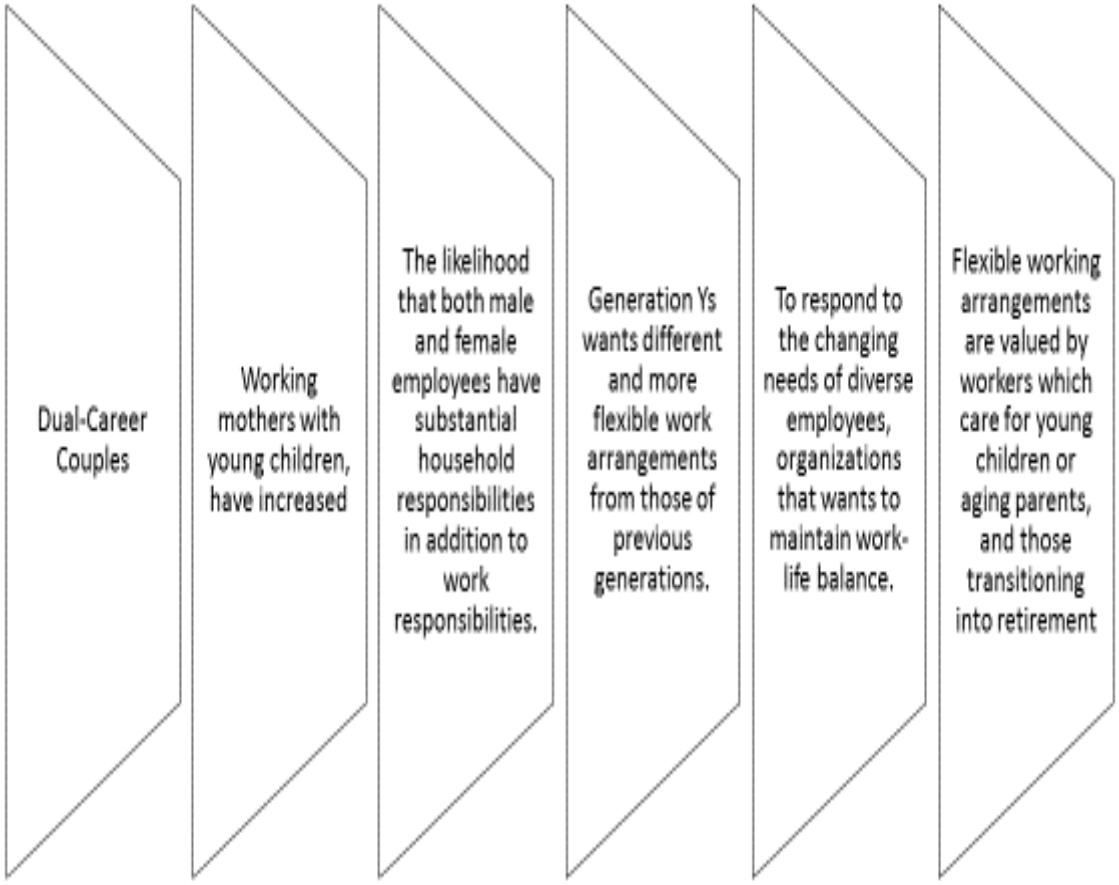

Figure 2: Those who wants to work in flexible conditions.

The context in which work takes place is in health care changing rapidly. Health business is creating new challenges and opportunities for health care business in the world. Unfortunately traditional ways of working in hospitals and ambulatory care are no longer valid. Advanced technologic developments, new societal values, changing demographics, and rapid globalization are reshaping the health business environment. Those important changes are creating a significant need for more flexible ways of working (Lu et all., 2012).

Examples of flexible work arrangements are shown in figure 3.

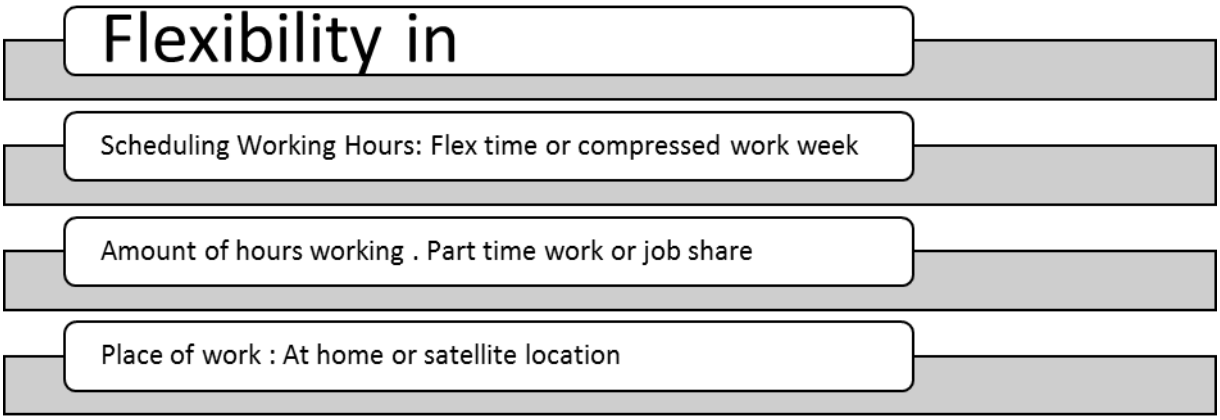

Figure 3: Flexible Work Arrangements

Flexible Working Arrangements are:

• **Part-time working Flexible patterns** – for example, working longer days to provide for a shorter working week. Flexible rostering – for example, split shifts.

• **Home working:** Alternatively flexible location is working from home or somewhere else more convenient, instead of the office (this is also known as teleworking).

• Job shares: Job sharing is a work arrangement in which two people work part-time and share the responsibilities of one full-time job (Tipping et all., 2012)

• **Variable hours** & **Compressed Hours:** Example is given in case number 1.

• **Sabbatical & Career Breaks:** To focus on their own personal and professional development employee need sometimes paid off programs that are offered by their company. According to statistics only at 5% of U.S. companies have these kinds of programs for their workers (Hill et all., 2001).

• Staggered start & End times: An arrangement where health care staff can vary their daily start and end times to suit their work and personal commitments. (Kossek et all., 2012)

• **Dual roles** & **Flexible Benefits (buying / selling holiday time):** Staff can change their holiday's times in between them.

Case Example for Compressed Hours

In a crowded primary health care setting there are 5 physicians and five nurses, this primary care center gives their staff the option of seven days off at a time, alternating with seven days on. The workdays are 10 hours each, so a staff could work 70 hours in all during any given two-week period in a month, that make 140 hours. All the staff is paid as they worked 40 hours a week. That makes 160 hours a week. The manager is ready to pay to staff 20-hour for a month. Nobody will have a problem with shift working and weekend working. The manager does

not need any extra staff. The medical facility in primary care will help hospital long waiting queues. (Kelliher et all., 2009)

Conclusion

Health care staff could work in flexible working conditions and this does not mean that they do not have sustainable work agreement in between employee and employer.

This kind of work could make following effects on:

- Improving staff morale, motivation and productivity
- Being an employer of choice
- Reducing staff turnover
- Minimizing staying away from work
- Decreasing staffing costs.

Flexible working hours will be highly requested during 21st century in health care institution for both women and men due to the new family patterns. Familes that use flexible working practices, because both parents have equal family roles and dual family income, will prefer flexible work pattern. Thus, it is important for both men and women obtain work and life responsibilities and achieve work and family life balance successfully.

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Co-operatives Could Be Appropriate Model for Sustainability of Health Care Delivery in 21st Century

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Abstract

Health co-operatives may play an important role for delivering health services in democratic capitalist countries. They have potential for contributing health care not only to their members, but also to those who wants to have health care internal or internationally. As a matter of fact, health coo-operatives give health care services to their members with fewer prices compare to non-members. A cooperative is basically an organizational managerial structure based on member control that can be applied to any type of health service delivery. In 21st century, the cooperatives appear to be the developing movement for health economic change.

Introduction

In case of difficulty people learned to cooperate and work together to increase their success in hunting, fishing, collecting and cultivating foods, building house and meeting other individual and group needs. Historians have found evidence of cooperation among peoples in early Greece, Egypt, Rome and Babylon, between Native American and African tribes, and many other groups. These examples are primitive and informal cooperation that were the pioneers to the cooperative form of business (Birchall, 2013).

The formal cooperatives became available in Europe in the late 18th and beginning of 19th centuries, during the Industrial Revolution. Villagers moved from farms into the cities to be workers in the industry, they couldn't any more grow their own food. Workers noticed that they had not control over the quality of their food or living conditions. They were obliged to buy foods from company's stores using company chits that were given them instead of money. In fact, that was not capitalism, where free markets take place. Therefore, they decided to buy their own food in wholesale form by collecting their wages together. They set up co-operatives as a way to protect their interests. In capitalism for protecting the less powerful members of society such as workers, consumers, farmers, and producers cooperatives are needed. Working and consumer class are important in capitalist system. With only riches, consumer and civil bureaucratic class capitalism could not last (Corlette et al., 2015).

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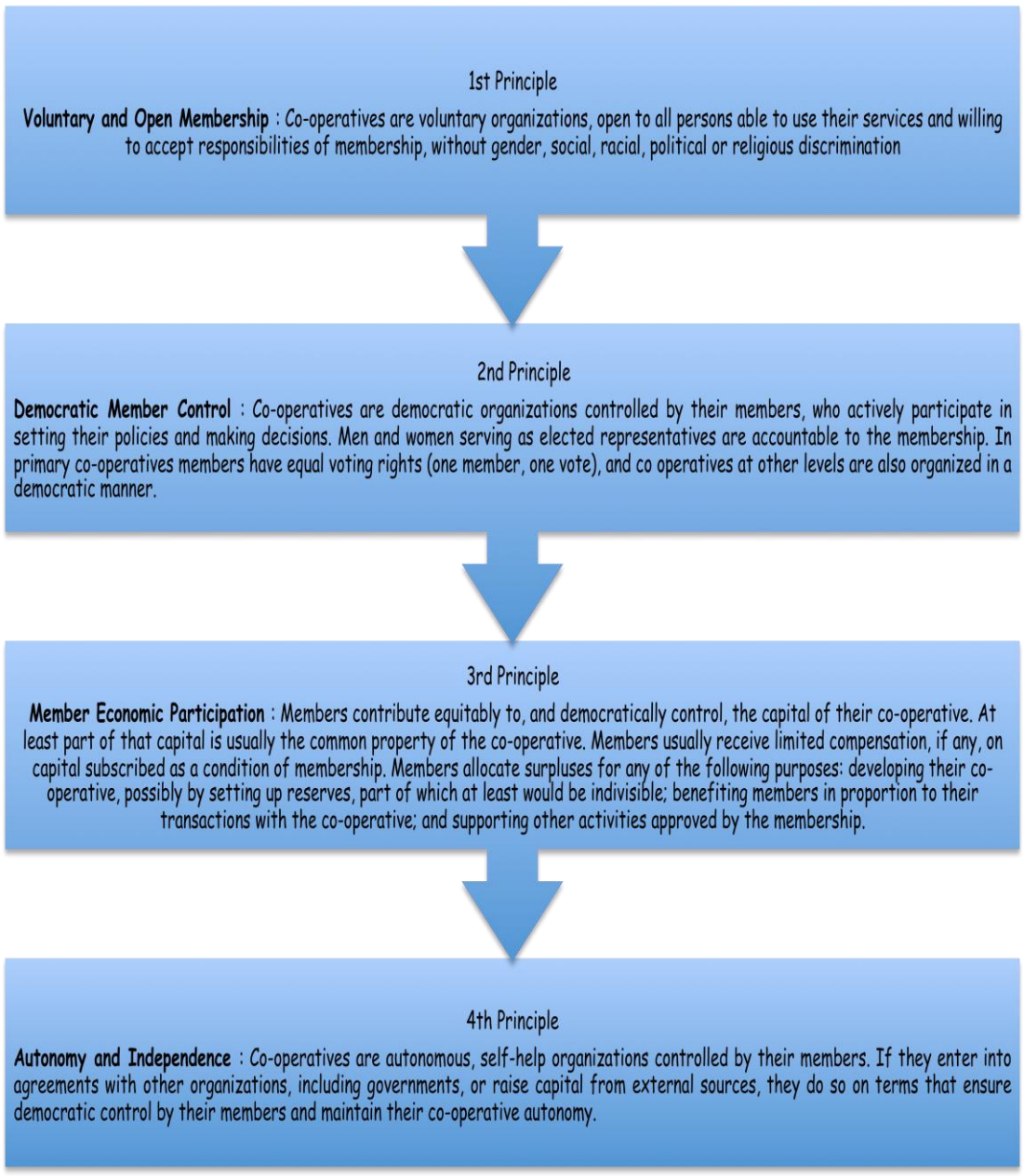
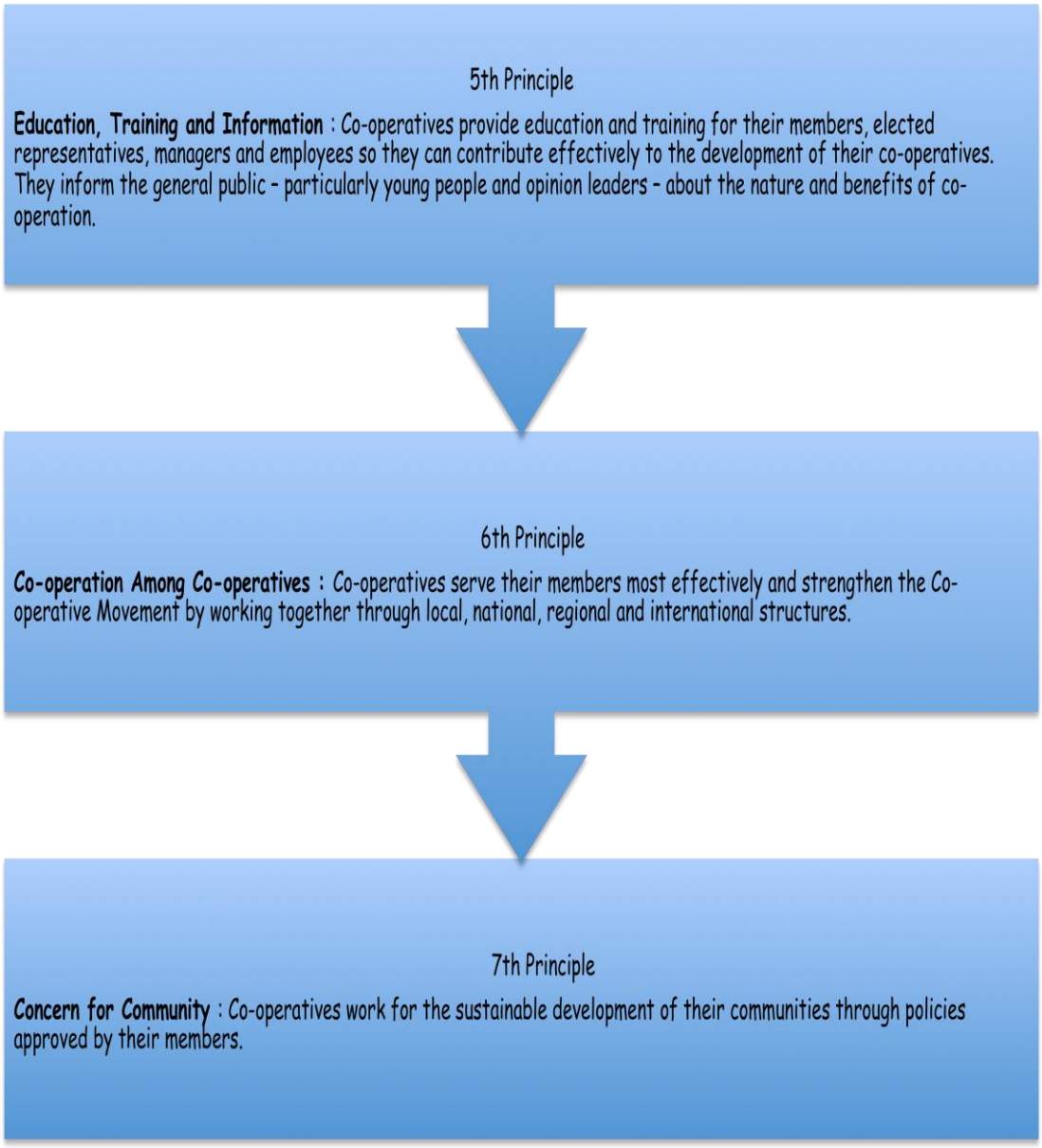
Seven Principles of Cooperatives

In the light of these ideas The Rochdale Society in England that make the textile mills in 1844, is established the modern cooperative movement based on the seven Rochdale Principles shown in figure 1 (Dogarawa, 2005).

Figure 1.

Principles of Cooperatives




5th Principle
Education, Training and Information : Co-operatives provide education and training for their members, elected representatives, managers and employees so they can contribute effectively to the development of their co-operatives. They inform the general public – particularly young people and opinion leaders – about the nature and benefits of co-operation.
6th Principle
Co-operation Among Co-operatives : Co-operatives serve their members most effectively and strengthen the Co-operative Movement by working together through local, national, regional and international structures.
7th Principle
Concern for Community : Co-operatives work for the sustainable development of their communities through policies approved by their members.

Definition of the cooperatives is made as fallow: this a union of an autonomous association of persons being together voluntarily to meet their common needs such as economic, social, and cultural. Cooperatives are jointly owned and democratically controlled enterprise of capitalist society (Pentecost, 2016).

Health Care Delivery

Health care cooperatives could be organized:

Figure 2.

Health Care Delivery Cooperative Principles

Board of directors was voted by the cooperatives membership. Everybody who are nominated as a membership must take responsibility. Cooperatives cannot hire a manager to negotiate contracts with health insurance companies, the government, and health care providers. Cooperatives can only choose managers via electing them from their membership. In that case elected manager is in charge of the day-to-day operation of the cooperative. The functional link between the health care providers to their membership are done by the board of elected directors who are membership. Someone could be membership of cooperatives according legal procedures of the country in which it was established (ICA, 2013).

According to 2015 data, in America and Canada there are over then hundred health care cooperatives providing care to over one million people. The International Health Cooperative Alliance claims over hundred million health care services in worldwide is served by health cooperatives. Sometimes the majority of health cooperatives are home care services and primary care like in Canada. However, in many countries in the world as well as North America and Latin America cooperatives are operating on scales as large as whole secondary and tertiary care hospitals. For instance in Columbia, a health care cooperative, is the second-largest national employer organization and gives health care services up to 25% of the population. In Japan over one hundred and twenty five medical cooperatives serve nearly three million people (ILO and COOP, 2015).

Cooperatives are user-owned. They are established, owned and controlled by their members. In order to contribute secure effective and affordable health care insurance and health services for their members and their dependents health cooperatives used the same way. There are some cooperatives that gives health care to nonmembers with a different price list cheaper than business owned health care company.

Structure of Cooperatives

At the very beginning firstly, cooperatives may function purely as simple as mutual health cooperatives and health insurance funds. Secondly, cooperatives may make agreements with designated health care providers, then set up their own facilities. They can employ their own staff, expanding and diversifying their health care services by means of alliances with other health facilities. They may offer group health insurance service programs to employers responsible for coverage of their employees. They are most widely developed in the United States, in Canada, India and Sri Lanka (Girard, 2012).

In developing countries like Bolivia, Panama, Philippines, United Republic of Tanzania and developed country like South Africa, Sweden the cooperatives are recently established.

Guideline for developing cooperatives are shown in figure 3. Health care cooperatives are configured the same way.

Figure 3.

Guidelines for Cooperatives

Health co-operatives are established for a benefit of their membership. They can also sell health services to non-member according to the legislation of the country for a higher price than their member. There must be a Medical Co-operative Committee of the Consumer's Co-operative Union in the country. This Committee would supports health co-operatives at national level.

Health and Cooperatives

Sometimes members of multi-functional agricultural co-operatives could benefit from health services organized by their co-operatives, and supported at national level by the National Federation of Co-operatives. Many examples could be found in Japan, North and Latin America (Brazil). The National Trade Union Congress has established health co-operatives in Singapore as well. The national system of health care's provider-owned health co-ops in Brazil. (Sundaram-Stukel and Deller, 2009).

In Israel from 1995, all members of the co-operative system enjoyed comprehensive health services provided by a specialized assistant like subordinate company. Approximately thirty nine million persons obtained health services from the various types of user-owned co-operative in those countries. All structural models for cooperatives are shown in figures 4 and 5and 6 as fallows (Child et al. 2005).

Figure 4.

Primary Level Cooperatives

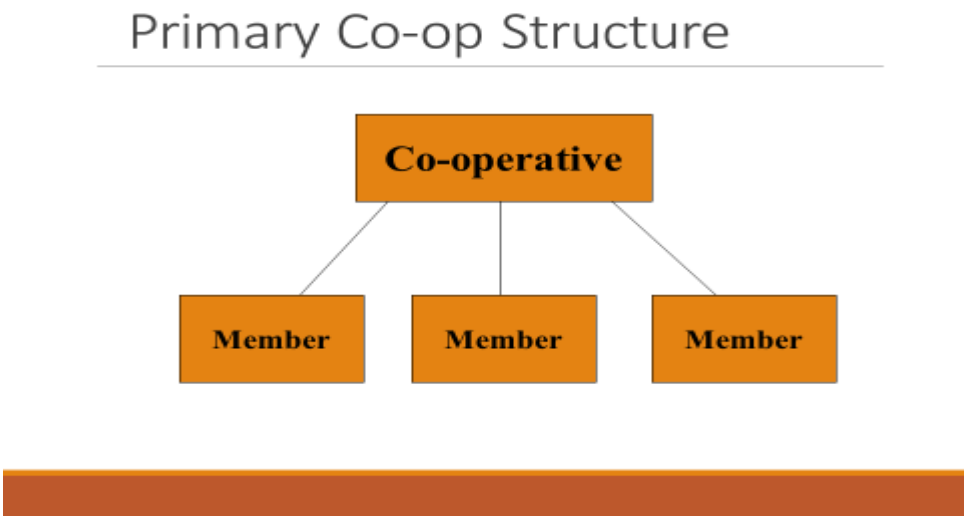


Figure 5.

Secondary Level Cooperatives

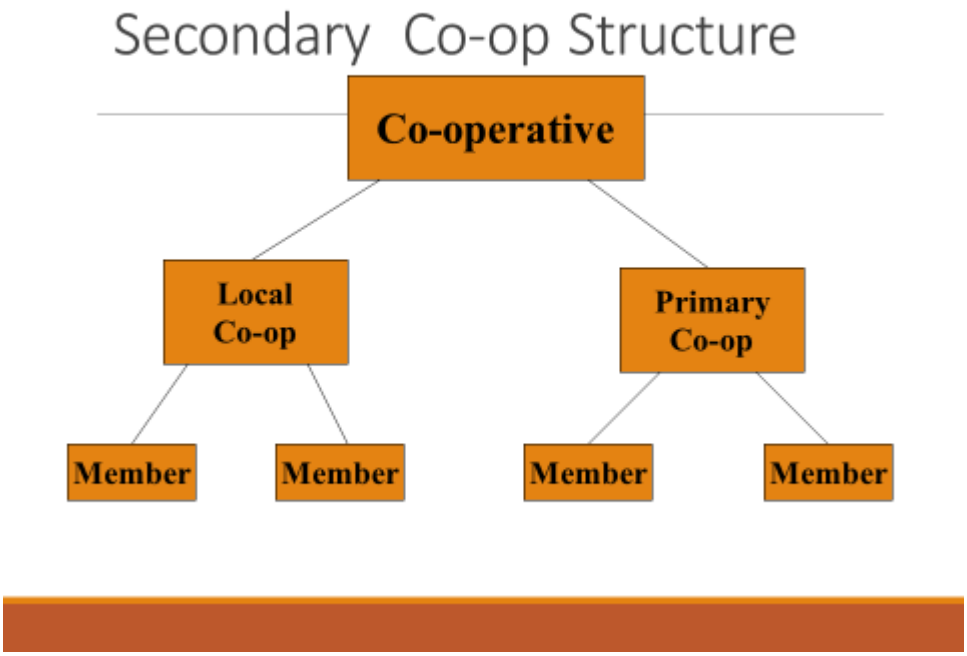


Figure 6.

Tertiary Level Cooperatives

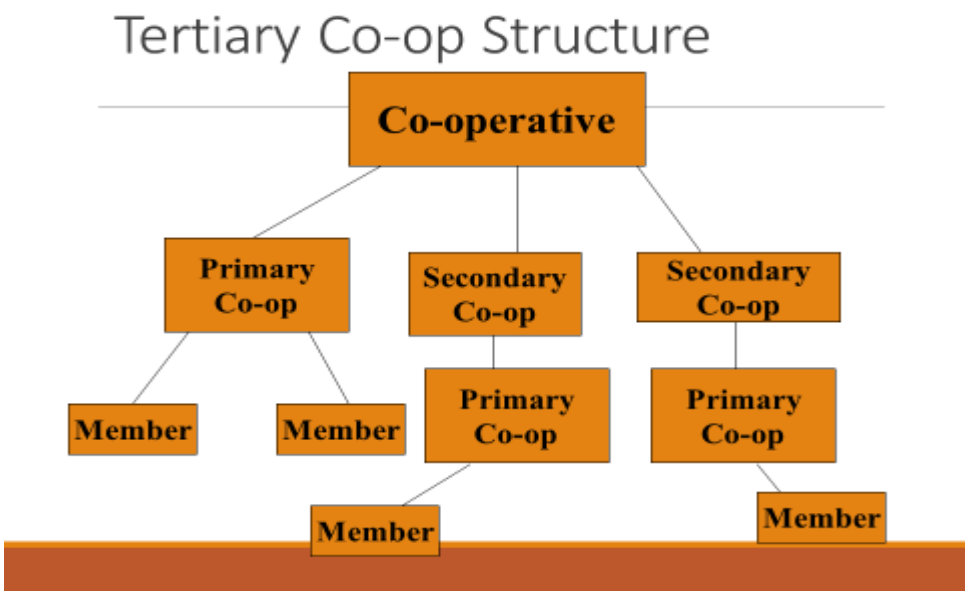


Figure 7.

Health Cooperatives Examples

Cooperative examples may be may be supported by different types of co-operative enterprise in figure 7. As shown in figure below co-operatives could be directly engaged in providing health and social care services in many level. Provider owned, network owned, confederations owned are some examples.

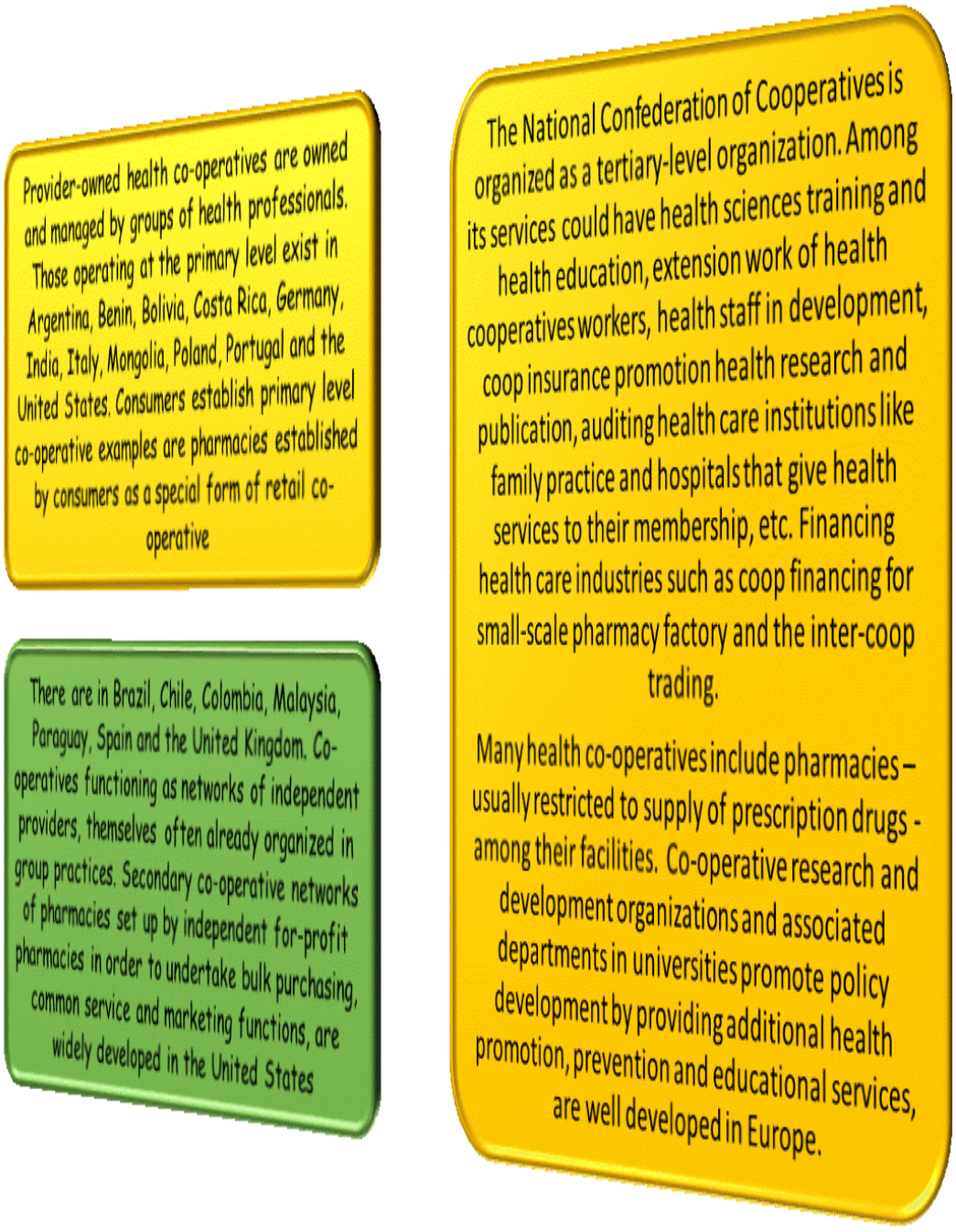


Figure 8:

Cooperatives Are Business in Capitalist Systems Owned by Various Stakeholders

A cooperative as told in figure 8 is a business that ownership have stakeholders for both ownership equity and a decision making. Every cooperative is unique, with its own business model management. Cooperatives first rule is to have the interests of their members (Henry, 2005).

Health sector operational support co-operatives are owned by hospitals to make bulk purchases and provide common services. They are best developed in the United States where, for example, the Rural Wisconsin Health Co-operative is owned by twenty rural hospitals and one urban university hospital. In Quebec, Canada, a "cooperative du service regional d'approvisionnement (CSRA)" is owned by sixty hospitals and clinics (Novkovic and Webb, 2014).

Worker-owned health sector supply co-operatives manufacture special inputs or supply services. For example, in 1992 five ambulance co-operatives provided 13 % of emergency health care services in Quebec, Canada. Labor-contracting co-operatives while providing building maintenance, catering, cleaning, security, and other services to health facilities act as employment agencies for their members as well (Nakhasi and Thigpen, 2009).

Business Corporation and Cooperatives

Business Corporation and a cooperative are business establishments that are created for the purposes of profit and are classified as an entity of limited liability in capitalist economy. Its shareholders who appoint a board of directors to supervise the whole company or business own a corporation. On the other hand, its members own a cooperative, and it does not need a board to make decisions or enlist control over the entity. A business corporation can be private or public in an open market or not. It can also be a profit or non-profit.

Legal independence of a business corporation is considered as a separate legal entity from its owners. Business people usually run a corporation while its members manage a cooperative. A cooperative can be run as a consumer cooperative or worker cooperative. Another classification would include housing cooperative, agricultural cooperative, health care services cooperative, insurance cooperative utility cooperative, credit unions, and cooperative banking (Wicks, 2002).

The fact is that the comparison of the cooperative and business corporations is not made on equal bases. The co-operatives is never allowed the same degrees of freedom as the capitalist business firm. Capitalist corporations are induced to introduce organizational schemes and principles that are typical of the cooperative enterprise. The cooperatives are imitating the capitalist firms' style of management. The internalization of the cooperative's by all the members, to which the means – capital and power – must be subordinated.

Figure 9.

Difference between Cooperatives and Business Corporations

Meanwhile, a corporation can have a variety of types like a General Corporation, Close Corporation, LLC Corporation (or Limited Liability Company), and S Corporation. Another classification is being a private or public corporation Differences between business corporations and cooperatives are shown in figure 8.

Conclusion

Co-op organizing in cities and in rural areas could support to economic crisis in capitalist economy. If cooperative like "consumers' unions" will form to promote consumer education, health and protection. In 20st century, Toyohiko Kagawa, a Japanese, inspired the development of many co-ops in the United States by preaching "brotherhood economics," his term for cooperation. "Cooperatives," as said by him, "are the foundation of world peace. Health cooperatives could be very useful for sustainability of health care in the country in 21st century very near future. The co-operative model is in discussions is about to deliver the future of health care services. Health cooperatives should have flexible best and accredited health care services to their members at competitive prices. Members' specific offers to their customer like preventing, caring and curing for them at home, ambulatory and hospital with to making them to feel they are specific will be important occasions.

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Medical Waste Management in The Axis of Relationship Between Environment and Health

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Abstract

Objective: It aims evaluating of an existing situation by reviewing related legislation, researching the relationship of medical waste-environment in the axis of sustainability discussion, determining application by doing a field research relating to subject to inspect this relationship.

Materials and Method: The research was applied to 100 medical staffs at Beyhekim State Hospital in Konya with survey. The scale developed by Demet DOĞAN CANSARAN was used in collecting data. Raw data was acquired with the survey was transferred onto computer by the researcher. Given answers of each question and their valid percentages were reflected to tables.

Findings: According to gotten information from the board of Beyhekim State Hospital, the amount of produced waste at hospital is daily about 1500 kg. Majority of amount of waste consists of household, infected, chemical and sharp wastes. Radioactive waste is minute amount. The hospital's only radioactive waste is produced by x-ray bath and it is being sold firms determined by the Health Ministry by saving them in metal barrels. In addition, liquid wastes in the hospital's operating rooms and other units are directly discharged to canalization without any processing.

Result: In this study, the problems, relating to creating a medical waste management by establishing a relationship between environmental health and medical waste, are reviewed.

Key Words: Environmental Health, Medical Wastes, Sustainability, Medical Staffs

Introduction

Human being, beginning from its existence, has directly become interaction with environment. It has continued a life for long years in compatible with environment and believed in the limitlessness of resources provided by it. However, in time, with the effect of the elements such as rapid population increase, industrialization, and urbanization, environmental problems earlier ignored and pushed into background, growing by a cumulative effect, have begun to become threatening all the world (Aksu;2011:9).. The diversity

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experienced in the production and consumption habits features the issue of wastes, an important part of the process, as an important issue that should be evaluated (Yapıcı;2012:1). It is necessary to collect, transport and eliminate, and make harmless wastes doing a negative effect on the health of society in accordance with health rules and under technical conditions, because the effect of wastes on human health is in a scale that cannot be underestimate and is broad and continuous (Cansaran;2010:90). In classification of solid wastes, the leading method, commonly used, is classification according to the content of solid waste, which can be classified as domestic, industrial, medical, specific qualified wastes, and waste of treatment plant (Tekdemir;2011:34). It is necessary to separately store, transport, and ultimately dispose medical wastes resulted from health facilities without damaging to public health and environment. The most important inconveniency of medical wastes is that it is an important factor in spread of contagious diseases (Kemirtlek;2004,13). Storing hospital wastes without processing or piling up and disposing them in an area excursively leads to environmental problem (Tutar;2004:2). Waste management is an issue that should be dealt with a comprehensive approach. What is important here is dealing waste management with, besides main elements such as formation, gathering, processing, and moving away, the issues such as environmental protection, protection of resources, and productivity increase in an integrated way. Namely, this means that wastes are not moved away from the human environment but also it is made contribution to providing economic development as well as protecting and developing environment and human health (Cansaran; 2010:1). In our country, in the recent years, the negative developments about environment have engendered the need for answering the question "What should be done about medical wastes? " This question will find answer by fully and accurately applying Medical Waste Control Regulations issued in accordance with international standards about management of medical wastes (Bayır; 2011). In Turkey, in the stages passing from production of medical wastes to their collecting, storing, transporting, and eliminating, the duties, authorization, and responsibilities the institutes and agencies will undertake are present in Medical Waste Control Regulations, published in Official Journal, dated 22.07.2005 and numbered 25883. According to regulation, minimizing waste has primary importance. It is necessary not to mix wastes. In regulation, domestic wastes, medical wastes, dangerous wastes, and radioactive wastes are classified. Medical wastes are divided within itself into infectious wastes, pathologic wastes, and sharp object wastes (Çevre ve Orman Bakanlığı; 2005). The concept of sustainable development includes the environmental, economic, socio-demographic, and health elements and, the most important feature emphasized here is to meet the need of the existing population in such a way that it will not impede to meet the needs of the future generations (Çelik;2006:27). Dealing with environmental problems as a whole and taking into account the future developments without damaging to environment, the preventive polices aiming at preventing the environment from damaging, today, developing much more in the framework of understanding based on the basis of determinative of the interaction of environment and development, have been strengthened by the policies of sustainable development (Eyyubi;2004:3).

Method of the Study

The study was carried out Beyhekim Public Hospital giving service in the province Konya. Due to the fact that the time is limited; that most of works realized in health enterprises concern human life, and need urgency; and, thus, that health employees heavily work to present services, as sample, of health employees, nurses, medical secretaries, emergency medical technicians (EMT) , and servants were included in the study. The study was carried out on 100 people. This study was designed by the method of quantitative study according to descriptive study model. Without making any change in the existing features of the subjects, the views of the subjects about the existent situation was tried to be received by collecting data. Descriptive method is a study approach aiming at describing the past or present situation as it exists. The frequencies of answers given to each question and their current percentages were reflected in the tables. A survey was administered to the staff participating in the study, in order to collect information in the direction of the aims of the study. The questionnaire prepared consists of 2 sections. In the first section, in order to collect the personal and vocational information about the employees, 4 questions take place prepared by the researcher In the second section of the study, with 25 questions, the information, attitudes, and behaviors of the staff, associated with collecting and eliminating medical wastes, were tried to be identified. In the survey prepared, 21 "closed end" questions and 4 "open ended" questions were used. The necessary data for the study were obtained via the survey administered to the subjects. The raw data administered to the subjects were transferred by the researcher to the computer.

The Findings of the Study And Its Analysis

The demographic data belonging to the study and the frequency analyses belonging to the survey used in the study were presented below:

Table 1:Demographic Data Belonging to the Study

Duty of Participant	N	%	**Age**	N	%
Nurse	60	60	18-25	24	24
Medical secretary	26	26	26-33	39	39
EMT	8	8	34-41	26	26
Servant	6	6	42-49	11	11
Total	100	100	Toplam	100	100
Educational Status	N	%	**Cinsiyet**	N	%
Primary School	3	3	Kadın	51	51
High school	27	27	Erkek	49	49
Associate degree	27	27	Toplam	100	100
License	42	42			
Postgraduate	1	1			
Total	100	100			

When we regard to Table 1, 60% of those participating in the study were nurse; 26%, medical secretary; 8%, EMT; and 6%, servant.3% of those participating in the study graduated from the primary school; 27%, from high school; 27%, from associate degree; 42%, from license; and 1%, from postgraduate. 49% of those

participating in the study was male and 51% was female. Their ages were asked in open ended and, following this, since they were distributed in a large range, they were divided into four groups. According to this, 24% of them were in the range of age 18-25; 39%, 26-33; 26%, 34-41; and 11%, 42-49.

Table 2: The cases of protection from the effects of medical wastes toward human health and exposure frequency of staff to the health risks of medical wastes

Exposure frequency of the staff to risk	N	%	Protection Case of Staff	N	%
I was not exposed at all	20	20	Yes	99	99
Once a week	2	2	Non	1	1
Once a month	32	32	Total	100	100
One –two in a year	46	46			
Total	100	100			

When we regard to Table 2, 99% of employees replied the question of "*Do you think that you are protected from the effects of medical wastes toward human health ?* as "Yes" and 1% as "No"*.",* These answers show that the staff relies on the applications of hospital regarding medical wastes and themselves. To the question of "*From time to time do you expose to the risks the medical wastes form for your health?*", 20% of gave the answer of "I did not expose at all", 2% of them , "I exposed once a week to them", 32% as "once a month", and 46% as once or twice a year. That the answer of "once or twice a year" forms the majority means that it is not necessarily cared to collecting and transporting medical wastes.

Table 3:Adequacy of applications of medical wastes in the hospital

Adequacy of applications of medical wastes	N	%
Yes	97	97,0
No	3	3,0
Total	100	100,0

When we look at Table 3, to the question of "*For eliminating the effects of medical wastes on the human health, do you think that applications of medical waste in your hospital are adequate?*", 97% of the employees gave the answer of "yes" and 3%of them "no". That the great majority of staff gives the answer of "yes" is the indicator of that hospital management behaves sensitively about medical wastes and that the staff believes that management takes necessary actions.

Table 4: The cases of that the employees have training about medical wastes and the cases of whether or not they find adequate the training they have about this subject

The case of that the employees have training	N	%	The case of whether or not they find training they have	N	%
Yes, I had it	78	78,0	Yes, adequate	77	98,7
No, I did not have it	22	22,0	No, , not adequate	1	1,3
Total	100	100,0	Total	78	100,0

When we regard to Table 4, 78% of the employees replied as "Yes, I had it" and 22% as "No, I did not have it" the question of "Did you have training about medical wastes?". That most of the employees give

the answer of "Yes" supports the expression of "We have training once a quarter " hospital staff states during the pre-interview made before application. On an issue such as medical wastes including threat in an important dimension for the environmental and human health, under heavy working conditions of hospital, training once a quarter will enable the information of the staff about medical wastes to be kept fresh, and the work to continue in accordance with the regulations. To 78 people replying this question as "yes", the question of "*Is the training you have adequate?"* was asked, 98.% replied it as "adequate" and 1,3% as "inadequate". That the number of those replying it as adequate is high shows that staff finds adequate the training given to them.

Table 5: The thoughts of staff about medical waste manager

The thoughts of staff about medical waste manager	N	%
Chief Physician	20	20,0
Hospital Manager	52	52,0
Chief Nurse	25	25,0
Cleaning Officer	1	1,0
Other	2	2,0
Total	100	100,0
No answer	0	0

When we regard to Table 5, among 100 employees answering the question of "In your opinion, who is the medical waste officer of your hospital ?", 20% replied this question as Chief Physician, 52% as hospital manager, 25% as chief nurse, 1% as cleaning officer, and 2% as other. According to the regulation, medical waste officer of hospital is chief physician and somebody responsible for medical wastes should be present in hospitals. According to the information obtained from hospital management, there is a unit subjecting to hospital manager. The presence of this unit that is responsible for orderly collecting and transporting medical wastes and training staff is in accordance with the regulations.

Table 6: Rating the importance the staff gives to separately collecting and eliminating the medical wastes from the other wastes and its reasons

The importance of separately collecting medical wastes	N	%
Very important	93	93
Important	7	7
I don't know	0	0
Not important	0	0
Total	100	100
The reason for separately collecting medical wastes	N	%
Due to damaging to the health of hospital staff	42	42
Due to damaging to the patients	1	1
Due to damaging to the public health	32	32
Due to damaging to physical environment	21	21
No answer	4	4

Total	100	100

When we regard to Table 6, to the question of "*How much important to separately collect and eliminate the medical wastes from the other wastes in your opinion?*", while 93% of the employees gave answer as "very important", 7% replied it as "important". There was nobody replying it as "I don't know" or "important". That the staff living together with the medical wastes replied this question as "very important" is an expected situation. This situation can be deemed as the indicator of that they have awareness about the necessity of behaving careful and taking the necessary actions regarding medical wastes. To the question of "*if separately collecting and eliminating the medical wastes from the other wastes are important in your opinion, what is the reason for this?* ", 4% of the employees did not give any answer and 42% of them ticked the due to probability of damaging to hospital staff; 1%, due to the probability of damaging to the patients; 32%, due to damaging to the public health; 21%, due to damaging to physical environment. That the staff living together with medical wastes and is directly affected from the wastes mostly replied this question as "due to the probability of damaging to hospital staff " is an expected situation. The cause of that the staff views the probability of damaging to the environment in significance of third degree results from the thought that the wastes in hospital will first impact the near environment of the hospital. Another cause is that the people deal with the environment from a human-oriented viewpoint in terms of human health- environmental health.

Table 7: The levels of staff to know about the bags, in which the domestic, medical, and radioactive wastes

Domestic Waste	N	%	**Medical Waste**	N	%	**Radioactive waste**	N	%
Blue	16	16,0	Blue	0	0	Blue	0	0
Red	1	1,0	Red	87	87,0	Red	33	33,0
Black	77	77,0	Black	0	0	Black	1	1,0
No answer	6	6,0	No answer	13	13,0	No answer	66	66,0
Total	100	100,0	Total	100	100,0	Total	100	100,0

When we regard to Table 7, to the question of "In *which color of bags do you put the wastes in your hospital?* ", for domestic wastes, 6% of the employees did not give any answer, 16% of them replied this question as "blue"; 1%, as red; and 77% as black. According to the regulation, domestic bags must be put in the black colored bags. The medical wastes are processed to the colors of bags, in which they are accumulated. Therefore, carrying these wastes in the bags in right color is important in terms of their processing in accordance with the rule. For the medical wastes, 13% of the employees did not give any answer, 87% answered as red. According to the regulation, medical wastes must be in the red colored bags. When considering that the first and most important process before transporting and eliminating is to accumulate them in the right place, that the majority of hospital staff knows in which color of bags the medical wastes must be accumulated is an obligatory case. For radioactive wastes, 66% of employees did not

give any answer, while 33% of them replied this question as red, 1% as black. In Beyhekim Public Hospital, radioactive wastes are minute amount. Therefore, the staff does not live together with radioactive wastes. In spite of this, that the majority of the answers of those replying is correct is important.

Table 8: The level of staff to know where wastes of sharp object are accumulated and thoughts of staff related to the place, in which the wastes are gathered.

Where the wastes of sharp object are accumulated?	**N**	**%**
In bags	3	3
In cardboard boxes	18	18
In plastic boxes	79	79
In double layered bags	0	0
Other	0	0
TOTAL	100	100
Where are the wastes of sharp objects accumulated?	**N**	**%**
In bags	3	3
In cardboard boxes	18	18
In plastic boxes	79	79
In double layered bags	0	0
Other	0	0
TOTAL	100	100

When we regard to Table 8, to the question of "*Where are wastes of sharp objects are accumulated? ", 3% of staff gave an answer as "in bags*"; 18%, in cardboard boxes; 79%, in plastic boxes. According to the regulation, what is correct is to accumulate in plastic boxes. At the moment that the wastes of sharp objects prick to any place of the body, they contact with blood and have the feature of direct communication of disease. Therefore, it is very important to carry the wastes of sharp objects in high quality boxes without overhanging out of box. It is necessary not to forget that the kind of wastes of sharp objects is s kind of communicating disease the most. To the question of *" In your opinion, where are the wastes in the bags collected? "*, 49% of the staff gave an answer as in temporary waste storage; 29%, in containers; and 22% told "I don't know". According to the information obtained from hospital management, wastes are daily collected in a certain route by contractor company and kept in cold storage until coming into sterilization unit. That the majority of hospital staff knows the answer of temporary waste storage is the outcome of the training given.

Table 9: The level of staff to know who carries out the works of collecting, transporting, and storing the medical wastes between the departments of hospital and the identification of whether or not these people have the other responsibilities

Who are responsible for the works related to the medical wastes?	N	%	**Do they have another responsibilities?**	N	%
Special cleaning staff	51	51,0	Yes	25	25,0
Hospital cleaning staff	49	49,0	No	55	55,0
Caregivers	0	0	I don't know	20	20,0
Nurses	0	0	Total	100	100,0

Total	100	100

When we regard to Table 9, to the question of "*Who carries out the works of collecting, transporting, and storing the medical wastes between the departments of hospital?",* among 100 employees, 51 % gave the answer of special cleaning staff, 49%, hospital cleaning staff. There was nobody answering as caregivers and nurses. According to information obtained from hospital management, the works of collecting, transporting, and storing are carried out by the special cleaning staff. To the question of "*Are those being responsible for the works of collecting waste for other works?"*. 55% gave the answer of "no"; 25%, "yes", and 20%, "I don't know". For making the work correctly and in reliable way, those being responsible for collecting and transporting should not be responsible for the other works.

Table 10: Supervision frequencies of the officers to collect and transport and variation frequency

Supervision frequency	N	%	**Changing frequency**	N	%
Daily	13	13,0	Not changing	88	88,0
Weekly	7	7,0	Daily	0	0
Monthly	66	66,0	Weekly	0	0
Other	14	14,0	Monthly	8	8,0
Total	100	100,0	Other	4	4,0
			Total	100	100,0

When we regard to Table 10, to the question of "*At what frequency are the officers of waste collecting and transporting supervised?* ", 13% gave the answer of as "daily", 7%, "weekly"; 66%, monthly. To the question of "*At what frequencies do attendants carrying out the work of waste collecting change ?* ", 88% gave the answer of "not changing"; 8%, monthly; and 4 %, "other". There was nobody giving the answer of "daily" or "weekly". That the majority give the answer of "not changing" is the indicator of that this duty was carried out by the experienced people.

Table 11: The cases of training the attendants of waste collecting and transporting and the cases of their wearing special clothes

Cases of Training	N	%	**Cases of wearing special clothes**	N	%
Yes	82	82,0	Yes	89	89,0
Non	0	0	Non	0	0
I don't know	18	18,0	I don't know	11	11,0
Total	100	10,0	Total	100	100,0

When we regard to Table 11, to the question of "*Are these attendants trained in certain intervals?",* 82% gave the answer of "yes" and 18%, "I don't know". There was nobody giving the answer of "No". That the majority gives the answer of "yes" is the indicator of that hospital management gives importance to this issue. Education is important in terms of keeping information fresh and learning the new developments. To the question of "*Are* the staff of collecting and transporting the medical wastes wearing special clothes?",

89% of the staff gave the answer of "Yes" and 11%, "I don't know". There was nobody the answer of "No". According to the rules, it is obligatory for the staff of collecting and transporting the wastes to wear special clothes. That the majority gives the answer of yes is the indicator of that they act in accordance with regulation. That there is clothe only used for collecting and transporting the medical wastes will prevent the substances infected by the wastes from communicating disease to the person himself/herself and his/her environment.

Table 12: The determination of the agency transporting the medical wastes and the cases of regularly taking the medical wastes by municipal crews

Agency transporting the wastes	N	%	**The case of regularly taking**	N	%
The vehicle belonging to the agency itself	16	16	Yes	83	83,0
Municipal vehicle	14	14	No	3	3,0
Private company vehicle	70	70	I don't know	14	14,0
Total	100	100	Total	100	100,0

When we regard to Table, to the question of "*By the vehicles of which agency your medical wastes are transported ?*, 16% of the staff gave the answer of "by the vehicle belonging to the agency itself "; 14% , by municipal vehicle; and 70%, by private company vehicle. According to the regulation, municipalities are responsible for transporting the medical wastes: But, in Beyhekim Public Hospital, the works of collecting, storing, and transporting medical wastes are carried out by the special cleaning staff and private company vehicle. That the majority becomes knowing this is a plus point in favor of the training given. To the question of "*Are your medical wastes regularly taken by the municipal crews ?"*, 83% of the staff gave an answer of "yes"; 3%, "no", and 14%, "I don't know". In Beyhekim Public Hospital, medical wastes are received by the crews of private company. We infer from here that the staff has no information about this.

Discussion and Conclusion

According to the information from hospital management, the amount of daily produced waste in the hospital is 1500 kg. The large majority of amount of waste consists of the wastes in domestic, infected, chemical, and sharp quality. The amount of radioactive waste remains at very minimal level. Within the borders of Konya Metropolitan Municipality also including the hospital, in order to collect, transport, and eliminate medical wastes resulted from all health institutes in such a way that they will not damage to the human health and environment, on the date of 22.05.2007, Medical Waste Sterilization Plant was established and bidding of renting the work of Right of Collecting and Business Management was realized according to State Bidding law, numbered 2886. In the scope of bidding, Medical Waste

Sterilization Plant, established by the contractor company, was put into operation on the date of 22.07.2008 and the work of collecting and transporting medical wastes was transferred to the contractor. In the scope of bidding, the medical wastes are daily collected from the health institutes by means of licensed vehicles in the direction of the route determined and brought into sterilization plant. The waste brought into the plant are kept in cold storage until entering sterilization unit. After sterilization, bringing them in the quality of domestic waste, they are eliminated in Astım Solid Waste Storage Area.

As a result of survey study, carried out in Beyhekim Public Hospital, when health staff are asked the exposure frequency to the risks impacting the health of medical wastes, the answer of "once or twice a year " received the highest score with 46%. According to the study by Cansaran, D.D.(2010), the answer of "I never expose to it" had the highest score. In the thought of staff regarding medical waste officer of hospital, the answer of "Hospital Manager" had the highest score with 52%. The reason for this is that medical waste unit subjects to hospital manager. According to the study by Cansaran, D.D.(2010), the highest rate is the answer of "other" with 38%. The reasons for this is that in the study, where Cansaran studied, infection unit is engaged in the medical wastes. The level of staff to know that the medical wastes are accumulated in red bags is 87%, while according to the study by Cansaran, D.D.(2010), this value was 82%. At the level of staff to know who carries out the works of collecting, transporting, and storing, special cleaning staff had the highest rate with 51%. According to the study by Cansaran, D.D.(2010), , this value was 69.7% for again cleaning staff. In both hospitals, the works of collecting, transporting, and storing the medical wastes belonged to special cleaning staff. In our study, it was concluded that the medical wastes were regularly taken by the responsible crews in the rate of 83%. In the study by Cansaran, D.D.(2010), the conclusion that the medical wastes were regularly taken in the rate of 76 % takes place

As a result of the study carried out, it can be said that Beyhekim Public Hospital acts in the applications of medical wastes in accordance with Medical Waste Control Regulation. The study carried out shows that especially hospital staff is conscious and sensitive about especially medical wastes. The decisiveness of hospital management about applying the provision of regulation creates an impression that a reliable waste management can be applied by completing the other deficiencies. During survey administration, in the questions measuring the level of staff to know the bags, in which wastes are put, that the large majority knows the answer that are compatible to the regulations can be accepted as consciousness and sensitivity.

That the staff gives the answer of "very important " with a remarkable majority about that the medical wastes should be separately collected and eliminated from the other wastes reveals that the importance they give importance to separately collecting and eliminating the medical wastes from the other wastes. As the requirement of elimination in this form, we can evaluate that that staff shows the causes regarding public health of hospital staff and public health in the first orders as that they accept the wastes as a threat in terms of personal health. That is, the environmental health is viewed in the background. For being able to eliminate this problem, training can be given.

In the interviews made with the hospital. It was seen that there was an unit that is specifically responsible for the medical wastes. This unit performs a supervision duty in a process going from collecting the medical wastes in the hospital to the cleaning crews and is directly engaged in the staff training. In many countries in Turkey, there are units that are responsible for only medical wastes. That these units are existent in all hospitals is an important detail in terms of forming the true and trustable medical waste management. The training and health controls of staff working in the collection and elimination of medical wastes are regularly realized . Sorting is made in the source of wastes produced in the hospital and medical wastes are daily collected from health institutes by means of licensed vehicle in the direction of a determined route and brought into sterilization unit. During working, the staff uses special protective clothe, face mask, helmet, gloves, and boot. For the wastes received from the health institutes by weighing, follow up forms are arranged. After sterilization, bringing the medical wastes in the quality of domestic waste, they are eliminated in Astım Solid Waste Storage Area are eliminated.

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Marketing Health Services, Investigation Of The Effect Of Advertising Activities On Marketing

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Abstract

Objective: In order to investigate the effect of advertising activities on marketing from the viewpoints of the students of health sciences, {this study] was prepared as complementary**.**

Material - Method: The survey were administered to 280 students studying in Faculty of Health Science, Seljuk University. In the assessment of the data of the study, reliability analysis was utilized; t-test for dual comparisons; and variance analysis for multiple comparisons.

Results: The study group expressed that they viewed an advertisement as promoting a goods and service with a score of 61.5%. Among the information resources the patients use to choose hospital, 96.3% expressed that they paid attention the title of hospital and physician.

Conclusion: In promoting the institutes presenting healthcare, advertisement is the first prior step. But in our study, it was concluded that advertisement can give a pre-information about hospital with the rate of 62.3%, but that advertisements do not always give with the rate of 46.9.

Importance:That the way of how health managers can effectively use the marketing factor is specified; and that it makes contribution to literature.

Keywords: Health Service Marketing, Advertisement, Promotion

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Introduction

Marketing in hospitals notion occurred with the aim of being recognized by the society and being reliable and affecting other hospitals' expectations and needs, which have similar standards. Hospitals offer unsatisfactory services for their customers in cases where the demand increases more than supply except of exceptional circumstances in uncompetitive circumstances. That's why, correspondingly with competition's development, the satisfaction and evaluation of customers' demands and needs have begun to stand out as marketing activities have gained importance in health sector (Çiftçi, 2010, p. 77 and 78).

Health services differ from other service sector groups beyond aforementioned descriptions. The factors of difference are as follows:

- It's hard to describe and evaluate output
- The performed duties are complicated and variable
- Most of the activities have features of being emergence and unable to be postponed
- There is high grade of specialization
- There is binary authority structure leading conflicts
- Tolerance towards mistakes and uncertainties of the performed duties is few (Işık, 2012, p. 7 to 11)

In this study, it's aimed to obtain findings related to patients' way of describing advertisements as a result of marketing activities for the sake of healthcare associations' structures and health services' features, reasons for advertising, objective of advertising and contradictive and objectionable topics related to advertisements, to find out the rate of information resources the patients utilize before consulting to a institute, and which resources they are. As it was thought that inpatients could exhibit a subjective attitude, it was aimed to generate a different way from other studies by consisting the sample group of undergraduates in order to provide objectivity.

Method

For this research, 273 sample areas of undergraduates studying at Health Sciences Faculty, Selçuk University in Konya (77 in department of Health Management, 78 in department of Nursery, 60 in department of Midwifery, 58 in department of Social Services) and the scale was carried out between 10th of April 2015 and 15th of April 2015. A scale of 25 questions consisting of a scale consisting of 13 questions related to advertisement effect and an advertisement opinion survey consisting of 12 questions. The results of the research is limited with the undergraduates of Faculty of Health Sciences and they cannot be generalized in other areas.

Findings

Table 1. Socio-demographic data related to undergraduates participating in the research

Gender	**n**	**%**	**How many times did you apply to emergency services**	**n**	**%**
Female	209	76,6	Never	59	21,6

Male	64	23,4	Once	47	17,2
Department	**n**	**%**	More than once	**167**	**61,2**
Health Management	77	28,2	**How many times did you apply to polyclinics**	**n**	**%**
Nursery	78	28,6	Once	14	5,1
Midwifery	60	22	Twice	10	3,7
Social Services	58	21,2	More than twice	**249**	**91,2**
Total	**273**	**100**	**Total**	**273**	**100**

Examining Table 1, when we examine it by taking the department where most of the participants study, we see that 76.6% of them consist of females. In the study, it was aimed to contact to undergraduates at all departments at the rate of their population. While 61.2% of sample area stated that they applied to emergency services more than once, 91.2% of them stated that they applied to policlinics more than twice.

Table 2. Opinions of undergraduates participating in the research about their way of describing advertisement

Way of describing advertisement	**n**	**%**
1.It is introducing a product or service	168	61,5
2. It is propaganda	3	1,1
3.It is the art of affecting people	95	34,8
4.It's something fooling and exploiting consumers	7	2,6
Total	273	100

In Table 2, the research group expressed that they perceived advertisement as introducing a product or service with a rate of 61.5%. 34.8% of them stated that they perceived it as an art of affecting people.

Table 3. Findings related to information resources the undergraduates participating in the research utilize

1.Introductory Brochure	n	%	**4.Suggestions of friends and relatives**	n	%
Yes	77	28,2	Yes	131	48
No	196	71,8	No	142	52

2. Advertisements	n	%	**5. Institution Doctor**	n	%
Yes	51	18,7	Yes	68	24,9
No	222	81,3	No	205	75,1
3.Past experiences	n	%	**6. Media**	n	%
Yes	108	39,6	Yes	47	17,2
No	165	60,4	No	226	82,8

The data in Table 3 shows that suggestions of friends and relatives have a significant importance in selecting hospitals by patients in a rate of 48%. It was also concluded that past experiences have importance with a rate of 39.6%, and introductory brochures have importance with a rate of 28.2%. Besides, it was also concluded that patients answered the questions "Would you care about the title of hospital or doctors while selecting a hospital or a doctor?" "Yes" in a rate of 96.3%.

Table 4. Findings containing the opinions of the undergraduates participating in the research about aim of advertising

Aim of advertising	**n**	**%**
1.To increase selling and attract customers	197	72,2
2. As it is unqualified	5	1,8
3. To inform the public, to introduce	71	26
Total	**273**	**100**

In Table 4, 72.2% of the research group stated that the advertisements are practiced in order to increase selling and attract customers. It was concluded that advertisements have a function of informing the public with a rate of 26.0%.

Table 5. Findings containing opinions of the undergraduates participating in the research related to advertising ban

Advertising Ban	**Health Management**		**Nursery**		**Midwifery**		**Social Services**	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**
1.Advertising ban should be proceeded	8	10	9	11,5	5	8,3	1	1,7
2. It must be set free in a	**45**	**58**	**39**	**50**	**25**	**41,7**	**36**	**62,1**

controlled way								

In Table 5, 62.1% of undergraduates studying at Social Services and 58.4% of them studying at Health Management think that advertising band must be set free in a controlled way. We can see that the research group approve to set advertising ban free in a controlled way. We have the consideration that this worry emerged because of features discriminating health services from other sectors (e.g. unable to compete, few tolerance, rapid change)

Table 6. Findings containing opinions of the undergraduates participating in the research about advertising media

Kind of information resource	**n**	**%**	**Kind of information resource**	**n**	**%**
1.Newspapers and magazines			***4. Radio***		
Yes	114	42	Yes	78	28,6
No	159	58	No	195	71,4
2.Introductory brochure			***5. Outdoor advertising***		
Yes	132	48	Yes	81	29,7
No	141	52	No	192	70,3
3.Television			***6. All of them***		
Yes	156	57	Yes	66	24,2
No	117	43	No	207	75,8

The data in Table 6 shows that they stated health services would be effective with the use of newspapers and magazines at a rate of 41.8%, introductive brochures at a rate of 48.4%, television at a rate of 57.1%. A population of 20% expressed the use of social media would be effective in other tools part.

Table 7. Descriptive information of undergraduates participating in the research about advertisements

ADVERTISEMENT OPINION SURVET	**Strongly Agree**		**Agree**		**No idea**		**Disagree**		**Strongly Disagree**	
	n	%	n	%	n	%	n			%
1. It guides the patients	49	18	167	**61,2**	36	13,2	18	6,6	3	1,1
2.It exploits the patients	7	2,6	35	12,8	110	40,3	104	**38,1**	17	6,2

3.The patients are possible to be fooled	50	18	141	**51,6**	46	16,8	20	7,3	16	5,9
4.Always contains true information	6	2,2	24	8,8	45	16,5	128	**46,9**	70	25,6
5.It may give the patients pre-information	32	12	170	**62,3**	37	13,6	31	11,4	3	1,1
6. In health services, advertising is	5	1,8	31	11,4	87	31,9	134	**49,1**	16	5,9
7.It leads to unnecessary consulting in	12	4,4	65	23,8	85	31,1	96	**35,2**	15	5,5
8. It's harmful for patients' health	5	1,8	22	8,1	81	29,7	144	**52,7**	21	7,7
9. It's positive to use advertisements in	23	8,4	157	**57,5**	64	23,4	25	9,2	4	1,5

According to data in Table 7, the tendency is on advertisement's guiding the patients in a rate of 61.2%. It was concluded in a rate of 62.3% that advertisements could give patients pre-information about the hospitals, but in a rate of 46.9% that advertisements may not always give the correct information. Although it's thought by 51.6% of them that the patients could be fooled via advertisements, it's thought by 35.2% of them that advertisements wouldn't lead unnecessary consulting to hospitals. In general, the opinion that advertisements have positive effect on guiding patients, giving pre-information about organization, introducing services exist

Conclusion and Debate

In this study, we have tried to evaluate how marketing activities in health services are used and the attitude of undergraduates of Faculty of Health Sciences on marketing in health services. In this study, it's aimed to obtain findings related to patients' way of describing advertisements as a result of marketing activities for the sake of healthcare associations' structures and health services' features, reasons for advertising, objective of advertising and contradictive and objectionable topics related to advertisements, to find out the rate of information resources the patients utilize before consulting to a institute, and which resources they are. It's thought that our study would contribute to literature with its aforementioned features.

Research group stated they perceive advertisement as introducing a product or service in a rate of 61.5%. Işık, on the other hand, obtained this result in a rate of 77% in one of his studies. While the research group answered the question "Why do you think there are advertisements?" "In order to increase selling and attract customers" in a rate of 72.2%, in Işık's study, this answer was preferred in a rate of 60% (Işık, 2012).

It was concluded that suggestions of friends and relatives have significant importance in preferring hospitals in a rate of 48.0%. In a study performed by Ertürk, 60.3% of the participants stated patients who are satisfied with services they received might suggest the hospital to others (Ertürk 2009). This made us conclude that in introducing hospitals, oral communication is an important output.

In our study, the research group stated advertisements are performed with the aim of increasing selling and attracting customers. In a study conducted on managers, 20.6% of managers answered the question "What should be the aim of marketing?" "increasing number of patients and income and provide advantage against rivals" (Gümüş, 2005). Within this perspective, the aim of marketing focused on same point for patients and managers.

It was concluded that the title of hospitals or doctors are cared by 96.3%. In Usta's study, 91.8% cared about this (Usta 2000).

In the study conducted by Altunışık and Bora, the trust on advertisements was evaluated and “trustable” was obtained in a rate of 24% and “untrustable” was obtained in a rate of 35% (Altunışık and Bora, 213). In our study, we concluded that advertisements could give pre-information about hospitals in a rate of 62.3%, but they didn’t always give the correct information in a rate of 46.9%.

The information resources to be utilized in advertisements of health services, they stated health services would be effective with the use of newspapers and magazines at a rate of 41.8%, introductive brochures at a rate of 48.4%, television at a rate of 57.1%. A population of 20% expressed the use of social media would be effective in other tools part. In a study conducted, newspapers and magazines were determined as reliable resources in a rate of 63%, brochures in a rate of 43.2%, TV in a rate of 41%, and internet resources in a rate of 25% (Altunışık and Bora, 2013).

Promotion and advertisement messages are controllable messages. The use of advertisements in health services could be possible with controlling mechanisms to conserve ethical and legal sensitivities. Thus, the content of messages to be presented in advertisements could be controlled. Health organizations must move to advertisement planning campaign stage after generating such substructures.

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Research Upon Organizational Commitment of Employees Serving in A State Hospital in Konya

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Abstract

Objective: The aim of this study is to research the organizational commitment level of healthcare staff. The research has been performed in a state hospital serving in Konya. Population of the research consists of 150 people. Organizational commitment survey which Bülbül, Aslıhan brought on in 2010 has been performed.

Materials and Method: Population of the research consists of 150 people. Satisfaction survey which Ercan brought on in 2004 has been performed. The fact that the organizational commitment of employees becomes high is significant for instutions to serve better. It's claimed that individuals who have organizational commitment are also highly productive, and they act within emotions of commitment, productivity, and responsibility. Employees' opinion, attitude and behaviour towards the organizations in which they are involved prompt the organizations to determine policies about commitment. Organizational commitment has become a vital subject for organizations. Organizational commitment is closely related to quitting job, absenteeism, retreat, seeking work activities, and attitudinal, emotional and cognitive structures like job satisfaction, job embrace, morale, and performance, characteristics related to employees' work and role such as autonomy, responsibility, participation, and sense of duty, and employees' personal characteristics like age, gender, period of service, and education.

Result: Finally, it's assumed that knowing individuals' organizational commitment factors would provide numerous benefits to organization in the future and improving organizational commitment would decrease organizational costs to a large extent. In this study, organizational commitment level of the employees will be evaluated.

Key Words: Heath care staff, Organizational commitment, Organization, Commitment, Health

Introduction

The description, size, relation with similar notions of organizational commitment are comprehensive and contradictive topics (see Swailes, 2002 for debates about this). The researchers described with regards to their own concerns. According to Buchanan (1974), organizational commitment is an interest in organization. Lee (1971) describes organizational commitment as consolidation with organization. According to McCaul et. al (1985), organizational commitment is the emotional and valuation reaction towards the organization, a large scale attitude which employees have towards organization (cited by Yousef, 2003:1068). Guatam et al. also state

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that organizational commitment is a psychological situation determining employees' relation with organization and it points out the commitment to the whole of the organization.

In the first studies conducted about organizational commitment, it was described as adopting organization's aims and values, showing efforts to become a part of the organization, and feeling like a member of a strong family (Steers, 1977:46). The performance of the individuals committed to their organizations would be high. Their absenteeism would decrease, and it would lead such rates of being late, leaving work to decrease (Mathieu and Zajac, 1990:171-172). High commitment would increase customers' satisfaction (Üner and so on, 1988) and within this context, it would be a significant supporter of total quality management. It was proved in the studies that the most important sign of organizational citizenship attitude was organizational commitment (Kaufman and so on, 2001; Schappe, 1998).

The idea that the employees committed to organizations would make more effort for organizational development and thus, both the organization and employees would be more successful and this would affect the product's or service's quality in a positive way was proved by other authors, too (İlsev, 1997) (Nelson DL, Quick JC 1997:109-110). By contrast with this, it's stated that low level of commitment to organization would lead to negative situations such as productivity, job unsatisfaction, absenteeism, being late to work, leaving work and that's why, organizational commitment is firstly checked in guessing unexpected situations and employee's leaving work (Jalonen P, Virtanen M, Vahtera J, Elovainio M, Kivimaki M, 2006;36(5):268-276) (Grusky,1966;10:488-503).

The aim of this study is to investigate organizational commitment of healthcare staff. The research was carried out in a state hospital serving in Konya.

Method

This research was conducted to determine organizational commitment level of the hospital staff. The research was performed on the healthcare staff serving in a state hospital. Research sample consists of 150 individuals. In the research, quantitative research design was utilized and face to face survey method was used.

The population of the research consists of 150 individuals. The research scale; organizational commitment scale developed by Meyer Allen Smith and Kaya used in his master's thesis (2007) was used. The scale consists of 3 dimensions. The scale was prepared in Likert style and 5 point system from "strongly agree" to "strongly disagree" was used. The answers obtained from participants were gathered and transferred into electronic environment and analyzed in SPSS program. The validity of the scale was calculated and its cronbah alpha value was founded as 0,885. Within this result, the scale was found reliable.

Findings and Analyzes

Table 1. Socio-demographic data of healthcare staff participating in the research

How old are you	N	%	Educational Status	N	%
Under 25 years old	54	36	Primary School	8	5,3
25 to 30 years old	34	22,7	High School	40	26,7
30-40 yaş	38	25,3	Associate degree	51	34
40 years old and older	24	16	Bachelor's degree	44	29,3
Gender	N	%	Master's degree	7	4,7
Female	66	44	Position	N	%
Male	84	56	Healthcare staff	72	48
Marital Status	N	%	Medical Secretary	23	15,3
Single	70	46,7	Cleaning staff	13	8,7
Married	80	53,3	Security	3	2
Experience year	N	%	Administrative Affairs	39	26
Less than 1 year	16	10,7	Experience in the organization	N	%
1 to 5 years	69	46	Less than 1 year	13	8,7
5 to 10 years	49	32,7	1 to 5 years	80	53,3
More than 10 years	16	10,7	5 to 10 years	49	32,7
Experience in health sector	N	%	More than 10 years	8	5,3
Less than 1 year	11	7,3	Total	150	100
1 to 5 years	65	43,3			
5 to 10 years	40	26,7			
More than 10 years	34	22,7			
Total	150	100			

Examining Table 1, we can see that 36% of participants consist of staff under age of 25. 56% of the staff are male and 53.3% of them are married. 29.3% of them have Bachelor's degree and they constitute the majority. 48% of the staff consist of healthcare staff and 32.7% of them consist of the ones having experience between 5 to 10 years. 53.3% of participants consist of the ones working for 1 to 5 years.

Table 2. Analyzes related to socio-demographic features of the staff participating in the research (T-test in independent samples and one way analysis of variance)

		N	average	F/t	p
Gender	Female	66	3,25	-0,641	0,522
	Male	84	3,31		
Marital status	Married	70	3,26	-0,430	0,674
	Single	80	3,30		
Age	Under 25 years old	54	3,27	0,034	0,992
	25 to 30 years old	34	3,31		
	30 to 40 years old	38	3,28		
	Older than 40 years old	24	3,30		
Educational status	Primary School	8	3,12	3,373	0,011
	High School	40	3,18		

	Associate degree	51	3,51		
	Bachelor's degree	44	3,20		
	Master's degree	7	2,99		
Position	Healthcare staff	72	3,21	3,925	0,005
	Medical secretary	23	3,67		
	Cleaning Staff	13	3,00		
	Security	3	3,44		
	Administrative Affairs	39	3,29		
Time of experience	Less than 1 year	16	3,26	0,593	0,620
	1 to 5 years	69	3,25		
	5 to 10 years	49	3,37		
	More than 10 years	16	3,19		
Time of experience in the organization	Less than 1 year	13	3,16	2,633	0,520
	1 to 5 years	80	3,20		
	5 to 10 years	49	3,39		
	More than 10 years	8	3,71		
Time of experience in health sector	Less than 1 year	11	3,15	1,218	0,306
	1 to 5 years	65	3,23		
	5 to 10 years	40	3,43		
	10 years and more	34	3,27		

Examining Table 2, T-test analyze was performed in order to test the difference between organizational commitment and marital status and gender of staff participating in the research and any significant difference couldn't be detected ($p>0,05$). Analysis of variance was performed in order to test the difference between organizational commitment and age of staff and any significant difference couldn't be detected ($p>0,05$).

Analysis of variance was practiced in order to test organizational commitment and educational status of staff. Significant difference was detected between organizational commitment and educational status of the staff ($p<0,05$). Scheffe test was practiced with the aim of testing in which variables the difference existed, and it was determined that those who had Master's degree had less organizational commitment than others.

Analysis or variance was practiced in order to test organizational commitment and position of staff and significant difference was detected ($p<0,05$). To be able to test in which variables the difference existed, Games-Howell test was practiced. It was observed that there was difference in organizational commitment of healthcare staff and security ($p<0,05$) and it was determined that organizational commitment of security was higher. According to same test's results, difference was detected between cleaning staff and secretaries ($p<0,05$) and medical secretaries' organizational commitment was higher. Variance analysis was practiced to test the difference among years of experience of the employees, years of experience in the organization and years of experience in health sector, and significant difference wasn't detected.

Discussion and Conclusion

In this study which was conducted with the aim of determining hospital staff's organizational commitment, examining staff's socio-demographic features; Most of the participants (36%) consist of the ones younger than age of 25. Examining with regards to educational status, most of them consist of graduates of high school and Bachelor's degree (26.7% and 29.3%). Examining with regards to gender, 56% of them consist of males and 53.3% of them are married. Examining staff's positions, most of them (48%) consist of healthcare staff. With regard to experience, it was determined that most of them had been working for 1 to 5 years and 5 to 10 years (46% and 32.7%). In view of experience in the organization, it was determined that most of them had been

working for 1 to 5 years and 5 to 10 years (53,3% and 32.7%). In view of experience in health sector, 43.3% of them had been working for 1 to 5 years, 26.7% of them had been working for 5 to 10 years and 22.7% of them had been working for more than 10 years.

Examining analysis related to research, any significant difference couldn't be detected between organizational commitment and gender of the participants. It was detected that organizational commitment of females ($\bar{x}$:3,25) and males ($\bar{x}$:3,31) was more than average. Examining organizational commitment with regards to marital status, it was determined that being married or single didn't have effect on organizational commitment. It was determined that married ($\bar{x}$:3,26) and single ($\bar{x}$:3,30) ones had organizational commitment more than average. Examining with regards to ages of the staff, it was determined that organizational commitment wasn't related to age and all age groups were over the average. Examining with regards to educational status, it was determined that the average of organizational commitment of the ones studying Master's ($\bar{x}$:2,99) degree was low. In accordance with this result, it's thought that the ones studying Master's degree have more expectations from organizations. Examining with regards to positions, it was determined that security staff ($\bar{x}$:3,44) had more organizational commitment than healthcare staff ($\bar{x}$:3,21). The reason of this is thought to be healthcare staff's workload and this leads to lower organizational commitment. With regards to positions, organizational commitment of medical secretaries ($\bar{x}$:3,67) is more than organizational commitment of cleaning staff ($\bar{x}$:3,00). In accordance with this result, it's thought that the fact that cleaning staff work intenser affect their commitment. Examining with regards to year of experience, year of experience in the organization, and year of experience in health sector, it was determined that organizational commitment was more than average among all years.

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Health Workers Job Motivation and Religious Accommodation Right and Responsibilities

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Abstract

In the world according to migration, globalization, European union, etc. workforce is becoming more diversified in ethnicity, culture, language, and religion. For most individuals work dominates a large part of their life and it is difficult, if not impossible, to separate one's religious beliefs from the workplace.
Managers are must offer policies for workplace religious accommodation for increasing motivation and maintaining productivity. Health care institutions are important workplace that needs job motivation of the workers.

Motivation is influenced by a complex set of social, professional and economic factors. There are many reasons health workers remain motivated and decide to stay at their jobs. Generally, a health worker will be motivated and express job satisfaction if they feel that they are effective at their jobs and performing well. Factors contributing to motivation and job satisfaction also include strong career development, an adequate compensation, and adequate working and living conditions. Having strong human resources mechanisms in place within a health system can help to ensure that the right motivational factors are in place at adequate levels to keep health workers satisfied.

Key Words: Religious accommodation right • Motivation • Health care intuitions • Health care staff

Introduction

A religious accommodation right is any adjustment to the work environment that will allow an employee or applicant to practice his or her religion without disrupting the business. The need for religious accommodation may be needed because of an individual's religious beliefs or practices conflict with a task or an application process. Accommodation requests are related more often to work schedules, dress, religious expression in the workplace.

These wishes must not pose an undue hardship to managers or business owners. In that case the worker could grant the accommodation. For instance for a manager can offer a reasonable religious accommodation right in order to eliminate the worker's conflict between his religious practices and work requirements, without causing the employer an excessive hardship. Religious accommodations requested by a worker will vary based on what form of religion is practiced.

This issue is important in health care institution because if an employee might request a particular day off each year to celebrate a religious holiday, like a Muslim might wear religious garb in the workplace and request an established place to pray during the workday five times a day according to position of sun (early morning, midday, afternoon, sunset, night) and fasting in Ramadan or Yom Kippur for a Jewish

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with work day off every week on the Sabbath (Saturday) or a Christian who want to attend a communal worship on Sunday or meditation and yoga practice of Hindus, etc. Figure1. Show some of the religious practices. There are many religions and so many practices in the real world. Those are only examples of some of them.

Figure 1.

Different Religious Practices

Differing religions in order to accommodate their observances collectively are not easy matter. In health care institutions like hospitals and health centers, due to heavy work and emergency work, religious rituals are not easy to practice.

Health care workers in emergency, operation, intensive care units and evens in services and polyclinics (Patricia C. Borstorff and Brent J. 2013) don't have to accommodate religious leaves if doing so causes undue hardship. For example, health care workers can avoid accommodation if they can prove that their business cannot sustain the costs of doing so. While no formula exists for determining very difficult situation in health care institutions, workers must have attempted all reasonable possibilities for accommodation religious rights before such a claim can succeed. Factors determining whether the expense of accommodating a religious leave creates unacceptable work troubles regarding the size of the health care institutions, the number of people requiring religious accommodation right and the availability of external sources of funding. Employers in health care environment have excessive hardship based on difficulties in adjusting work schedules. Also, a manager must not forget scheduling changes to accommodate illness, maternity leave of parents.

Religious accommodation right and legal procedures

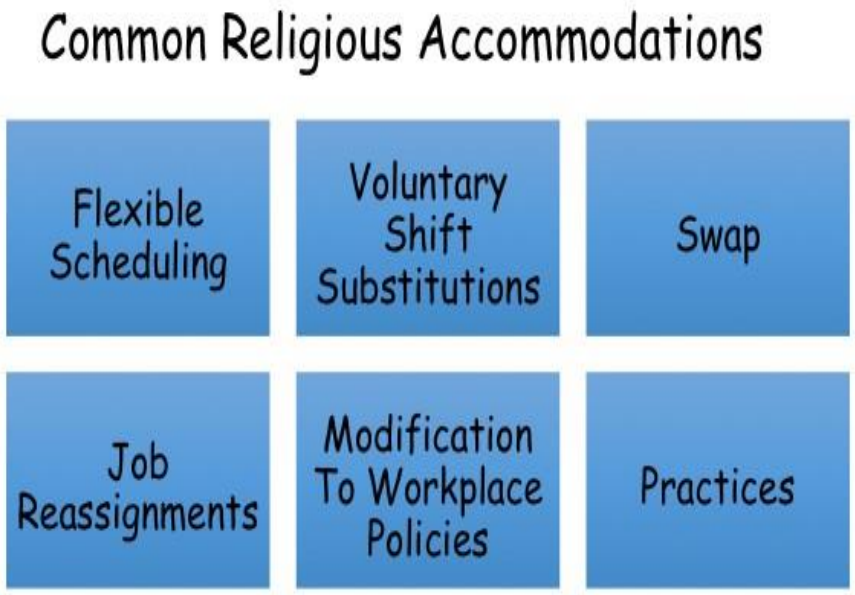
According to US Equal Employment Opportunity Commission (EEOC), religious accommodation laws, "…require an employer to reasonably accommodate an employee's religious beliefs or practices, unless doing so would cause more than a minimal burden on the operations of the employer's business.....".
This legislation means that a worker may be required to make reasonable adaption to the work environment. This will allow him or her to practice his or her religion.

The U.S. Supreme Court's decision in EEOC for Abercrombie & Fitch Stores case provides an unexpectedly practical guidance for workers. The Court held that need for religious accommodation right must prove only that a prospective employer's desire to avoid the accommodation that was a motivating factor for their job (Sherwyn & Ritter, 2015). EEOC investigated Abercrombie case that began with a young Muslim woman interviewed for a salesperson/model job. She was wearing a hijab (headscarf) that covered her hair but not her face, neck or shoulders. Company manager assumed that the applicant was Muslim when she interviewed her because of her headscarf. There was some discussion about the defendant's dress and grooming requirements in the interview, but neither the hiring manager nor the applicant mentioned the scarf. The manager thought the applicant was a good candidate for the position, but she did not know if the applicant could work for defendant while wearing a scarf. She was denied the job because her hijab violated the company's 'look policies' in two ways: it was black, and it was considered to be headwear. The law says that an employer cannot discriminate "because of" someone's religious beliefs or practices. Here, the Court said, "because of" means that even making a religious belief or practice a "motivating factor" in an employment decision is against the law. An employer has discriminated against a person based on his or her religion if a desire to avoid accommodating a religious practice was a motivating factor in the employer's decision not to hire the person. Similarly, if an employer definitely knows about a person's religious practice, but that has no effect on the employment decision, the company has not discriminated. In this case, there was ample evidence that Elauf's religious practice was a motivating factor in Abercrombie's decision not to hire her (Mollen & Smith, 2015).

Examples of some common religious accommodations include: as shown in figure 2.

Figure 2.

Basic Religious Accommodation Rights

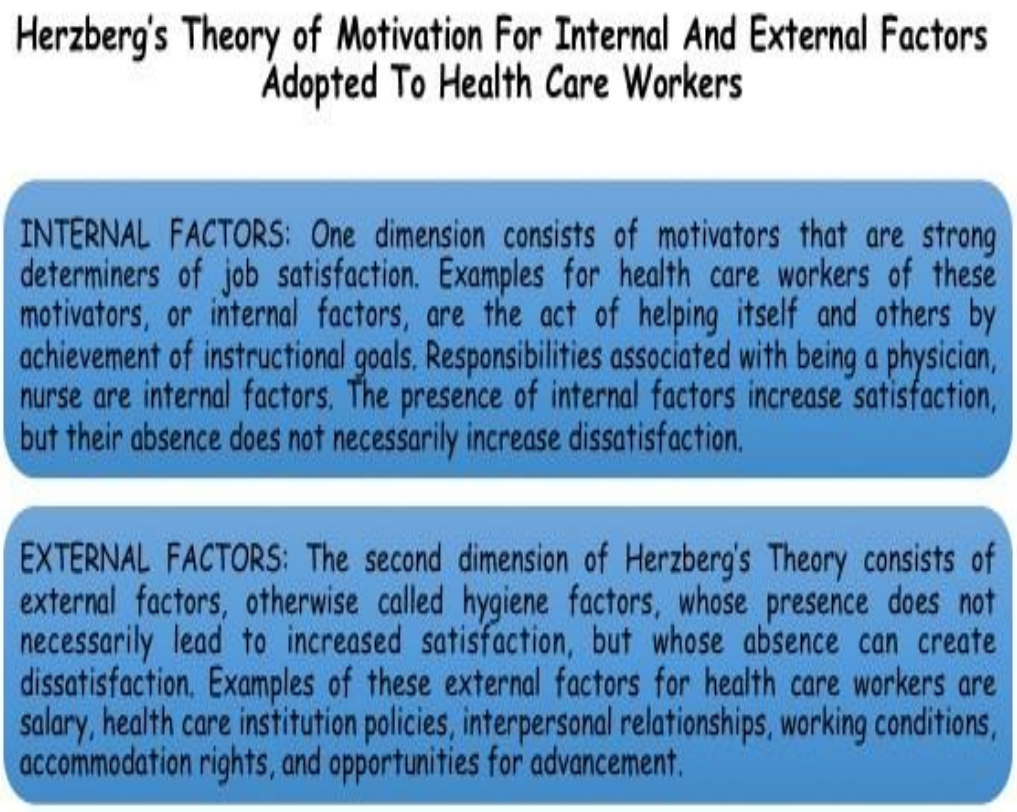


Herzberg's Theory of Motivation (Herzberg et all., 1957) explains how to understand the relationship between motivation for work and satisfaction with work. Herzberg proposed that attitudes toward work could be understood by examining factors in two dimensions.

Health workers motivation has always been important issues for health care workers such as physicians, nurses, physiotherapist, dietitian, and health technicians. Motivated workers tend to be more productive, creative and committed to their employers, and Kaldenberg's study has shown a direct correlation between health care staff motivation and patient satisfaction (Kaldenberg and Regrut, 1999). Family physicians who can create work environments that attract, motivate and retain hard-working individuals will be better positioned to succeed in a competitive health care environment that demands quality and cost-efficiency. What's more, physicians may even discover that by creating a positive workplace for their employees, they've increased their own job satisfaction as well.

Figure 3.

Two Dimensions of Herzberg's Theory of Motivation Adopted to Health Care



There is a positive relationship between religious accommodation right at work and job motivation. The workers who align their self-concept to their religious identity express themselves by meaningful work and

by belongingness to the community (Chawla & Guda, 2010). Thus, there is an alignment between who one is and what one does, resulting in satisfaction. (Kolodinsky, Giacalone, and Jurkiewicz 2008) stated the theory of spillover for job satisfaction and motivation. Spillover is new term in labor theory that means when a person is satisfied with one part or aspect of their life that satisfaction spills over to another part of their life. (Sorrentino 2010) posits that it is essential to understand the importance and complexity of a person's religion in terms of her or his identity. Kanungo stated that religious and spiritual accommodation rights in that case is important motivator factor.

Conclusions

They found workers who bring strong spiritual values to work would have positively related experiences in work-related matters. In sum, people want their own religion, their particularity, personal respect, and this is more complicated matter than at first it may appear. Their right of religions rather than their salary motivates health care workers from different ethnics culture and origins. Human resource professionals in health care notice that religious accommodation policies motivate them. However, working hours of health staff from different ethnics origins must be respected. Because, it is dangerous for the health care institution and could subsequently result in more religious litigation, managers must be respectful to the working hours of others. And finally, hospitals and primary care health settings are in jeopardy of increased workers' problems. Solutions of these problems are still unclear or do not have nonexistent concerning policies.

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Investigation of The Effects of The Risks and Hazards Healthcare Workers Face on The Levels of Job Stress

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Abstract

Objective: In order to investigate the effects of the risks and dangers healthcare workers face on the levels of job stress, [this study] was prepared as descriptive

Material- Method: The survey was administered to 153 healthcare workers working in the hospitals of the province Konya. In the assessment of the data of the study, reliability analysis was utilized; t-test for dual comparisons; and variance analysis for multiple comparisons.

Results: It was identified that the healthcare workers participating in the study generally perceived the hospitals as danger. It was expressed that healthcare workers were mostly consisted of women with 68.6% and singles (65.4%) and that the level of workers to expose to stress were high with the rate of 40.5%.

Conclusion:. It was concluded that the levels of stress- perceptions was fostered by the risks and dangers resulted from hospital setting; that in the women, stress perception was more compared to the men.

Importance: Measuring the size of the effect of job stress level is important in terms of contributing to the literature.

Keywords: Occupational health , Safety, Risk, Danger

Introduction

The notion "occupational health" is a notion emphasizing health part of HSE notion and all the notions based on protecting employees' health are evaluated within this notion. There is a perpetual interaction among working person, working environment and the work performed in this environment and interaction is significantly important with regards to health (Devebakan, 2007:16). Besides notions occupational health and employees' health, workplace security is also significantly important from the perspective of the motto "Workplace must live for workers to live, and workers must live for workplace to live". We can describe workplace security notion in working life as protection against injuries and diseases regarding work with security, health and environmental regulations, protection against violence, abuse, unavailable working hours, limitation of night works, right to know possible dangers related to work, and right of protection of individuals who report mistaken works (Deveci, 2010:6). Dangers and risks affecting healthcare staff's health have been classified as biological, physical, ergonomic, chemical, and psychosocial, National Instıtute for Occupational Safety and Health (NIOSH) stated that there were 29 physical, 25 chemical, 24 biological, 6 ergonomic and 10 psychosocial kinds

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of danger and risk in hospitals (Özkan, 2006, 10(3):44). Stress is mostly an inevitable result of living in society. Many conditions such as social environment the working individual has, family relations, organizational structure of the institute to be worked, the work itself, colleagues, superiors, inferiors, lifestyle of the society, temperature, lighting, noise, inability to make the aims come true, indecision are stress factors to lead trouble for the working individual (Çevik, 2011:21). It's possible to approach to stressors regarding work structure as over and low work load, work control, working hours, shift working, fee and career management, job insecurity (Özen, 2011:12).

Method

In this research, survey method has been performed on 79 nurses, 34 Emergency Medical Technicians, and 40 health officers (operating room, radiologist, laboratory assistant, and biologist), a total of 153 healthcare staff working in 2 District Hospitals in Konya between 19th of December, 2014 and 28th of December, 2014. A survey of 63 questions has been organized. 24 of survey questions are related to risks and dangers in workplace environment, 14 of them are related to working stress scale, 12 of them are related to occupational health and security, 3 of them are related to general questions, and 10 of them are related to demographic variables (gender, age education and experience in occupation e.g.). The questions in the scale are in 5 point likert form (1= never, 2= hardly ever, 3= sometimes, 4= often, 5= always). Working stress scale was developed by Cohen and Williamson (1988). Cronbach Alpha value of the scale, which was performed by Baltaş (1998) about its validity and reliability in our country, was found 0.84. The aim of the scale is to determine main points of perceiving stress. The research is concerned with X and Y hospitals in central districts and it can't be generalized in other fields. Regarding health's first degree of importance and staff's density, the fact that the staff didn't want to fill in the survey is the constraint of this study.

In this study, field study was used, later on, literature research was performed and lastly, secondary source was analyzed. The data obtained was analyzed with SPSS 20.0 pocket program. Reliability test was performed to test the reliability of the scale used in the research. In the sub-dimensions of Working Stress Scale developed by Cohen and Williamson, Cronbach Alpha value of "Risks and Dangers encountered" scale was found 0.627, Cronbach Alpha value of "Working Stress" scale was found 0.797, Cronbach Alpha value of "Occupational Health and Security" scale was found 0.887. T-test was used for pairwise comparison, , Variance (Anova) test was used for compared analyze of groups more than two, regression analysis was used for causality relationship between risks and dangers and working stress. The statistical significance level was regarded as $p<0.05$.

1. Findings

Table 1. Findings regarding demographic variables

Gender	n	%	Position in the unit	n	%
Female	105	69			
Male	48	31	Nurse	79	51,6
Educational status	n	%	Emergency Medical Technicians	34	22,2
High school	89	58	Health officers	40	26,1
Associate degree	34	22	Being on duty at night	n	%
Bachelor's degree	27	18	Yes	92	60,1
Master's degree	3	2	No	61	39,9
Experience in the occupation	n	%	Marrital status	n	%
0 to 5 years	98	64	Married	48	31,4
5 to 10 years	34	22	Single	100	65,4
10 to 15 years	15	9,8	Others	2	1,3

15 to 20 years	1	0,7	Unanswered	3	2
20 years and more	5	3,3	Working hours per month	n	%
Experience in the hospital	n	%	50 to 100 hours	11	7,2
0 to 2 years	90	58,8	100 to 150 hours	21	13,7
2 to 4 years	37	24,2	150 to 200 hours	97	63,4
4 to 6 years	12	7,8	200 to 250 hours	20	13,1
6 to 8 years	8	5,2	250 and more	2	1,3
10 and more	6	3,9	Unanswered	2	1,3
Total	153	100	Total	153	100

Examining Table 1, it can be concluded that most of the healthcare staff participating in the research consist of females in a rate of 68.6%, with regards to educational status, 58.2% of sample group consists of high school graduates, while 39.8% of them had associate and Bachelor's degree, and 65.4% of them consist of single ones. We can say that nurses constitute 51.6%, emergency medical technicians constitute 22.2%, and other health officers (operating room, radiologist, laboratory assistant, and biologist) constitute 26.1%. In addition, we can say that healthcare staff work for 150 to 200 hours in a rate of 63.4% and 60.1% of them are on duty at nights.

Table 2. Evaluating risks and dangers healthcare staff encounter

	Always		Often		Sometimes		Hardly ever		Never	
	n	%	n	%	n	%	n	%	n	%
1. Do you wash your hands before examination process?	94	61,4	36	23,5	16	11	5	3,3	2	1,3
2. Do you dry your hands after washing?	112	73,2	27	17,6	10	7	3	2	1	0,7
3. Do you use hand disinfectant?	53	34,6	49	32	28	18	12	7,8	11	7,2
4. Do you use medical gloves during patient care / treatment process?	67	43,8	52	34	22	14	7	4,6	5	3,3
5. Do you break ampoule with your hands while preparing to treatment?	97	63,4	30	19,6	14	9	4	2,6	8	5,2
6.Do you reclose syringe head after treatment?	63	41,2	18	11,8	35	23	8	5,2	29	19
7. Do you throw needles to container?	119	77,8	21	13,7	8	5	4	2,6	1	0,7
8. Do you change your medical gloves when you care or treat the next patient?	90	58,8	34	22,2	19	12	7	4,6	3	2
9.Do you wash your hands after care / treatment?	112	73,2	20	13,1	14	9	5	3,3	2	1,3
10. Do you wash your skin / eyes / open wound in 5 minutes when chemicals drip on them?	108	70,6	23	15	16	11	3	2	3	2
11. Have you ever experienced physical violence by patients' relatives?	9	5,9	13	8,5	16	11	18	12	97	63
12. Have you ever experienced abuse by patients' relatives?	9	5,9	19	12,4	9	6	5	3,3	111	73
13.Have you ever been exposed to negative effects of chemotheraphy medicines?	4	2,6	14	9,2	16	11	9	5,9	110	72
14. Have you ever experienced infected perforating injury?	19	12,4	22	14,4	37	24	34	22	41	27

In consideration of data in Table 2, perception of risk and danger and circumstances of encountering these were graded. It's seen that 61.4% of healthcare staff always wash their hands, and 73.2% of them dry their hands after

washing, and during cleaning process, they care about hand disinfectant in a rate of 34.6% and 32.2% and in frequency of always and often. In addition, it can be concluded that during treatment process, 63.4% of them lead risk by always breaking ampoules with their hands and 41.2% of them do the same by always reclosing syringe head.

Table 3. Evaluating occupational stress of the staff

	Always		Often	Sometimes		Hardly ever		Never	
	n	%	%	n	%	n	%	n	%
1. Do you ever feel that you don't have enough authorisation to fulfil your responsibilities?	22	14,4	16,3	49	32	32	21	25	16
2.Do you ever hesitate about your responsibilities?	10	6,5	14,4	25	16	35	23	61	40
3.Do you ever feel that you don't exactly have the required training for your job?	10	6,5	14,4	28	18	33	22	60	39
4.Do you know your superiors' evaluations of your success in your work?	24	15,7	13,7	39	26	32	21	37	24
5.Do you have troubles with obtaining information about your job?	2	1,3	13,1	41	27	47	31	43	28
6.Do you ever feel that you are not liked by your colleagues?	4	2,6	6,5	32	21	36	24	71	46
7. Do you ever feel that your superior can't affect the management in the decisions which affect you?	9	5,9	10,5	45	29	36	24	47	31
8.Do you ever hesitate about your colleagues' expectations of you?	4	2,6	7,8	29	19	44	29	64	42
9.Do you ever think that your work load negatively affect the quality of your work?	35	22,9	13,1	38	25	35	23	25	16
10.Do you ever think that your job prevents your family life?	31	20,3	5,2	50	33	37	24	27	18

According to data in Table 3, it was determined that 32.0% of the staff worried about their careers sometimes. 46.4% of the staff answered "Never" the question "Do you ever feel that you aren't liked by your colleagues?". It's seen that the participants generally evaluated occupational stress factors as "sometimes".

Table 4. Evaluation of security perception of staff

	Always		Often	Sometimes		Hardly ever		Never	
	n	%	%	n	%	n	%	n	%
1. Do you often receive training about occupational health and security in your hospital?	46	30,1	27,5	34	22	22	14	9	5,9
2. Does the administration perform a risk assessment about occupational health and security?	35	22,9	29,4	42	28	18	12	13	8,5
3. Do administrators take your suggestions about occupational health and security into consideration?	33	21,6	24,8	52	34	16	11	14	9,2
4. Do hospital management control occupational health and security precautions?	44	28,8	22,9	44	29	21	14	9	5,9

5. Can you report an event threatening occupational health and security?	43	28,1	28,1	35	23	21	14	11	7,2
8. Is it a hard and dangerous job to work in hospital environment?	51	33,3	23,5	35	23	16	11	15	9,8
9.Do the employees obey the rules and instructions about occupational health and security?	38	24,8	27,5	52	34	19	12	2	1,3
10. Can you easily contact to your unit administrators about occupational health and security?	55	35,9	29,4	35	23	13	8,5	5	3,3
11.Do you ever learn lessons from occupational accidents and diseases in your unit?	61	39,9	30,7	34	22	8	5,2	3	2
12.Is employee security a priority in your unit?	44	28,8	26,1	39	26	13	8,5	17	11

Based on the data in Table 4, it's seen that occupational health and security training is always received in a rate of 30.1%, risk assessment, suggestions and precautions regarding occupational health and security constitute score in often and sometimes frequency. Employees answered "Always" the question "Do you ever learn lessons from occupational accidents and diseases?" in a rate of 33.3%. It's been seen that the employees assessed in always, often and sometimes frequencies.

Table 5. Evaluation of Working Stress Scale in general

	Always		Often		Sometimes		Hardly ever		Never	
	n	%	n	%	n	%	n	%	n	%
1. Generally I'm exposed to stress while working in hospital environment	62	41	27	17,6	32	21	17	11	15	9,8
2. Generally, I find occupational health and security system in our hospital sufficient	33	22	46	30,1	44	29	14	9,2	16	11
3. Generally, I find it risky and dangerous to work in hospital environment	46	30	28	18,3	44	29	24	16	11	7,2

In Table 5, while the rate of being exposed to stress in the hospitals healthcare staff work is "always" in a rate of 40.5%, it's been seen that they evaluated the rate of finding working environment risky and dangerous in the rate of 30.1%.

Research Analysis

Table 6. Regression analysis of working stress relation level of risks and dangers and occupational health and security

	n	Coefficients (B)	Mean	t	P

Average of risks and dangers	152	0,34	3,3662	2,558	0,012

In regression analysis we performed to investigate signification of risks and dangers' effect on employees' occupational stress level, we generated our hypothesis as follows:

$H_{0:}$ There isn't significant relation between risks and dangers and occupational stress level

$H_{1:}$ There is significant relation between risks and dangers and occupational stress level.

In Table 6, there is a positive relation (B=0,340) between risks and dangers. We see that this relation is significant in t value ($p<0.05$) statistically. In this situation, H_0 hypothesis is rejected. The assessment (H_1 accepted) is presented. As risks and dangers increases, occupational stress level would do the same. And as risks and dangers decrease, occupational stress level would do the same.

Table 7. Variance (Anova) Analysis and T-test performed for Occupational Stress Scores and Risk, Danger Scores regarding demographic data of participants

			N	Mean	F	P
OCCUPATIONAL STRESS SCORE OF EMPLOYEES	Monthly working hours	50 to100 hours 100 to150hours 150 to200 hours 200 to250 hours 250 hours and more Total	 11 21 97 20 2 151	 2,5260 2,8095 2,4212 2,6821 3,0714 2,5260	2,295	0,042
RISK AND DANGER SCORE OF EMPLOYEES	Monthly working hours	50 to100 hours 100 to 150hours 150 to 200 hours 200 to 250 hours 250 hours and more Total	 11 21 97 20 2 151	 3,4205 3,2857 3,3660 3,3229 4,1667 3,3637	2,443	0,049
RISK AND DANGER SCORE OF EMPLOYEES	Gender	Female Male Total	105 48 153	3,4127 3,2561 3,3152	2,305	0,023

It's been concluded that working hours has a significant difference on perception of occupational stress, risk and danger ($p<0.05$). While those who work for 250 hours and more expressed that they were exposed to risks and dangers intensively, they also stated that their level of stress increased.

Examining perception of occupational (organizational) stress, risk and dangers by gender, it's seen that occupational stress doesn't have significant difference on gender ($p>0.05$), however, it was seen that perception of risk and danger have more significant difference on females ($p<0.05$). While it was determined that females'

perception of risk was higher than males', it was seen that males displayed an unstable approach towards perception of risk.

5. Discussion and Conclusion

In this study, the effect of hospital based risks and dangers on occupational stress level was examined. It was concluded that the employees in research group cared about personal hygiene and gave close attention to washing hands, drying, and using disinfectors, however, they didn't give importance to using white coat in contrast to literature. In the interview with procurement and purchasing department with the aim of determining those 2 contradistinctive situations, it was stated that the hospital didn't purchase white coat, instead, they used uniforms peculiar to employees. In a research conducted, it was concluded that the employees cared about personal hygiene in a correspondence level with our research (Erkal and Coşkuner: 2010). Aras concluded in his study that as working hours decreased, the perception of psycho-social risk increased; and he stated that as working hours in the unit increases, the individual's experiences, self-confidence and social communions also increases (Aras: 2013). In this study, while it was seen that the majority (63.4%) remained unresponsive to stress detection in 150 to 200 hours range, it was concluded that perception of risk and stress increased as working hours increased (250 hours and more). In another study conducted about working hours, it was seen that a decrease of 25% occurred when daily working hours were decreased from 12 hours to 10 hours in a factory, and in another study Osborne and Vernon conducted together, a decrease of 40% occurred in occupational accidents when weekly working hours were decreased from 59 hours to 351/4 hours (Soysal: 2009). In case of working overtime without taking employees' social and cultural needs into consideration, and without required planning, the balance between productivity and working hours is broken and over-fatigue and stress occur on individuals. Soysal's study represents data having quality of our research with regards to working hours and stress factor.

In a study conducted by Okutan and Tengilimoğlu, 86% of employees stated that there wasn't a life far from stress (Okutan and Tengilimoğlu: 2002). As medium level of stress would motivate to working conditions, it would be effective in eliminating risks and dangers. However, while high level of stress increases being exposed to risks and dangers, it would create negative effect on job satisfaction, quality, performance and occupational relations. On the basis of organizations investigated where average of occupational stress was normal which could make a positive effect, it was concluded that there wasn't an active occupational stress factor on employees. Stress, the result of life conditions, is one of the most important psychological problems today. As it can effect someone's private life, it has a dynamical structure that affects his occupational (organizational) life and that is affected by these conditions, as well. Psycho-social risk is described as the situation of someone's facing emotional compulsion, stress, or situations or factors leading to problems among others about his work or working environment (Devebakan: 2007). In a study, it was determined that in risk perception ranking deriving from working environment, biological risks were mostly perceived and psycho-social risk perception came second (Aras:2)

Organizational stressors have been sorted out and classified by various researchers. De Frank and Ivancevich classify the reasons of mostly encountered organizational stress as fear of failure, job uncertainity, role conflict, change, worry about career development, new technology, over or insufficient workload, communicational disorders, organizational structure, policies of organization, lack of control, unfair payments, lack of organizational culture (Özen, 2011:11). In our study, we tried to develop a cumulative point of view in perception of occupational stress by approaching both perception of stress in organizational level and individual stressors.

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Usefulness of Prevention and Assessment of the Difference in The Level of Anxiety Using STAI and DAS Scale, And Their Correlation for Male and Female Patient Under Oral Surgery

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Abstract

The objective*:* The research evaluated anxiety related to the surgical extraction of impacted third molars, using the obtained values of Spielberger coefficients of anxiety and Norman Corah dental coefficient (DASR) in relation to the gender of the patient.

Study Design: The study included 501 patients, both male and female, from 18 to 45 years of age, whose level of anxiety was assessed using STAI Form (X1 and X2) as follows: Day 1 or day of the inspection; Day 2 immediately before the intervention itself; Day 3-day after the surgery.

***Results*:** The values of parameters of anxiety estimated using Spielberger forms do not show statistically significant differences between day 1 and day 2, but the values for day 3 show a statistically significant difference compared to the 1st and 2ndday ($P < 0.01$). The values of the chi-square test ($p < 0.01$) are: Day 1 measurements for X.1 $\chi^2 = 114.912$, for X.2 $\chi^2 = 113.906$; Day 2 measurements for X1 are $\chi^2 = 122.273$, for X2 $\chi^2 = 119.511$; Day 3 measurements for X1 are $\chi^2 = 88.483$, for X2 they are $\chi^2 = 81.826$; and confirm that there is a statistically significant difference between the nominal group of Spielberger coefficient of anxiety X1 and X2 i.e. groups 3, 4 and 5, are more represented, i.e. normal, high and very high anxiety.The values of monitored parameters of anxiety are significantly higher in female patients ($p < 0.01$).

Conclusion: The results of this study can help surgeons to assess the anxiety status of patients who are planned for or have undergone the removal of impacted third molars, and received a timely adequate therapy in order to prevent possible complications associated with this type of intervention.

Keywords*:* Prevention, Anxiety Patient gender, Extraction of impacted teeth

Anxiety due to intervention in the oral cavity, or fear, is an important potential problem and according to research in the UK, 25% of adults are quite afraid of such intervention. (Todd and Lader, 1988) In the

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assessment of anxiety and anxiety disorders in clinical practice we use clinical interview and examination, medical history and hetero-anamnestic data.

Clinical instruments are not present in everyday use, but their use for research purposes (epidemiological, therapeutic, diagnostic studies) is unquestionable. The assessment of clinicians of the need to measure the presence and severity of symptoms depends on the clinical situation and interest, but also of the patient as subject or participant in a research study. The most commonly used clinical instruments are in the form of scales, which can measure the intensity of the symptoms, or in the form of questionnaires, and they are often self-evaluating, and reveal the presence of symptoms. Different types of scales and questionnaires are in use, and some of the most exposed and the most frequently mentioned in recent literature are listed below. Spielberger's State-Trait Anxiety Inventory is one of the most commonly used scales for the assessment of anxiety as personality traits, or general anxiety and to assess the anxiety caused by a specific situation, and the current anxiety. (Spielberger et al., 1983) It is made of 40 particles, 20 to evaluate the general anxiety and 20 to assess the current anxiety.The particles are scored with a 4-level scale. In addition to these, some often used scales are: Corah's Dental Anxiety Scale, or DAS, the scale of 4 themes on intervention in the oral cavity. (Corah, 1988) Dental Anxiety Question (DAQ) (Humphris et al., 1995; Neverlien, 1990), Dental Anxiety Inventory (DAI). (Schuurs & Hoogstraten, 1993) Kleinknecht's Dental Fear Survey, (Locker et al., 1996), the Dental Anxiety Question (DAQ) (Locker et al., 1996; Fiset et al., 1989).Corah's Dental Anxiety Scale, or DAS, is a scale of 4 themes on intervention in the oral cavity. (Locker, 2003) The scale gives a score of 4 to 20, and an increase indicates an increase in anxiety score.Score of more than 15 points to phobic anxiety level. (Kanegane et al., 2003; Corah et al. 1978) This scale is used for adult patients and children (Murray et al., 1989; Locker et al. 1991) Alternative versions of the scale are available in three European languages (Carlsson, 2006; Eijkman, 2011; Eijikman & Orlebeke, 1975; Neverlien, 1990; Kunzelman & Dunngier, 1990). DAS can be modified by adding a fifth theme that requires a response to the application of local anesthesia, which changes the response form. (Newton & Edwards, 2005; Humphris&Morrisson,1995) DAS is widely used, and increasing the number of possible answers from 4 to 5 is effective in clinical trials. (Schuurs & Hoogstraten, 1993) A number of studies found good correlation of this scale with Dental Anxiety Question (DAQ) (Humphris & Morrisson,1995; Schuurs & Hoogstraten, 1993; Gatchel, 1989) Unlike Gatchel scale that reflects the overall fear of dental treatment, DAS estimates fear of certain interventions in the oral cavity more specifically. The correspondence between Gatchel and DAS is confirmed in people with significant or moderate fear of intervention in the oral cavity, suggesting that these two measurements are related, although independent of each other. (Gatchel, 1989) It correlates well with the scale of Dental Anxiety Inventory or DAI.

It is not always easy to choose the instrument of measurement that will meet the objectives of the test. Usually a familiar scale is used in a research, the use of which has resulted in good experiences, but sometimes, if necessary, a scale can be constructed for a specific measurement in a research.

We dealt with the assessment of the level of dental anxiety and its impact on the level of preoperative and postoperative anxiety in oral - surgical procedure, and determining the difference between male and female patients for all measured parameters provided in the research protocol.

In this research, the level of preoperative and postoperative anxiety after surgical removal of impacted third maxillary and mandibular molar in patients was assessed as follows: Day 1 (the day of examination) - DAS

scale, STAI Form (X1 and X2); Day 2 (immediately before the intervention itself) - STAI Form (X1 and X2); Day 3 (the day after surgical intervention) - STAI Form (X1 and X2).

Materials and Methods

The research included 501 patients, male and female, (Fig. 1) from 18 to 45 years of age, indicated for the removal of the maxillary and mandibular impacted third molar with fully completed growth and root development and mesio-angular position (Figure 2). We applied the same approach to surgery with standard surgical instruments, and adequately administered oral-surgical pre-operative and post-operative therapy, which includes analgesic, antibiotic and anti-swelling medication. According to the protocol of Nakazata et al.(table 1), we made groups of patients on the basis of gradation of anxiety scores: (Nakazato & Shimonaka, 1989) patients with very high, high, moderate, low and very low anxiety. Based on the protocol of Gedik at.al. (Figure 3) we made groups of patients by age: from 18 to 20 years old, from 21 to 29 years old, 30-39 years old and 40-45 years old. (Gedik et al., 2005) After clinical examination and RTG analysis of relevant images, one of which is ortho-pantomograph, each patient was diagnosed with impacted maxillary and mandibular third molar or molars. The patients were free of pain and other inflammatory symptoms including swelling, hyperemia and reduced mouth opening at the time of surgery. Exclusion criteria included patients who had: kidney or liver disease, blood dyscrasias, previous and present gastric ulcers, heart disease, demonstrated hypersensitivity, allergic reactions to some research medicine, pregnancy and lactation. Impacted teeth were extracted, with the prior consent of patients and under local anesthesia (dose of 4 cc of 2% lidocaine with adrenaline 1: 80,000). In this study, the level of preoperative and postoperative anxiety after surgical removal of impacted third maxillary and mandibular molars, in patients was assessed as follows: Day 1 (the day of examination) - DAS scale, STAI Form (X1 and X2); Day 2 (immediately before the intervention itself) - STAI Form (X1 and X2); Day 3 (the day after surgical intervention) - STAI Form (X1 and X2). For comparison of Norman Corah dental coefficient (DASR) with other parameters we grouped patients according to the values in Table 2. We examined the relationship between dental anxiety evaluated using Corahscore with anxiety before and after the oral surgical intervention, and gender differences for all parameters were monitored with this research.

Results

The values of monitored parameters of anxiety are presented on the chart (Figure 4) and they were significantly higher in female patients ($p < 0.01$).

Analysis of the frequency and percentage of representation of DASR by gender (Table 4), and the value of Pearson's $\chi^2 = 98.762$ ($\alpha = 0.000$; $p < 0.01$) indicate that there is a statistically significant difference in the prevalence of nominal Norman Corah dental coefficient by gender (Table 3).

Analysis of the frequency and percentage of representation of coefficients X1 and X2 by gender for Day 1 measurements (Table 5 and Table 6), and the value of X1 Pearson's $\chi^2 = 14.803$ ($\alpha = 0.002$; $p < 0.01$) and the X2 Pearson $\chi^2 = 17.528$ ($\alpha = 0.001$; $p < 0.01$) indicate that there is a statistically significant difference in the prevalence by gender (Table 3).In the group with high and very high anxiety women were significantly more present (for X1 -59.70% and 66.30%, respectively for the X2 -70% and 66.50%).

Analysis of the frequencies and percentage of representation of coefficients X1 and X2 by gender for Day 2 measurements (Table 7 and Table 8), and the value for X1 Pearson $\chi^2 = 24.710$ ($\alpha = 0.000$; $p < 0.01$) and the X2 Pearson $\chi^2 = 29{,}201$ ($\alpha = 0.000$; $p < 0.01$) indicate that there is a statistically significant difference in the prevalence of gender (Table 3). In the group of high and very high anxiety women were significantly more present (for X1 -67.90% and 66.50% for X2 -69.70% and 65.00%).

Analysis of the frequency and percentage of representation of coefficients X1 and X2 by gender for Day 3 measurements (Table 9 and Table 10), and the value for X1 Pearson $\chi^2 = 73.583$ ($\alpha = 0.000$; $p < 0.01$) and the X2 Pearson $\chi^2 = 78{,}025$ ($\alpha = 0.000$; $p < 0.01$) indicate that there is a statistically significant difference in the prevalence of gender for Day 2 of measurements (Table 3).In the group of normal, high and very high anxiety women were significantly more present (for X1 -60.30%, 72.30% and 65.30% for X2 - (61.20%, 72.30% and 65.30%).

Analyzing Pearson Correlation coefficients between parameters of anxiety of Norman Corahdental coefficient (DASR) and Spielberger coefficients X1 and X2, we can see that there are a very high correlation coefficients between DASR, X1 and X2 for the 1st and 2ndday of measurement, as well as mutual correlation relationship of X1 and X2 in the first two measurements, and somewhat less correlation for the Day 3 measurements (Table 11). This means that during Day 3 measurements, there were significant changes in a sense of anxiety in some patients and that is represented with a reduction of correlation coefficient. Analysis of correlation coefficients with the use of nominal anxiety coefficients and classification of coefficients into anxiety groups showed the same tendency with somewhat reduced correlation coefficients (Table 12).At the same time this means that the use of one or the other form of questionnaire for the study of anxiety in patients gave the same or similar results.

Discussion

According to the results of our research Corah's score for dental anxiety - DASR was 14.32 (Table 8). It correlates with the results of research conducted by Smith et al. (Smith et al., 2003) who analyzed the level of dental anxiety in the last few decades, and found that although the general anxiety has been increasing steadily in the United States, the level of dental anxiety is stagnating, which is attributed to advances in technology and approach to patienta. In their papers, Peretz et al. noted that the level of dental anxiety was higher in female patients compared to male patients. (Perez & Moshonov, 1998) A similar conclusion arises from analysis of works of Frazer et al. (Thomson et al., 2009; Wijk &Hoogstraten, 2005; Frazer & Hampson, 1998). In our research, we got results that correlate with the results of Peretz and Frazer, and found that there is a statistically significant difference between female and male patients for dental anxiety assessed by DAS-R, which was higher for female patients ($p < 0.01$) (Table 4). Average value of DASR for female patients was 15.3.Average value of DASR for male patients was 13 (Figure 4).

In our research with moderate anxiety (score 9-12) we had 50.3% of female patients and 49.7% of male patients, while with very high anxiety (score 15-20) we had 74.3% female patients and 25.7% of male patients.

The relationship between dental anxiety and anxiety caused by oral-surgical procedure seems logical. (Fuentes et al., 2009; McNeil et al., 2011) In our research, we have established a positive correlation that there is a statistically significant association between dental anxiety estimated by using DAS-R with preoperative and postoperative anxiety estimated with Spielberger forms X1 and X2 ($p < 0.01$).A positive correlation indicates that the higher the DAS-R the greater the anxiety before and after oral-surgical interventions (Table 11 and Table 12).(DASR/X1.1 = 0.962; DASR/X2.1 = 0.961; DASR/X1.2 = 0.913; DASR/X2.2 = 0.916; DASR/X1.3 = 0.753; DASR/x2.3 = 0.755) We observed that there are very high correlation coefficients between DASR, X1 and X2 in the first two measurements (on the day immediately before the surgery), and the common correlation of X1 and X2 (X1.1/X2.1 = 0.997; X1.1/X1.2 = 0.946; X1.1/X2.2 = 0.945; X1.1/X1.3 = 0.769; X1.1/X2.3 = 0.773) for the first two measurements, and somewhat lesser correlation for the third measurement after the surgery. This means that during the third day of measurement there is a significant change in sense of anxiety in some patients, and this is manifested in reduction of the coefficient of correlation, which is logical given that there is a tendency of decrease of anxiety after oral surgery.

Research of Facco et al. suggests that the level of dental anxiety is greatest in patients who were indicated for oral surgery, compared to patients who needed a conservative or endodontic treatment on teeth. (0

The results of our study points to a higher score of dental anxiety in female patients compared to male patients and correlate with the results of Facco et al. (Facco et al., 2008)

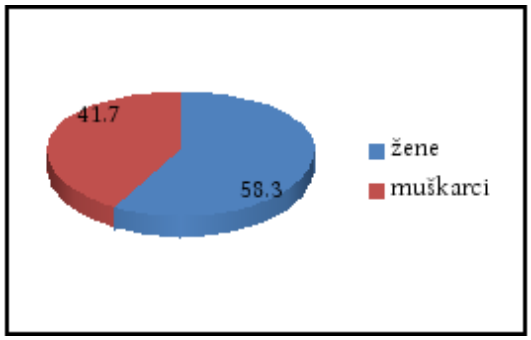
There is a statistically significant difference between female patients and male patients for current anxiety estimated using Spielberger form X1, which is higher for female patients, for the first, second and third day of measurement ($p < 0.01$) (3,5,7,9) (tables 51,52,55,56,59,60).

In terms of general anxiety and the impact of oral surgery on it, and the difference between male patients and female patients, studies of other authors are contradictory. In our study, there were no statistically significant difference between female and male patients in general anxiety estimated using Spielberger form X2, which is

higher for female patients, for the first, second and third day of measurement (p <0.01) (3.6, 8.10) (tab.53,54,57,58,61,62).

Facts coincide with most previous researches(Ogle&Hertz, 2012; Hakeberg&Berggen, 1997; Yuan et al., 2008; Acharya, 2008; Economou, 2003; Aurbach&Kendall, 1978).It is surprising that Ozdemir et al. (Ozdemir et al. 2001) found higher scores of anxiety in men than women.

We expect that the results of this research will have full clinical applicability and significance as they will help clinicians in their daily clinical practice, in use of simple methods of preoperative and postoperative assessments, to administer adequate therapy, preventing possible complications, and make postoperative course of events more comfortable and easier for their patients.



Women

Men

Figure 1. Gender representation in the sample

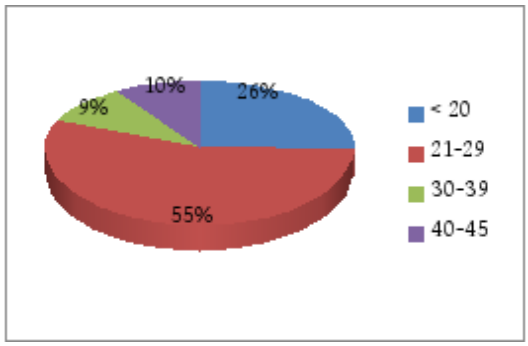


Figure 2. Age representation in the sample

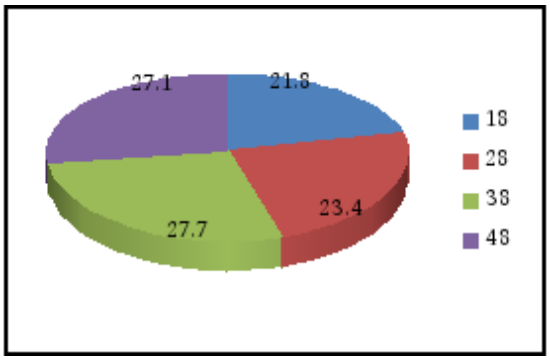
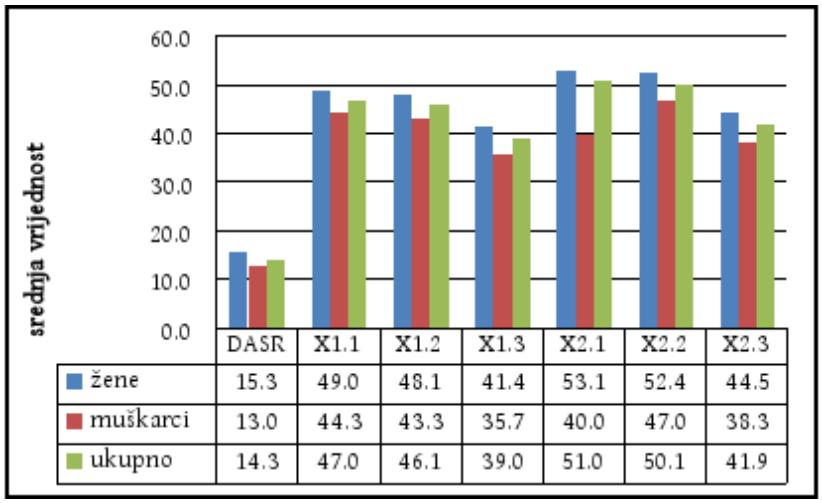


Figure 3. Presence of impacted teeth



Women
Men
Total

Figure 4. Coefficients of anxiety by gender and days of measurement

Table 1. Nominal values of Spielberger coefficients X1 and X2 according to Nakazataet al.

	Gender	Level of anxiety				
Spielberger coefficient		very high	high	normal	string	very low
		5	4	3	2	1
X1	Male	>= 50	41-49	32-40	23-31	<= 21
	Female	>= 51	42-50	31-41	22-30	<= 21
X2	Male	>= 53	44-52	33-43	24-32	<= 23
	Female	>= 55	45-54	34-44	24-33	<= 23

Table 2. Nominal values of DASR

Norman Corah Dental coefficient	moderate anxiety	high anxiety	very high anxiety
DASR	9-12	13-14	15-20

Table 3.Value of Pearson $\chi^2$by days after measurements in relation to gender

Parameter	DASR_GR	X1.1_GR	X2.1_GR	X1.2_GR	X2.2_GR	X1.3_GR	X2.3_GR
Pearson Chi-Square(χ2))	98.762[a]	14.803[a]	17.528[a]	24.710[a]	29.201[a]	73.583[a]	78.025[a]
Asymp.Sig.	0.000	0.002	0.001	0.000	0.000	0.000	0.000

Table 4. frequency and percentage of the DASR for Day 1 measurements

		DASR			
		moderate	High	very high	total
Women	Number	95	0	197	292
	% DASR	50.30%	0.00%	74.30%	58.30%
	% gender	32.50%	0.00%	67.50%	100.00%
	% total	19.00%	0.00%	39.30%	58.30%
Men	Number	94	47	68	209
	% DASR	49.70%	100.00%	25.70%	41.70%
	% gender	45.00%	22.50%	32.50%	100.00%
	% total	18.80%	9.40%	13.60%	41.70%

Table 5. Frequency and percentage of X1 for Day 1 measurements

		X1.1_GR				
		low	normal	High	very high	total
Women	Number	6	89	89	108	292
	% X1.1_GR	27.30%	53.30%	59.70%	66.30%	58.30%
	% gender	2.10%	30.50%	30.50%	37.00%	100.00%
	% total	1.20%	17.80%	17.80%	21.60%	58.30%
Men	Number	16	78	60	55	209
	% X1.1_GR	72.70%	46.70%	40.30%	33.70%	41.70%
	% gender	7.70%	37.30%	28.70%	26.30%	100.00%
	% total	3.20%	15.60%	12.00%	11.00%	41.70%

Table 6. Frequency and percentage of X2 for Day 1 measurements

		X2.1_GR				
		low	normal	high	very high	total
Women	Number	6	82	95	109	292
	% X2.1_GR	27.30%	50.90%	61.70%	66.50%	58.30%
	% gender	2.10%	28.10%	32.50%	37.30%	100.00%
	% total	1.20%	16.40%	19.00%	21.80%	58.30%
Men	Number	16	79	59	55	209
	% X2.1_GR	72.70%	49.10%	38.30%	33.50%	41.70%
	% gender	7.70%	37.80%	28.20%	26.30%	100.00%
	% total	3.20%	15.80%	11.80%	11.00%	41.70%

Table 7. The frequency and percentage of X1 for Day 2 measurements

		X1.2_GR				
		Low	normal	high	very high	total
Women	Number	6	87	112	109	292
	% X2.1_GR	27.30%	48.30%	67.90%	66.50%	58.30%
	% gender	2.10%	29.80%	38.40%	37.30%	100.00%
	% total	1.20%	17.40%	22.40%	21.80%	58.30%
Men	Number	16	93	53	55	209
	% X2.1_GR	72.70%	51.70%	32.10%	33.50%	41.70%
	% gender	7.70%	44.50%	25.40%	26.30%	100.00%
	% total	3.20%	18.60%	10.60%	11.00%	41.70%

Tabel 8. Frequency and percentage of X2 for Day 2 measurements

		X2.2_GR				
		Low	normal	high	very high	total
Women	Number	6	85	108	93	292
	% age	27.30%	47.00%	69.70%	65.00%	58.30%
	% gender	2.10%	29.10%	37.00%	31.80%	100.00%
	% total	1.20%	17.00%	21.60%	18.60%	58.30%
Men	Number	16	96	47	50	209
	% age	72.70%	53.00%	30.30%	35.00%	41.70%
	% gender	7.70%	45.90%	22.50%	23.90%	100.00%
	% total	3.20%	19.20%	9.40%	10.00%	41.70%

Table 9.Frequency and percentage of X1 for Day 3 measurements

		X1.3_GR				
		low	normal	high	very high	total
Women	Number	6	123	99	64	292
	% X1.3_GR	9.70%	60.30%	72.30%	65.30%	58.30%
	% gender	2.10%	42.10%	33.90%	21.90%	100.00%
	% total	1.20%	24.60%	19.80%	12.80%	58.30%
Men	Number	56	81	38	34	209
	% X1.3_GR	90.30%	39.70%	27.70%	34.70%	41.70%
	% gender	26.80%	38.80%	18.20%	16.30%	100.00%
	% total	11.20%	16.20%	7.60%	6.80%	41.70%

Table 10. Frequency and percentage of X2 for Day 3 measurements

		X2.3_GR				
		low	normal	high	very high	total
Women	Number	6	123	99	64	292
	% X2.3_GR	9.20%	61.20%	72.30%	65.30%	58.30%
	% gender	2.10%	42.10%	33.90%	21.90%	100.00%
	% total	1.20%	24.60%	19.80%	12.80%	58.30%
Men	Number	59	78	38	34	209
	% X2.3_GR	90.80%	38.80%	27.70%	34.70%	41.70%
	% gender	28.20%	37.30%	18.20%	16.30%	100.00%
	% total	11.80%	15.60%	7.60%	6.80%	41.70%

Table 11. Pearson coefficient of correlation between DASR, X1 and X2 by days

	DASR	X1.1	X2.1	x1.2	X2.2	X1.3	x2.3
DASR	1	.962**	.961**	.913**	.916**	.753**	.755**
X1.1	.962**	1	.997**	.946**	.945**	.769**	.773**
X2.1	.961**	.997**	1	.944**	.948**	.769**	.774**
x1.2	.913**	.946**	.944**	1	.996**	.878**	.880**
X2.2	.916**	.945**	.948**	.996**	1	.875**	.879**
X1.3	.753**	.769**	.769**	.878**	.875**	1	.995**
x2.3	.755**	.773**	.774**	.880**	.879**	.995**	1

Table 12 Pearson coefficient of correlation between nominal DASR, X1 and X2 by days (anxiety groups)

	DASR_GR	X1.1_GR	X2.1_GR	X1.2_GR	X2.2_GR	X1.3_GR	X2.3_GR
DASR_GR	1	.891**	.879**	.854**	.851**	.697**	.706**
X1.1_GR	.891**	1	.989**	.947**	.934**	.751**	.759**
X2.1_GR	.879**	.989**	1	.940**	.931**	.746**	.754**
X1.2_GR	.854**	.947**	.940**	1	.982**	.871**	.876**
X2.2_GR	.851**	.934**	.931**	.982**	1	.859**	.863**
X1.3_GR	.697**	.751**	.746**	.871**	.859**	1	.992**
X2.3_GR	.706**	.759**	.754**	.876**	.863**	.992**	1

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Importance of Prevention and The Correlation Coefficient Between Spielberger Anxiety Coefficients X1, X2 and Monitored Vital Parameters in Oral Surgery Interventions

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Purpose*:* The research evaluated the anxiety related to the surgical extraction of impacted third molars, using the obtained values of Spielberger coefficients of anxiety, and its impact on the cardiovascular response through the value of vital parameters.

Study Design: The research included 501 patients, male and female, from 18 to 45 years of age. The level of anxiety was assessed using Spielberger forms. The measurement was conducted on the day of examination (Day 1), immediately before the intervention itself (Day 2) and the day after the intervention (Day 3). Measuring of vital signs (blood pressure, heart rate according to heart beat, respiration rate) was conducted on all three days of

measurement, using a digital pressure gauge that measures all three values simultaneously. Each measurement was repeated five times, every two minutes.

Results*:*

Values of coefficients X1, X2 and vital parameters (blood pressure - systolic and diastolic, pulse and respiration rate) by days of measurements were: X1.1/X1.2/X1.3 = 47.03/46.14/39.01; X2.1/X2.2/x2.3 = 50.99/50.11/41.91; KP1_S/KP2_S/KP3_S = 131.642/132.589/125.268; KP1_D/KP2_D/KP3_D = 81.842/82.99/75.9; PULS1/PULS2/PULS3 = 88.448/88.9/81.562; DIS1/DIS2/DIS3 = 24.34/25.05/20.464). There is a positive correlation and statistically significant correlation between anxiety intensity estimated with Spielberger forms X1 and X2 and the values of vital signs (blood pressure, pulse and respiration rate) for all three days of measurement ($p < 0.01$). (X1.1/KP1_S = 0.88; X1.1/KP1_D = 0.88; X1.1/PULS1 = 0.915; X1.1/DIS1 = 0.893; X2.1/KP1_S = 0.888; X2.1/KP1_D = 0.887; X2.1/PULS1 = 0.921; X2.1/DIS1 = 0.894; x1.2/KP2_S = 0.703; x1.2/KP2_D = 0.45; x1.2/PULS2 = 0.924; x1.2/DIS2 = 0.897; X2.2/KP2_S = 0.713; X2.2/KP2_D = 0.85; X2.2/PULS2 = 0.93; X2.2/DIS2 = 0.9; X1.3/KP3_S = 0.78 ; X1.3/KP3_D = 0.852; X1.3/puls3 = 0.914; X1.3/DIS3 = 0.86; x2.3/KP3_S = 0.776; x2.3/KP3_D = 0.847; x2.3/puls3 = 0.914 ; x2.3/DIS3 = 0.856;). It is observed that there are high correlation coefficients between all vital parameters and X1 and X2. Positive values of correlation coefficients tell us that increasing of X1 and X2 causes the increased value of all vital parameters for first, second and third day of measurement.

Conclusion: The positive values of correlation coefficients tell us that increasing of anxiety coefficients X1 and X2, causes the increased value of all vital parameters for first, second and third day of measurement.

Keywords*:* *Prevention• Anxiety • Blood pressure • Heart rate • Respiration*

Oral-surgical intervention is certainly a stressful situation, and "stress" as a general term implies a reaction that includes psychological and physiological component. Reaction to oral surgery, which is extremely stressful experience for most patients (Tolstunov, 2007), will depend on the feeling that the patient gets of the surgeon and surgeon's approach to the patient. It is not uncommon to see occurrence of syncope or collapse before or during oral surgery in psychologically unprepared patients. At the same time, the intensity of psychological reactions depends on the intensity of mental effort of the patient to cope with a challenging situation, which oral-surgical procedure inevitably brings. The assessment of anxiety and anxiety disorders in clinical practice uses: clinical interview and examination, medical history and hetero-anamnestic data.

Author Spielberger et al. is the creator of a questionnaire about anxiety (State-Trait Anxiety Inventory). Usually when you use the STAI questionnaire by Spielberger (Spielberg, 1989) anxiety as a state is different from the anxiety as a personality trait. Anxiety as a personality trait is characterized by continuity of anxious response to a large number of situations, where this phenomenon is showing stability and persistence in time, and is an integral part of each of the individual forms of anxiety disorders and their precondition.

Anxiety caused by a specific situation is characterized by emotional reaction of increased internal tensions concerning the current situation as the cause of this reaction.

When we talk about anxiety as a state or anxiety caused by a particular situation, they are mostly related to a healthy and psychologically inconspicuous person who is predisposed to anxiety in a situation of stress.

It is an individual experience in a particular situation. Zarevski analyzes the feeling of anxiety and a state of tension that precedes and takes place during the exam or imagining an exam in students as an example of a state of anxiety (Zarevski, 2002)

There are many doubts about the conceptual definition of anxiety, and about defining specific symptoms, about etiopathogenesis, and clearly specified boundaries with other disorders or conditions which have predominantly anxious symptoms.

Existence of anxiety prior to oral surgery seems logical, i.e. anxiety that is found during the examination prior to any oral surgery can have a significant impact on the level of generalized anxiety, i.e. anxiety as a relatively stable personality trait. Change of status of anxiety caused by oral-surgical procedure can lead to changes in vital signs, such as blood pressure, heart rate and respiration rate (Zarevski, 2002; Conrado, 2007).

Materials and Methods

The research included 501 patients, male and female, from 18 to 45 years of age, who were indicated for the removal of the maxillary and mandibular impacted third molars with fully completed growth and root development and mesio-angular position. (Fig. 1, 2 3. 4.) We applied the same surgical approach with standard surgical instruments, and administered adequate oral-surgical pre-operative and post-operative therapy, which includes analgesic, antibiotic and anti-swelling medication. After clinical examination and RTG analysis of relevant images, one of which is orthopantomograph, each patient was diagnosed with impacted maxillary and mandibular third molar or molars. Patients were free of pain and other inflammatory symptoms including swelling, hyperemia and reduced mouth opening at the time of surgery. Exclusion criteria included patients with: kidney or liver disease, blood dyscrasias, previous and present gastric ulcers, heart disease, demonstrated hypersensitivity, allergic reactions to some research medicine, pregnancy and lactation. Impacted teeth were extracted, with the prior consent of patients and under local anesthesia (at a dose of 4 cc of 2% lidocaine with adrenaline 1: 80,000). In this study, the level of anxiety in patients that underwent surgical removal of maxillary and mandibular impacted third molars, and the value of vital parameters were evaluated as follows: Day 1 (the day of examination); Day 2 (immediately before the intervention itself); Day 3 (the day after surgical intervention). The measurement of blood pressure, heart rate according to heartbeat and respiration rate was conducted using a digital pressure gauge that measures all three values simultaneously. Each measurement was repeated five times, every two minutes (Rosenberg&Campbell, 1991; Matthews et al. 1992; Suwa, 1996; Anderson et al. 1987; Lowe&Brook, 1991; Becker&Casabianca, 2009; Casabianca&Becker, 2009; Soares&Morse, 2004; Kracher, 2005; Aubertin, 2004; Yagiela&Haymore, 2007; Little, 2000; Bavitz, 2006; Greenwood&Lowry, 2002; Padwal et al. 2008; Nakamura et al., 2001).

Results

Values of coefficients X1, X2 and vital signs (systolic and diastolic blood pressure, heart rate and respiration rate) by days of measurements were: X1.1/X1.2/X1.3 = 47.03/46.14/39.01; X2.1/X2.2/x2.3 = 50.99/50.11/41.91; KP1_S/KP2_S/KP3_S = 131.642/132.589/125.268; KP1_D/KP2_D/KP3_D = 81.842/82.99/75.9; PULS1/PULS2/Puls3 = 88.448/88.9/81.562; DIS1/DIS2/DIS3 = 24.34/25.05 /20,464) (Table 1; Images 5, 6, 7, 8, 9, 10). Correlation of results for the first day of measurement for the parameters (X1, X2, KP1_S, KP1_D, PULS1 and DIS1) was statistically significant ($p < 0.01$). (Table 2) The highest correlation coefficient between X2 and PULS1 amounted to 0.921. The lowest correlation coefficient was between X1 and KP1_S/KP1_D, and amounted to 0.88. The correlation coefficients for the X2 and KP1_S/KP1_D amounted to 0.888, or 0.887. For the parameters X1, X2 and DIS1 correlation coefficients amounted to 0.893 and 0.894. The link between the results of the second day of measurement for these parameters (X1, X2, KP2_S, KP2_D, PULS2 and DIS2) was statistically significant ($p < 0.01$). (Table 3). The highest correlation coefficient was between X2 and PULS2, and amounted to 0.93. The lowest correlation coefficient was between X1 and KP2_S, and amounted to 0.703. The correlation coefficient for X1 and KP2_D amounted to 0.845. Correlation coefficient for X2 and KP2_S/KP2_D amounted to 0.713, or 0.85. For the parameters X1, X2 and DIS2 correlation coefficients amounted to 0.897 and 0.9. Correlation of results for the third day of measurements of these parameters (X1, X2, KP3_S, KP3_D, puls3 and DIS3) was statistically significant ($p < 0.01$). (Table 4) The highest correlation coefficient was between parameters X1, X2 and PULS3 and amounted to 0.914. The lowest correlation coefficient was between X2 and KP3_S and amounted to 0.776. The correlation coefficient for X1 and KP3_S amounted to 0.780. Correlation coefficients for X1, X2 and KP3_D amounted to 0.852 or 0.847. For the parameters X1, X2 and DIS3 correlation coefficients amounted to 0.860 and 0.856.

The analysis of these results shows that there is a high correlation of coefficients between all vital parameters and X1 and X2. Positive values of correlation coefficients tell us that increasing of the X1 and X2 causes increased value of all vital parameters. The differences between the correlation coefficients are insignificant and results suggest that people with high anxiety caused by a current event and high anxiety in general have accordingly correlating values of measured vital signs, blood pressure, heart rate and respiration rate.

Discussion

Spielberger's State-Trait Anxiety Inventory (STAI) is conceptually a research tool to study anxiety in adult patients. It involves measuring of anxiety as general condition and anxiety caused by a current situation - experience, such as oral-surgical procedure (Öner&Le, 1983; Spielberg et al., 1970). There are two scales: STAI-S, which registers state of anxiety and STAI-T, which registers anxiety as a relatively stable personality trait. Anxiety coefficients X1 and X2 are calculated based on the score.

Anxiety due to intervention in the oral cavity is a universal phenomenon, which can be amplified by means of smell, sound, light, previous experience (Arsati et al., 2010, Baker et al., 2006; Boorin, 1995; Hamasaki et al, 2011; Schouten et al., 2003; Collado et al., 2008; Papdopoulos et al, 2008). Most patients who had experienced it consider it as one of the worst experiences of their life (de Jongh et al, 2008; Heaton et al., 2007; Locker et al., 1999; Vermaire et al., 2008; Vermaire, 2011; Crofts et al., 2010; Peretz et al, 1999). According to the definition of anxiety, it implies a sense of danger accompanied by restlessness, tension, tachycardia and dyspnea, which

develops unconsciously (Henderson et al. 1994). Identification of anxiety can be hard work (Hakeberg et al., 2008; Sohn et al., 2005; Corah et al,1988; de Jongh & Broers, 2009; Milgrom &Weinstein, 1993; Wiener, 1992).

All patients showed a higher level of anxiety in relation to the degree of anxiety noted by Le Compte et al. (Le& Öner, 1976).

In our research, we looked at the impact of the level of anxiety to the value of vital parameters, and especially the cardiovascular response of the body and breathing rhythm. The values of the measured values of coefficients X1, X2 and vital signs (systolic and diastolic blood pressure, heart rate and respiration rate) by days of measurements are: X1.1/X1.2/X1.3 = 47.03/46.14/39.01; X2.1/X2.2/x2.3 = 50.99/50.11/41.91; KP1_S/KP2_S/KP3_S = 131.642/132.589/125.268; KP1_D/KP2_D/KP3_D = 81.842/82.99/75.9; PULS1/PULS2/PULS3 = 88.448/88.9/81.562; DIS1/DIS2/DIS3 = 24.34/25.05/20.464). (Table 1. Figures 5, 6, 7, 8, 9, 10). The differences between the correlation coefficients are insignificant and the results suggest that people with high dental anxiety measured on the day of the patient examination, immediately before the intervention and the day after the intervention, have consequently correlating values of measured vital signs, blood pressure, heart rate and respiration rate immediately before the oral- surgery.

Results of the research of authors who mentioned oral surgery or intervention in the oral cavity as the cause of the change in blood pressure can be contradictory. Abraham- Inpijnm et al.(Abraham et al, 1988) in their work demonstrate an increase in systolic blood pressure during the extraction of third molars, and suggest that blood pressure had increased in the range of 10-70 mm of Hg in normotensive and hypertensive patients. In contrast to this study, the results of the research by Venderheydena et al. (Vanderheyden et al, 1989) suggest that blood pressure did not significantly change during the intervention in oral cavity and the use of local anesthesia in patients with coronary artery disease. The results of our research in connection with the increase in blood pressure during oral surgery, correlate with the results of research by Yoshimura (Yoshimura, 1983) and Abraham-Inpijn et al. (Abraham et al, 1988).

The change of baseline blood pressure can be affected by positive or negative family history for hypertension (Bader et al, 2002; Xue et al, 2004; Silvestre et al., 2011) and the prescribed dose of epinephrine with local anesthetic (Laragnoit et al., 2009; Matthews et al.,1959; Komura et al., 2010). Mayer (Meyer, 1986) in his work proves that blood pressure response in the form of an increase compared to baseline in patients with known hypertension is comparable, while Abraham-Inpijn in his research demonstrates that the increase in blood pressure is bigger, compared to patients with normal values of blood pressure and that increase of blood pressure in patients with hypertension was higher than the increase in blood pressure in normotensive patients compared to baseline blood pressure.

Results of Mayer's research pointing to an increase in blood pressure during dental surgery were not statistically significantly correlated with the baseline values of blood pressure, suggesting that a high primary (initial) blood pressure is not the most decisive factor for increase in blood pressure during surgical teeth extractions. The lack of differences in the increase in blood pressure during oral surgical procedures among patients with hypertension in the family history and patients without the same history suggests that a genetic predisposition to hypertension does not affect the change in blood pressure during oral surgery.

Whether local anesthesia with adrenaline caused a change in blood pressure and heart rate during oral surgery or it is a result of psychological stress due to oral surgical procedures, is debated by many authors (Hasse et al. 1986; Braseleiro et al., 2012). The usual dose of epinephrine leads to an increase in single epinephrine concentrations in the serum (Hersh et al., 2006; Knoll-Kohler et al., 1991; Vasconcellos, et al, 2008).

Gortzaka et al. (Ogunlewe et al., 2011; Cahudhry et al., 2011; Gungormus&Buyukkurt, 2003; Gortzak et al., 1992) in their research suggest that the blood pressure significantly increased during the application of local anesthesia, but also significantly reduced immediately after removal of the needle from the mouth. Increase in blood pressure for short period after local anesthesia can be caused by pain resulting from insertion of the needle for local anesthesia.

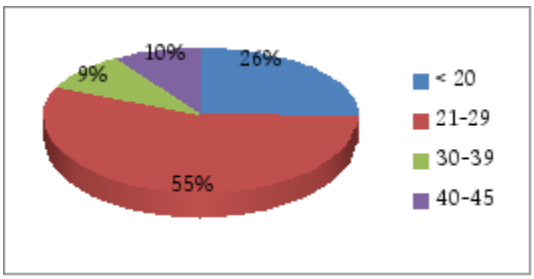
Bahadir et al. in their works, and Meyer in his research, noted that epinephrine in local anesthesia causes significant cardiovascular response, and that lidocaine with and without epinephrine changes blood pressure and heart rate differently (Ezmek et al, 2010; Meyer, 1987). However, an increase in blood pressure after injection with a local anesthetic is significant but short-lived and it cannot be interpreted as the effect of exogenously injected epinephrine because the maximum increase in the concentration of epinephrine in the serum is achieved 3-6 min after local anesthesia, and the high level of serum epinephrine is expected in the last 20 minutes of oral surgical intervention (Santos et al., 2007).

Liau FL sought the cause of the increase in blood pressure during oral-surgical interventions in the very act of application of local anesthesia and direct contact of the injection needle, and its manipulation in the soft tissue of the oral milieu. Pain caused by injection application is associated with an increase in the cardiovascular responses (Kapfhammer, 2011; Migliau, 2002; Xue et al.,2004; Liau et al., 2008).

Activation of the sympathetic system can be stimulated both with exogenous and endogenous epinephrine. Cardiovascular response during oral surgical procedures is a result of sympathetic activity and special attention should be given to patients with coronary disease and heart transplant. But Borea et al. who studied patients with heart transplant, who had indications for oral surgery under local anesthesia, found no statistically significant change in blood pressure and heart rate during oral surgery (Alemany et al, 2008; Montebugnoli et al., 2002; Hansen et al., 2006; Borea et al., 1993).

In our study we obtained positive values of correlation coefficients that tell us that increasing of anxiety coefficients X1 and X2, causes the increased value of all vital parameters for first, second and third day of measurement.

The results of this study can help surgeons to assess the anxiety status of patients who are planned for or underwent the removal of impacted third molars, and to administer a timely and adequate therapy in order to prevent possible complications associated with this type of intervention.



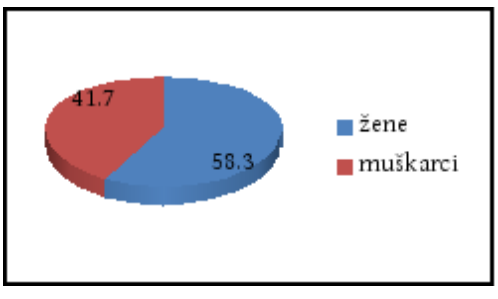
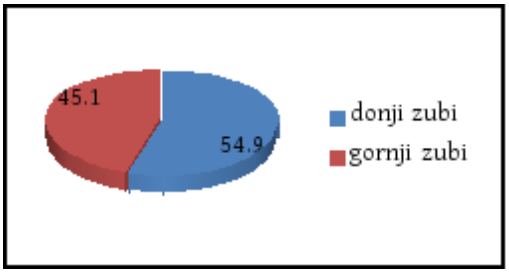


Figure 1. Gender representation in the sample

Figure 2. Representation of age groups in the sample



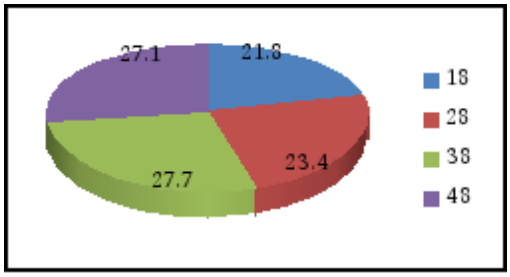


Figure 3. Presence of impacted teeth

Figure 4. Representation by tooth

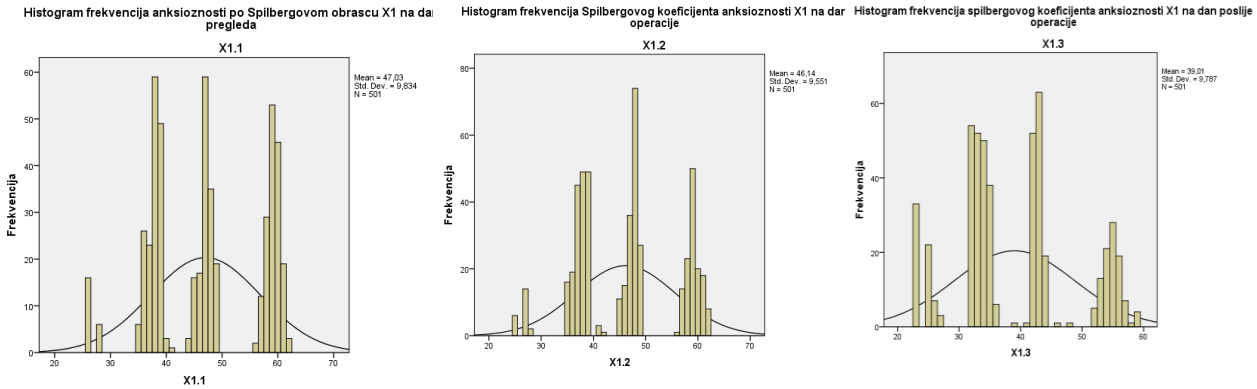


Figure 5. Histogram of frequencies of X1 for 1st, 2nd and 3rd day of measurements

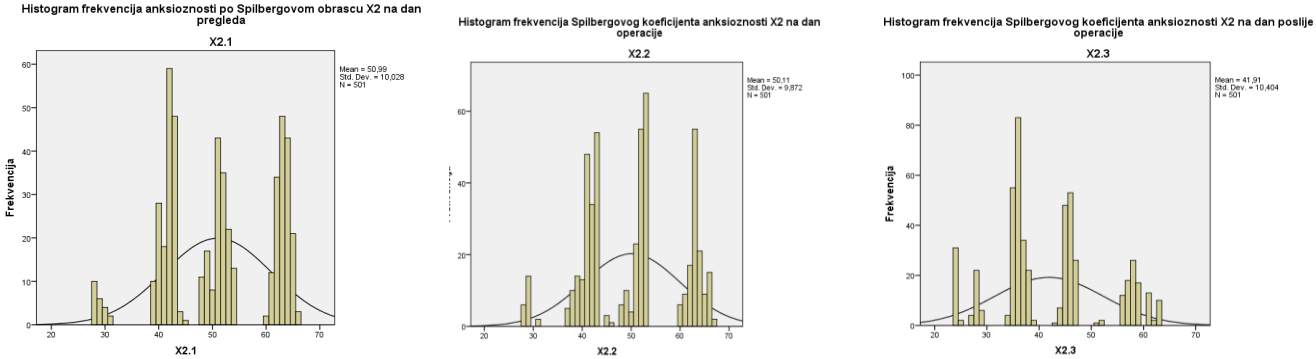


Figure 6. Histogram of frequencies of X2 for 1st, 2nd and 3rd day of measurements

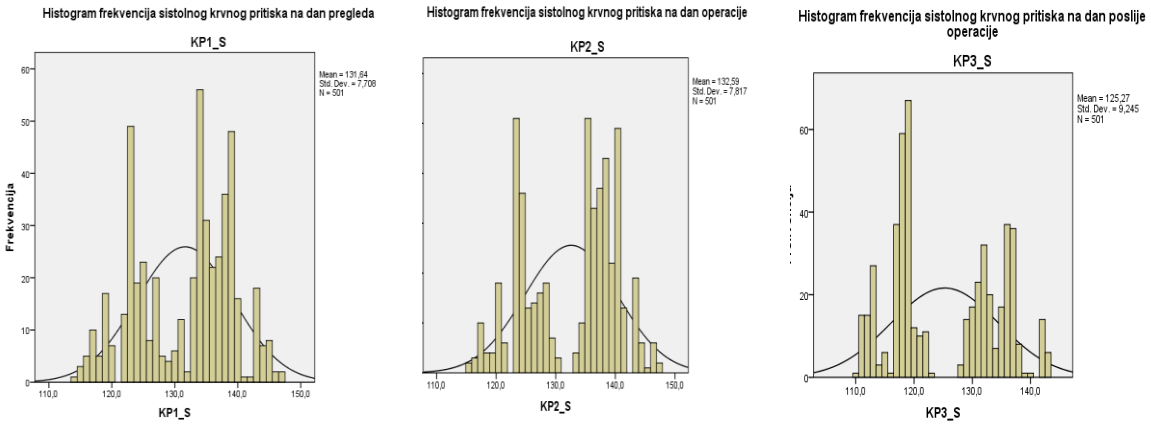


Figure 7. Histogram of frequencies of KP_S for 1st, 2nd and 3rd day of measurements

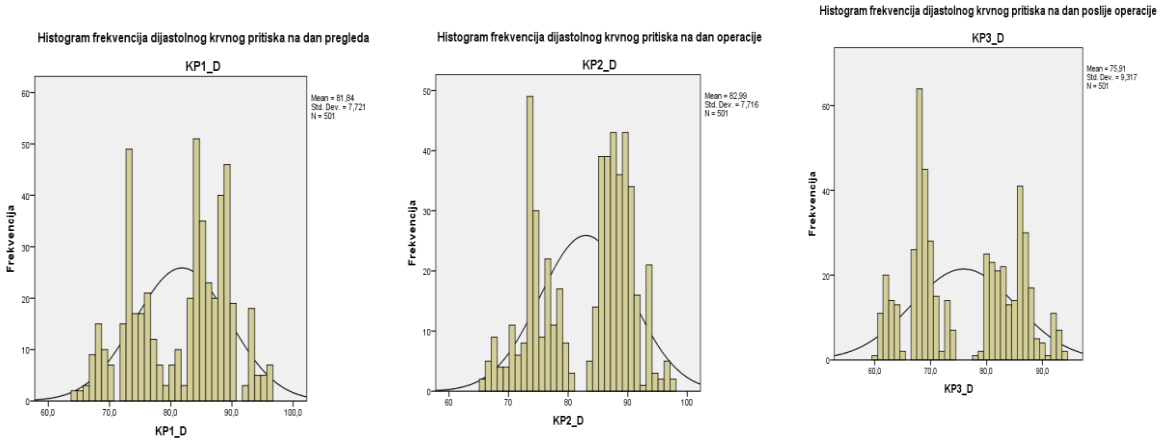


Figure 8. Histogram of frequencies of KP_D for 1st, 2nd and 3rd day of measurements

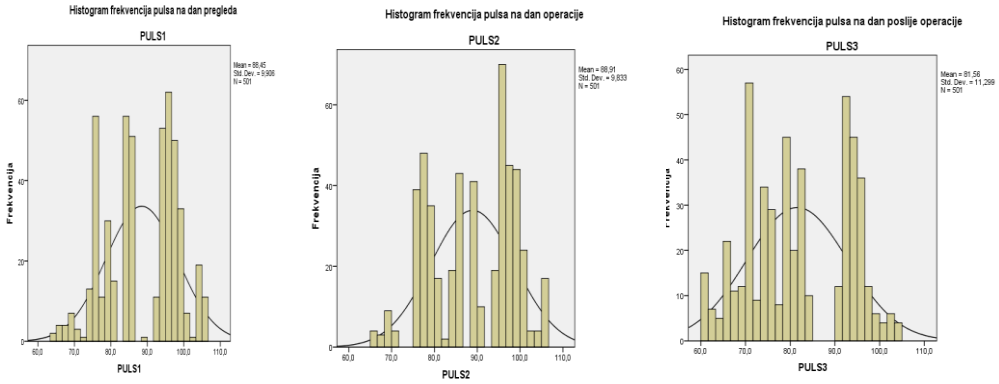


Figure 9. Histogram of frequencies of PULS for 1st, 2nd and 3rd day of measurements

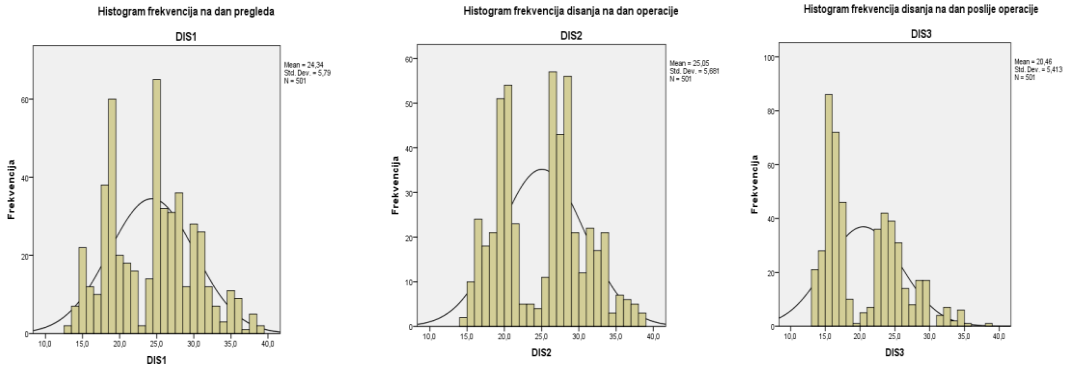


Figure 10. Histogram of frequencies of DIS for 1st, 2nd and 3rd day of measurements

Table 1. Values of monitored parameters by days of measurement

measurements	X1	X2	KP_S	KP_D	PULSE	DIS	
Day 1	47.03	50.99	131.642	81.842	88.448	24.340	Mean V.
	9.834	10.028	7.7080	7.7205	9.9056	5.7895	Stand.dev
Day 2	46.14	50.11	132.589	82.99	88.909	25.052	Mean V.
	9.551	9.872	7.8167	7.716	9.8327	5.6806	Stand.dev
Day 3	39.01	41.91	125.268	75.909	81.562	20.464	Mean V.
	9.787	10.404	9.2447	9.3173	11.293	5.4130	Stand.dev

Table 2. Pearson's coefficient of correlation X1 and X2 and vital parameters on the day of exam

	X1.1	X2.1	KP1_S	KP1_D	PULS1	DIS1
X1.1	1	.997**	.880**	.880**	.915**	.893**
X2.1	.997**	1	.888**	.887**	.921**	.894**
KP1_S	.880**	.888**	1	.999**	.940**	.953**
KP1_D	.880**	.887**	.999**	1	.941**	.951**
PULS1	.915**	.921**	.940**	.941**	1	.939**
DIS1	.893**	.894**	.953**	.951**	.939**	1

Table 3. Pearson's coefficient of correlation between X1 and X2 and vital parameters on the day of surgery

	x1.2	X2.2	KP2_S	KP2_D	PULS2	DIS2
x1.2	1	.996**	.703**	.845**	.924**	.897**
X2.2	.996**	1	.713**	.850**	.930**	.900**
KP2_S	.703**	.713**	1	.793**	.758**	.788**
KP2_D	.845**	.850**	.793**	1	.896**	.905**
PULS2	.924**	.930**	.758**	.896**	1	.936**
DIS2	.897**	.900**	.788**	.905**	.936**	1

Table 4. Pearson's coefficient of correlation between X1, X2 and vital parameters for day after the surgery

	X1.3	X2.3	KP3_S	KP3_D	PULS3	DIS3
X1.3	1	.995**	.780**	.852**	.914**	.860**
X2.3	.995**	1	.776**	.847**	.914**	.856**
KP3_S	.780**	.776**	1	.877**	.850**	.848**
KP3_D	.852**	.847**	.877**	1	.905**	.904**
PULS3	.914**	.914**	.850**	.905**	1	.912**
DIS3	.860**	.856**	.848**	.904**	.912**	1

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The Effects of Vitamin E and Exercise on Muscle

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Introduction

Generally, the exercise and the training lead to the generation of free radicals due to increases in oxygen consumption , resulting in muscle fatigue and destruction, post-training fatigue and post-training pain (grip) and increase the risk of exercise-induced oxidative stress, significant factor of the overtraining syndrome. [1] The intense physical activity, therefore, results in the formation of lactic acid in the muscles, which can cause muscle fatigue and pain, and if it is combined with a lack of specific ingredients, it can cause fatigue. [2]

Exercise is responsible for the production of reactive oxygen species (ROS) and nitrogen free radicals (RNS) in muscles, at low concentrations, as a normal result of their metabolism. However, there are times when the characteristics of exercise like the intensity and duration exceed the normal range of human, leading to a condition called oxidative stress. [3] There is, nevertheless, a system of substances that can isolate the free radicals, protecting the tissues such as muscles. [4] Any substance that retards, prevents or eliminates oxidative damage by another molecule can be defined as an antioxidant. There are two classes [5]:

• endogenous antioxidants, such as albumin, bilirubin, uric acid, etc. and

• exogenous factors obtained from food such as carotenoids, tocopherols (vitamin E), ascorbic acid (vitamin C), polyphenol, and others

In this **review study,** the benefits and positive effects of vitamin E in the muscles are highlighted.

Review Methods: An extensive review of the recent literature was performed in electronic databases (Pubmed, Google scholar.

Key words: Vitamin E • Exercise • Muscles

Talking about the effects of vitamin E and exercise on muscle

Exercise by itself leads to an increase of the antioxidant mechanism that causes transient ischemia to the skeletal muscles, resulting in oxygen deficit, accumulation of lactic acid and pain, without particularly affecting their performance. [4]

It is well understood that antioxidants play a key role in preventing oxidative stress and fatigue syndrome. The increase of free radicals during the performance is firstly treated by the endogenous antioxidant defense, and secondly it influences positively the training indicators. [3] The supplementation of antioxidants individually or in combination, after the training, does not appear to significantly affect the reduction of fatigue or the increase of strength in well fed athletes. Similarly, the systematic supplementation of antioxidants may increase the activity of endogenous antioxidants or may reduce the inflammatory markers, but without significant effects on athletic performance, while it poses serious health risks. [6]

On the other side, a lot of **vitamins** act as a catalyst at the body, taking part in reactions where energy is produced. Some vitamins such as C and E play an important role as antioxidants, protecting proteins and those lipids that are weak and hinder the active oxygen - free radicals – which are produced naturally by the metabolism. [7]

It is generally accepted that vitamin E has antioxidant activity. Its role is to donate an electron to molecules, called free radicals. and thus it can restore them to a non-injurious for the cells of the body, form. Except from vitamin E, there are many other substances, including enzymes that have a similar effect and are included in the category of antioxidants. Separation of the antioxidants is done into enzymatic and non-enzymatic substances and vitamin E is included in the second category. [8]

Vitamin E is also referred to as tocopherol, appears as eight substances with similar action, from which the most active one is the alpha-tocopherol. It was named by the finding that the lack of it in mice was causing problems on fertility. Vitamin E is oxidized very easily, and thus, binds other substances via oxidation, tying the oxygen of the environment. By this way, it is destroyed itself, but protects substances that exist in foods, such as polyunsaturated fatty acids and vitamin A. [9]

Tocopherols - liposoluble compounds with strong antioxidant properties are found in vegetable oils and general plant foods and they act as natural antioxidants and protect the muscle fibers from damage of oxygen free radicals. Vitamin E increases the tissue resistance in the induced lipid peroxidation by the exercise and helps to decreased free radical production and integrity of the tissues, like the muscular tissue. [10, 11]

The human body as well as the body of animals does not have the ability to synthesize vitamin E, which is synthesized in the plant cells, although it has been observed that in placenta and in pituitary there are large quantities of this vitamin. The levels of vitamin E in plasma lipoproteins and the phospholipids of cell membranes are primarily dependent on [12]:

a) The amount of vitamin E intake by the food and supplements and,

b) The level of pro-oxidants and antioxidants in food

According to most of the researchers involved with the nutrition, the recommended daily dosage for vitamin E is 23 IU for the men and women.

Conclusions

Administration of vitamin E in exercised mice provides significant reduction in the caused damage and protects other tissues from the effects of free oxygen radicals and oxidative stress of the body. Important role in this,seems to play the kind of activities performed, the age, fitness level of the participants, the time of reception and the amount of vitamin E taken as well as the period of its supplementation. The role, therefore, that the vitamin E plays in the antioxidant capacity of the body needs further research and study.

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Infertility and Impacts in Mental Health of Couples

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Introduction: Infertility is perceived as a problem across all cultures and societies and is a major life event that brings social and psychological problems. Infertility is the inability to naturally conceive, carry or deliver a healthy child and according to WHO is defined as 12 months of appropriately timed intercourse that does not result in conception (1, 2, 3). About 5% of couples living in the developed world experience primary infertility (inability to have any children) or secondary infertility (inability to conceive or carry a pregnancy to term following the birth of one or more children). About one-third of the cases a physiological problem is identified in the woman, one-third in the man, and the rest in both partners or the basis of infertility cannot be determined. (4). The number of couples seeking treatment for infertility has dramatically increased due to factors such as postponement of childbearing in women, development of newer and more successful techniques for infertility treatment, and increasing awareness of available services(5).

The aim of this study is to review the psychological issues related to infertility, summarize the relevant research, and describe current provision of psychological consultation to individuals and couples undergoing infertility treatments.

A search of relevant articles for the period 2000-2015, was performed using Medline, PubMed and Google databases.

Key words: Infertility • Mental health • Psychological impacts on couples

Couples mental health problems and therapeutic interventions

According to the existing literature, infertility is a growing problem and affects an estimated 10%-15% of couples of reproductive age in all cultures and societies almost all over the world (1).

Typical reactions include shock, grief, anger, and frustration, as well as loss of self-esteem, self-confidence, and a sense of control over one's destiny (5, 6).

The first stage of the reaction to infertility is surprise, shock and anger. Couples scrutinize their behaviors, habits, and lifestyle to try to understand why they have not been able to conceive. They also examine the timing, frequency, and technique of intercourse to explain why they have not been able to conceive. They believe they can still control their fertility, and the identification of them as infertile has not yet occurred. When the couple

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continues to have difficulty conceiving, most of them seek medical advice and treatment, including trying to find an explanation for their problem (6).

When compared to couples without fertility problems, infertile couples exhibit symptoms associated with major depression significant more frequently (7, 8). Women develop stronger negative psychological reactions and problems, like depression, towards infertility than men (9). Anxiety has also been shown to be significantly higher in infertile couples and individuals when compared to the general population (8,10).One study refers that a percentage of infertile patients have already develop a psychiatric disorder at the time of their first contact with a specialized fertility center(11).

The feeling of depression is compounded by the loss of control over one's life and it is experienced by many infertile couples. (8, 12). Other couples may feel intense anger. They may argue that life has treated them unfairly and that their infertility is unfair (13).

When a medical basis for infertility has been discovered, the infertile partner usually feels a sense of guilt and self-blame, and he/she believes that he/she is responsible for not having a baby (13).

The infertile couple has a loss of self-esteem by repeatedly attempting to having a baby but failing to achieve it. A second loss can be the real or feared loss of important relationships. This includes the marital relationship and relationships with family and friends. An important problem is on couple's sexual life because sex may become a reminder of the couple's failure to have a child. The intimacy and pleasure usually derived from sexual relations may be identified as another loss by the couple (14).

A third loss related to infertility is the loss of health, especially in women, which are feeling ill because of the side effects of some of the hormonal medications used to enhance fertility. A fourth loss is the potential loss of financial security. Infertility treatment can be extremely expensive. An associated problem is the concern about job security for women (14).

The medicalization of infertility has led to a disregard for more emotional responses that couples experience, which include depression, anxiety, fear, distress, loss of control and confidence, stigmatization, and a disruption in couples' relationship. Both men and women experience a sense of loss of identity and have pronounced feelings of defectiveness and incompetence (15, 16, 17). While many couples who are presented for infertility treatment have high levels of psychological distress associated with infertility, the process of assisted reproduction itself is also associated with increased levels of anxiety, depression and stress (18).

Health professionals follow a patient and a couple centred approach to provide help for the specific needs of the couple (19). Therapeutic interventions (5,20) that may help are:

Counseling: short-term counseling is very helpful and increase coping strategies, or providing help with making decisions (as patients face many choices during treatment). Counseling should begin before the patients start the infertility treatment. According to some studies, addressing psychological factors such as depression, anxiety, and stress may help the couple to increase the chances of giving birth to a child.

Psychotherapy: Specific types of therapy may also be useful. For example, studies have concluded that interpersonal therapy (which focuses on improving relationships or resolving conflicts with others), cognitive behavioral therapy (which identifies and tries to change unhealthy patterns of thought or behavior) and

supportive therapy, can give relief to infertile patients suffering from mild to moderate depression. Couples therapy can help improve communication and may help the couple to take decisions that fit to both the partners.

Medications: Antidepressants and anti-anxiety medications are useful when symptoms are moderate to severe.

Others psychological interventions are: stress management and coping-skills training (21, 22).

Conclusions: Infertile women report elevated levels of distress and depression, which may in turn contribute to their infertility, but in general they have a positive attitude to seeking psychological help in the form of cognitive–behavioral therapy, couples counselling and infertility counselling. Men are in fact equally affected by the unfulfilled desire for a child, but are less open about their feelings. Professionals should be aware of the importance of psychological factors in the infertility treatment, the need of making available a rapid and reliable screening instrument for the identification of patients at greater demand for psychological support, and the inclusion of counseling and supportive psychotherapy in the general therapeutic framework of infertility. As infertility is a problem that affects the couple, it is recommended that the couple is together at its evaluation and treatment. It should be emphasized that infertility is a couple's problem.

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Migrants and Public Health

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Introduction

Health protection is a fundamental human right that should be provided without any distinction to all the vulnerable groups like migrants and refugees.

Migration (immigration) is the movement of people to a country in which they are not nationals with the intentions of settling there, especially as residents or future citizens of that country. [1]

In prehistoric times, migration was a generalized and, several times, forced phenomenon but in historical era it begins to vary and gradually stops. In this era, large groups of people are transported from one place to another, within the framework of domination over their fellow men and the conquest of new countries. This also happens during the colonization of large Mediterranean areas by the ancient Greeks, fact that is generalized over the Alexandrian times as it was helped by the Greek kings' imperialistic policy of that era. There was an extremely large European migration to America, Africa and Asia, after the discovering of these continents and their available natural wealth. [2]

The reasons giving rise to the phenomenon of migration are varied and depend on the prevailing conditions, at any given time period, to the places of prior residence as well as to the expatriation places. Main reason of human migration is usually a war that forced the residents to flee their homes. There are also clear economic reasons, such as poverty and hunger prevailing in a country. [3]

This review study highlights the immigrants' health problems and consequently their impact on public health.

The methodology includes searching of review and research studies in authoritative databases such as PUBMED, MEDLINE and IATROTEK. Criterion of selected articles was the Greek and English language.

Key Words: Immigrants • Public health • Aggravating health factors • Diseases

Talking about migrants and public health

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The increased risk for the mobile populations of being infected by various diseases is due to the influence of socio-economic data on health, to changes in the economic situation and due to the reduced access of immigrants to health services of the host country. The different perceptions of these populations regarding health and disease as well as the difficulties in communication with the health professionals are some of the problems that intensely employ the International organizations, governments and health professionals. Moreover, aggravating factors for the public health problems of migrants is the separation and marginalization associated with the status of illegal presence of immigrants in the host country. [4.5]

The **epidemiology of refugees' diseases** is also a complex and widespread problem, especially if one takes into account the large variations in populations in ethnic origin, geographic origin, socioeconomic status, etc. Despite these important differences, though, most of them share common experience. For example, they have been subjected to physical and psychological suffering to leave the country from which they came from. [6]

The risk of previous exposure of refugees to the endemic diseases of their countries of origin depends on the regions and their living conditions in these countries and it can vary significantly between those who are coming from the same country. For countries with unstable internal environment, for example due to war and other conflicts, the epidemiological data may present a significant differentiation from the previously known epidemiological profile of that country. [7]

Except from the specific country and region of origin, the risk of disease for the refugees, depends on the sanitary conditions during their journey and after their arrival in the host country, from diseases such as bacterial and parasitic diarrhea or tuberculosis. Factors, such as close promiscuity or inadequate access to sanitation, increase the risk of disease. As greater risk is estimated the risk of wide dispersion of water-borne and food-borne transmitted diseases that additionally present fecal-oral transmission, such as bacterial and parasitic diarrhea. [4]

The emphasis given on sanitation conditions is important in order to prevent the diseases' insertion to the local population, diseases for which there is no collective immunity. A typical example is typhoid fever, for which no mass vaccination is applied in European countries. In contrast, for hepatitis A there is herd immunity to a large part of the Greek population (through vaccination in children and young adults, and through physical illness in the elderly). [8]

Infectious diseases with the risk of spread in the population, such as malaria by Plasmodium vivax, are characterized by long incubation times and they also require specific laboratory testing for their diagnosis. Diseases such as hepatitis B can be transmitted by asymptomatic chronic carrier, and its diagnosis requires haematological laboratory testing. In particular, for Afghan population, a significant proportion of chronic hepatitis B is associated with first infection at birth (transmission to neonate by mother-vector) or early childhood. The highest transition rates to chronicity are observed in these cases compared with the transmission during adulthood through sexual contact, intravenous drug use or blood factors. [9]

Alternative approaches include [8]:

1. **Screening for infectious diseases:** Most countries concentrate on the detection of active pulmonary tuberculosis either at the arrival time of the incoming or at a second time, in the hospitality areas. Some countries

provide additional testing for viral hepatitis B and C, sexually transmitted diseases, diseases preventable by vaccination, cholera, malaria and other parasitic diseases.

2. **Epidemiological surveillance of syndromes**, such as respiratory infections, gastroenteritis, febrile rash, febrile lymphadenopathy, acute jaundice, parasitic skin disease and sudden death.

3. **Mass vaccination**, for example by using MMR (measles - mumps- rubella), primarily to children and adolescents up to 15 years and by the use of polio vaccine in populations from countries with ongoing disease activity, such as Afghanistan, Pakistan, Nigeria and Somalia.

In addition [4]:

I. **Health evaluation:** Medical history and general physical examination

II. Testing for **transmitted diseases** of great importance to public health

o Check for Tuberculosis (Mantoux test, chest X-ray)

o Check for malaria (RDT, testing ofthick and thin drop by Laveran)

o Check for blood-transmitted diseases: HIV, Hepatitis B & Hepatitis C

o Parasitological stool examination (± urine test for schistosoma) and stool culture

o Check for sexually transmitted diseases (syphilis, Chlamydia trachomatis, Neisseria gonorrhoeae)

The World Health Organization estimates that access to health services as well as to vaccines must be discreet, unprejudiced and fair. So, it is proposed that vaccines should be available through the respective National Immunization Program. Moreover, factors such as mass movement of population, lack of housing and sanitation and poor access to health services can lead to increased risk of transmitted diseases. [10]

Finally, there are several important mental problems that refugees seem to face and may be due to trauma, adjustment difficulties, loss of culture and civilization, lack of confidence and support. The most common psychiatric conditions of refugees include affective disorders and post-traumatic stress, such as those existing after a death, imminent death of the person himself, and conditions such as war, crime or rape. [11]

CONCLUSIONS

Beyond the country and the region of origin, the risk of the disease for the refugees, is related to hygiene conditions during their journey and after their arrival in the host country. The emphasis given on hygiene and sanitation conditions is important for the prevention of the diseases for which there is no herd immunity. [12]

Finally, it is essential to raise awareness of immigrants about the importance of prevention, the adoption of healthy lifestyles, and the need of modification of their behaviors to prevent disease, in order public health to be promoted and protected.

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