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CONTENTS

Health Services in Turkey with the View of Syrian Asylum Seekers

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ABSTRACT

The war in Syria since 2010 has caused a significant population movement by requiring the displacement of millions of people. Due to its geographical proximity and its policy, Turkey is the country that is most affected by this situation. Health is one of the most basic needs that all individuals may need at any time. According to the regulation published by AFAD and Ministry of Health, Syrian citizens can benefit from hospitals and health centers in Turkey. The aim of this study is to present the problems of Syrian asylum seekers during the health service purchase and to evaluate the views of Turkey on health services. According to this purpose, qualitative research method has been adopted and a district in Konya province where Syrians are most located has been preferred as a research area. Participants were contacted by means of sampling the snowball. Data were collected through a semi-structured form and then the results were evaluated through thematic analysis. As a result of the research, participants were pleased with the health services in Turkey and made positive evaluations. However, participants stated that there was a significant communication problem during the health service purchase.

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INTRODUCTION

İt is seen that, throughout history, people have been changing places to facilitate their lives. The process of displacement involves not only a spatial change, but also a cultural change (Kolukırık 2009). The war climate in Syria since 2010 has caused a significant population movement by necessitating the displacement of millions of people. Due to its geographical proximity and its policy, Turkey is the country that is most affected by this situation. Syrian refugees are in Turkey as well as to influence both political and social structure, it covers a wide place in the agenda of the international community (Pandır and ark 2015).

Asylum seekers face many problems in the new country, such as education, language, health, social relations and economic problems (Elmacı 2014). Health is the most important of these issues. The health status of asylum-seekers varies depending on their previous environment, social relations, the safety of their new environment, whether they know language and access to social assistance (SASAM 2016). Turkey, which is hosting 3.5 million Syrians, is the country that has the most Syrian asylum seekers (Ministry of Interior 2018). Health problems associated with such a large population of asylum seekers can adversely affect both asylum seekers and the local population. The aim of this study is to reveal the problems faced by Syrian refugees during the health service procurement and to evaluate their point of view on health services.

Asylum Seeker, Refugee and Temporary Protection Concepts

The concept of asylum-seeker refers to "a foreigner who is outside the country of his nationality because he is afraid of being prosecuted because of his race, religion, nationality, membership in a particular social group or because of his political beliefs and cannot benefit from the protection of the country of his nationality" (EGM 2018). In related sources, it is observed that the concept of asylum-seeker refers to the situation before refugee status. So that asylum seekers are made up of people who are in the position of a candidate refugee.

The refugees are "foreigners who are outside the country of their nationality and cannot benefit from the patronage of the country of their nationality because of their race, religion, nationality, membership in a particular social group or because of their political beliefs" (EGM 2018). Due to the geographical limitation in the definition of refugees, it is not possible for peoples from outside European countries to be described as refugees. According to this, Syrians may only be asylum seekers (Başak 2011). On the other hand, is given "temporary protection" to the Syrians living in Turkey, according to the 91st article of the Law on Foreigners and International Protection, since 28 April 2011. (Gülay 2016). The concept of asylum seekers is used for the people who came from Syria to Turkey due to war and persecution (İncili and Akdemir 2016).

Temporary protection is an improved as a practical solution to the people who reach the borders of the country in mass, in order to find emergency solutions without delay within the context of the obligation of states not to send them back (Ministry of Interior 2018). With the implementation of temporary protection, the Syrians living in Turkey are provided with unlimited stay permits and sufficient assistance to provide solutions to urgent needs (Hassoy 2016). The legal expression of Syrians living in Turkey is very important in terms of access to health services and some social services.

Health Problems of Syrian Asylum Seekers

The basic needs of Syrian asylum seekers in Turkey as it is anywhere; safety, nutrition, shelter, health, education, protection from violence and abuse (Hassoy 2016). Each of these issues is important, but only health issues are addressed here. So much so that asylum-seekers both have serious health problems and cause health problems in the societies they migrate to (Çiçek Korkmaz 2014). When the asylum seekers are located in a collective area, they can cause the region to change or increase its health problems (SASAM 2016). The living conditions and health problems of asylum seekers are very risky for communicable diseases and the spread of these diseases. It is an important public health obligation to control the health status of asylum-seekers and to remedy their health needs (TTB 2014).

Some of the challenges of asylum seekers to benefit from health services can be listed as follows;

- Health services are supposed to be paid,
- Difficulties in access to service (transportation fee, distance, etc.)
- Failure to adapt to health services and lack of functioning,
- Differences of the language and culture
- Lack of identity documents or not specifying the identity clearly (çiçek korkmaz 2015).

Health Services For Syrian Asylum Seekers In Turkey

The use of health services of asylum-seekers in Turkey has been determined by the "execution of health services for foreigners under Temporary Protection" published by Amnesty as of 2015 and "principles on health services for those who are under temporary protection" put into effect by the Ministry of Health. According to this directive, persons under temporary protection (Ministry of Health 2014):

a) Health centers established in temporary accommodation centers,
b) Health service providers belonging to the ministry and affiliated organizations,
c) University health practice and research centers,
d) Private hospitals,
e) They can benefit from health services provided voluntarily by foundations or associations.

Syrian nationals can benefit from hospitals and health centers in Turkey as per the regulations published by the AFAD and Ministry of Health. The price of this service is billed to the governorship of the province where the institution is located (SASAM 2016). With these opportunities provided by the state, the health of both asylum seekers and the society is tried to be protected and improved.

METHOD

Qualitative research method was used in this study. Qualitative research methods are considered appropriate when researching participant's perspectives or daily behaviors (Büyüköztürk et al., 2014). Qualitative research is carried out with fewer participants unlike the quantitative method (Yıldırım and Şimşek 2011). Başkale (2016) stated that it is sufficient to conduct interviews with about 30 people in qualitative research, which collected data through in-depth interviews (Başkale 2016). This study was carried out with 35 participants due to both qualitative characteristics and time and economic constraints. The criteria for participating in the study is to come to Turkey as an asylum seeker from Syria at least a year ago because of the war and become an adult (18-65 years old). Another criterion is to have received health care in Turkey at least once, for one's own or one's relatıves. Participants are also required to volunteer to participate in the study. The criteria for living in Turkey for at least a year has been deemed necessary in order to have enough experience to evaluate the health services of Turkey. The study was conducted in Konya province. Konya Meram Gazi Alemşah district, where Syrians live extensively, was preferred for the collection of research data. The research data were collected through snowball sampling. Snowball samples are very popular, especially for researchers who work on sensitive subjects and hard to reach audiences (Berg and Lune 2015). A semi-structured interview technique was used for gather data. Attention has been paid to a brief and clear understanding of the research questions. The translator support was received during the interview. The interview questions were created under the supervision of researchers and an expert professor in the field. A preliminary interview was held to check the comprehensibility and fitness of the questions. Afterwards, necessary corrections were made to the questions and data began to be collected. The Syrian individuals who were interviewed were asked the following questions about Turkey's health services;

- How long have you been in Turkey?
- Have you benefited from health services in Turkey?
- Where did you apply for health services?
- Has your health problem been resolved by receiving health care? Can you evaluate the process?
- Have you had any communication problems while receiving health care? Can you explain that?
- Can you evaluate the approach of health personnel to you?
- Can you evaluate Turkey's health services?

In the analysis of the data, a code (K1, K2 ...) was given for each participant. Then, the data were classified according to the similarities of the expressions. Classified items are divided into main themes. Then, sub-themes were created by classifying the data in each main theme according to their similarities. No analysis program was used for the analysis. To ensure reliability, the data set was presented to 3 independent academics and asked to analyze. Then, when the results were compared, they were found to be similar. The type of analysis used in the study is thematic analysis. Thematic analysis facilitates the summarization, explanation, interpretation and transfer of research data to the reader by classifying them within certain categories (Yıldırım and Şimşek 2011). Tables were used in the presentation of the data after the analysis. The data are expressed by frequency with theme and participant codes. According to Lincoln and Guba (1985), quotations are very important to demonstrate the objectivity of the study, and the findings should include the participants' own statements rather than the researcher's views. In this study, original quotations from participant statements are included.

RESULTS

In this section, the data is presented. Firstly Table 1 contains information about how long the participants have been in Turkey and whether they should receive health care. Table 2 contains information about the satisfaction level of the participants about the health services that they receive. Table 3 details about the communication problems, Table 4 with medical staff relations and finally Table 5 contains information about general evaluation of health services in Turkey.

Table 1. İnformation about the participants

Variables		f	%
The duration of participants in Turkey	1-2 years	13	37,14
	3-4 years	22	62,86
Benefit from health services in Turkey	Yes, I took	20	57,14
	My relatives took	15	42,86
The stage applied for healthcare	1st level	4	11,43
	2nd level	19	54,29
	3rd level	12	34,28

62% of participants, as shown in Table 1, has been living in Turkey for 3-4 years. 57% of the participants received health services themselves in Turkey and the rest applied to the health institution for a close relative. 54% of the participants applied to the second level, 34% to the third level and 11% to the primary health care institutions. This information was not included in the study because demographic data such as gender and occupation were not evaluated.

Table 2. Evaluation of health care utilization process

Themes	N	Sub Themes	Participant	f
Satisfaction of treatment	1	Depends on healing satisfaction	K2, K5, K6, K7, K9, K10, K11, K12, K13, K14, K15, K16, K18, K19, K22, K28, K3, K31, K32, K33, K34	21
	2	Overall satisfaction	K17, K23, K25, K26, K27	5
Dissatisfaction with treatment	1	Ineffectiveness of drugs	K1, K20, K21	3
	2	Inadequacy of doctors	K4, K24, K29	3
	3	Length of the process	K3, K8, K35	3

Table 2 shows the status of the participants after the use of health care services. The data in this table are divided into two main themes as satisfaction and dissatisfaction with treatment. The theme of satisfaction, satisfaction as a result of improvement and general satisfaction is divided into two sub-themes; the theme of dissatisfaction is divided into three sub-themes: the inefficiency of drugs, the inadequacy of doctors and the length of the process. It is seen that the majority of the participants are satisfied with the improvement result. The statements of some of the participants giving information about their status after use of health services are as follows; "...I was satisfied with the treatment (K16). "...my mother's heart condition is immediately cured, now better (K14)." "My treatment is going on, but I'm better now, I'm glad (K17)". "I could not get results from the treatment, the drugs did not show the effect (K20)".

Table 3. Communication problems during the use of health care

Themes	N	Sub Themes	Participant	f
Situations of communication problem	1	Foreign language	K2, K4, K5, K6, K7, K11, K12, K13, K15, K17, K18, K19, K22, K24, K28, K29, K30, K31, K33, K34, K35	21
	2	Lack of interpreter	K3, K12, K14, K19	4
	3	Absence of translator	K2, K21, K23, K25, K26, K27, K33, K35	8
	4	Patient density	K3, K33	2
Situations of without communication problems	1	To know Turkish	K1, K8, K9, K20, K32	5
	2	Having an interpreter	K10, K16	2

In Table 3, the communication problems of the participants are presented as thematically. Communication problems are divided into sub-themes such as foreign language, lack of interpreter, absence of translator and patient density. The majority of the participants stated that they had a communication problem due to the language

difference. Situations that do not have a communication problem are discussed in two sub-themes: to know Turkish and translator assistance. Statements of some of the participants who reported their views on communication during the health service procurement are as follows; "....we had a lack of communication, the number of patients is too high, so the interpreter is insufficient (K3)". "We had difficulties because we didn't know Turkish, the number of helpers in this regard was insufficient (K12)". "Communication is distressed, the doctor does not understand our language and therefore cannot apply effective treatment (K24)". "We had a lot of trouble because we didn't know the language, the number of patients was too much, so more translators were needed (K33)". "There were staff who knew Arabic, so we didn't have any problems (K16)" . "I had no problems, because I know Turkish (K20)" .

Table 4. The approach of health personnel to asylum seekers.

Themes	N	Sub Themes	Participant	f
Positive	1	Very good	K1, K3, K6, K8, K9, K13, K15, K16, K17, K18, K20, K21, K23, K28, K30, K32, K35	17
	2	Good	K10, K19, K29, K33	4
	3	Friendly	K4, K5, K7, K11, K14, K22, K24	7
Negative	1	Gender discrimination	K25, K27	2
	2	Racial segregation	K12, K26, K34	3
	3	Foreign language	K2, K31	2

In Table 4, the participants expressed views on the health personnel of Turkey. It is seen that the majority of the participants think positively with very good sub-theme. Negative perspectives are divided into three categories: gender discrimination, racial segregation and language difference. Some participant statements on the approach of health personnel to Syrian patients are as follows; "I was pleased, their approach to us was very good (K6)". "They behaved very well, we never felt like strangers (K5)". "They were very good, there was no problem, they treated us well (K18)". "...they were sincerely and friendly (K24)". "We've had a lot of trouble, some medical staff treated us badly...(K26)". "...some have behaved very badly, health personnel treat Syrian women differently than Syrian men (K27)". Nurses are treating asylum seekers badly, they want an interpreter, they don't have dialogue and they have bad behavior (K2)".

Table 5. Opinions of participants on Turkey's health services

No	Themes	Participant	f
1	Advanced technological equipment	K1, K2, K6, K13, K15, K21, K24, K34, K35	9
2	Inexperience of physicians	K8, K9, K10, K13, K15, K16, K18, K20, K23, K24, K30, K33, K34, K35	14
3	Inadequate service	K24, K25, K26, K29, K30, K33	6
4	Advanced health care	K1, K2, K3, K4, K5, K7, K11, K12, K14, K17, K19, K22, K27, K28, K31, K32	16

Table 5 shows that the participants' views on Turkey's health care services. These thoughts are divided into four themes: advanced technological equipment, inexperience of physicians, inadequate service and advanced health care. The majority of the participants think that Turkey has an improved health service. In addition, there are also participants who think that physicians are inexperienced and that health services are insufficient. Some participant statements that support the table are as follows; "We were very pleased, health care is fine, technology is more advanced in Turkey (K1)". "Everything is very good related to the health system in Turkey... (K4)". "Turkey's technology is more advanced than Syria, but doctors in Syria were better than doctors in Turkey

(K13)". "There is no problem with the health care system, only assistant doctors are inexperienced ... (K23)." "In Turkey, doctors apply treatment according to medical device results... (K24)". "We couldn't get enough service in the here (K26)". "Health service in Turkey is very good and developed (K28)". "The doctors were better in Syria (K30)".

CONCLUSION AND EVALUATION

First of all, more than 60% of the participants surveyed in this research have been living in Turkey for 3-4 years. In this time period, they are considered to have access to the ability to evaluate health services. All of the participants received health care by applying to health institutions in Turkey for themselves or their relatives. Participants mostly expressed satisfaction with health care as a result of getting rid of their illness. However, the majority of the participants experienced a communication problem when they received health care service. There was no communication problems related to the language difference when the participants knew Turkish and had a sufficient number of qualified translators.

The participants are a positive evaluations by expressing that Turkey has an advanced health service. The participants who have negative thoughts stated that health personnel working in Turkey discriminated against Syrians. There are also participants who express that physicians working in Turkey are inexperienced and very dependent on technology.

In other studies on Syrian asylum seekers, it was found that there was difficulty in communication. According to a study conducted by Kalkan et al. (2015), 26.3% of Syrian asylum seekers have language problems among the reasons for not applying for health services. According to a survey by Kara and Akgün (2015) on Syrian asylum seekers, the most important reason for not being able to reach health services is the language problem by 42%. According to Kara and Akgün (2015), 36% of the respondents stated that they did not receive adequate health care and/or were dissatisfied. Syrian asylum seekers and Health Services report published by Turkish Medical Association states that because of the language problem, asylum seekers have significant problems in accessing public services, primarily health services, education, work and social life (TTB 2014). These problems related to language and communication can be reduced by employing more interpreters in health services.

This research was carried out in Konya to assess Syrian asylum seekers ' views on health services in Turkey. However, there are many issues that need to be investigated for asylum seekers. First of all, after the determination of issues such as social adaptation, education, working life, economic difficulties, a study can be done on the solution of these problems.

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The Effect of COVID-19 Pandemic on the Anxiety Levels of Internal Medicine Physicians and Practise of Internal Medicine Clinics

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ABSTRACT

The aim of the study is to determine the anxiety levels of internal medicine specialists and to investigate the effect of pandemic on practise of internal medicine clinics in the COVID-19 pandemic.

The Clinical Activities Scale developed as data collection tools by the researchers and Beck Anxiety Scale were used in the study. The research was carried out on Internal Medicine Physicians using the online survey method. Descriptive statistical methods, significance tests, correlation and regression analysis were used in the analysis of the data.

93 internal medicine specialists participated in the study. Changes in clinical practice of internal medicine physicians are as follows; 37.7% of them do not want to perform the physical examination, 43% of the physicians postponed the research of patients who needed an examination, 64.5% of their chronic patients did not come to their routine controls and 50.5% of the physicians had a disruption in the follow-up of chronic patients. Clinical approach of physicians working in pandemic hospital; clinical approach of physicians encountering covid-19 patients and the clinical approach of physicians treating patients with covid-19 were more affected by COVID-19. Anxiety was detected in 60.2% of internal medicine physicians. A weak, linear relationship was found between clinical functioning and back anxiety factor at p= 0.001 error level.

During the pandemic it was found that the examination of patients requiring advanced examination and follow-up of chronic patients were affected. In addition, the level of anxiety was found to be high in internal medicine physicians.

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INTRODUCTION

COVID-19 infection, which occurred in Wuhan city of China in December 2019 and caused by SARS-CoV-2, has affected many countries spreading rapidly from person to person (Rothan and Byrareddy,2020:26; Ding, 2020:10). The infection presents clinical courses ranging from asymptomatic and mild upper respiratory tract infection to severe respiratory failure and severe pneumonia, which may result in death (Zhou,2020:395). In addition, it has been observed that acute respiratory distress syndrome (ARDS) develops in COVID-19 infection more than influenza pneumonias and requires longer mechanical ventilation (Tolksdorf, 2020:25). Therefore, it has become a global public health problem as a potentially fatal disease (Rothan and Byrareddy,2020:26; Ding, 2020:10).

It has been specified that the virus is transmitted from person to person through droplets formed as a result of cough (Aysan,2020; Rothan and Byrareddy,2020:26). This virus can survive for a maximum of 4-5 days on various materials such as aluminum, wood, paper, plastic and glass according to the researchers. After touching the contaminated surfaces, transmission was also observed by touching one's own face (Aysan,2020; Cai, 2020:26). Fecal-oral transmission may also occur as the patients' feces contains virus particles (Aysan,2020). Since they are also transmitted through droplets or contaminated surfaces and contaminated blood, feces, etc., healthcare professionals are at serious risk of contamination (Aysan,2020). It has been observed that this situation causes serious tension and anxiety among healthcare professionals.

Generalized anxiety disorder (GAD) is a chronic, common disease characterized by uncontrollable excessive anxiety, worry, tension, and vigilance. It causes deterioration in the social relations and professional affairs of the person in daily life (Asoğlu, 2018:6; American Psychiatric Press; 1994; Miloyan, 2015:30; Kartal, 2009:13) It follows with symptoms such as restlessness, being on bed of nails constantly, fatigue, difficulty focusing or mind discharge, easy to get angry, muscle tension and sleep disturbance (Asoğlu,2018:6).

It was aimed to determine the anxiety levels of the internal medicine physicians in the COVID-19 pandemic and to investigate the effect of the pandemic on the functioning of the internal medicine clinics in this study.

MATERIALS AND METHODS

The study started after the approval taken from Ordu University Clinical Research Ethics Committee (2020/83).

How the pandemic reflects on internal medicine physicians and clinics in this duration when COVID-19 pandemics continued in Turkey and in the world constituted the subject of the research. In this duration, social isolation and social distance applications were applied as legal requirements. The research was a descriptive study and the data was collected by quantitative method.

The Population and Sampling of the Study

The study population consisted of actively working internal medicine specialist students, specialists and academic physicians in Turkey. Data collection could only be performed using digital tools via the internet under these conditions. For this reason, the data of the study were collected through a questionnaire consisting of the internal medicine clinical activity scale and Beck Anxiety Inventory. Announcements were realized through social media networks for participation in the survey. Since the researchers were not have the opportunity to determine the participants in the digital environment, simple sampling method was used for data collection. Data collection period started on 1 May and ended on 30 May. The total period was about 30 days. During this period, 93 valid surveys were reached.

Data Collection Tools

The questionnaire given in the study consisted of three parts: demographic information, "COVID-19 Pandemic Internal Medicine Clinic Activity Scale" and "Beck Anxiety Inventory".

Demographic Information: It consisted of questions about the personal characteristics of internal medicine physicians, the types of hospitals they work in, the situation of encountering COVID-19 outbreak and providing service.

COVID-19 Pandemic Internal Medicine Clinic Activity Scale: The scale was prepared by conducting preliminary interviews with internal medicine specialists in the light of the literature review and information about the pandemic and taking the opinions of the academicians on the subject regarding the scope and structuring of questions.

SPSS program was used in the validity and reliability analysis of the scale. Factor analysis was performed to understand the construct validity of the items of the scale. Kaiser-Meyer-Olkin (KMO) test was carried out for the sample size and it was found to be 0.589. Also, the results of Barlett's sphericity test were examined to find out whether the correlation between the items was significant and it was found to be significant at the level of 0.001 (approx. Chi-Square: 371.313 / df: 120 / sig: 0.000). In order to dimension the items, "Varimax" rotation process was

applied with the "principal components" method. From the scale prepared as 23 statements, 7 statements were excluded because they did not bear sufficient factor load. Scale items were found to have factor loads between 0.408 and 0.815. 16 statements in the scale were collected under 3 factors. These factors were named as Clinical Approach (4 statements), Operation of the Clinic (7 expressions) and Protection (5 statements) factors. The variance explanation level of the factors forming the scale was calculated as 44.3%. Cronbach's Alpha coefficient was examined for the reliability analysis of the clinical activity scale and this value was found to be 0.656. Back Anxiety Inventory was validated with confirmatory factor analysis. For the reliability analysis of the scale, Cronbach's Alpha coefficient was examined and this value was found to be 0.959. It was understood that Cronbach's Alpha coefficient of the study was greater than 0.60 and therefore had reliability.

The analysis of the data was analyzed by frequency, significance and correlation tests in SPSS package program.

RESULTS

The findings of this study, which was conducted to determine the effect of COVID-19 pandemic on the internal diseases clinic activities in terms of internal medicine physicians, were as follows.

The Frequency Table of the Participants' Descriptive Variables was given in Table 1. When the data in Table 1 was examined, it was detected that 93 internal medicine physicians participated in the study, and 65.6% of these physicians were male, 77.4% of them were 39 years old and under, 62% of them worked as internal medicine specialist for 1-5 years, 59.1% of them worked in Ministry of Health hospitals and 59.2% of them were specialist physicians. The status of the internal medicine physicians participating in the study were as follows in terms of COVID-19 cases. 59.1% of internal medicine physicians worked in a pandemic hospital. Of internal medicine physicians, 80.6% encountered the patients with COVID-19; 74.2% served the patients with COVID-19, 18.5% was tested for COVID-19, and the test result of all of them was negative. In addition, it was stated that four internal medicine physicians were in quarantine and two physicians recovered.

Table 1. Descriptive Variables of Internal Medicine Physicians

Variable	**N**	**%**	**Variable**	**N**	**%**
1. Gender			**6. Is your hospital a pandemic hospital?**		
Female	32	34,4	Yes	62	59,1
Male	61	65,6	No	14	15,1
2.Age			Not a pandemic hospital, but there are COVID-19 patients	17	18,3
39 and below	72	77,4	**6. Have you ever encountered patients with COVID-19?**		
40-49	21	22,6	Yes	75	80,6
50-59	-	-	No	18	19,4
3. Working Years as Internal Medicine Physician			**7. Have you ever treated the COVID-19 patient?**		
1-5 year	57	62	Yes	69	74,2
6-10 year	13	14,1	No	24	25,8
11-15 year	13	14,1	**8. Did you take the COVID 19 test?**		
16-20 year	9	9,8	Yes	26	18,5
21 and over year	-	-	No	67	81,5
4. Hospital You Work			**9. If you did, what is the result of the COVİD 19 test?**		
Ministry of Health Hospital	55	59,1	Pozitif	0	0
University Hospital	33	35,5	Negative	26	100
Private Hospital	5	5,4	**10. If you got COVID-19, your condition?**		
5. Academic Title			I spend without symptoms, in quarantine	4	
Assistant Doctor	31	33,3	I receive inpatient treatment in the hospital	-	-
Specialist Doctor	55	59,2	I recovered	2	
Doctor Faculty Member	7	7,5			

In order to understand how the internal medicine clinics continue to operate during the pandemic, the findings of the study conducted on a five-point Likert scale and collected from three factors were given in Table 2. The arithmetic means and the frequency distributions of the internal medicine clinical activity scale were shown in the table to figure out the details of the findings. When Table 2 was examined, it has been observed that pandemic issues were prominent in the clinical approach. Of internal medicine physicians, 43.1% received a separate consent form related to COVID-19 for patients admitted to the clinic, 86% of

them primarily questioned the symptoms of COVID-19 in the patient examination, 11.9% of them made COVID-19 test to the patients of internal medicine clinic, and 31.3% had the patients performed torax computed tomography.

The statements of internal medicine physicians regarding the clinical operations were as follows. Of them, 37.7% stated that they avoided physical examination, 43% expressed that the patients requiring an examination delayed the research process, 60.2% enounced that cancer pre-diagnosed patients did not postpone their further examinations, 64.5% told that chronic patients did not come to their routine controls, and 50.5% stated that chronic patients' follow-up processes were disrupted. It was expressed that the new guidelines for 75.3% of physicians and the severity of the pandemic for 82.8% of physicians became effective in determining the treatment method. Of internal medicine physicians, 63.5% declared that they did not suffer from protective equipment, 72.1% stated that they used the equipment correctly, 60.2% expressed that they were in positive solidarity with their colleagues, and 75.3% told that they were successful in combating pandemics as a country.

It was figured out from the t-test and ANOVA test that genders, ages, working durations, the types of hospitals worked and the status of having COVID-19 test of internal medicine physicians did not affect the scale factors. It was observed that Asst. Prof. Dr. physicians had more positive views than assistant physicians in the protection factor at p = 0.003 level. It was seen that whether the hospital where the internal medicine physicians worked was a pandemic hospital (p = 0.026), encountering with the patient with COVID-19 (p = 0.004) and serving patients with COVID-19 (p = 0.005) caused significant differences in clinical approach. Clinical approaches of those working in the pandemic hospital, those who encountered patients with COVID-19 and who served patients with COVID-19 were more affected by COVID-19.

Table 2. The Frequency Distributions Of The Internal Medicine Clinical Activity Scale

Expressions	Investigation Of The Effect Of COVID-19 Pandemic On Activities İn Internal Medicine Clinic											
	Never Agree		Do Not Agree		Partially Agree		Agree		Totally Agree		$\bar{X}$	SS
	N	%	N	%	N	%	N	%	N	%		
Clinical Approach											**3,01**	**0,88**
We take COVID-19 related consent form from patients who are admitted to hospitalization.	30	32,3	8	8,6	15	16,1	6	6,5	34	36,6	3,06	1,71
When accepting cases in the pandemic process, I first question the symptoms of COVID-19.	3	3,2	3	3,2	7	7,5	25	26,9	55	59,1	4,3	0,98
When accepting cases in the pandemic process, I first get a coronavirus test..	40	43	28	30,1	14	15,1	6	6,5	5	5,4	2,01	1,15
While accepting the cases in the pandemic process, I first have a CT scan and wait for the result.	28	30,1	18	19,4	17	18,3	21	22,6	9	9,7	2,62	1,37
Clinical Procedure											**3,47**	**0,61**
I do not fully perform physical examination for all patients during the pandemic process	12	12,9	20	21,5	26	28	26	28	9	9,7	3	1,18
I postpone the research process of patients who need advanced examination in the pandemic process.	9	9,7	9	9,7	35	37,6	28	30,1	12	12,9	3,26	1,11
During my pandemic, I think that the most recent guidelines affect my treatment method.	3	3,2	3	3,2	17	18,3	24	25,8	46	49,5	4,15	1,04
I think that the severity of COVID-19 is most effective on my treatment during pandemic.	-	-	6	6,5	10	10,8	37	39,8	40	43	4,1	0,87
I postpone further examinations of patients who are considered to have a pre-diagnosis of cancer during the pandemic process	33	35,5	23	24,7	18	19,4	13	14	6	6,5	2,31	1,26
Patients with chronic disease I follow before pandemic do not come for routine control.	2	2,2	3	3,2	28	30,1	33	35,5	27	29	3,8	0,95
We are experiencing serious disruptions in the follow-up of patients with chronic disease that I followed before pandemic.	6	6,5	11	11,8	29	31,2	23	24,7	24	25,8	3,5	1,18
Fight against and Preventing COVID-19 in the Clinic											**3,88**	**0,69**
I do not have protective equipment shortage when examining pandemic patients	5	5,4	13	14	16	17,2	33	35,5	26	28	3,66	1,18
I use protective equipment correctly.	-	-	4	4,3	22	23,7	33	35,5	34	36,6	4	0,88
I think that we have a positive solidarity with our colleagues during the pandemic process.	4	4,3	12	12,9	21	22,6	29	31,2	27	29	3,67	1,15
I think we are successful as a health system in the fight against pandemic.	1	1,1	2	2,2	20	21,5	36	38,7	34	36,6	4,07	0,87
I think we are successful as a country in fighting pandemic	2	2,2	7	7,5	14	15,1	41	44,1	29	31,2	3,94	0,98

The results of Beck Anxiety Inventory, which were performed to understand the anxiety levels of internal medicine physicians during the pandemic period, were given in Table 3. According to the table, it was observed that 39% of internal medicine physicians did not have anxiety, 25.8% of them had mild, 20.4% of them had moderate anxiety and 14% of them had severe anxiety.

Table 3. Evaluation of Physician's Back Anxiety Scales

Back Anxiety Scales	N	%
No	37	39,8
Mild	24	25,8
Moderate	19	20,4
Severe	13	14

The correlation association between three factors of the clinical activity scale and the factor of Beck Anxiety Inventory was examined and the results were given in Table 4. Accordingly, a weak linear correlation was found between the clinical approach and the protection factor at p = 0.001 error level. The change in the clinical approach creates a change in the protection factor in the same direction although it was weak. A weak linear correlation was detected between the clinical operation factor and Beck Anxiety factor at p = 0.001 error level. Anxiety levels of internal medicine physicians increased as the change in clinical operation increased.

Table 4. Correlation of the Relationship between Scale Factors

	Clinical Approach	Clinical Procedure	Prevention	Back Anxiety
Clinical Approach	1			
Clinical Procedure	0.115	1		
Prevention	0.209(*)	0.058	1	
Back Anxiety	0.042	0.279(**)	-0.068	1

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed)

DISCUSSION

In this study conducted on internal medicine specialists, it was detected that 80.6% of 93 internal medicine specialists participating in the study encountered COVID-19 patients and 74.2% of them served to the patients with COVID-19. In addition, as a result of the survey, four internal medicine physicians declared that they were in quarantine (4.3%) and two physicians (2.1%) stated that they were recovered. It was observed that contamination was found at 6.4% of internal medicine specialists. Internal medicine specialists had a high rate of encountering with COVID-19 positive patients and following COVID-19 positive patients, and so they are at high risk. As a result of the studies performed, it has been emphasized that the viral load is an important factor in the development of different clinical findings in patients infected with COVID-19 as well as the personal factors belonging to the patients, and the viral load has effects on both mortality and duration of hospital stay (Pan, 2020; Zou 2020; Lung, 2009:80). It is stated that asymptomatic cases or cases with few symptoms, as well as in symptomatic patients, carry a risk of contagiousness (Aysan, 2020). For these reasons, healthcare professionals, especially physician groups such as internal medicine specialists having high rate of encountering with COVID-19 positive patients and following COVID-19 positive patients, are at serious risk for both COVID-19 transmission and viral load when infected.

Increased workload in the health system, physical exhaustion in healthcare professionals, inadequate personal equipment, taking rational decisions in the follow-up and treatment of patients or in the operation of the hospital during SARS pandemic had serious physical and mental negative effects on healthcare workers. Apart from that, the risk of infection transmission, isolation or loss of friends and relatives, and frequent disturbing changes in the working system have been shown to affect healthcare professionals negatively (Lung, 2009:80). In the studies conducted on the health professionals during 2003 SARS pandemic, healthcare professionals reported that they experienced fear of transmitting the infection to their families, friends, and colleagues, uncertainty, fear of stigma, unwillingness to go to work, thinking about resignation, and signs of high levels of stress, anxiety, and depression that may have long-term psychological effects (Maunder, 2003:168; Bai, 2004:55; Lee, 2007:52). Healthcare professionals, who are directly involved in the diagnosis, treatment and care of patients with COVID-19 and at serious risk of contamination and virus load, are particularly vulnerable to mental health problems such as fear, anxiety, depression and insomnia.

In epidemiological studies in the United States, the lifetime prevalence of Generalized Anxiety Disorder (GAD) in the community was found between 5.1% and 11.9% (Asoğlu, 2018:6). In another publication, it

was reported that the lifetime prevalence of GAD in the community was 3-6% (Alçı, 2019:22). As a result of this study, it was observed that internal medicine physicians had high anxiety at a rate of 60.2%, especially 34.4% of them was moderate and severe.

When the clinical operation of internal medicine was examined during the pandemic period, it was detected that physical examinations were avoided at a rate of 37.7%, the research process of patients requiring further examination was delayed at a rate of 43%, 60.2% of chronic patients did not come to routine control, and follow-ups of patients were at a rate of 50.5%. It was observed that the high anxiety rate detected in internal medicine physicians significantly affected the clinical operation.

It was understood that whether the hospital where the internal medicine physicians worked was a pandemic hospital (p = 0.026), encountering with the patient with COVID-19 (p = 0.004) and serving patients with COVID-19 (p = 0.005) caused significant differences in clinical approach. Clinical approaches of those working in the pandemic hospital, those who encountered patients with COVID-19 and who served patients with COVID-19 were more affected by COVID-19.

Limitations

Due to social isolation, the fact that the test could be performed face to face and only online systems were used as a data collection tool was an important limitation. Moreover, the fact that physicians did not want to fill the test due to the excessive workload and the number of participants was low due to these reasons was considered as another reason for limitation.

Conclusion and Recommendations

High anxiety was detected in internal medicine specialist physicians, who had a high incidence of encountering with COVID-19 positive patients and following-treating COVID-19 positive patients, and therefore at high risk for transmission and virus load. Clinical approaches of those working in the pandemic hospital, who encountered patients with COVID-19 and who served patients with COVID-19, were found to be more affected than COVID-19.

Giving psychological support to internal medicine specialists in whom high anxiety develops during the pandemic period is necessary both for internal medicine specialists and for preventing undesired disruptions in clinical operation.

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Evaluation of the Effects of Value-Based Purchasing Applications on Cost and Efficiency

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ABSTRACT

The importance and effectiveness of value-based procurement come to the forefront in terms of taking the studies based on value-based cost approach as the basis of the use of medicinal products and drugs, which constitute an important cost item in hospitals, and in particular to understand that the only factor in procurement is not the price.

The main purpose of this study is to show the applicability of cost-effectiveness and efficiency studies in medical supply chain management in hospitals by carrying out studies on value-based procurement applications within the scope of value-based health services.

The "non-price element" article is included in the Public Procurement Law, the main obstacle to value-based price implementation is the basis of the ceiling price procedure in the SUT (Health Implementation Communiqué). Calculating the actual cost and making decisions based on this account should be of priority. In order to avoid unpredictable cost risk, rational purchasing techniques will need to be applied. When we think that reimbursement systems have recently focused on materials and drug use and how they can reduce these costs, it is a fact that value-based payments will come to the fore in the coming period and many products will not be paid.

In this context, when evaluating value-based health services, it is necessary to evaluate the issue from a value-based perspective in all processes of the procurement and medical supply management chain and to ensure that decisions are made taking into consideration the side costs that may occur. In the value-based purchasing approach, patient benefit, efficiency, and innovative initiatives should be at the forefront. The correct realization of the results of these perspectives will be possible with the acquisition of a sustainable value-based purchasing approach. With this approach, medical supply chain processes should be considered as strategic basic processes, not as operational support processes.

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INTRODUCTION

Health care is an activity aimed at raising the level of health of the society and people, which includes the time from diagnosis to treatment and care of diseases. The purpose of health care is to raise the health standards of the society by ensuring that people stay away from diseases, protecting and improving this situation, and taking preventive measures (Karaçor, S., Arıkan, A. 2014). In all countries of the world, including developed countries, the large increase in resources allocated to health services every year has brought the restrictions to the agenda if necessary, by identifying priorities among the service options. Therefore, in all health care providers from the smallest to the largest, the selection of the interventions that ultimately create the best "value" with the available resources has become one of the most accepted approaches in health management (Özsarı, H. 2018:6-9).

The concept of the value of health came to the fore with the measurement of health outcomes in the 1980s, and with the developments around the world in the reimbursement and pricing of health services. As the issue of cost-effectiveness, which is defined as the 'fourth obstacle' in repayment decisions in health services, gains importance in many health systems, it is expected that those who produce health services will also reveal the value of this health service (Tatar, M. 2017).

The concept of "value", which can be mathematically formulated by converting the services offered in the field of health into numbers and proportionating the costs of results that are quite difficult compared to other areas, has begun to be discussed. On the other hand, the concept of "efficiency", which can be formulated by proportioning inputs to outputs, is discussed. Another important aspect of these discussions in the field of health is that they are balanced with the concept of "equity". The value-based management approach comes to the fore at this balancing point where decision-makers at every stage and every stage of health management have to take into account. Because, every intervention that creates equity in health services may not be efficient, and on the contrary, every efficient intervention may not create equity (Özsarı, H. 2018:6-9).

Value in health services is determined based on results (outcome), not inputs, and therefore it is necessary to measure the results obtained, not the number of services offered in the measurement of value. In other words, there is no connection between the service delivery process and the concept of the value and the improvements made concerning the process do not contribute as value unless they affect the health outcomes (Porter, M. 2010).

The health sector generally has an increasing share in the economy in line with the increasing share of the service sector. According to 2017 data, the share of health goods and services in the world economy has reached 38 percent. There are two health care companies among the top 10 major world companies. Unfortunately, productivity in the health sector, which has reached these sizes, has become a problem, and has led to very serious discussions (Özsarı, H. 2018:6- 9).

Throughout this process, the process of managing the patient, which can also be defined as "Accountable Care" aiming to manage the output in health, is to focus on how to spend the most valuable resource based on giving responsibility to the patient. In other words, a collaboration of all service providers, including funding from relevant health institutions, such as patients and hospitals, which are not aimed at direct spending or cost reduction, is a model that accepts as a principle. The method of the model is defined by 5 consecutive steps. At the beginning of the steps, a target group with common characteristics, which is planned to create value, is determined. In the second stage, the expected outcomes and effects (outcome) of the intervention planned for this target group are determined and related roadmaps (clinical guides) are created. In the third stage, which is the next stage, the differences towards these outputs are identified and measured. In the fourth stage, the treatment routes are determined by coordinating the service with a holistic view. In the fifth and final stage, new payment models and incentive routes are created for the added value formed after the intervention (Özsarı, H. 2018:6-9).

Healthcare enterprises can survive by providing effective, efficient, value-based services, and adapting to change. On the other hand, since health expenditures are one of the biggest items of the budget for the public, it is very important to examine, analyze, and find new searches in terms of business management. With increasing expectations in health care, new technologies are emerging day by day in diagnosis and treatment processes. For this reason, there is an increase in the cost of health services. With increasing costs, businesses tend to look for different things. One of the solutions is value-based health care. The ultimate goal is to establish a partnership based on trust and loyalty with high-value patients. Patient loyalty and patient outcomes, i.e. the satisfaction-cost common component, are important determinants of healthy business growth and profitability. In terms of business management, patients are assets, the longer they are held, the more value they create. As the quality of the service that the patient receives increases, the level of satisfaction will increase positively. Besides, meeting only the needs of patients is not enough to create value. Value generally increases not by developing each

intervention or service but by integrating maintenance throughout the chain (Seyfioğlu, E.F. 2019: 799-822).

In value-based health systems, policymakers need to adopt accountability and transparency towards all parties in the ecosystem. Besides, it is necessary to adopt broader quality measurements at each stage in value-based systems to accelerate the development of patient-centered measurements and data availability. As in all matters, when it comes to a value-based health system, systematic creation of patient records, collection, storage, and analysis of data becomes an even more important requirement. It is possible to say that the most basic tendency in the healthcare sector is to gradually move away from the hospital-centered approach. As mentioned in previous chapters on health industries, value focus and patient-centered approach also affect the health care sector. The tendency to move away from the hospital-centric approach is related to the fact that some of the health care services can be taken out of the hospital due to both their close relationship and the influence of new technologies. Both improving the quality of life and reducing costs by meeting some needs of the patients outside the hospital are increasingly strengthened with a value-based approach in health services (Memiş, SA. 2018).

General Information

In addition to the traditional marketing concept, the value-based marketing concept was founded in 1992 with Davidow and Malone and in 2003, but value-based marketing became meaningful with P. Doyle and came to the present day with Kotler in 2014. The value-based approach plays an important role in healthcare delivery. The concept of the value chain in health services in the world entered the literature with Porter in the 2000s (Seyfioğlu, E.F. 2019: 799- 822). Porter stated that new approaches started to emerge in health care delivery due to the problem of inability to achieve the desired results with increasing costs in health services and that medicine was carried out in the 21st century with the 19th-century management process, organizational structure, and measurement systems (Porter, M. 2008). Porter and some academics redefined health care and raised the concept of value in health care. In 2014, the value-based health care model started to be implemented in the world after Porter's seminar (Seyfioğlu, E.F. 2019: 799-822).

Value in health services is defined as patient health outcomes obtained according to the cost of care. Value-based health services include and combine important goals in health services such as health, quality, safety, patient-centered, and cost control (Porter, 2010; Lowe, 2018). Value-based health services aim to create a system that reduces the cost of health care per capita and improves patient care experience and population health by including quality and satisfaction in care (MacLean, 2017).

In the value-based management approach method, with the 360-degree method in the communication language, all relevant stakeholders participate in the process by focusing on the patient and it is aimed to achieve the implementation model that leads to the best result after the intervention. The responsibility to stay focused applies to all parties, from the healthcare provider to the insurance company that pays for the service, from the medical device used in the intervention to the medicine, and most importantly, the role of managing the health or disease of the patient himself/herself. In fact, with a value-based management approach, not only a model but an ecosystem that can give birth to different models are mentioned. Components of this ecosystem, which can be summarized as capacity, environment, and integrated service and coordination between steps, ultimately manifest itself by transforming the treatment that the person receives by taking care of his/her health into contributing to his/her life, that is to say, creating added value, that the patient or even the person is now engaged in his/her health (Özsarı, H. 2018:6-9). Value-based care, on the other hand, is a service delivery model that is desired to improve the health outcomes of patients by increasing the quality of care and result in low cost. Value-based healthcare providers are encouraged to communicate with the patient, provide individual-specific care, focus on new technologies, evaluate performance results and data, and give importance to teamwork (Caron, MA. 2017).

Before examining the concept of value-based repayment, it would be useful to know the main concepts such as value, value-based payment, value-based incentive payment arrangement, value-based insurance design, value-based payment converter in health services (Şimşir, İ. 2018).

Value: The term "value" is widely used to describe a joint assessment of both the quality and the cost of a single or a group of health care services. In the most general sense, the concept is considered as a function of the quality, efficiency, reliability, and cost of the service provided. In the context of value-based purchasing, value is to provide higher quality service without changing the cost or to provide the same quality service with lower cost (Tanenbaum, SJ. 2016).

Value-Based Payment: A generic term used to describe a payment model in which the amount of payment to be made for a service varies in some way according to the quality or cost of that service. There is no accepted standard for how variable payment will be or what type of value measurement should be used. Therefore, some payment models are defined as "value-based", although there is little difference in payment amounts based on differences in quality and costs.

Value-Based Incentive Payment Adjustment: Value-based incentive payment regulation in the Medicare Hospital Value-based Payment Program refers to a percentage assigned to that hospital each year based on the scores received by the hospital in a series of performance measures. Subsequently, the payment to be made to the hospital is arranged upwards or downwards according to this percentage.

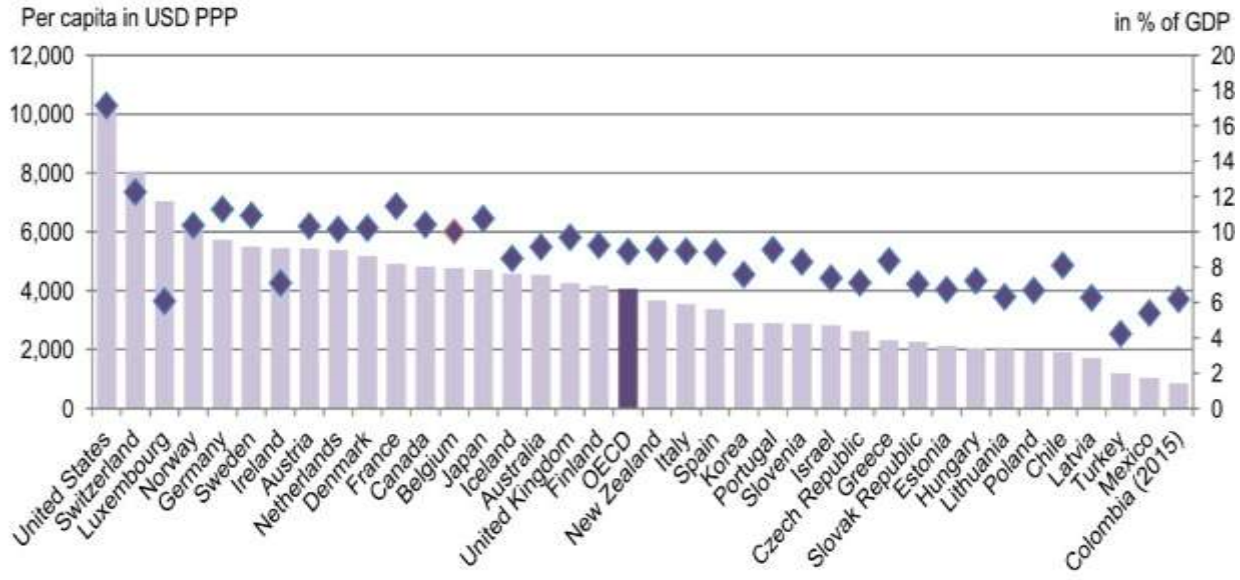
Value-Based Insurance Design: This term is used to describe the terms of the benefit design of the health insurance plan structured to encourage health plan members to use high-quality and low-cost services. The concept includes some elements such as reducing patient cost-sharing for services that are considered to be of high value, removing services that are considered to be of low value, or encouraging patients to use service providers selected as "centers of excellence" for certain types of services, or even making this necessary.

Value-Based Payment Modifier: This term refers to a program established by the US Congress to regulate the payment to a physician for his service to a Medicare registrant based on measurements and maintenance costs related to the quality of care provided during a performance period.

Focusing on output and value triggers innovation opportunities within the system. Thus, interventions that make a "difference", that is, interventions that do not do what everyone does, can be deducted. Even with incentive packages supported by funding policies, the system rewards those who take protective measures against the patient's health and make lifestyle changes during the reimbursement phase. What is important here is the development of accountable criteria such as co-existence with another disease, the incidence of illness or death, and recourse to the system from the same disease, and the establishment of mechanisms forcomparison, reporting, and sharing with the relevant public through transparent and objective methods. It is natural for this process to be based on the reward mechanism since any intervention to punish in the field of health can be perceived as a barrier to prevent a person from applying to the system and increases the risk of encountering a more severe disease in the late period (Özsarı, H. 2018:6-9).

Careful and disciplined calculation and development of value is the best method for system progress. Despite this, the value in healthcare services is still largely not measured or incorrectly measured. In fact, the only way to reduce costs in health care is to take precautions without the patient, i.e. to provide preventive health care. The allowance allocated to preventive health services is much less than the allowance allocated after being sick. However, there is an increase in healthcare expenditures all over the world. This is not only because of population growth and environmental and living conditions threatening human health because the increase in expenditure is not only seen in underdeveloped or developing countries, but also developed countries. Within the scope of value-based health care, it is stated that the effect will be higher when evaluated together with preventive health services for the solution of the health problems that exist today and may occur in the future (Vilhelmsson, A. 2017).

Figure 1. OECD Countries GNP ratios



Note: Data for 2017 was estimated by the Secretariat for those countries that were not able to provide this information. PPP stands for Purchasing Power Parities and adjusts health expenditure for differences in price levels between countries.

Source: OECD Health Statistics 2018.

The United States, which allocates the most share to health expenditures among OECD countries, allocates 17.8% of its GNP to health expenditures. This expenditure corresponds to approximately 4 times the GNP of Turkey. The ratio of Turkey's health expenditures to GNP is well below the OECD average of 9% and is at 4.4%. An important reason for the increase in healthcare expenditures all over the world and in Turkey is the billing model that is still being implemented. It is due to the fact that there is a volume and transaction-based payment system and that there is still no value-based health system. The value-based health care model in the world draws attention, and it is necessary to take this into account in Turkey and to carry out studies on this subject and to develop projects related to its applicability. In order to reduce health expenditures, increase the quality of service and increase the level of patient satisfaction, the establishment of the transition to the "Value-based Payment Model", the traditional volumeand transaction-based wage model, which is increasingly mentioned in the world, is an issue that should be put on the agenda in terms of health policies (Seyfioğlu, E.F. 2019: 799-822).

With both budget pressure and a patient-centered approach, the transition from payment per service to value-based payment is on the agenda in many countries. Research shows that only 10 percent of preventable deaths are prevented by healthcare. The remaining 40 percent are prevention situations due to healthy life (diet and sport), 30 percent due to genetic factors, and 20 percent due to environmental impacts. From this point of view, a holistic healthcare approach from the hospital to the society is becoming increasingly widespread. The personalized, patient-centered holistic health care approach covers all stages of the value chain, from nutrition to physical activity, from protection to long-term care, based on data. With this change of approach, the roles and responsibilities of the actors who play a role in health services also change with the influence of new trends (Memiş, SA. 2018).

Value-based Health Services in terms of Refund Institutions

"Is there a qualitatively and qualitatively positive gap between the health care purchased and the ideal health care that needs to be purchased" is one of the most important questions that reimbursement system managers need to answer. Another question that helps this question is: Has the price we paid for the service we purchased been met? In other words, has there been an assessment of the resources allocated for health services in terms of allocation and production efficiency? (Kurutkan, MN., Bayat, M. 2015). To achieve value, the payment method of health services needs to be restructured (Sorrel, AR. 2015).

Businesses providing health services in VBP (Value-based Purchasing) system are held responsible for the quality and cost of the service they provide. Thus, businesses are rewarded for the success achieved within the framework of determining performance criteria. Within the framework of the developed criteria, health services are tried to be standardized and the savings in direct and indirect costs related to the services provided are rewarded within the framework of the parameters determined by the system by considering the patient satisfaction. The VBP system differs from other value-based purchasing methods. Each system acts within the framework of the program they have developed, some of which punish and reject payment requests related to HIC (hospital-induced conditions), infection, and preventable conditions. Some payment plans regulate their payments according to different parameters by including multiple elements in the program. Some payment systems rate parameters with an asterisk, while others expect healthcare providers to be responsible for coordinating care, clinical services, and cost considerations in full integrity. Also, some payment programs, the difference resulting from the savings provided, are shared between the healthcare provider and the receiving customer according to certain principles, so that patients can provide financial benefit by being more consciously involved in the treatment process (Kurutkan, MN., Bayat, M. 2015).

The implementation of pioneering initiatives related to the Value-Based Repayment approach started in 2003. As can be seen in Figure 2, they are grouped under three groups. (Şimşir, İ. 2018).

Source : Şimşir and Altındiş, 2019.

Figure 1. Value-based Payment Stages

1. Repayment Schedules According to Reporting: Service providers are encouraged to report the necessary information for public use.
2. Payment by Performance: Service providers are encouraged to reach a targeted clinical performance threshold. This typically involves process or outcome measures related to a particular patient population.
3. Value-based Payment Programs: They are typically programs designed specifically for service providers (hospitalized or outpatient, physician, home health, nursing home, dialysis, etc.) and are directly related to quality and productivity improvement (Şimşir, İ. 2018).

In terms of repayment institutions, the value in

health is the ratio of the cost of any technology to the health outcomes it produces and is an important determinant of repayment decisions. However, in order to measure the value created by any technology and use it in repayment decisions, an alternative to be compared is absolutely necessary. In terms of the repayment institution, value arises by comparing the benefits and costs of new technology. Whether cost-effectiveness or cost-benefit analysis is used, the final decision is determined by the ratio of additional cost efficiency (IMEO), namely the ratio of additional costs to additional benefits/impacts. The resulting figure at the end of this evaluation indicates an additional unit cost to be borne per additional unit result. Comparison can be made with another product, which is an alternative to the product under assessment, or with placebo or standard maintenance. However, the results of the economic evaluation are not sufficient to explain and define the concept of value in health in terms of the repayment institution. The results of the analyses come to a point on the following cost-effectiveness plane (Tatar, M. 2017).

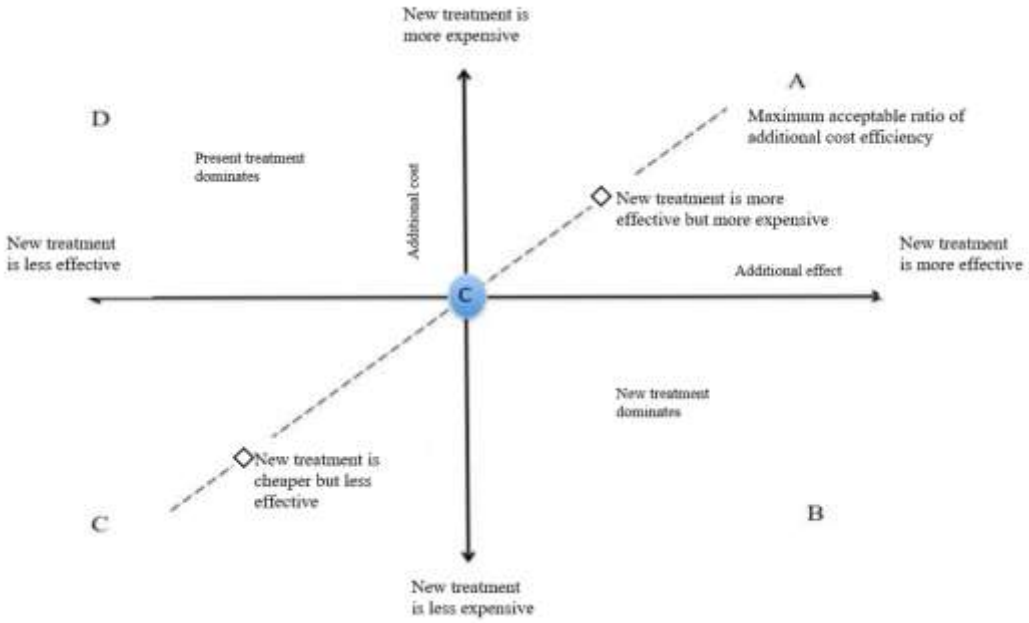


Figure 2. Cost Efficiency Plane (Source: Gray et al, 2011)

If the results of the economic evaluation take a value within the B quadrant, the new treatment will dominate the existing treatment because it is more effective and less costly, and the decision-making process of the reimbursement institution is not complicated. In this case, it would be beneficial for the institution, the patients, and the community to include the new treatment on the positive list. If the results are located at a point in quadrant D, the decision process is not complicated because the new treatment is both more costly and less effective. In this case, the decision of the reimbursement agency not to include the new treatment on the positive list will be beneficial for all parties. Quadrants C and A are the quadrants where the repayment institution has difficulty in deciding and the concept of 'value' comes to the forefront. In quadrant C, where the new treatment is less costly and less effective, the decision to be made by the reimbursement agency relates to the value of the effectiveness abandoned. At first glance, it appears to be an easier decision than the decision made in quadrant A, but the impact of the abandoned additional effectiveness on the patient and society may differ from the perspective of the reimbursement institution. Quadrant A shows the area where reimbursement institutions often have to decide today. In quadrant A, where the new treatment is more effective but more costly, the inclusion of any treatment in the scope of reimbursement in this area will require a restriction in other treatment areas or an increase in the resources allocated to health services. As the second option is one of the difficult decisions for almost every country, there is usually the first option. In order for the repayment (reimbursement) institution to make a positive decision in the treatment areas falling within this quadrant and for this decision to be fair, transparent and predictable, it may be necessary to determine a payment desire threshold for the value it attaches to the treatment result (Tatar, M. 2017).

Value-based Health Services in terms of Purchasing Processes

Reducing increased costs and waste in health, increasing quality, maximizing patient and employee satisfaction are the main goals that healthcare providers want to achieve. One of the most important ways to ensure this situation is a value-based lean thinking perspective and principles. Lean thoughts and

principles aim to reduce the time spent on value-added transactions while eliminating activities that do not add value to the processes. There is always a problem that needs to be solved and a management philosophy that focuses on processes with the vision of waste that needs to be solved is the basic element that provides development. Health managers who aim to achieve excellence in their services and each of the stakeholders involved in the provision of health services must see the waste and inefficiencies related to the field in which they work. Determining waste resources in the Supply Chain Processes, one of the most critical processes of hospitals, and revealing the practices that will create value in these processes by increasing the quality in these processes constitute the basis of the value-based perspective. In this context, it is necessary to demonstrate the applicability of the lean model in the Supply Processes by questioning the activities that create added value and do not create added value in all stages from the formation of the demand and need planning of the products to the main warehouse, transfer of the products from the main warehouse to the secondary warehouses to the patient, inventory counts to the invoicing of the products (Işık, M., Işık, F. (2016).

One of the most commonly used value-based reimbursement methods in healthcare is drug reimbursements. Especially if the drug used in this method applied in the USA and Western Europe does not meet the expected outcome criterion, the cost is covered by the company selling the drug. For example, according to an agreement made in the USA in 2015, the company has committed to reimburse the institution that purchased if the results of a cholesterol-lowering drug in clinical trials are not obtained in real use. Since 2017, the agreement for the same drug has been further extended and an agreement has been made for the company to reimburse each patient who has had a heart attack or stroke while using the drug (Durur, F. 2018).

While value-based agreements between governments and payers in different countries for new treatments have been on the agenda in Europe for some time, health insurance companies in the United States signed value-based agreements with different pharmaceutical companies in 2016 and 2017, especially new treatments in diabetes and cholesterol. In the US, a total of 24 value- based agreements were announced in 2013-2017. The number of these is expected to reach 65 in 2018-2022 period. While the two areas with the most agreements in 2013-2017 period are metabolic diseases and cardiovascular diseases, it is predicted that value-based agreements will intensify in neuromuscular diseases in the coming period (Memiş, SA. 2018). Although the value chain in the medical device sector is similar to the basic stages in the value chain of the pharmaceutical sector, medical devices are very diverse within themselves. The fact that medical devices differ greatly from each other in many respects such as model, complexity, application, use, the user also makes the stages of the value chain quite different from each other. This differentiation has recently become more complex with the influence of new technologies. Changes such as the transformation of certain categories of a medical device into a treatment method with the drug or becoming a diagnostic tool that completely differentiates its use with new technologies integrated into some categories of medical device increasingly increase the differentiation between the stages of the value chain in medical devices. This leads to the inclusion of new actors in both the R&D and production stages. Many new actors from different sectors and focused on different technologies are involved in the value chain in the medical device sector. In R&D processes, especially startups and research centers with different focus areas, and production processes, technology companies are the actors whose roles have increased due to the change in the value chain of medical devices. Cooperation in the medical device sector is expected to increase faster in the coming period (Memiş, SA. 2018).

Value-based management approach practices not only in health insurance but also in procurement processes are becoming widespread starting with pilot applications. Regardless of the impact on the patient's health, purchasing mechanisms focusing only on the budget from the point of view of short-term expense management; unfortunately, they can lead to unsustainable and inefficient results that cause very heavy tables in the medium and long term. This is because traditional purchasing processes, which focus on the price and are always locked to the lowest price offer, can lead to an increase in total health expenditures by using resources for the same purpose even in the short term (Özsarı, H. 2018:6-9).

Value-based structuring of purchasing processes is an important step towards rational and sustainable procurement on the one hand, and it is based on the effect of medical intervention on the patient's quality of life with the "Beyond Price" perspective on the other. The benefits expected at a national level through good practice examples of value-based purchasing approach in countries such as Norway, Germany, Sweden, UK, USA, France in the areas such as catheters, surgical sutures and wound care, are summarized under the following main headings: (Özsarı, H. 2018:6-9).

1. Opportunities for all stakeholders to reduce costs in general and the most economical results,
2. Focus on the values and outcomes that are important for patients, system, and society,
3. Optimization and professionalization,
4. Harmonization and standardization in purchasing methodologies,
5. Flexibility at the local level,
6. Dissemination of good practices with comparative advantage and collaborative opportunities.

In the "Health Towards 2030" report prepared by the Technology Development Foundation of Turkey (TTGV); prominent trends are included in the value chain of three different sectors (pharmaceutical, medical devices, and health services sectors) constituting the health ecosystem as they move towards 2030. The main trends that have become common in all three sectors and have affected the entire value chain in recent years are financial sustainability, increasing-price pressure, transition to a value-based approach, strengthening the focus of the patient rather than treatment, moving away from the hospital-centered approach, and technological transformation. The budget and price issue, which has been on the agenda for many years, continues to remain on the agenda with increasing strength. At the same time, recent trends and the change with new technologies lead companies to search for ways to innovate more efficiently in order to strengthen their new competitive areas (Memiş, SA. 2018).

In order to establish an efficient structure in terms of materials and budget management in hospitals, it is necessary to control the waste in drug and material expenditures, which is one of the most important expense items. It will be seen that the cost of an unnecessarily inadvertently opened and sterilized material, the cost of an expired drug or material, the cost of dozens of materials thrown into wastes when not used in the operating room, and the costs of materials used improperly per their purpose are very serious in hospitals. In order to measure these situations correctly, the income of each branch should be measured as a center of income and its expenses should be measured. Performance of a case of the same nature by 2 different physicians at very different costs should be analyzed and correction should be made if there is an incorrect approach. The inefficiencies caused by the failure of the professionals to apply the standards and clinical pathways they set themselves should be revealed and waste resources should be prevented (Işık, M., Işık, F. 2016).

In the value-based purchasing approach, decisions should be made based on the evaluation method shown in the table below. In this application, 2 different brands were evaluated in the decision to purchase and spend hemofiltration solution mainly used in general intensive care units. In this evaluation, although brand A is more expensive in terms of unit cost than brand B, it was decided to purchase brand A in the purchase decision. Because 10.6 solutions are used in the 24-hour use of the solution used as brand A in the hospital application trial and 17.9 solutions are used in brand B due to the differences in content and application. If only purchasing bare unit prices were looking at here, the preference would be used in favor of brand B. However, it was decided to buy the product that is more suitable in total cost because it was decided from a value-based perspective in terms of total cost and output. With this decision, it was decided to choose the product that constitutes 41% more advantageous results than the usage results, while 26% more conformance is in question than the unit price.

Table 1. Product Purchasing Decision Implementation Sample Table

Hemofiltration Solution Value-based Purchasing Perspective				
Brand	**Quantity used**	**Purchase Price**	**Total Amount**	**Purchase Price Advantage Rate**
Brand A	5.000	35	175.000	**26%**
Brand B	5.000	26	130.000	
Brand	**Quantity used**	**Purchase Price**	**24-hour Usage**	**Usage Quantity Advantage Rate**
Brand A	5.000	35	10,6	**41%**
Brand B	5.000	28	17,9	

Source : Işık, M. 2020

Considering the fact that the risk of the second operation in hip surgery is 18 times higher in Germany, the risk of complications in radical prostate surgery is 9 times higher in the Netherlands and the risk of complications in cataract surgery in Sweden is 36 times higher and that this reflects the reality of diversities of the patient outcomes and efficiency, the importance of value-based purchasing logic emerges again (Gökalp, U. 2018). In this context, it is important to reveal the risk of complications by conducting detailed analyses, especially in the branches constituting significant amounts in health expenditures. In particular, it is necessary to introduce questioning criteria based on the evidence against the most common complications encountered in the knee and hip operations and to create indicators with these criteria and to ensure that they affect the payment conditions. For example; in the knee and hip operations, critical clinical outcomes such as the rate of re-admission due to dislocation, the rate of patients requiring re-operation in the first 2 months and the first 12 months, the rate of patients requiring revision in the first 12 months, the average number of days of admission, the rate of prophylactic antibiotic administration on the day of operation, the rate of re-admission due to surgical field infection in the first 2 months or the first 12 months, the rate of patients prescribed antithrombotic drugs at the patient exit, the rate of re-admission due to deep vein thrombosis, the rate of re-admission due to pulmonary embolism, the rate of nerve damage, the rate of vascular damage (Ministry of Health, 2015) will also lead to an increase in the quality of companies producing these products in the health industry and a fair pricing policy will be established. Likewise, drug-eluting stents, which constitute an important cost item in health

expenditures, can perform the same applications. Pricing conditions can be shaped by evidence-based detection of product- induced conditions for complications such as stenosis, restenosis, thrombosis activity, uncontrolled endothelial cell shooting.

FINDINGS AND DISCUSSION

Seyfioğlu E.F. (2019) aimed to propose a model by making strategic approaches to the value-based health care system. In this context, the research model developed was collected from health care enterprises, including the public and private sectors. The data obtained by the questionnaire method were analyzed and the significant and possible positive effects of the components forming the model in value-based health services on patient satisfaction were the subject of the qualitative study based on the finding of satisfaction with medical treatment services in terms of the level of effect on overall patient satisfaction and the finding of being behind the satisfaction with other services in the current system. When the other components (6 components) forming the model are applied, the patient value change, effect on quality, satisfaction level of the patients, cost change, change in the profit rate, impact on resource and time waste, determination and solution of the results related to brand value were made by face-to-face interview technique and by asking open-ended questions to senior managers. As a result of qualitative research content analysis, it has been determined that there is a familiarity with the model in our country, some components of the model are partially applied (e.g. e-pulse) and besides, local suggestions that can be considered as contributions to the model have been identified. In light of the basic data obtained, it has been determined that the necessity to measure the cost and improvement results for each patient separately instead of a standard price policy for each patient and the need for healthcare, outcomes, and goal-based payment rather than transaction-based payment will create value (Seyfioğlu, E.F. 2019: 799-822).

Deniz, MH et al (2011). concluded that the perception of patient satisfaction was positively affected within the scope of the concept of "Value-based Health" for healthcare provided by the private sector in order to determine the relationships between perceived quality, perceived value, patient satisfaction and behavioral intention in health services. It was revealed that perceived service quality positively affects patient satisfaction and behavioral intention and patient satisfaction positively affects behavioral intention. As the perceptions of the quality of the service received by the patient increase more positively, the level of satisfaction of the patient is positively affected by this increase, that is, the satisfaction with the service received increases in parallel (Deniz, MH. Hobikoğlu, EH. 2011).

According to the findings obtained from the cost-effectiveness analysis study of dialysis and kidney transplantation treatment in Turkey in the research conducted by Yiğit, V.(2015) et al., they reached the following result. According to the results of the research, since kidney transplantation is cost-effective compared to dialysis in terms of quality of life, patient survival and treatment cost, it should be preferred and encouraged when developing health policies and allocating resources to health services (Yiğit, V., Erdem, R. 2015).

In a study conducted by Tansel, Y et al. (2017), it was aimed to develop a two-stage decision support system to assist physicians in the selection of stents, and firstly, a data collection tool was developed to improve the decision support system. For the results to be statistically valid, the questions were applied randomly to the cardiology department doctors of the hospitals in the province of Ankara, which was selected as the pilot region. With this application, it is possible to monitor the causes of the complications that occur in stent applications and it is aimed to prevent the complications that will occur (Tansel, Y. 2017).

An ideal method of reimbursement is the structures that have low administrative costs, prevent abuse, take into account efficiency and efficiency, and also ensure the balance between them (Kaya, N. 2008) Many methods such as global budget, per capita payment, per day payment, per service payment, case-by-case payment are used as reimbursement method to health institutions. All the methods used have various advantages and disadvantages. When the situation of reimbursement methods used in health services in Turkey is examined, it is seen that a mixed reimbursement system consisting of different methods is implemented as in many countries. Per capita payment method is used in family medicine, a global budget method is used in hospitals and university hospitals affiliated to the Ministry of Health, per service payment method is used in private hospitals, and per day payment method is used for intensive care and palliative care services (Özkan, Ö., Ağırbaş, İ. 2019).

Value-based payment is a commonly preferred strategy for improving the health system in countries such as the United States, Sweden, and the Netherlands. In the first step of international value-based payment programs, performance criteria are generally targeted by priority services such as vaccination, cancer screening, and productivity within clinical quality. In this model, distinguishing high quality from low-quality services and rewarding the quality ones or using a payment mechanism that will reward the low-cost ones. For example, the California Integrated Healthcare Association (IHA) program, one of the first and largest private, non-governmental multi-user value-based payment programs, uses the value-based procurement model. According to this program, reimbursements are made considering clinical quality,

patient experience, meaningful use, and appropriate resource use (Chee, TT et al., 2016). One of the examples of new payment models and incentives for this added value is being implemented in Spain. In the case of Spain, 25 percent of the payment for spinal surgeries is made based on the patient's condition after 1 year (outcome). The outcome/output here is that the patient becomes able to perform the functions that he/she cannot do due to the disease and does not feel pain (Durur, F. 2018).

CONCLUSION

We are living in times healthcare enterprises can survive by providing effective, efficient, value-based services, and adapting to change. Health expenditures are one of the biggest items of the budget for the public, thus it is very important to examine, analyze, and find new searches in terms of business management. Evaluation of purchases made through purchasing, which is one of the biggest items in health expenditures, from a value-based perspective and performing each purchase or expense analysis from a value-based purchasing and expense perspective will help to make effective, efficient, and equitable decisions.

The value-based purchasing approach is much easier to apply and achieve results in purchasing processes and it must be shaped by both institutions and public authorities. The Health Practice Communiqué system encourages price-oriented purchasing by creating a ceiling price in purchases. Especially when the Social Security Institution creates the payment lists, it will be decided that it not only determines the "Non-priced Element" support but also determines some rules and principles from a value-based cost perspective and regulates the payment terms for the products that comply with these rules. In this case, health technology manufacturers will shape their products accordingly and face the risk of not being in the product market when they do not fulfill the requirements of the reimbursement condition and will shape the production conditions accordingly.

Value-based reimbursement is a fact of today's health systems. Although it is not officially on the agenda in Turkey, it is being discussed by political decision-makers and academics. The financial sustainability and quality pressure in the health system will likely make the value-based payment method a policy issue in Turkey. For this reason, it is important for health managers to know about the value-based payment, to know requirements, limitations, possible benefits, and losses. There are some problems with the quality and cost of health services. One of the biggest reasons for these problems is that existing payment systems encourage volume-based service rather than value-based service. The transition to a value-based payment method requires a major cultural change, but also a strong technology infrastructure and detailed planning.

Outside the hospital, there is a clear need for a new system approach where the doctor can follow the patient based on data and act in cooperation with the patient from lifestyle to early diagnosis. New technologies allow doctors to identify and act on a person's needs through personalized tools. These continue to spread rapidly both as an approach and in practice. The MEDULA system will be the biggest power source in shaping this new data management perspective. Opening the MEDULA system, where all health use and cost data are recorded, to researchers for obtaining disease costs and detailed modeling studies will be of great benefit.

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The Psychological Impact of the COVID-19 Epidemic on University Students in Turkey: A Foundation University Case

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ABSTRACT

The Problem of the Research: What are the university students' anxiety levels caused by COVID-19 and what are the effects of this anxiety on the psychology of the students and their opinions about COVID-19?

The Aim of the Study: The aim of the study is to reveal the anxiety levels and impact of COVID-19 on the students who have to continue their university education far away from their campuses through online education. Moreover, it also sheds light on the practices intended for the students to be applied for university education after the pandemic.

Method: 471 students studying in a foundation university were included in the research. Online surveys were made to the students who were determined with convenience sampling method. The data collection tool consists of two parts. The first part includes questions directed to the demographic features of the participants and their opinions about COVID-19. Generalized Anxiety Disorder-7 (GAD-7) Scale developed by Spitzer et al. in 2006 and adopted to Turkish by Konkan et al. in 2003 was used in the second part.

SPSS 25 programs is used for the analysis of the data. Frequency, mean, standard deviation, independent samples t-test, and variance analysis were used among the descriptive statistical methods. Analyzes were made at 95% confidence interval ($p < 0.05$).

Findings: The anxiety levels of the university students were determined to be high as a result of the research. This means there is a significant relation between COVID-19 and the anxiety levels of the university students. It is also determined that the average scores of the Generalized Anxiety Disorder Scale differ according to the gender variable. It is found that the Generalized Anxiety Disorder Scale scores of the female participants are higher than male participants. As a result, it is determined that the anxiety levels of university students have increased with COVID-19.

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INTRODUCTION

Coronaviruses were first defined in the mid-1960s. It is known that they infect humans and various animals (including birds and mammals). Epithelial cells in the respiratory and gastrointestinal tract are primary target cells. For this reason, the virus is spread through these systems and it can occur in several ways: respiratory droplets, through air, fomites, or mouth. The infections of the people who have coronavirus are mostly mild and asymptomatic; however, serious and deadly infections have also been observed. Sometimes these viruses may cause lower respiratory infections and pneumonia, but this is more probable for individuals with low immunity levels, elder people, and young children (Ahmad et al., 2020).

The new coronavirus (COVID-19) was first seen in a patient with lung inflammation due to a cluster of acute respiratory diseases from Wuhan, China. COVID-19 has quickly spread through China and many other countries and caused a pandemic of acute infectious lung inflammation (Bao et al., 2020). The warning of "The COVID-19 virus is spread primarily through saliva droplets or nasal discharge when an infected person coughs or sneezes, so it is important to follow respiratory etiquette (for example, by coughing into a bent elbow) and yet, there is no specific vaccine or treatment for COVID-19" about COVID-19 is given on the website of the World Health Organization (WHO, 2020a).

The WHO announced COVID-19 as a global epidemic, so a pandemic, on 11 March 2020. The first case is Europe was seen on 24 January in France, and after a short time many cases were seen in other European countries. The first case in Turkey was seen on 11 March 2020 (WHO, 2020b; Kebudi, 2020). And the total number of cases in Turkey are 164.769 as of 1 June (Ministry of Health, 2020).

The Higher Education Institution (YOK) stopped education in the universities on 16 Mart 2020 against the risk of the spread of the virus in Turkey (YOK, 2020a). In the announcement made on March 23, it was decided that the education to be given by the universities would be made with distance education. Although 123 universities have online education systems, YOK provided the opportunity to continue education by creating an "open course materials portal" for all of the universities including the universities that don't have these systems. From this date, all of our universities continued their education as much as possible (YOK, 2020b).

The pandemic not only caused the risk of death by viral infections, but it also led to unbearable psychological pressure for the people in China and the rest of the world (Duan, 2020). The epidemic brought people in China and the rest of the world the risk of death from virus infection, and also created unbearable psychological pressures. The quarantine applied due to COVID-19 increases the possibility of having psychological and mental problems. The reason for this is the fact that quarantine slowly drives people apart. When there is no interpersonal communication, the formation and worsening of depression and anxiety are more probable (Xiao, 2020).

It is expected for the mental health of the students to be affected because of the continuing spread of the epidemic diseases in schools and universities in the whole country, and the delay of strict isolation measures. There are many studies regarding the psychological effect of the pandemic on the general public, patients, healthcare professionals, children, and the elderly (Yang et al., 2020; Li et al., 2020). Public health can affect emergency cases, both the individual and public health, security, and wellness. These effects may cause a series of emotional reactions (such as distress or psychiatric cases), unhealthy behaviors (such as drug overuse), and not obeying the directives of public health (such as quarantine or vaccine) for the individuals who have the disease (Pfefferbaum and North, 2020).

Anxiety is a common situation that affects the mental health of individuals, and it might also have short-term and long-term effects on the body (Craske et al., 2009). Pervasive anxiety disorder is a condition of feeling extreme tension because of the events that happen nearly every day, the difficulty of controlling sadness, and in addition to these, it is a condition that may include findings such as getting easily tired, restlessness, and muscle tension. Moreover, depressive feelings and behavior can also be seen frequently (Köroğlu, 2000). Among the significant negative consequences of the COVID-19 pandemic are likely to be lifelong anxiety, depression, self-harm, and suicide attempts which are strongly associated with the increased social isolation and loneliness (Holmes et al., 2020).

Considering the pandemic among the general public individually, it might precipitate new psychiatric syndromes for the individuals without any mental illnesses, worsen the condition of the individuals with mental illnesses, and cause distress for the caretakers of the individuals who are affected. This situation, regardless of exposure, can trigger anxiety of getting sick or dying, desperation or blaming other people who are sick, and potentially a mental breakdown (Ho et al., 2020; Hall et al., 2008). In their study on the university students' anxiety due to the COVID-19 pandemic, Cao et al., (2020) found that 24,9% of them had anxiety. 0.9% of these students had severe anxiety, 21.3% had mild anxiety. The results of this study showed that the anxiety of

the university students' about the pandemic are related to their residence area, income resource of their parents, the fact that they live with their parents or not, and if one of their relatives or acquaintances are infected with COVID-19.

The pandemic is also directly proportional to increased mental problems during childhood and adolescence. Since the schools are the places where the information is directly requested, many problems can occur when these places are closed. Detecting and solving these problems is urgent (Fazel et al., 2014). The current situation of the pandemic causes mental problems such as stress, anxiety, depressive symptoms, sleeplessness, denial, anger, and fear (Jones et al., 2017). Negative and stressful life events are related to the increase in mental health problems such as depressions and anxiety (Bifulco et al., 200). In the study conducted by Beasley et al. (2003) on 187 university students, it was found that a stressful life is a factor that affects the status of mental health.

The pandemics of common infectious diseases such as COVID-19 are directly related to psychological distress and the symptoms of mental diseases (Bao et al., 2020). Long term negative emotions during a pandemic or similar situation can decrease the immunity function of individuals, and disrupt the balance of normal physiological mechanisms (Kiecolt-Glaser et al., 2002). Determination of these is significantly important both in terms of public health and the management of health care systems.

In light of the above explanations, it is seen that COVID-19 not only caused many physical damages to people during this period but also affected people psychologically. It is predicted that these effects are especially seen on the university students who are the young segment of the population and who are included in many parts of social life. For this reason, this study aims to reveal the psychological effects of coronavirus which has deeply affected our lives in the last few months on university students who had to continue their education far away from their campus life through online education. To achieve this, students will be administered the Generalized Anxiety Disorder Test-7 (GAD-7) to determine their anxiety levels and shed light on the practices or policies to be implemented after the epidemic.

METHOD

The Generalized Anxiety Disorders of the students during the COVID-19 pandemic are aimed to be evaluated with some demographic characteristics. The data were collected from students studying at a foundation university in the spring semester 2019-2020, when the distance education system was first started at universities in Turkey due to the pandemic. The 471 university students participated in the study. Gender, age, income, class of study, whether or not choosing their department of study willingly, living with family, region of residence (urban and rural), city of residence, department of study, distance education participation materials are the demographic data collected from the participants.

4 questions were asked to the participants. These are:

1. Have you been diagnosed with COVID-19?
2. Has a relative of you been diagnosed with COVID-19?
3. Are you worried about the delay in the academic calendar due to COVID-19?
4. How COVID-19 affected your daily life?

The Generalized Anxiety Disorder Test-7 (GAD-7) developed by Spitzer et al. (2006) is used for the evaluation of the frequency of the exposure of the students to these emotions in the last 2 weeks during the COVID-19 pandemic. There are 7 questions in the GAD-7 test and it asks the exposure frequency to the seven basic GAD symptoms in the last two weeks. The answers are like this: 1=never, 2=several days, 3=more than seven days, 4= nearly every day in the last two weeks. When compared in terms of total scores in the original article named GAD-7; a score of 0-4 was evaluated as mild, 5-9 as moderate, 10-14 as high, and 15-21 as severe anxiety.

An online questionary was made to the students who were detected via the convenience sampling method. The first part includes questions directed to the demographic features of the participants and their opinions about COVID-19. Generalized Anxiety Disorder-7 (GAD-7) Scale developed by Spitzer et al. in 2006 and adopted to Turkish by Konkan et al. in 2003 was used in the second part. SPSS 25 program was used in the analysis of the data. For the reliability of the scale, the Cronbach Alpha value was checked. Independent Samples T-test and One-Way ANOVA analysis were used in independent tests to evaluate the significance of differences between variables using descriptive statistical methods such as frequency, mean, and standard deviation in independent samples. Post-Hoc. analysis was made to reveal the reason for the difference in Anova Analysis. The analysis was made at a 0.05 significance level.

FINDINGS

Table 1. The Demographic Characteristics of the Participants

Variable	Groups	N	%
Gender	Female	315	66.9
	Male	156	33.1
	Total	471	100.0
Age	18-21	262	55.6
	22-25	174	32.7
	26 and over	35	11.7
	Total	471	100.0
Total Monthly Family Income	0-2500	111	24.7
	2501-5000	230	51.1
	5001-10000	89	19.8
	10001 and over	20	4.4
	Total	450	100.0
Preference of the Department	Willingly	412	87.5
	Unwillingly	59	12.5
	Total	471	100.0
Years of Study	Freshmen	110	23.4
	Sophomore	246	52.2
	Junior	41	8.7
	Senior	74	15.7
	Total	471	100.0
Materials Used During Online Education	Smart Phone	133	28.4
	Computer	330	70.4
	Tablet	6	1.3
	Total	469	100.0
Region of Residence	Rural	70	14.9
	Urban	401	85.1
	Total	471	100.0
Living with Parents	Living with Parents	428	91.3
	Not Living with Parents	41	8.7
	Total	469	100.0
COVID-19 Diagnose	Diagnosed with COVID	4	.8
	Not Diagnosed with COVID	467	99.2
	Total	471	100.0
The Presence of a Relative Diagnosed with COVID	Present	94	20.0
	Not Present	377	80.0
	Total	471	100.0
Feeling Worried About the Delay in the Academic Calendar Due to COVID	Worried	270	57.3
	Not Worried	201	42.7
	Total	471	100.0
Feeling Worried About the effect of COVID on Daily Life	Worried	391	83.0
	Not Worried	80	17.0
	Total	471	100.0

The findings related to the demographic characteristics of the participants are given in Table 1. 315 (66.9%) of the participants are female and 156 (33.1%) are male. 262 (55.6%) participants are between the ages of 18-21, 174 (32.7%) are between 22-25 years old, and 35 (11.7%) participants are 26 and over. 111 (24.7%) participants have a monthly total household income in the range of 0-2500 TL, 230 (51.1%) participants have 2501-5000 TL, 89 participants (19.8%) have 5001-1000 TL and 20 have (4.4%) 10001 TL and above. While 412 (87.5%) participants choose the department they would study willingly, 59 (12.5%) participants did not choose with their own will. 110 (23.4%) participants are freshmen, 246 (52.2%) participants sophomore, 41 (8.7%) participants junior and 74 (15.7%) participants are seniors.

During the distance education period, 133 (28.4%) participants attend distance education classes with smartphones, 330 (70.4%) participants with computers, and 6 (1.3%) of them with tablets. 70 participants (14.9%) live in rural areas, and 401 (85.1%) of them live in urban areas. While 428 (91.3%) participants live with their parents, 41 (8.7%) don't live with their parents. One relative of 94 (20.0%) participants were diagnosed with COVID, and one relative of 377 (80.0%) participants were not diagnosed with COVID-19. While 270 (57.3%) participants were concerned about the delay in the academic calendar due to COVID-19, 201 (42.7%) participants were not concerned about this issue. 391 (83.0%) participants were concerned that COVID-19 would affect daily life, but 80 (17.0%) participants were not concerned about this.

Table 2. Descriptive Statistics for Generalized Anxiety Disorder Scale

Scale	Min	Max	Skewness	Kurtosis	$\bar{x}$	ss
Generalized Anxiety Disorder Scale	0	20	.379	-.745	7.08	4.91

The minimum and maximum values, skewness–kurtosis values, and median and standard deviation values were given for the Generalized Anxiety Disorder Scale scores in Table 2. For the Generalized Anxiety Disorder Scale, the range was calculated as 0-20, skewness = .379, and kurtosis = -. 745, mean = 7.08 and standard deviation = 4.91.

Table 3. Median and Standard Deviation Values for the

Statements	$\bar{x}$	ss
I felt nervous, anxious, or reached the limit.	1.10	.918
I couldn't stop worrying or control myself.	.71	.858
I was worried a lot about various subjects.	1.07	.925
I had problems relaxing.	.98	.912
I couldn't sit still and felt restless.	.98	.965
I got quickly angry, and I was angry and uneasy at most things.	1.13	.956
I felt like something bad would happen.	1.11	.920

Table 3 shows the mean and standard deviation values for the items of the Generalized Anxiety Disorder Scale. For the statement "I felt angry, anxious, or reached the limit," the mean was calculated as 1.10 and the standard deviation as .918. For the statement "I couldn't stop worrying or control myself", the mean was calculated as .71 and the standard deviation as .858. For the statement "I was worried a lot about various subjects", the mean was calculated as 1.07 and the standard deviation as 0.925. The mean for the statement "I had problems in relaxing" was calculated as 0.98 and the standard deviation as .912. The mean for the statement "I

couldn't sit still and felt restless" was calculated as .98 and the standard deviation as 0.965. For the statement "I got angry quickly and I was angry and annoyed at most things", the mean was calculated as 1.13 and the standard deviation as 0.956. The Mean for the statement "I felt like something bad was going to happen" was calculated as 1.11 and the standard deviation as 0.920.

Table 4. Cronbach's Alpha Reliability Analysis Results for Generalized Anxiety Disorder Scale

Scales	N	Cronbach's Alfa
Generalized Anxiety Disorder Scale	7	0.879

Table 4 shows the results of Cronbach's Alpha reliability analysis for the Generalized Anxiety Disorder Scale. Cronbach's alpha reliability coefficient for the Generalized Anxiety Disorder Scale was calculated as 0.879.

Table 5. Independent Samples t-Test Results for the Analysis of Generalized Anxiety Disorder Scale Scores by Gender

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Female**	315	7.51	4.88	2.672	469	**0.008****
	Male	156	6.23	4.88			

In Table 5, Independent Samples t-Test results are given for the comparison of the mean scores of the Generalized Anxiety Disorder Scale according to the gender variable. It was determined that the mean scores of the statistically Generalized Anxiety Disorder Scale differed significantly according to the gender variable (t (469) = 2.672; p <0.05). Generalized Anxiety Disorder Scale scores of female participants were found to be higher than male participants.

Table 6. Independent Samples t-Test Results for the Analysis of the Scores of the Generalized Anxiety Disorder Scale According to the Preference of the Department

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Willingly**	412	6.94	4.79	-1.532	70.509	0.130
	Unwillingly	59	8.12	5.64			

In Table 6, the results of the Independent Samples t-Test are given to compare the mean scores of the Generalized Anxiety Disorder Scale according to the variable of preference. It was determined that the mean scores of the statistically Generalized Anxiety Disorder Scale did not significantly differ according to the variable of preference of the department studied (p> 0.05).

Table 7. Independent Samples t-Test Results for the Analysis of the Scores of the Generalized Anxiety Disorder Scale According to the Region of Residence

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Rural**	70	6.37	5.21	-1.317	469	0.188
	Urban	401	7.21	4.86			

Table 7 shows the results of the Independent Samples t-Test to compare the mean scores of the Generalized Anxiety Disorder Scale according to the variable of the region of residence. The mean scores of the statistically Generalized Anxiety Disorder Scale did not significantly differ according to the variable of the region of residence (p> 0.05).

Table 8. Independent Samples t-Test Results for the Analysis of the Scores of the Generalized Anxiety Disorder Scale According to Living with Parents

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Living with Parents**	428	7.09	4.88	0.504	-0.126	467
	Not Living with Parents	41	7.20	5.33			

The results of the Independent Samples t-Test to compare the mean scores of the Generalized Anxiety Disorder Scale according to the variable of living with parents are given in Table 8. It was determined that the mean scores of the Generalized Anxiety Disorder Scale did not differ significantly according to the variable of living with parents (p>0.05).

Table 9. Independent Samples t-Test Results for the Analysis of the Scores of the Generalized Anxiety Disorder Scale According to the Situation of a Relative Diagnosed with COVID-19

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Diagnosed**	94	8.15	4.91	2.357	469	**0.019***
	Not Diagnosed	377	6.82	4.89			

In Table 9, the results of the Independent Samples t-Test are given to compare the mean scores of the Generalized Anxiety Disorder Scale according to the variable of having a relative diagnosed with COVID-19. It was revealed that the mean scores of the statistically Generalized Anxiety Disorder Scale differed significantly according to the variable of a relative that was diagnosed with COVID-19 (t (469) = 2.357; p <.05). Participants with a relative diagnosed with COVID-19 were found to have higher General Anxiety Disorder Scale scores than participants who did not have a relative diagnosed with COVID-19.

Table 10. Independent Samples t-Test Results for the Analysis of Generalized Anxiety Disorder Scale Scores by Feeling Worried about the Delay of the Academic Calendar due to COVID-19

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Worried**	270	8.34	4.96	6.857	457.118	**0.000****
	Not Worried	201	5.40	4.33			

The results of the Independent Samples t-Test are given in Table 10 to compare the mean scores of the Generalized Anxiety Disorder Scale according to the variable of feeling worried. It was found that the mean scores of the statistically Generalized Anxiety Disorder Scale significantly differed according to the variable of worrying about the delay of the academic calendar due to COVID-19 (t (457.118) = 6.857; p <.01). Participants concerned about the delay in the academic calendar due to COVID-19 were found to have higher Generalized Anxiety Disorder Scale scores than participants who were not concerned about the delay in the academic calendar due to COVID-19.

Table 11. Independent Samples t-Test Results for the Analysis of Generalized Anxiety Disorder Scale Scores by Feeling Worried about the Effect of COVID-19 on Daily Life

Scales	Groups	N	x̄	Ss	t	sd	p
Generalized Anxiety Disorder Scale	**Worried**	391	7.87	4.81	10.397	153.874	**0.000****
	Not Worried	80	3.23	3.36			

In Table 11, Independent Samples t-Test results are given to compare the mean scores of the Generalized Anxiety Disorder Scale according to the variable that COVID-19 will affect daily life. It was determined that the mean scores of the statistically Generalized Anxiety Disorder Scale differed significantly according to the state of concern variable that COVID-19 will affect daily life (t (153.874) = 10.397; p <.01). It was observed that the Generalized Anxiety Disorder Scale scores of the participants who were concerned about the impact of COVID-19 on daily life were higher than the participants who were not concerned that COVID-19 would affect their daily life.

Table 12. ANOVA Results for the Analysis of the Generalized Anxiety Disorder Scale Scores by Age

Scales	Groups	N	x̄	Ss	F	sd	p
Generalized Anxiety Disorder Scale	**18-21**	262	7.17	4.92	.250	2 468	.779
	22-25	174	7.07	4.95			
	26 and Over	35	6.54	4.80			

Table 12 shows the ANOVA results to compare the mean scores of the Generalized Anxiety Disorder Scale according to the age variable. It was revealed that the mean scores of the Generalized Anxiety Disorder Scale did not differ significantly according to the age variable (p> .05).

Table 13. ANOVA Results for the Analysis of the Generalized Anxiety Disorder Scale Scores by Monthly Family Income

Scales	Groups	N	x̄	Ss	F	sd	p
Generalized Anxiety Disorder Scale	**0-2500**	111	6.18	4.62	2.387	2 446	0.068
	2501-5000	230	7.30	4.92			
	5001-10000	89	7.94	4.95			
	10001 and Over	20	6.70	4.99			

The ANOVA results to compare the mean scores of the Generalized Anxiety Disorder Scale according to the monthly family income variable are given in Table 13. It was determined that the mean scores of the Generalized Anxiety Disorder Scale did not differ significantly according to the monthly family income variable (p> .05).

Table 14. ANOVA Results for the Analysis of the Generalized Anxiety Disorder Scale Scores by Years of Study

Scales	Groups	N	x̄	Ss	F	sd	p
Generalized Anxiety Disorder Scale	**Freshmen**	110	8.50	4.82	9.883	3 467	0.901
	Sophomore	246	5.95	4.79			
	Junior	41	8.44	4.86			
	Senior	74	8.01	4.67			

In Table 14, ANOVA results are given for comparing the mean scores of the Generalized Anxiety Disorder Scale according to the years of study variable. It was found that the mean scores of the Generalized Anxiety Disorder Scale did not differ significantly according to the years of study variable (p> .05).

Table 15. Independent Samples t-Test Results for the Analysis of Generalized Anxiety Disorder Scale Scores According to the Materials Used in the Distance Education Process

Scales	Groups	N	x̄	Ss	F	sd	p
Generalized Anxiety Disorder Scale	**Smart Phones**	110	8.50	4.82	9.883	3 467	0.901
	Computers	246	5.95	4.79			

Table 15 shows the Independent Samples t-Test results to compare the mean scores of the Generalized Anxiety Disorder Scale according to the material variable used in the distance education process. It was revealed that the mean scores of the statistically Generalized Anxiety Disorder Scale did not significantly differ according to the variable of the Materials Used in the Distance Education Process (p>0.05).

DISCUSSION AND RESULTS

In our study, the mean scores of the GAD-7 scale showed significant differences according to the gender variable. 66,8% of the participants were female, and 33,2% of them were male. Moreover, it was also seen that the Generalized Anxiety Disorder Scale scores of the participants who have a relative diagnosed with COVID-19 are higher than those who did not have a relative diagnosed with COVID-19. There is also a significant difference between the participants who worry about the delay in the academic calendar due to COVID-19. In this difference, it was seen that those who were worried were at a higher level with 270 people. This situation shows that face to face education is less worrying than distance education. It was also determined that the mean scores of the statistically Generalized Anxiety Disorder Scale show a significant difference according to the state of concern variable that COVID-19 will affect daily life.

The findings obtained as a result of the study are the same as the results of many other studies. A study conducted by Wang et al. (2020), revealed that 53.8% of the participants reported the psychological impact of the pandemic was moderate or severe; 16.5% had moderate to severe depressive symptoms; 28.8% had moderate to severe anxiety symptoms and 8.1% had moderate to severe stress levels. In their study, Ahmed et al. (2020) found that COVID-10 showed a strong and positive correlation with anxiety, depression, and mental well-being. Sher (2020) indicates that isolated individuals have higher levels of anxiety and stress, and they also have a low quality of sleep. According to the results of our study, 26.8% of 471 participants had high levels of anxiety. In the study by Elhai et al. (2020), it was found that 24% of

the participants experienced moderate levels of anxiety. In our study, however, 31.1% of the participants experienced moderate levels of anxiety.

Maaravi and Heller (2020) found that women were more anxious than men, people were more concerned about others than themselves, their anxiety about their relatives was higher than strangers, and health-related concerns were higher than financial issues. A similar result was also revealed by our study, and it was found that the female participants had higher levels of anxiety than the male participants ($p<0.05$). It was detected in the study made by Labrague et al. (2020) that 37.8% of the nurses had dysfunctional anxiety levels.

In their studies, Cao et al. (2020) proved that about 24,9% of university students experienced anxiety due to COVID-19. In our study, the high level of anxiety was determined by 26,8% of the participants. It was determined that living in urban areas with parents and having a regular income is one of the factors that protect university students against anxiety during the COVID-19 pandemic. Besides, living with a relative infected with COVID-19 was determined as a risk factor for anxiety. It was also found that the impacts of social and economic stress factors related to COVID-19 increase the anxiety levels of university students.

Many studies conducted with different sample groups in different countries show that there is a strong connection between the anxiety levels of the societies and COVID-19. University students are significantly affected when faced with mental health and public health emergencies and need the attention, assistance, and support of the community, families, and school administrations. It is recommended that the government and universities should work together in order to provide quality, timely, and crisis-oriented psychological services to the university students and solve this problem.

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The Relationship between Employee Well-Being, Burnout and Perceived Organizational Support in Healthcare Professionals

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ABSTRACT

The study aimed to determine the relationship between employee well-being, burnout and perceived organizational support in healthcare professionals. Therefore, face-to-face interviews were conducted using the survey method in the study, and data were obtained from 240 healthcare professionals. SPSS program was used to analyze the data. According to the findings of the study, there was a positive relationship between employee well-being and perceived organizational support, a negative relationship between perceived organizational support and burnout, and a negative and opposite relation between employee well-being and burnout.

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INTRODUCTION

A healthcare professional is someone who offers services to patients in need. Therefore, the need for healthcare professionals is increasing day by day. An increase in the need for healthcare professionals brings along a heavy workload with it. Therefore, healthcare professionals may experience burnout syndrome. For healthcare professionals not to experience burnout syndrome, the employee must be in a state of well-being, which is expressed as the individual's feeling himself/herself good in life, in the workplace and psychologically. Employee well-being is not just a situation that occurs when an individual feels physically well. It is an individual's feeling good both in his/her social life, in business life and psychologically (Short, 2018). Institutions need to realize that there is more to employee well-being than mere physical condition. Employee well-being is also related to the psychological state of the individual and his/her situation in the workplace. Institutions need to look at their employees from a holistic perspective. This is a condition that can only be accomplished in employee-centered organizations. It is known that in employee-centered institutions, employee well-being is higher. Employees working in employee-centered organizations also do not suffer from burnout syndrome (Martic, 2020).

Burnout is a term that originated in the 1961 British writer Graham Greene's novel "A Burnout Case,' which deals with the work of an architect to escape to Africa and begin his life in the forest due to psychological distress in his residence. Then, in the 1970s, it became a concept used to describe the psychological crises that took place in working life in America (Keles and Goktepe, 2020: 857).Besides, the definition of burnout was first discussed in an article written by Freudenberger, who performed the first clinical case studies in 1974, on adverse circumstances in business life, and was published in this article (Balcıoğlu et al., 2008: 101). Christina Maslach has been seen as the leading researcher for burnout. While Maslach is the creator of the 'Maslach Burnout Inventory,' which is the most commonly known burnout concept, he describes burnout as the reactions of employees in face-to-face relationships to chronic stress factors that cause material and spiritual wear. Maslack has treated burnout in three different dimensions as emotional exhaustion, desensitization, and the level of personal success(Ali, 2020: 21)

Burnout has a major problem for healthcare professionals. A healthcare professional with burnout syndrome may not be able to provide adequate services to people in need of healthcare professionals. This situation may have negative consequences for both parties. Healthcare workers should also be assisted by the company they are in and staff should have a sense of organizational support. Perception is a set of processes that combine and understand or interpret the information gained from individuals 'senses and their environment and varies according to individuals' focal points (Bacaksız, 2016). The positive impact they provide to their organizations perceived organizational support individuals with their performances, to be given to employees valued by the organization and the individual employee implies being aware of the approach of the organization (Demirel, 2013; Kaplan and Advice; 2012).

Employees knowing that their behavior is supported by the organization, that their performance will be rewarded is being thought that the concept of perceived organizational support, expressed as knowing that the values they add to the institution will be given importance and that the existence of the organization is with them so that they feel safe (Özdevecioğlu, 2013:116), and increases employee well-being. Therefore, it is necessary to determine the relationship between employee well-being, burnout and perceived organizational support.

This study aims to evaluate the well-being of employees, burnout and perceived levels of organizational support of employees employed in healthcare institutions and to disclose the relationship between these variables.

MATERIALS AND METHODS

Purpose of the Study

This study aims to determine the employee well-being, burnout and perceived organizational support levels of healthcare workers and to reveal the relationship between these variables.

Research Hypotheses

The hypotheses determined for the study's intent are set out below:

H_1: A positive relationship exists between the well-being of the workers and perceived organizational support.

H_2: There is a negative relationship between employee well-being and burnout.

H_3: There is a negative relationship between burnout and perceived organizational support.

Population and Sample

A total of 450 health-care workers work at Istanbul's Biruni University Hospital, which is the study universe. A simple random sampling method was preferred as the sampling method in the study. The mean and standard deviation> 2.89 ± 0.47 according to the organizational support perception values, one of the alternatives based on literature

knowledge, was calculated according to the 80% power in the R program, in a total of 168 individuals' environment. 250 individuals have been reached, 240 of the questionnaires have been returned and assessed accordingly.

Limitations of Research

The research is limited to the opinions of the individuals included in the sample on the data collection tools of these individuals.

Research Assumptions

In the analysis, the sample is presumed to represent the world, the data collection tools fulfill the research intent, and the individuals in the sample express accurate and sincere views on the data collection tools.

Data collection tool

In the research a questionnaire method has been used as a tool for data collection. The questionnaire form consists of four different parts. It includes questions about employee well-being scale, burnout scale, perceived organizational support scale and demographic characteristics. The validity and reliability of the scales used in the research have been proven in previous studies. In the first part of the questionnaire process, questions are asked which decide the participants' demographic characteristics. In the second part, there are expressions to measure employee well-being. In the third part of the study, there are questions to measure the perception of burnout, and in the last part addresses the perception of organizational support.

Employee Well-Being Scale: Employee Well-Being Scale (EWB), which has 18 items developed by Zheng et al. (2015), was used to measure employee well-being. The scale was applied to the Slovak sample in its original English form. Besides, it was translated from English to Turkish Kürşat Ozdasli using the translation-back method to be applied to the Turkish study. Two experts were consulted at Mehmet Akif Ersoy University for both the translation of the scale from English to Turkish and the back translation. There are three dimensions to determine the happiness levels of the employees in the survey. A total of 18 items were included in the questionnaire, which included items 1-6 for life well-being, items 7-12 for workplace well-being, and items 13-18 for psychological well-being. These items were answered by the participants according to the 7-point Likert scale. Participant views have been identified in the form as; 1 - strongly disagree (Strongly disagree), 2-Disagree (Disagree), 3-somewhat disagree (Somewhat disagree), 4-I agree with what disagree (Neither agree nor disagree), 5-I agree with a little (Somewhat agree), 6-I agree (Agree) and 7 - strongly agree (Strongly agree). The Cronbach alpha reliability coefficient (α) for employee well-being was determined as 0.85 in the study. The alpha reliability coefficients of Cronbach for sub-dimensions were calculated as well-being for life (α) 0.79, well-being for the workplace (α) 0.84, psychological well-being (α) 0.83. A minimum of 18 points and a maximum of 126 points can be obtained from the Employee Well-Being Scale. The scale is a 7-point Likert type scale. Evaluation of the answers given to the questionnaire 1.00-1.86 = Strongly Disagree 1.87-2.71 = Disagree 2.72-3.57 = Slightly Disagree 3.58-4.43 = Neither agree nor disagree 4.44- 5.29 = Somewhat agree 5.30-6.14 = Agree and 6.15-7 = Strongly Agree.

Burnout: The Burnout Inventory, created by Maslach and Jackson (1981) and included in the Maclach literature, is a 5-point Likert style scale, consisting of 22 objects and 3 sub-dimensions. Among these sub-scales, emotional exhaustion consists of nine items, the depersonalization sub-scale consists of 5 items, and the personal failure sub-scale consists of eight items. Scale items are scored as "1 never" and "5 always". It was translated into Turkish by Ergin (1992). In the study it was found that the Cronbach alpha reliability coefficient (α) for burnout perception is 0.88. Cronbach's alpha reliability coefficients for the sub-dimensions were determined as emotional exhaustion (α) 0.89, depersonalization (α) 0.83, personal failure (α) 0.86. The lowest 22 and the highest 60 points can be obtained from the burnout scale. Evaluation of the answers given to the survey questions 1.00-1.80 = Never 1.81-2.60 = Rarely 2.61-3.40 = Sometimes 3.41-4.20 = Frequently 4.21-5.00 = It is always.

Perceived Organizational Support: Perceived Organizational Support Scale (PSSS) developed by Eisenberger et al. (1986) with 36 items**.** The Cronbach Alpha reliability coefficient of the original 36-point scale was reported as 0.97. In the same analysis the short forms of the scale consisting of 17 and 8 items were generated considering the high factor structure and reliability coefficients. Within the scope of this study, the 8-item one-dimensional form of AÖDÖ was used (Öztürk, ty tra.Yılmaz, 2016). . The scale contains things such as "The institution for which I work is really concerned about my well-being," "The institution for which I work does not acknowledge the tremendous effort I make." The scale is answered based on a 5-point Likert rating (1: Strongly Disagree, 2: Disagree, 3: Undecided, 4: Agree, 5: Strongly Agree). Items 2, 3, 5 and 7 in the scale are scored in reverse. In the study, the Cronbach alpha reliability coefficient (α) for the perception of organizational support was found to be 0.86.

Data Analysis

SPSS 24.0 Statistics software program was used for statistical analysis while analyzing the results obtained in the report. Descriptive statistical methods (frequency, percentage, average, standard deviation) were used when evaluating the study data. Normality tests have been done. It was found that the data were distributed normally. Correlation analysis was conducted to find the relationship between variables. Pearson coefficient was selected as coefficient of

correlation. Cronbach Alpha values were found to determine the reliability of the scale.

RESULTS

Distribution of Demographic Characteristics of Participants

When analyzing the participants' gender distribution, 82.1 percent are women and 17.9 percent are men. 55.9% of those participating in the survey are between the ages of 21-26, 38.7% of them between the ages of 27-32, 2.6% of them between the ages of 33-38, and 2.8% of them between the ages of 39-44. All participants work at a university hospital. Considering their educational status, 75.5% of the employees are undergraduate, 10% of them graduate, 8% of them high school and 6.5% of them doctorate graduate. 62.8% of the participants are nurses, 21.2% of them are administrative employees and 15% of them are medical secretaries. When the total term of office is examined, 55.9% of the employees' terms are between 0-5 years, 37.8% are between 6-10 years, and 6.3% are between 11-15 years. When the duration of working in their hospital is examined, all of the participants are between 0-5 years. When the weekly working hours of the participants are examined, 44.5% of the employees are between 40-50 hours, 35.8% are between 30-40 hours, and 19.7% are between 50-60 hours. 74.7% of the participants work continuously during the day and 25.3% work in shifts. 76.6% of the participants voluntarily chose the department they work in while 23.4% didn't choose it voluntarily.

Table 1. Cronbach Alpha Values of the Scales

	Cronbach' s Alpha
Employee Wellbeing Scale	0.85
Well-being of Life	0.79
Workplace Wellbeing	0.84
Psychological Well-being	0.83
Burnout Scale	0.88
Emotional Burnout	0.89
Depersonalization	
Personal Failure	0.86
Perceived Organizational Support	0.86

Cronbach Alpha values are as above. Cronbach Alpha values (α=0.85) of the employee goodness scale and Cronbach Alpha values of its lower dimensions were found to be (α=0,79, α=0,84, α=0,83), respectively. Cronbach alpha values of the sub-dimensions of the burnout scale (α = 0.88) were determined as (α = 0.89, α = 0.83, α = 0.86) respectively, and the Cronbach Alpha value of the perceived organizational support scale (α = 0.86).

Table 2. Descriptive Statistics Regarding the Scale and Sub-Dimensions

	N	x̄	Ss
Employee Wellbeing Scale	240	4,15	1,05
Well-being of Life	240	4,32	0.85
Workplace Wellbeing	240	4,22	0.80
Psychological Well-being	240	3,90	1,18
Burnout Scale	240	3,71	0,75
Emotional Burnout	240	3,65	0,64
Depersonalization	240	3,81	0,82
Personal Failure	240	3,67	0,68
Perceived Organizational Support Scale	240	3,63	1,02

When reviewing Table 2 it was found that the average scale of well-being scores for workers was (4.15) and the average of their sub-dimensions was (4.32), (4.22), (3.90), respectively. The overall burnout scale scores were found to be (3.71), the sub-dimensions overall as (3.65), (3.81), (3.67), respectively, and the perceived organizational support scale scores average (3.63).

Table 3. Correlation Values Between Employee Wellbeing, Burnout, Perceived Organizational Support and Its Sub-Dimensions

	1	2	3	4	5	6	7	8	9
Employee Wellbeing[1]	**1**	-	-	-	-	-	-	-	-
Well-being of Life [2]	0,772**	**2**	-	-	-	-	-	-	-
Workplace Wellbeing[3]	0,685**	0.782**	**3**	-	-	-	-	-	-
Psychological Well-being [4]	0.763**	0.687**	0.785**	**4**	-	-	-	-	-
Burnout Scale[5]	-0,675**	-0,682**	-0.615**	-0,677**	**5**	-	-	-	-
Emotional Burnout[6]	-0,662**	-0,628**	-0,635**	-0.645**	0.725**	**6**	-	-	-
Desensitization[7]	-0,641**	-0.681**	-0,626**	-0,648**	0,695**	0,728**	**7**	-	-
Personal Failure[8]	-0,663**	-0,677**	-0,682**	-0,695**	0,728**	0,741**	0.762**	**8**	-
Perceived Organizational Support[9]	0.775**	0,768**	0.755**	0,743**	-0,563*	-0.557*	-0,518*	-0,595*	**9**

N = 240, ** p <0.01, * p 0.05

When analyzing the correlation analysis to assess the relationship between the variables, a solid, negative and opposite association between employee well-being and burnout was found (r=-0.675** p<0.01). A strong, positive, same-direction relationship was found between employee well-being and perceived organizational support (r = 0.775 ** p <0.01). A negative and opposite relationship was

found between burnout and perceived organizational support (r = -0.563 * p <0.05).

DISCUSSION

Today, most of the employees working in health institutions experience burnout syndrome. Burnout syndrome is a negative situation that harms the person and reduces the quality of the service provided by the health worker. Healthcare staff do not suffer burnout and feel good in terms of life, job and psychological aspects for the effectiveness and productivity of healthcare institutions and the quality of service rendered by healthcare professionals. For this, the organization should support its employees, and they should make their employees feel that they stand by the organization. If the workers feel they are supporting their company, they may also improve the quality of the service they offer.

Jawahar et al. (2007: 149), in their study on a sample of 120 employees, found a negative, inverse relationship between perceived organizational support and burnout to support our study. Bobbio et al. (2012: 80) in a study conducted with nurses to determine the relationship between perceived organizational support and burnout levels, they found that there is a negative, opposite relationship between perceived organizational support and burnout in a way that supports our study. As perceived organizational support increases, burnout perception decreases, and as burnout perception increases, perceived organizational assistance decreases.

Louise et al. (2016: 6), in their study conducted by healthcare workers to determine the relationship between burnout and well-being levels, also found a negative, opposite and strong relationship between well-being and burnout, supporting our study. Accordingly, as the perception of burnout increases, the well-being decreases.

Genc E. (2018), in her study, it was found that there is a negative relationship between perceived organizational support and burnout. Burnout decreases as the perceived perception of organizational support among employees increases. This conclusion is same as our research' conclusion.

Walters and Raybould. (2007), In their study, it was found that there is a negative relationship between burnout and organizational support. Burnout decreases as the perceived perception of organizational support among employees increases. This conclusion is same as our research' conclusion.

CONCLUSIONS

According to the results of this research, a strong, positive, same-directional relationship was found between employee well-being and perceived organizational support (r = 0.775 **). This situation shows that employee well-being is also growing as awareness of organizational support rises. According to this result, H1 hypothesis has been accepted. A strong, negative and opposite relationship was found between employee well-being and burnout (r = -0.675 **). Accordingly, it shows that the sense of burnout decreases as the awareness of employee well-being increases. According to this result, H2 hypothesis has been accepted. A negative and opposite relationship was found between burnout and perceived organizational support (r = 0.563 *). As the perception of organizational assistance declines, the burnout experience rises accordingly. According to this result, H3 hypothesis has been accepted.

According to these findings, high perceptions of well-being and organizational support of employees decrease burnout syndrome. Thus, employees can do their jobs better. This is very important for the quality of healthcare services. Because there is no compensation for health services. Therefore, burnout syndrome should not be in healthcare workers.

With this study, health managers should be more careful about reducing burnout syndrome of healthcare workers. It is very important in terms of the literature to find out that employee well-being and perceived organizational support reduce burnout syndrome. Thus, managers can take initiatives to reduce the burnout syndrome of employees by using this information.

For the quality of the service provided to individuals who want to receive health care and the Health employee's health, there should be no burnout syndrome. Burnout syndrome lowers the quality of health workers' service and affects the employee himself. Employee health is very critical for service quality and the employee himself. For this, managers working in health institutions should inspire their workers:

- Reduce or destroy the resources that can induce burnout syndrome,
- Make them believe they are with their workers and their employees are important for the organization.
- Identifying sources of employee well-being and using them for employees.
- Organizing in-service trainings for employees
- Provide career consultancy services to employees

Employee well-being, burnout and perceived organizational support levels of the participants were determined in line with the subject determined in the study and the relationship between them was determined. According to the results of the research, a strong, negative, and the opposite relationship between employee well-being and burnout, a strong,

positive, and same direction between employee well-being and perceived organizational support, a moderate, negative and opposite relationship between burnout and perceived organizational support.

According to the results, a relationship is thought to exist between employee well-being, burnout and perceived variables of organizational support and other variables. Therefore, the relationship of different variables can be explored in future studies on these three variables and can contribute to the literature on this topic.

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The Assessment of Turkey's Exposure and Susceptibility to Disasters and Hazards with IDB Indicator System

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ABSTRACT

The aim of this study is to determine the exposure and sensitivity of our country against the increasing natural, technological and man-made disasters with the help of index system and to reveal the deficiencies and competencies in this subject.

The study was prepared with a semi-numerical method and the scope of the study was all provinces of our country. The data covers the period of 2015, 2016, 2017 and their averages. The ESI (Exposure and Susceptibility Index) consists of 8 sub-factors and the index value is between 0 and 1. Classification of index values was done according to international standards as follows; between 0-0.20 as low, between 0.20-0.40 as medium, between 0.40-0.80 as high and between 0.80-1.00 as very high.

In the results of the study; in terms of exposure and sensitivity, 14.82% of Turkey provinces were in high, 81.47% were in the middle category and 3.70% were in the low category. It is noteworthy that among the provinces in the high category, large cities such as İstanbul (0.58), Adana (0.44), İzmir (0.42), Gaziantep (0.41) and Şanlıurfa (0.40) took place. In the international arena, the calculation is made out of 20 countries that Turkey has the lowest 10th countries. In addition, Turkey's ES Index value is below the average compared to the general average of the countries.

Accordingly, it is necessary to make investments and studies on irregular population growth, population density, poor population rates, agriculture and distribution of continuous products for our provinces with high ESI value.

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INTRODUCTION

Exposure in disaster management is the infrastructure, housing, production capacities and other material human assets of people in hazardous areas. In addition, exposure measures may include the number of people or types of assets in a region (UNDRR, 2017). In addition, exposure is the way in which a vulnerable recipient receives contact with a phenomenon generated by the risk source, and the exposure rate is included in the hazard index and vulnerability calculations (Marzocchi et al., 2009: 8).

Susceptibility is defined as social vulnerability, sensitivity and predisposition (AFAD, 2009), while the degree to which a system or species is affected negatively or positively according to changing conditions (IPCC, 2014).

In addition, susceptibility covers more institutional, economic and social aspects, starting with physical impacts on risk factors that are defined as potential structural fragility. Therefore, any damage occurring is considered a prerequisite for structural and economic sensitivity, while institutional sensitivity and social aspects provide a framework for vulnerability in general (Fuchs, 2009: 338).

In addition, exposure, susceptibility, sensitivity, resilience and adaptation can be included in the concept of vulnerability (Birkmann, 2006: 18). Accordingly, exposure and susceptibility can be defined as the vulnerability level of assets such as human, infrastructure, housing and production capacities in vulnerable areas.

Vulnerability and exposure are dynamic. In other words, it differs in temporal and spatial scales and is based on economic, social, geographical, demographic, cultural, institutional, governance and environmental factors (Cardona et al., 2012: 67).

Assessment of vulnerability and exposure ranges from global to local participatory approaches that need to be integrated using appropriate platforms. The suitability of the method used for these assessments depends on the purpose of the analysis, time and geographical scale, available resources, number of actors, type and economic management aspects (UNDRR, 2016: 8).

In order for disaster hazards to pose a risk, endangered assets must be vulnerable. Risk factors for environmental and natural phenomena can be defined as a function of the probability of occurrence of a particular event and the extent of harm to human, environment and objects (Marzocchi et al., 2009: 8).

Many cities are located in areas where multiple hazard risks are growing rapidly. For example, in the Asia-Pacific region, the population in over-risk regions in 2015-2030 is expected to increase by more than 50% in 26 provinces and by 35-50% in 72 provinces. As a result, it is inevitable that the number of inhabitants exposed to excessive and high risks will increase significantly. In addition, urban growth takes place on vulnerable terrain, along river banks, on drainage channels and on steep slopes exposed to hazards (ESCAP, 2017: 6).

As the GDP (Gross Domestic Product) of the regions and cities increases, the damage rates increase in part. The reason for this is that more physical assets are at risk as GDP increases. Proportionally, the ratio of disaster damage to GDP increased from 0.17% in the 1970s to 0.40% in 2016 (ESCAP, 2017: 7).

According to recent research, when the demographic characteristics of the regions are taken into consideration, increasing socio-economic exposure to natural hazards constitutes the main risk factor. Trends in economic risks are increasing for almost all sub-regions and all hazards. According to the growth rate, disaster losses have increased 16 times since 1980, while GDP per capita has increased 13 times in the same period. In addition, most of the biggest losses occur in middle-income countries and developing economies (as Turkey, Thailand, and India) (ESCAP, 2012).

IDB (Index-Data-Base) Indicator System

This method was originally developed by Omar Dario CARDONA and his team at the National University of Colombia (IDEA) in 1990 for the Inter-American Development Bank (IDB). In addition, this method has been accepted by the United Nations University as a risk analysis method against disasters.

This method is used in a series of indicators to compare countries at different periods (eg: from 1980 to 2000) to make cross-national and international comparisons in a systematic and quantitative manner. Each index is empirically measurable and is a number of variables associated with it. The selection of the variables is carried out by considering a number of factors.

These factors are; country coverage, data robustness, the relationship between the indicators to be measured with fact or phenomenon and quality. The four components or composite indicators reflect the key components that represent vulnerability and illustrate the progress of different countries in risk management. These components are; Disaster Deficit Index (DDI), Local Disaster Index (LDI), Prevalent Vulnerability Index (PVI) and Risk Management Index (RMI) (Cardona, 2006: 2).

The main purpose of the indicator program is explained according to the Institute of Environmental Studies as;

The main objective of the "Indicators Program" was to establish an indicator or index system that

identifies disaster risk in different countries in a comparative manner and allows the identification of key factors that contribute to the structuring of risk in each of them. The model is based on readily available and reasonably robust variables that allow for a coarse data test analysis on an appropriate scale for national decision-making. However, other comparisons at other sub-national levels have been examined, such as country regions, city regions and towns. The resulting risk profile not only highlights comparative risk levels between disaster-prone regions or units, but also factors that need to be considered to reduce this risk.

The system of vulnerabilities and risk indicators is multi-sectoral and multi-focused, given the relative possibilities of a society's inability to absorb impact and recover from a range of hazardous events. Each index model is "indicative" and should not appear to be exhaustive or conclusive. The system of indicators is therefore useful for informing decision makers in priority areas.

There is a clear need for detailed risk assessments and profiles for action and resource allocation, but mainly for planning at national and sub-national levels. (IDEA, 2005).

The Exposure and Susceptibility Index (ESI) ranges from 0 to 1. A value between 0.80 and 1.00 means very high sensitivity, a value between 0.40 and 0.80 means high, a value between 0.20 to 0.40 means medium value and values less than 0.20 means low sensitivity.

In the new phase of the Indicators Program, the Exposure and Susceptibility Index (ESI) for the countries currently assessed should be recalculated for all periods due to the values of various databases that were unknown, currently available or modified as a result of revisions. After the previous assessment of the index, new assessments are made for new results. In this old assessment, changes can be made to the maximum and minimum reference values to standardize the values of the sub-indicators for the old and newly assessed countries (IDB, 2011: 20).

Exposure and Susceptibility Indicators

In the case of exposure and/or physical susceptibility, the indicators that best perform this function are those that reflect the vulnerable population, assets, investments, production, livelihoods, core assets and human activities (Lavell, 2003: 7). It is important to have data from the most vulnerable segments, such as poor populations, infrastructure and insecure settlements, fragile products, unbalanced business resources. Those reflecting growth rates and population, agricultural or urban concentration are also considered indicators of this species. Table 1. presents a group of variables defined as general indicators of physical exposure at a city center scale.

These variables provide an idea of the context of the direct physical effect. "Exposure and Susceptibility" is a necessary but not sufficient condition to be a risk. It is possible to determine whether exposure is related to any viable threat by acknowledging that certain variables constitute a basis at national level. Assuming that natural threats are present, the relatively negative case characterizations exist as a permanent external factor (Carreño et al., 2005: 41).

Table 1. Exposure and Susceptibility Indicators

Indicator	Explanation
ESI1. Annual Average Growth Rate of Population	In general, the growth of the population means more people who can occupy areas that are exposed to hazards or those affected by the occurrence of hazardous events.
ESI2. Annual Growth Rate of Urban Population	A rapid process of urbanization, with migration from rural areas to the city or displaced persons, means urban environmental problems, difficulty in providing services, insecure housing and occupation of disaster-prone areas.
ESI3. Population density (people/5 km^2)	Increasing density of the population supports the impact of common human settlements, particularly in marginal areas overlapping areas with greater risk due to floods and landslides.
ESI4. Poor population with daily income less than $ 1	The lowest-income population groups are often the most affected when risk occurs. They cannot afford safe places in urban areas and lose their livelihoods repeatedly in rural areas.
ESI5. Capital stock: in millions US dollar per thousand square kilometers	The assets of both the public and the private sectors constitute the physical elements that emerge as infrastructure, buildings, content and investment that may be directly affected by the dangerous events.
ESI6. Imports and exports of goods and services as a percent of GDP (%)	These are economic transactions that represent the volume of commercial activities, agricultural sector, industry and services and represent the relationships and economic flows that may be affected by disasters.
ESI7. Gross domestic fixed investment as a percentage of GDP (%)	It represents capital expenditures by the government, investments in assets increasing capital stock, and thus the volume and value of items that may be affected.
ESI8. Ratio of Agricultural Land and Permanent Products to Total Land (%)	It is sensitive to the effects of certain events such as permanent crops and arable land, floods, landslides or volcanic eruptions, or represents livelihoods for vulnerable populations.

Reference: Martha Liliana Carreño, Omar Dario Cardona and Alex H. Barbat, "Sistema de indicadores para la evaluación de riesgos", Inter-American Development Bank, 2005, Barcelona, p. 43.

MATERIALS AND METHODS

The study is a semi-quantitative study, and the index calculation method is used by weighting from a series of sub-indicators. The study covers 2015-2017 periods and it was applied to all provinces of Turkey. ESI consists of 8 sub-factors and the index value is between 0 and 1. Classification of index values according to international standards is made as the following: 0-0.20 low, 0.20-0.40 medium, 0.40-0.80 high and 0.80-1.00 very high.

For Exposure and Susceptibility Index;

1- Annual Average Growth Rate of Population
2- Annual Growth Rate of Urban Population (%)
3- Population Density (people/5 km2)
4- Poor population with daily income less than $ 1
5- Capital stock: in millions US dollar per thousand square kilometers
6- Imports and exports of goods and services as a percent of GDP (%)
7- Gross domestic fixed investment as a percentage of GDP (%)
8- Ratio of Agricultural Land and Permanent Products to Total Land (%) are sub-factors.

Table 2. Exposure and Susceptibility Index Weights

Indicators	Index Weights
ESI1. Annual Average Growth Rate of Population	5
ESI2. Annual Growth Rate of Urban Population	12.4
ESI3. Population density (people/5 km^2)	9
ESI4. Poor population with daily income less than $ 1	25.4
ESI5. Capital stock: in millions US dollar per thousand square kilometers	12.3
ESI6. Imports and exports of goods and services as a percent of GDP (%)	11.7
ESI7. Gross domestic fixed investment as a percentage of GDP (%)	12.4
ESI8. Ratio of Agricultural Land and Permanent Products to Total Land (%)	11.8

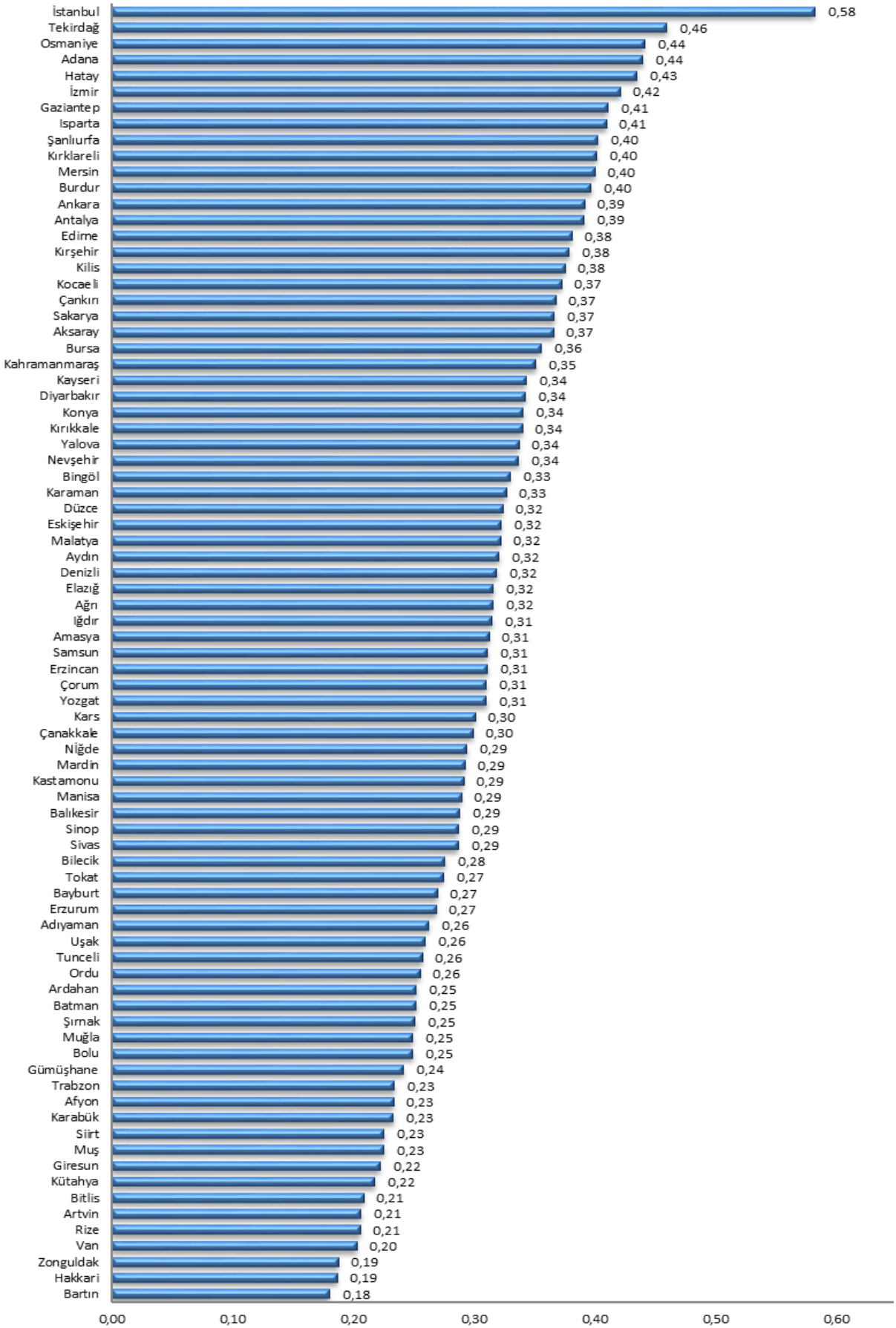
RESULTS

The findings of the study were presented in the form of tables, graphs, maps and interpretations.

Table 3. Provinces Exposure and Susceptibility Index Indicators for the Period 2015-2017

Provinces	2015	2016	2017	Mean	Provinces	2015	2016	2017	Mean
Adana	0.34	0.50	0.48	**0.44**	Konya	0.33	0.34	0.36	**0.34**
Adıyaman	0.25	0.26	0.28	**0.26**	Kütahya	0.19	0.22	0.24	**0.22**
Afyon	0.19	0.24	0.26	**0.23**	Malatya	0.27	0.32	0.38	**0.32**
Ağrı	0.36	0.28	0.31	**0.32**	Manisa	0.26	0.29	0.31	**0.29**
Amasya	0.32	0.29	0.33	**0.31**	Kahramanmaraş	0.34	0.35	0.36	**0.35**
Ankara	0.38	0.38	0.41	**0.39**	Mardin	0.29	0.28	0.31	**0.29**
Antalya	0.39	0.38	0.41	**0.39**	Muğla	0.22	0.25	0.27	**0.25**
Artvin	0.18	0.21	0.23	**0.21**	Muş	0.10	0.27	0.30	**0.23**
Aydın	0.30	0.31	0.36	**0.32**	Nevşehir	0.28	0.36	0.37	**0.34**
Balıkesir	0.31	0.26	0.29	**0.29**	Niğde	0.25	0.32	0.32	**0.29**
Bilecik	0.25	0.27	0.31	**0.28**	Ordu	0.27	0.24	0.25	**0.26**
Bingöl	0.24	0.30	0.45	**0.33**	Rize	0.20	0.19	0.22	**0.21**
Bitlis	0.10	0.25	0.28	**0.21**	Sakarya	0.34	0.35	0.40	**0.37**
Bolu	0.26	0.23	0.25	**0.25**	Samsun	0.31	0.29	0.33	**0.31**
Burdur	0.37	0.40	0.42	**0.40**	Siirt	0.21	0.23	0.23	**0.23**
Bursa	0.34	0.36	0.36	**0.36**	Sinop	0.29	0.27	0.30	**0.29**
Çanakkale	0.31	0.27	0.32	**0.30**	Sivas	0.30	0.27	0.29	**0.29**
Çankırı	0.34	0.38	0.38	**0.37**	Tekirdağ	0.37	0.50	0.51	**0.46**
Çorum	0.32	0.29	0.32	**0.31**	Tokat	0.28	0.26	0.29	**0.27**
Denizli	0.31	0.31	0.34	**0.32**	Trabzon	0.23	0.23	0.24	**0.23**
Diyarbakır	0.35	0.32	0.35	**0.34**	Tunceli	0.19	0.26	0.32	**0.26**
Edirne	0.29	0.42	0.44	**0.38**	Şanlıurfa	0.42	0.38	0.41	**0.40**
Elazığ	0.27	0.32	0.36	**0.32**	Uşak	0.22	0.27	0.29	**0.26**
Erzincan	0.37	0.26	0.29	**0.31**	Van	0.09	0.25	0.27	**0.20**
Erzurum	0.25	0.26	0.30	**0.27**	Yozgat	0.32	0.29	0.31	**0.31**
Eskişehir	0.31	0.32	0.34	**0.32**	Zonguldak	0.21	0.16	0.19	**0.19**
Gaziantep	0.41	0.41	0.41	**0.41**	Aksaray	0.31	0.39	0.40	**0.37**
Giresun	0.23	0.21	0.22	**0.22**	Bayburt	0.36	0.25	0.20	**0.27**
Gümüşhane	0.30	0.21	0.21	**0.24**	Karaman	0.31	0.32	0.35	**0.33**
Hakkâri	0.06	0.22	0.28	**0.19**	Kırıkkale	0.29	0.36	0.37	**0.34**
Hatay	0.43	0.43	0.44	**0.43**	Batman	0.25	0.24	0.26	**0.25**
Isparta	0.41	0.40	0.42	**0.41**	Şırnak	0.22	0.25	0.29	**0.25**
Mersin	0.31	0.43	0.46	**0.40**	Bartın	0.20	0.16	0.18	**0.18**
İstanbul	0.58	0.57	0.59	**0.58**	Ardahan	0.31	0.21	0.24	**0.25**
İzmir	0.41	0.41	0.45	**0.42**	Iğdır	0.35	0.27	0.32	**0.31**
Kars	0.33	0.25	0.33	**0.30**	Yalova	0.34	0.31	0.36	**0.34**
Kastamonu	0.31	0.27	0.29	**0.29**	Karabük	0.27	0.20	0.24	**0.23**
Kayseri	0.36	0.33	0.34	**0.34**	Kilis	0.31	0.46	0.36	**0.38**
Kırklareli	0.33	0.45	0.43	**0.40**	Osmaniye	0.37	0.46	0.49	**0.44**
Kırşehir	0.34	0.39	0.40	**0.38**	Düzce	0.32	0.30	0.35	**0.32**
Kocaeli	0.37	0.35	0.40	**0.37**	**General Mean**	**0.29**	**0.31**	**0.33**	**0.31**

According to Table 3, when we examine the 2015-2017 period, the provinces with the highest index value for 2015 were İstanbul (0.58), Hatay (0.43) and Şanlınurfa (0.42) for 2016 İstanbul (0.57), Adana (0.50), Tekirdağ (0.50), Kilis (0.46) and Osmaniye (0.46), for 2017 İstanbul (0.59), Tekirdağ (0.51) and Osmaniye (0.49) respectively.



Graph 1. Provinces Exposure and Susceptibility Index Indicators for 2015-2017 period

According to Graph 1, when the average index values for 2015-2017 were analyzed, the index values of İstanbul, Tekirdağ, Osmaniye, Adana, Hatay, İzmir, Gaziantep, Isparta, Şanlıurfa, Kırklareli, Mersin and Burdur were in the high category, respectively. Besides, only Zonguldak, Hakkâri and Bartın provinces were in the low category. The remaining 66 provinces were in the middle index category. Therefore, 14.82% of the provinces were high, 81.47% were in the middle category while 3.70% were in the low category in terms of exposure and sensitivity.

Table 4. 2015-2017 Period Exposure and Susceptibility Classification of Exposure and Susceptibility Index Averages of Provinces of Turkey

Exposure and Susceptibility Index	Provinces
≤0.10	-
0.11-0.20	Bartın (0.18), Hakkâri (0.19), Zonguldak (0.19)
0.21-0.30	Artvin (0.21), Bitlis (0.21), Rize (0.21), Giresun (0.22), Kütahya (0.22), Afyon (0.23), Muş (0.23), Siirt (0.23), Trabzon (0.23), Karabük (0.23), Gümüşhane (0.24), Bolu (0.25), Muğla (0.25), Batman (0.25), Şırnak (0.25), Ardahan (0.25), Adıyaman (0.26), Ordu (0.26), Tunceli (0.26), Uşak (0.26), Erzurum (0.27), Tokat (0.27), Bayburt (0.27), Bilecik (0.28), Balıkesir (0.29), Kastamonu (0.29), Manisa (0.29), Mardin (0.29), Niğde (0.29), Sinop (0.29), Sivas (0.29), Çanakkale (0.30), Kars (0.30)
0.31-0.40	Amasya (0.31), Çorum (0.31), Erzincan (0.31), Samsun (0.31), Yozgat (0.31), Iğdır (0.31), Ağrı (0.32), Aydın (0.32), Denizli (0.32), Elazığ (0.32), Eskişehir (0.32), Malatya (0.32), Düzce (0.32), Bingöl (0.33), Karaman (0.33), Diyarbakır (0.34), Kayseri (0.34), Konya (0.34), Nevşehir (0.34), Kırıkkale (0.34), Yalova (0.34), Kahramanmaraş (0.35), Bursa (0.36), Çankırı (0.37), Kocaeli (0.37), Sakarya (0.37), Aksaray (0.37), Edirne (0.38), Kırşehir (0.38), Kilis (0.38), Ankara (0.39), Antalya (0.39), Burdur (0.40), Mersin (0.40), Kırklareli (0.40), Şanlıurfa (0.40)
0.41-0.49	Gaziantep (0.41), Isparta (0.41), İzmir (0.42), Hatay (0.43), Adana (0.44), Osmaniye (0.44), Tekirdağ (0.46)
≥0.50	İstanbul (0.58)

According to Table 4, there were no provinces with an index value less than 0.10, while there was only İstanbul which was more than 0.50. The majority of our provinces were concentrated in the range of 0.21-0.30 and 0.31-0.40.

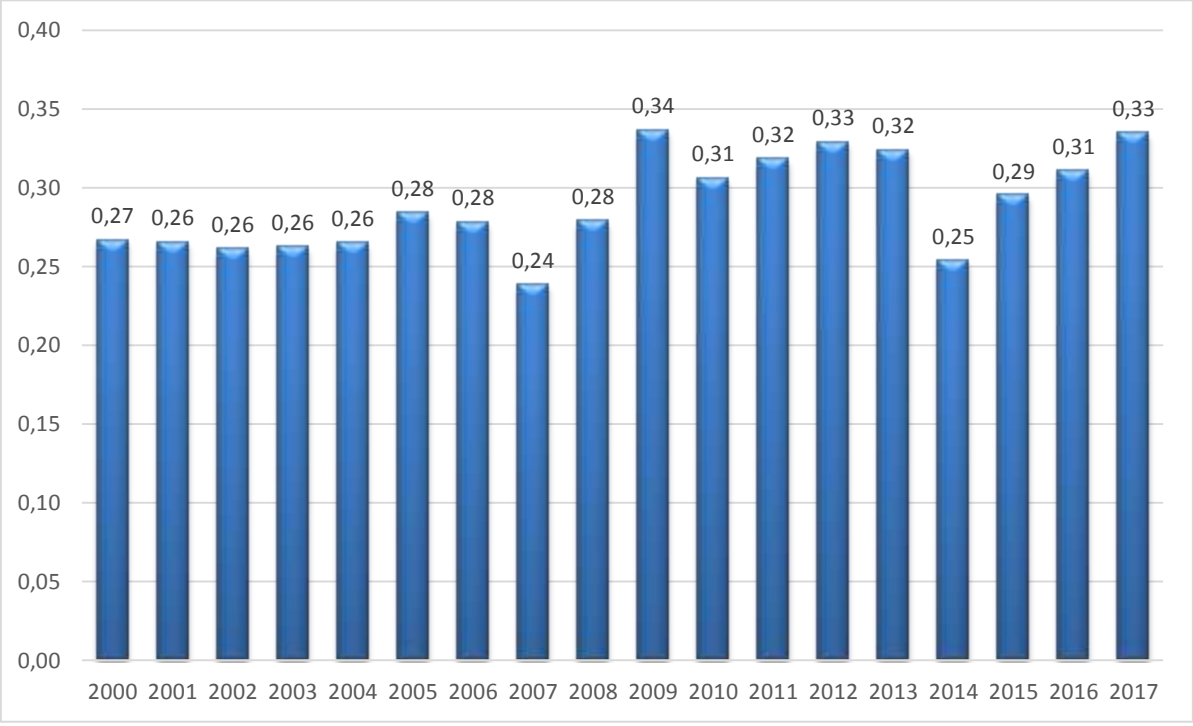
Figure 1. Exposure and Susceptibility Index for 2015-2017 Period

Exposure and Sensitivity Indicators are factors that negatively affect vulnerability. Because the indicators that make up this sub-index consist of data such as the average annual growth rate of the population, the annual growth rate of the urban population, population density, capital stock, daily income of the poor population less than $ 1, and the gross investment rate of fixed investments. For example, due to rapid urbanization, the increase in the annual growth rate of the urban population leads to the emergence of problems such as increased environmental problems, difficulty in providing services and unsafe housing. In addition, the increase in capital stock also means the increase in the value of goods and values to be damaged in case of disasters. Furthermore, the population whose daily income is less than $ 1 is more affected by the risks that may occur and they have difficulty in becoming safe again.

In the period 2015-2017, while the provinces of Istanbul, Hatay, Gaziantep and Sanliurfa were brown and red again, the color tone of Izmir, Isparta, Osmaniye, Adana, Mersin, Kirklareli and Tekirdag provinces changed from medium level yellow color to high level brown color. The reason for this may be considered as the change in the urban population structure as a result of the migrant movement consisting of Syria, which is the neighboring country to the provinces close to the Syrian border (Figure 1).

Table 5. Change of Average Exposure and Susceptibility Index for Period 2000-2017 for the General of Turkey

Years	General Index Value
2000	0.27
2001	0.26
2002	0.26
2003	0.26
2004	0.26
2005	0.28
2006	0.28
2007	0.24
2008	0.28
2009	0.34
2010	0.31
2011	0.32
2012	0.33
2013	0.32
2014	0.25
2015	0.29
2016	0.31
2017	0.33
Mean	**0.31**



Graph 2. Change of Average Exposure and Susceptibility Index for Period 2000-2017 for the General of Turkey by Years

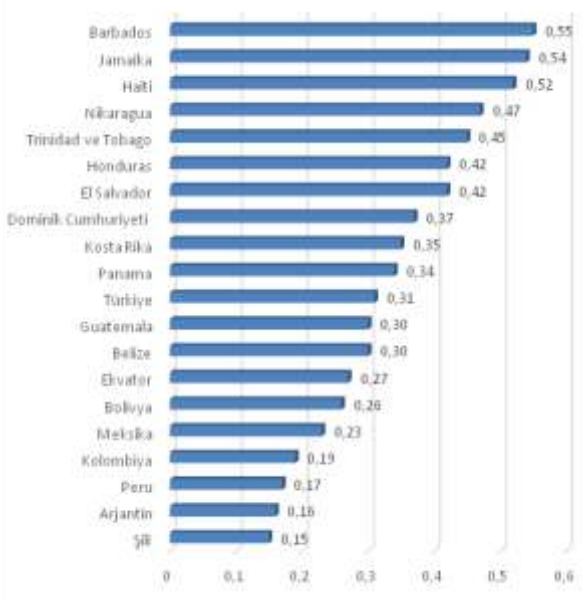
According to Graph 2. Turkey's Exposure and Susceptibility Index showed a sudden rise in 2009 while was partially stable until the year 2009. Even though it showed a partial decline afterwards, it entered an upward trend after 2014 and reached an index value of 0.33, which was a medium category.

Moreover, when we look at the whole time period, there was generally an upward trend.

Table 6. ES Index Values of Some Countries

Country	ES Index Values
Argentina	0.16
Barbados	0.55
Belize	0.30
Bolivia	0.26
Dominican Republic	0.37
Equator	0.27
El Salvador	0.42
Guatemala	0.30
Haiti	0.52
Honduras	0.42
Jamaica	0.54
Colombia	0.19
Costa Rica	0.35
Mexico	0.23
Nicaragua	0.47
Panama	0.34
Peru	0.17
Chile	0.15
Trinidad and Tobago	0.45
Turkey	0.31
Mean	**0.34**

The index value of 19 countries has been calculated by IDB (Inter American Development Bank). With this study, the number of calculated countries has increased to 20.



Graph 3. Countries' Ranking by ES Index Values

According to Graph 3 ranking in the ES Index Turkey has become the 10th country among the lowest indexed 20 countries. Besides, it was seen that the ES Index value of our country was below the general index average of the other countries. However, this value was in the middle category in terms of index value.

However, if the index calculations of more countries can be made, especially in developed countries such as European countries, international comparisons and evaluations can be made more accurately.

DISCUSSION

Although there are various studies in the literature on exposure and susceptibility to disasters, exposure and susceptibility factors are generally presented within the scope of risk and vulnerability concepts. In this context:

Davidson and Shah (1997) conducted a study on the City Earthquake Disaster Risk Index. The Earthquake Disaster Risk Index in the study is a composite index that provides a direct comparison of the relative general earthquake disaster risk of cities in the world and explains the relative contribution of various factors to this overall risk. This index provides a systematic way to directly compare general earthquake disaster risk in a large number of cities or regions. Furthermore, this comprehensive index shows that even in low-seismic urban areas, there may be an earthquake and other characteristics of the city can turn a single event into a major disaster and can be used to track trends in earthquake risk over time.

Mabel C. Marulanda, Omar Darío Cardona and Alex H. Barbat conducted a study on the social and economic impacts of minor disasters in 2008. The study aimed to present a new revision of the Local Disaster Index under the Disaster Risk Management Indicators Program in the United States. Disasters that rarely enter international and national disasters databases but constitute a cumulative problem for local areas were discussed here.

Fuchs (2009) conducted a study of the paradigms of susceptibility and vulnerability to mountain hazards in Austria. Here, the issues that determine structural, economic, institutional and social sensitivity to the mountain hazards in Austria were discussed.

Cardona et al. (2012) evaluated and explained exposure and vulnerability factors, which were the most important factors for risk, in their studies on risk determinants. Here, a conceptual framework had been presented in detail by considering factors such as disaster risks, danger, exposure and vulnerability.

The study, prepared by Pedcris M. Orencio and Masahiko Fujii (2013), proposed an index for a disaster-resistant coastal community at the local level

to reduce and mitigate natural disasters caused by climate change, whose impacts were more common in the coastal areas of the Philippines. According to the study, for a disaster-resistant coastal community in terms of its components and criteria, the composite index represents the outcome indicators at the local level. Therefore, it was emphasized that the index could be used by local governments as a tool to reduce disaster risk and facilitate its management.

In the study prepared by Sena et al. (2017), the indicators affecting the health risks of drought in Brazil were investigated. Accordingly, efforts to understand the risk and response capacities of local communities emerge as a means of developing hazards, exposures and vulnerabilities.

In 2017, Kintziger et al. conducted a technical study on the health-related exposure and intervention functions of meteorological events. As a result of this study, it was revealed that developing strong exposure and response functions and retrospective analysis would provide a strong basis for planned adaptation activities.

It was also calculated for 19 of the South American countries for the calculation of the Exposure and Sensitivity Indices of the countries in general and regionally.

According to the index study prepared for Argentina; while Argentina's ESI value was 0.16, Turkey’s ESI (0.31) was seen to be higher than the indices of Argentina. In addition, in the study prepared for Argentina, no calculation was made on provincial or regional basis.

According to the index study for Bahamas, a country in the Caribbean; ES index value was 0.35 for the year 2007 and was higher than the value of Turkey (0.31).

According to the index study for Barbados, a Latin American country the nationwide ES index value was 0.55 and higher than that of Turkey.

According to the index study for Belize in 2011; the overall ES index value of the country (0.30) was lower than our country's value.

According to the index study prepared for Bolivia; the ES index value of the country (0.26) was lower than Turkey (0.31).

According to the index study prepared for Chile in 2015, the ES index value for the country in the last period was 0.16, which was much lower than our country's value.

According to a study prepared for Costa Rica, the ES index value was 0.35 which was higher than Turkey's index value (0.31).

According to the study prepared for Ecuador, the country ES index value was 0.27, lower than our country's index value.

According to a study conducted in 2004 for Jamaica, ES index value for the year 2000 was 0.56, considerably higher than that of Turkey.

The index study prepared for Colombia in 2005, the value of ES index was 0.23, which was lower than the index value of Turkey.

According to the index study prepared for Mexico, the ES index value of the country was calculated as 0.22, less than our country's index value.

The index study conducted for Nicaragua in 2015, the countrywide ES index value was 0.28, lower than our country's index value.

According to the index study conducted for Panama the country-wide ES index value was 0.34, higher than Turkey's ES index value (0.31).

According to a study conducted for Peru in 2015 the ES index value was 0.19, quite low than Turkey’s index value (0.31).

In the study prepared for the Dominican Republic in 2010; for the period 1991-2000 the ES index value was 0.37, higher than the index value of Turkey.

The index study prepared for the Republic of Suriname, a South American country in 2018; the ES index value of the country was 0.22, lower than the index value of Turkey.

According to a study prepared in 2010 for Trinidad and Tobago, a country in the Caribbean; the ES index value of the country for the period 1996-2000 was 0.45, this value was calculated quite high than Turkey's index value (0.31).

CONCLUSIONS

According to the results, it was noteworthy that there were socially and economically developed provinces such as İstanbul, Adana, İzmir, Gaziantep and Şanlıurfa among the ten provinces with the highest ESI values. Among the ten provinces with the lowest index value, in addition to Eastern Region and Southeastern Region provinces such as Hakkâri, Van, Bitlis and Muş, there were also the Black Sea Region provinces such as Bartın, Zonguldak, Rize, Artvin and Giresun.

When the sub-indicators of provinces with low index values were examined; in particular, the population density, capital stock, goods and services, the ratio of imports and exports to the GNP, the ratio of fixed investments to the GNP and the ratio of agricultural land and permanent products to the total land was quite low.

It is seen that especially our metropolitan cities are weaker against hazards and disasters because exposure and Sensitivity represent being open to disasters and dangers.

In addition, considering that it is accepted as a type of biological disaster in epidemic diseases, more exposure of provinces such as Istanbul, Izmir and Gaziantep to this disease is parallel with high index values against today's pandemic.

For this reason, it is important to make the necessary investments and practices in these provinces to avoid possible hazards and disasters with less damage.

In the mid-value category average of Turkey in the international arena and calculating the index value according to the average of the countries where it is seen below, but close.

However, considering the socio-economic development levels of these countries, it is seen that the index value of our country should be at a better level.

In the international arena, the calculation is made out of 20 countries that Turkey has the lowest 7 countries. In addition, our country's Resilience Deficiency Index value is below the average compared to the general average of the countries. However, our country is in a high category in terms of index value. Therefore resilience aspect, Turkey is conspicuous that in general there is a lack.

Ethical Approval

Since there was no issue related to ethical principles in the study, no certificate of ethical compliance was obtained.

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Patient Satisfaction Survey in City Hospital: Case of Isparta

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ABSTRACT

Patient satisfaction is an important issue in terms of the quality and performance of health institutions. In this study, the patient satisfaction levels of the city hospitals, which were brought to the agenda within the scope of the Health Transformation Program and built with the Public-Private Partnership (PPP) model, were examined. The aim of this study is to determine the level of satisfaction of Isparta City Hospital patients and to determine the relationship between the demographic characteristics of the participants and the physical environment, general satisfaction, staff satisfaction and time sub-dimensions for patient satisfaction level. The sample of the study consists of 275 participants who receive service from the city hospital in Isparta province. The patient satisfaction questionnaire, which Gökkaya, İzgüden and Erdem (2018) used in their studies, was used as a data collection tool in the study. The data obtained within the scope of the study were analyzed with the SPSS Statistics 22 program. As a result of the normality test, the "t Test" and "ANOVA Test", which are among the parametric tests, were used in the data that was suitable for normal distribution. It has been examined in four different dimensions as patient satisfaction, physical environment, general satisfaction, staff satisfaction and time. It was observed that the participants were satisfied with the general quality of the city hospital in these four dimensions. Participants expressed their satisfaction especially with the cleanliness, hygiene and the new and spaciousness of the building. On the other hand, it has been revealed that factors such as waiting in line, confusion and size in the hospital, not getting enough information and parking lot are decreasing the level of patient satisfaction.

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INTRODUCTION

With the changes in the economic, social and political fields in the last period of the 20th century, there has been a transformation from a state understanding that produces and manages services to a state understanding that directs and regulates economic variables. Along with the transformations of the states, there have been changes in the way states take part in infrastructure services. With these changes, the concept of public-private partnership has emerged and this method has started to be used in the provision of public services, especially in developing countries. This method has paved the way for investments that countries could not afford due to financial problems (Ministry of Development, 2012: 6).

The concept of public- private partnership, which has many different definitions in the literature, can be defined as the state's participation of private law persons in the process in the provision of public services as soon as possible (Gürkan, 2014: 1). According to another definition, public- private partnership is a partnership that brings together the public, private sector and non-governmental organizations in the provision of public services, based on the principles of joint management and equality, and in the understanding of new public management, the consequences such as risks, costs and benefits in the production of goods and services are undertaken by all stakeholders method (Kerman et al., 2012: 4). General features of the definition of Public Private Partnership can be listed as follows (Çakır, 2016: 22):

- PPP is based on a contract signed between the public and the private sector in the process of producing and providing public goods and services.
- PPP ensures the participation of the private sector in the provision of public service.
- PPP offers alternative financing methods in the financing of public services.
- PPP is an umbrella concept that includes models such as build-operate-transfer, build-operate, build-lease-transfer.
- Private and public sector share the risks in the production of public goods or services and decision-making process (Forrer, J. et al., 2010: 476).

As a result of these definitions, it is seen that public services are offered with a common benefit between the private sector and the public sector, where the risk is shared and the limits are clearly defined in the public-private partnership. In order to realize these public services in a better quality, efficient and effective way, the talent and business ability and potential of the private sector are transferred to the public sector and cooperation is realized with the prominent features of both sectors (Atasever, 2018: 17).

According to the 2004 Green Paper publication of the European Commission, there are four items to explain features of public- private partnership. These four items are expressed as follows:

1. Including cooperation between public partner and private partner in different parts of the planned project and having a long term partnership relationship.
2. Project is sometimes financed by the private sector and sometimes by various stakeholders.
3. First of all, public partner focus on the achievement of the public interest, and then focus on the quality of the service and focus on the goals to be achieved economically.
4. Generally, there is a risk distribution in which the risks that the public sector may face are transferred to the private partner. However, this item doesn't mean that the private partner will take risks in all projects. Determining the risk taker varies from project to project according to its ability to evaluate and control the risk (European Commission, 2004: 3).

As emphasized in the definitions, public-private partnership is described as an "umbrella concept" and includes many models (Evren, 2016: 347). There are not standard models that are applied everywhere and all the time. In commonly used models are build-operate-transfer (BOT), build-operate (BO), build-lease-transfer, build-lease-operate, build-own-operate-transfer, revenue partnership model (Sarıtürk, 2018: 347).

It is seen that the first examples of public-private partnership projects in the world were used in the 17th and 18th centuries with the concession method and generally to build construction of canals and bridges. In the 19th century, it is seen that some infrastructure services in Europe were provided by the private sector instead of public sector. In the 20th century, especially after the Second World War, it started to be applied in the construction of road networks in countries such as Italy, France, Japan and the USA (Yusufi Yılmaz and Gültekin Karakaş, 2011: 32). In recent years, it is observed that the number of public-private partnership projects has increased in the provision of infrastructure services investments in developed and developing countries, especially after the 1990s (Ministry of Development, 2012: 8). When we look at the project data of the World Bank with public-private partnership between 1990 and 2018, it is seen that the electricity sector took the first place with 3627 units and a project cost of 910.467 million USD (URL 1, 2019).

In Turkey, it is observed that the public-private partnership based on the concession procedure dating back to the Ottoman period. Nowadays, with the increasing need for infrastructure projects and limited public resources, interest in public-private partnership is increasing. The public-private partnership, which first came to the agenda with energy projects in 1986, started to be implemented in many sectors such as transportation, energy, education and health with the Law No. 3996 on "Making Certain Investments and Services by Build-Operate-Transfer Model" in 1994. Especially the realization of integrated health campuses (city hospitals) within the scope of "Health Services Basic Law" numbered 3359 with the build-lease model has brought a new direction to public-private partnership. According to recent data by the Ministry of Development sector in Turkey ranks first in the number of 94 volume Project is located in the energy sector. In this ranking, there are 42 highways, 23 ports and 20 healthcare sectors after the energy sector (Ministry of Development, 2012: 20-24).

Public Private Partnership in Health Care Services

Private-public partnership (PPP) is originated when more than two organizations in the public or private sector start a new cooperative relationship based on mutual trust, rather than being characterized by a hierarchical structure (Naoum, 2003). PPP is significantly different from traditional design- bid - build contracts. Various definitions can be found in the literature about PPP. The most commonly used definition is "an arrangement between two or more entities that enables them to work cooperatively towards shared or compatible objectives and in which there is some degree of shared authority and responsibility, joint investment of resources, shared risk taking and mutual benefit" (Allan, 1999).

The first practice of the collaboration of public and private commenced with the private sector participation models used for construction of road in 1660s. Especially in the railway and canal projects after the industrial revolution, the use of collaboration of public and private's model came to the highest point particularly in United Kingdom in 1860s (Çekirge, 2006: 5). The public-private partnership project, which was first realized in the Ottoman Period, was used in the public transportation system in Istanbul (Çekirge, 2006: 31). Afterwards, in the Republic Period, the public-private partnership model was permitted non-public organization's generating, distributing and trading electricity with the law enacted in 1984 numbered 3096 (Çekirge, 2006: 14).

The use of public-private partnership projects in the field of health is realized with projects called "health city", "integrated health campus" or, most known as "city hospital" (Gökbulut, 2019). In terms of city hospital practices, the Health Services Basic Law numbered 3359 in 1987 can be shown as a comprehensive regulation (Karasu, 2011: 223). An additional 7th article was added to this law with the law numbered 5396 enacted in 2005. Accordingly, the Ministry of Health has granted real or private law legal entities to establish a health facility in return for leasing, not exceeding 49 years, on the immovables belonging to itself or the treasury (T.C. Official Gazette, 2006). With the Health Transformation Program initiated by the Ministry of Health in 2003, Public Hospital Unions were established and 29 Health Service Regions were determined by considering the transportation possibilities of the region and existing health inventories (Akdağ, 2012: 263).

Today, there are 10 city hospitals with contracts signed and serving. The hospitals actively serving are as follows; Adana City Hospital, Mersin City Hospital, Isparta City Hospital, Yozgat City Hospital, Kayseri City Hospital, Manisa City Hospital, Elazig City Hospital, Ankara Bilkent City Hospital, Eskişehir City Hospital and Bursa City Hospital. In addition to these hospitals, Ankara Etlik City Hospital, Konya Karatay Hospital, Gaziantep City Hospital, Tekirdağ Health Campus, Kütahya City Hospital, Kocaeli City Hospital, İzmir Bayraklı City Hospital and Istanbul İkitelli City Hospital are the hospitals planned to be opened in 2020. Şanlıurfa Health Campus and Psychiatry and High Security Forensic Psychiatry Hospitals are planned to be opened in 2021 (URL 2, 2019).

MATERIALS AND METHODS

The aim of this study is to determine the level of satisfaction of Isparta City Hospital patients and to determine the relationship between the demographic characteristics of the patients and the physical environment, general satisfaction, staff satisfaction and time sub-dimensions for patient satisfaction level.

The problem sentence of the study is "what is the satisfaction level of the patients with the city hospital they receive service?".

The population of this study is the people of Isparta. The sample consists of 275 participants who receive service from Isparta City Hospital, which is selected through convenience sampling. One of the quantitative research techniques, face to face survey method was used for randomly selected participants.

The data collection tool of this study is the patient satisfaction questionnaire used by Gökkaya, İzgüden and Erdem (2018) in their studies. The patient satisfaction questionnaire consists of "physical environment, general satisfaction, staff satisfaction and time" sub-dimensions. The analysis and interpretation of the data were made within the scope of sub-dimensions. The data collection tool is 5-point

Likert scale. It is scaled within the score range of "1" strongly disagree and "5" strongly agree. The questionnaire includes 25 statements, 1 open-ended question and 5 questions for demographic information. During the analysis phase of the study, the survey data were transferred to the computer using the SPSS package program. The data were coded properly in the program and made ready for analysis, and the analyzes were analyzed with the SPSS Statistics 22 program. Parametric tests were used for the data that was suitable for normal distribution as a result of the normality test. "T test" was used to determine the difference between groups with two variables, and "analysis of variance (ANOVA)" was used to determine the difference between groups with three and more variables. "Tukey's-b test" was used to determine the difference between groups in the ANOVA test.

Findings

As a result of the normality test, the Kurtosis and Skewness values of 25 items were found to be in the range of -1.96 to +1.96, so they were suitable for normal distribution.

Table 1. Reliability Analysis

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0,930	0,934	25

As seen in Table 1, the Cronbach's alpha value of the scale items of the city hospitals patient satisfaction survey was found to be 0.930 and the items were found to be highly reliable.

Table 2. Demographic Characteristics of the Participants

Age	Number	%
<26	83	30,2
26-35	95	34,5
36-45	49	17,8
45<	48	17,5
Gender		
Male	132	48,0
Female	143	52,0
Marital Status		
Married	136	49,5
Single	139	50,5
Educational Status		
Primary school	37	13,5
High school	58	21,1
Associate degree	42	15,3
Undergraduate	107	38,9
graduate	31	11,3
Profession		
Government official	64	23,3
Private sector	90	32,7
Tradesmen	50	18,2
Others	71	25,8
Total	**275**	**100,0**

As seen in Table 2, the sample of Isparta, where 275 people were reached, 30.2% were under 25 years old, 34.5% were between 26-35 years old, 17.8% were between 36-45 years old, 17,5% were over 46 years old and 48% were men and 52% were women. When we look at the marital status of the sample, it is seen that it is remarkably close to each other and consists of 49.5% married and 50.5% unmarried individuals. When we look at the educational status, the biggest part is the undergraduate level. It was observed that 13.5% of the participants were at primary school, 21.5% at high school, 15.3% at associate degree, 38.9% at undergraduate and 11.3% at graduate level. Private sector employees have the largest share with 32.7%., government official with 23.3%, other occupational groups (housewives, retirees, workers, students, etc.) and tradesmen with 18.2%, respectively.

Table 3. Arithmetic Mean and Standard Deviation of the Statements Related to the Patient Satisfaction Questionnaire

No	Statements	x̄	SS
1	I can easily find the place where I am looking for in the hospital.	3.272	1.420
2	I am satisfied with the hygiene conditions of city hospitals (polyclinics, clinics, toilets, waiting areas, etc.)	4.127	1.078
3	I waited too long in line to be examined.	3.218	1.349
4	Counselling and referral services were generally good.	3.952	1.077
5	I am satisfied with the attitude of the hospital staff.	3.832	1.153
6	Privacy is considered during the examination.	3.960	1.172
7	I am generally satisfied with the service offered by the hospital.	3.876	1.142
8	I am satisfied with the overall quality of the hospital.	3.927	1.091
9	I did not encounter the problem I experienced in other hospitals in this hospital.	3.410	1.296
10	The physical structure of the hospital facilitates service procurement.	3.327	1.351
11	I have no difficulty in traveling from one place to another in the hospital.	3.061	1.477
12	I am satisfied with the physical appearance, cleanliness, and spaciousness of the hospital.	4.167	1.084
13	I am satisfied with the ease of access to the hospital.	3.294	1.478
14	I am satisfied with the quality of the tools and equipment used in the hospital	3.901	1.117
15	I am satisfied with the comfort of the examination rooms (heat, light, etc.).	4.138	1.030
16	I am satisfied with the parking lot adequacy of the hospital.	3.134	1.511
17	I am glad that the social areas (cafeteria, canteen etc.) of the hospital meet my needs.	3.545	1.281
18	I think enough time has been allocated for me during the examination.	3.283	1.406
19	If I need it again, I prefer this hospital.	3.741	1.215
20	I recommend the hospital to others.	3.770	1.233
21	I was able to have my tests and examinations done in a short time.	3.421	1.297
22	I am satisfied with the speed of the procedures in the hospital.	3.367	1.249
23	The information I received from the hospital staff satisfied me.	3.530	1.193
24	The hospital staff took care of me enough.	3.596	1.205
25	I am glad that the city hospital was built.	3.825	1.336

When we look at the Table 3, it is seen that all the means of the answers given by the participants to the expressions in the questionnaire are higher than 3. The fact that all the statements' means are higher than 3 and the 25th statement's mean is 3,825 shows that the participants are satisfied with the construction of the city hospital.

Among the statements, the lowest mean belongs to "I do not have difficulty in traveling from one place to another in the hospital" statement with $\bar{x}$ = 3.061. Also, the highest mean belongs to "I am satisfied with the physical appearance, cleanliness and spaciousness of the hospital" statement with $\bar{x}$ = 4.167.

Findings of Participants' Answers to Open-ended Questions

It was observed that the participants who answered the open-ended questions in the questionnaire expressed more negative opinions. Although the satisfaction rate was found high in the analysis, we can infer that those who answered this open-ended question were participants with lower satisfaction levels.

Table 4. Positive Views of the Participants

Variables	Number
Everything about city hospital	15
Cleaning / Hygiene	8
The building is new and spacious	5
Satisfaction of service	4
Personnel attitude	3
Patient orientation	2
Travelling in hospital	2
Quickness of service	1
Getting services together	1
Transportations to the hospital	1
Without waiting in the line	1

When we look at the Table 4, it is seen that 15 people are satisfied with everything about city hospital. Also, it is seen that 8 people are satisfied with the cleanliness and hygiene and 5 people are satisfied with the new and spacious building.

Table 5. Negative Views of the Participants

Variables	Number
Personnel attitude	19
Transportation to the hospital	18
Waiting in the line	16
Hospital size/Confusing in the hospital	12
Lack of information	9
Parking Lot	6
Lack of service	5
Insufficient examination time	4
Patient confidentiality	3
Canteen	2
Cleaning / Hygiene	2
Everything	2
Lack of staff	2

When we look at the Table 5, it is seen that participants expressed their negative opinions about Isparta city hospital. 19 participants complain about the personnel attitude, 18 participants about the transportation to the hospital, 16 participants about the waiting time in the line, 12 participants about confusing in the hospital and size of the hospital and 9 participants complain about the healthcare worker (specially physicians).

Table 6. Psychometric Features of Patient Satisfaction Sub-Dimensions

Sub-Dimensions	Number of Statements	Max/ Min	Cronbach Alfa	$\bar{x}$	SS	Normality Test Skewness	Kurtosis
Physical Environment	8	1-5	0,864	3,596	0,803	-0,285	-0,473
General satisfaction	9	1-5	0,822	3,745	0,913	-0,547	-0,493
Staff satisfaction	4	1-5	0,862	3,728	0,930	-0,677	-0,190
Time	4	1-5	0,882	3,322	0,838	-0,322	-0,228

In this study, satisfaction levels of the participants were discussed in 4 sub-dimensions. Table 6 contains the values of the sub-dimensions. The 4 sub-dimensions in the questionnaire are as follows:

Physical Environment Sub-Dimensions: The mean of this sub-dimension, which includes 8 statements, is 3.596 and the standard deviation is 0.803. Cronbach alpha value was found as 0.864

General satisfaction Sub-Dimensions: The mean of this sub-dimension, which includes 9 statements, is 3,745 and the standard deviation is 0. 913. Cronbach alpha value was found as 0.822.

Staff Satisfaction Sub-Dimensions: The mean of this sub-dimension, which includes 4 statements, is 3, 728 and the standard deviation is 0. 930. Cronbach alpha value was found as 0. 862.

Time Sub-Dimensions: The mean of this sub-dimension, which includes 4 statements, is 3, 322 and the standard deviation is 0. 838. Cronbach alpha value was found as 0. 862. It is seen that the dimension with the lowest mean is the time sub-dimension. However, when we look at the four sub-dimensions, it is seen that their means are above 3.20 and it is concluded that the participants are satisfied.

Table 7. Relationship between sub-dimensions and gender (T Test Analysis)

		Sub-Dimensions			
		Physical Environment	**General satisfaction**	**Staff satisfaction**	**Time**
Gender	**Male**	3,55±0,803	3,71±0,931	3,67±0,998	3,31±0,878
	Female	3,63±0,804	3,77±0,899	3,77±0,863	3,32±0,802
Test and value of p		t= -0,924 p= 0,356	t= -0,478 p= 0,633	t= -0,891 p= 0,374	t= -0,086 p= 0,931

According to the sub-dimensions of the city hospitals patient satisfaction questionnaire and the results of the gender-based t test analysis, all p values were found to be higher than 0.05.

Table 8. Relationship between sub-dimensions and Marital Status (T Test Analysis)

		Sub-Dimensions			
		Physical Environment	**General satisfaction**	**Staff satisfaction**	**Time**
Marital Status	**Married**	3,79±0,714	3,98±0,846	4,00±0,830	3,50±0,848
	Single	3,40±0,842	3,51±0,921	3,45±0,945	3,14±0,792
Test and value of p		t= 4,061 p= 0,000	t= 4,354 p= 0,000	t= 5,108 p= 0,000	t= 3,580 p= 0,000

According to the sub-dimensions of the city hospitals patient satisfaction questionnaire and the results of the marital status-based, p values were found to be less than 0.05. A significant relationship was observed between marital status and sub-dimensions, and in all sub-dimensions, the satisfaction levels of those who are married are higher than single participants.

Table 9. ANOVA Test Analysis for Sub-Dimensions

		Sub-Dimensions			
		Physical Environment	**General satisfaction**	**Staff satisfaction**	**Time**
Age	**-25**[1]	3,50±0,801	3,60±0,890	3,58±0,928	3,26±0,763
	26-35[2]	3,47±0,847	3,59±0,956	3,51±1,028	3,23±0,903
	36-45[3]	3,80±0,714	4,04±0,735	4,03±0,609	3,48±0,813
	46+[4]	3,79±0,745	3,97±0,932	4,10±0,821	3,42±0,842
Test and value of p		F= 3,297 p= 0,021 3>4[a]	F=4,414 p=0,005 3>4[a]	F=7,220 p=0,000 4>3[a]	F=1,333 p=0,264
Education status	**Primary School**[1]	3,96±0,620	4,34±0,664	4,35±0,782	3,72±0,810
	High School[2]	3,67±0,835	3,81±0,859	3,82±0,883	3,45±0,782
	Associate Degree[3]	3,60±0,781	3,67±1,048	3,63±1,083	3,39±0,989
	Undergraduate[4]	3,51±0,802	3,60±0,891	3,56±0,867	3,15±0,773
	Graduate[5]	3,28±0,835	3,49±0,882	3,48±0,875	3,07±0,775
Test and value of p		F=3,662 p=0,006 1>2[a]	F= 5,732 p= 0,000 1>2[a]	F= 6,162 p= 0,000 1>2[a]	F=4,618 p=0,001 1>2[a]
Profession	**Government official**[1]	3,52±0,824	3,61±0,819	3,64±0,849	3,25±0,753
	Private Sector[2]	3,55±0,837	3,58±0,917	3,59±0,888	3,25±0,809
	Tradesman[3]	3,56±0,849	3,74±1,006	3,66±1,122	3,32±0,954
	Others[4]	3,74±0,699	4,06±0,854	4,01±0,859	3,47±0,857
Test and value of p		F=1,107 p=0,347	F= 4,440 p= 0,005 4>3[a]	F=3,247 p=0,022 4>3[a]	F=1,103 p=0,348

Post-Hoc Tests a=Tukey's-b

When we look at the Table 9, one-way analysis of variance (ANOVA) was applied to observe whether the sub-dimensions of the city hospitals patient satisfaction questionnaire had a significant relationship with their demographic characteristics.

According to the results of the ANOVA test based on age, a significant relationship was found at the sub-dimensions of physical environment, general satisfaction, and staff satisfaction. It is concluded that

people aged 36-45 are more satisfied with the physical environment and general satisfaction, and people over the age of 46 are more satisfied about staff.

According to the results of the ANOVA test based on education status, there is a significant relationship between all sub-dimensions. It is seen that people with graduate education level are the group with the lowest level of satisfaction while the satisfaction level of people with primary education is at the highest level. As a result, it is observed that as the level of education increases, the level of satisfaction decreases.

According to the results of the ANOVA test based on profession, a significant relationship is observed between the general satisfaction and staff satisfaction sub-dimensions. There is no significant relationship in the physical environment and time sub-dimension. It is also observed that the satisfaction levels of "others" (workers, unemployed, housewives, retired and students) are the highest in the sub-dimensions of general satisfaction and staff satisfaction.

RESULT

Public-private partnership model, used in the transportation, education and energy sector, has gained a new direction in the health sector with the "the city hospitals" concept in Turkey. The fact that city hospitals, which are realized with the cooperation of the private sector and the public, provide services at the quality of private hospitals, has led to increase in competition among healthcare institutions. Therefore, it is important for hospitals to keep patient satisfaction levels at a high level.

In this study, physical environment, general satisfaction, staff satisfaction and time were discussed in four different dimensions and patient satisfaction levels were examined. As a result of the study, it was observed that the patients were generally satisfied with the Isparta city hospital. It was observed that the participants were especially satisfied with the physical appearance, cleanliness, spaciousness of the city hospitals, the comfort of the examination rooms and the hygiene conditions. It was observed that the lack of vehicle parking in the hospital, the difficulty in moving from one place to another, the inability to find the place sought in the hospital easily and waiting too long in line to be examined are the factors that reduce the level of satisfaction.

Considering the positive and negative results of the participants about the hospital, it is seen that although the general satisfaction level is high, the number of those who express their negative opinions is higher. It is seen that "satisfaction about everything" has the biggest share among the positive opinions. Cleaning and hygiene conditions and the new and spacious building are the other two factors that get the biggest share among the positive opinions. On the other hand, in the negative opinions, it is seen that the factors such as personnel attitude, transportation to the hospital, long waiting times, confusion and size in the hospital, not getting enough information have a big share.

In this study, it was examined whether the satisfaction levels of the patients in the city hospital differ according to demographic characteristics. According to the analysis results, no relationship was found between gender, which is one of the demographic features, and sub-dimensions. It was found that there is relationship between marital status and all sub-dimensions, and the satisfaction level of the married people in city hospitals was higher.

As a result of the survey, there is a significant relationship between the physical environment dimension, which is one of the sub-dimensions of the questionnaire, and marital status, age and educational status, but not a significant relationship with gender and profession. It has been observed that married participants aged 36-45 and participants with primary education level are more satisfied. There is a significant relationship between general satisfaction sub-dimension and marital status, age, occupation, and educational status, but not with gender sub-dimension. As in the physical environment dimension, it has been observed that married participants between the ages of 36-45 and those whose education level is primary education are more satisfied. There is also a significant relationship between the staff satisfaction sub-dimension and marital status, age, occupation and educational status, and no significant relationship with gender. Participants who are married, over the age of 46, with primary education and other occupational groups (housewife, retired, worker, student, etc.) are more satisfied. There is a relationship between the time dimension, another sub-dimension of the questionnaire, marital status and educational status, and no significant relationship with gender, age, and profession. It has been observed that married people with primary education level are more satisfied.

DISCUSSION AND RECOMMENDATION

The concept of satisfaction is a subjective concept. It has become an important issue in health institutions and organizations in recent years. Patient satisfaction is an important concept in measuring and evaluating the quality of healthcare services. Healthcare institutions take into account the feedback in the parts related to satisfaction today. As a result of increasing competition among health institutions, applications that increase satisfaction are on the agenda in order to be preferred more and to gain the trust of patients (Gökkaya, İzgüden, & Erdem, 2018: 145).

There are many factors affecting the service quality in the provision of health services. In patient satisfaction studies, it is seen that a system is applied according to the aspects of the physical, psychological, social and economic effects that the patient is satisfied or not satisfied with (Andaleeb, Siddiqui and Khandakar, 2007: 265). In this study, patient satisfaction was examined under 4 different dimensions (physical environment, general satisfaction, staff satisfaction and time dimension).

Since city hospitals are newly included in our lives, it is seen in the literature that patient satisfaction studies in city hospitals are limited. When the patient satisfaction studies in city hospitals are examined, first of all, Gökkaya, İzgüden and Erdem (2018: 145). It is seen that the satisfaction levels of the patients are quite high in patient satisfaction, which was examined in 4 dimensions as physical environment, general satisfaction, staff satisfaction and time dimension in the patient satisfaction research study in Isparta City Hospital. In Ergün's (2019: 86) examination of Yozgat Integrated Health Campuses in terms of patient satisfaction, the patient's staff satisfaction was 72.6%, and the physical area was 77.8%. Overall, the polyclinic satisfaction is 74.4%. Patients receiving service from Yozgat City Hospital are satisfied with hospital. In Sarcan's (2019: 105) patient satisfaction study in Adana City Hospital, patient satisfaction level was evaluated over 5 points. According to the research results, it can be stated that patient satisfaction is high since the average level of patient satisfaction is above 3.40 for cleaning services, administrative support services, catering services, security services, physical conditions, nurse care, emergency service care and doctor care. As a result of the research, it was observed that the satisfaction levels of the patients were generally high. In the survey of service satisfaction of Çınar, Türkoğlu and Tütünsatar (2015: 229), we can see that the satisfaction rate of the patients' queue waiting time item is very low with 2.07. We see that the expression of taking care and care for patients got 2.40 points, and the administrative staff was insufficient with 2.35. In addition, the fact that the physician, nurse and caregiver score above 3 is an indicator of satisfaction. It is seen that the individuals who participated in the study in the city hospital, which was taken as an example, are generally satisfied.

Nowadays, patient satisfaction is an important issue for all health institutions. With the increasing competitive environment, it is important to increase patient satisfaction levels to attract patients. According to this study, in order to increase patients satisfaction;

1. Actions should be taken especially in order to improve the personnel attitude, which is a negative aspect with the highest frequency.
2. The bus route can be changed provided more frequent bus service by contacting the provincial and district municipalities in order to eliminate the transportation problem to the hospital.
3. More personnel should be employed to eliminate the problem of waiting in line.

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Examination on Health Anxieties of Students in the Faculty of Health Sciences about COVID-19

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ABSTRACT

Health anxiety is a state of fear that an individual has a major health problem or will experience a health problem as a result of misinterpreting their physical findings. In this cross-sectional descriptive study, no sampling method was used and all students (893), who studied in Bandırma Onyedi Eylül University Faculty of Health Sciences between March and April 2020, were tried to be reached. The sample included 504 students who voluntarily agreed to participate in the study. The sample's power to represent the population was 56.43%. A questionnaire was used as the data collection tool. The questionnaire consisted of a personal information form and the Health Anxiety Inventory (Short Form). The data were analyzed using SPSS (Statistical Package for the Social Sciences) 16.0 package program. Descriptive statistics such as number, percentage, mean and standard deviation were used in the data analysis. Mann-Whitney U test and Kruskal Wallis were used to evaluate the personal characteristic and mean scores on health anxiety since the data were not distributed normally. Considering the general profile of the students participating in the study, the mean age was 20.65±1.5, and most students were female (83.1%), first grade (41.3%) and nursing students (40.3%). The most common sources of information about the Covid-19 were the official announcements from the Ministry of Health (86.9%), social media (81.5%) and TV news (80.4%). The total mean scores of the students on the health anxiety inventory was 18.55±6.07 while their mean scores on the body dimension was 14.07±4.87 and on the additional dimension was 4.47±2.43. When the significance level of the correlation between the variables and health anxiety was evaluated, a significant difference was found only with the variable of sex, and there were no significant differences between the variables of the department and grade of the students. Accordingly, female students had higher anxiety levels than the male students. It is recommended that the study should be conducted with all students and similar studies should be carried out after the pandemic since there are differences between the period in which the study was conducted and in the following periods.

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INTRODUCTION

Health anxiety is a state of fear that an individual has a major health problem or will experience a health problem as a result of misinterpreting their physical findings. In other words, it is the inability of individuals to cope with this threat as a result of their perception of a threat to their own health (Abramowitz & Braddock, 2008: 13). As conceptualized by Longley et al. (2005: 9), health anxiety consists of four dimensions as alienation (cognitive dimension), reassurance seeking (behavioral dimension), absorption (perceptive dimension) and worry (affective dimension). Alienation is the dimension where the individual believes that they are sick despite all evidences. Reassurance seeking expresses the state of seeking social support for health problems that the individual thinks they have. In the absorption dimension, the individual focuses on the sensations they physically feel. In worry, which is the affective dimension, the individual worries about health problems that they believe they have or will have.

Health anxiety is a multilateral condition and affects everyone at a different level. Individuals with low level of anxiety show behaviors such as avoiding endangering their health status or receiving appropriate service to be healthier. Individuals with high level of anxiety may experience physical (tachycardia, etc.) or psychological (panic disorder, etc.) problems depending on the situation they are in (Karapıçak et al., 2012: 43; Taylor and Asmundson, 2004: 1). The severity of anxiety felt may have different results in individuals. While the fear of disease is more cognitive in some people, some have greater symptom awareness and physical engagement (Harding et al., 2010: 104-105). The individual's genetic structure, past experiences, personality structure, and events that happened around are the risk factors that affect the health anxiety level (Starcevic and Noyes, 2014). Another risk factor can be epidemic diseases.

Numerous epidemic diseases have emerged throughout the history. Some of these diseases were regional while some of them turned into a pandemic and affected the entire world. For example, the Spanish Flu which emerged in 1918 and became the biggest pandemic in the 20th century, is estimated to cause the deaths of approximately 20 and 50 million people. Smaller pandemics such as the Asian (1958) and Hong Kong (1959) flu also occurred in the 20th century and these two diseases caused the deaths of approximately 8 million people (URL 1). The first epidemic in the 21st century is the SARS-COV due to coronavirus that emerged in 2003. This disease which is transmitted from civet cats murdered hundreds of people at the time it emerged. Approximately 10 years later, it was MERS-COV which was transmitted to humans from camels and numerous people were affected from this process. In the present day, China reported pneumonia cases with unknown etiology on the 31st of December 2019. On the 7th of January 2020, it was determined that this disease was a new coronavirus that was seen in humans for the first time. This new coronavirus, which is named as Covid-19, has been found in 187 countries according to current data. As of the end of August, it is seen that there are 25,760 million cases, 17,077 million recovering patients in the world and 857,248 people died (URL 2). As of the end of August, the total number of cases has become 271,705, total number of deaths has become 6417 and the number of recovering patients has become 245,929 in Turkey (URL 3). These numbers are increasing and changing in Turkey and around the world.

Epidemic diseases affect the physical health of the societies as well as many psychological and sociological aspects. There are studies which show that the anxiety levels of individuals are high during epidemic disease periods in the literature (Leung et al., 2005; Leung et al., 2003; Jones and Salathe 2009; Çırakoğlu, 2011). A study examining the psychological states of individuals during the Horse Flu epidemic in Australia in 2007 found that the anxiety levels of young people were higher than the rest of the society (Taylor et al., 2008).

The Covid-19 epidemic we are in has brought about very different changes in social life. Increasing unemployment, closing workplaces, curfews, transportation restrictions are just some of these changes. There have been changes in education as in other areas. All primary school and middle school institutions, and universities were closed and education activities were tried to be continued remotely. In such period of time, the health anxiety due to the Covid-19 was added up to the existing concerns of the university students about exams and employment after graduation. This study was conducted to learn the knowledge and attitudes of the students, who received education in the faculty of health sciences, about the Covid-19 and to measure their health anxiety levels.

MATERIAL AND METHOD

1. Type, Time and Sample of the Study

In this cross-sectional descriptive study, no sampling method was used and all students (893), who studied in Bandırma Onyedi Eylül University Faculty of Health Sciences between March and April 2020, were tried to be reached. The sample included 504 students who voluntarily agreed to participate in the study. The sample's power to represent the population was 56.43%.

2. Data Collection Tool

A questionnaire was used as the data collection tool. The questionnaire consisted of a personal information form and the Health Anxiety Inventory (Short Form). The personal information form which was formed by the researchers had nine questions about the students' personal information and opinions about the Covid-19. The Health Anxiety Inventory (Short Form) is a self-report questionnaire with 18 items. It was developed by Salkovskis et al. (2002) and its Turkish validity and reliability studies were carried out by Aydemir et al. (2013). The factor structure of the scale has two dimensions. The body dimension, which is the basis of the scale, has 14 items and questions the mental condition of the patients about health/diseases. The additional dimension, which consists of the last four items, is related to negative results of diseases and aims to reveal the patients' opinions on how their mental condition might be under the assumption that they have a serious illness. It is stated that the scale can be used in different studies besides patients. Each item in the scale is scored between 0-3. The lowest score that can be obtained from the scale is 0 while the highest score is 54. High scores indicate high level of health anxiety. The Cronbach's alpha internal consistency coefficient of the scale was determined to be 0.918. It was found as 0.788 in this study.

3. Data Collection Method

Face-to-face education was ended in the faculty, where the study was carried out, due to Covid-19 pandemic and remote education has started. Therefore, data were collected through online questionnaire application. The link of the questionnaire, which included questions on personal information and the items on the Health Anxiety Inventory, was sent to the students and those who voluntarily agreed to participate in the study were included.

4. Statistical Analysis of Data

The data were analyzed using SPSS (Statistical Package for the Social Sciences) 16.0 package program. The Kolmogorov-Smirnov Test was used to determine whether the data were normally distributed. Descriptive statistics such as number, percentage, mean and standard deviation were used in the data analysis. Mann-Whitney U test and Kruskal Wallis were used to evaluate the personal characteristic and mean scores on health anxiety since the data were not distributed normally. The significance level was determined to be $p<0.05$.

5 Approvals for the Study

Necessary administrative approval from the faculty administration and online consents of the students who participated in the study were obtained.

6 Limitations of the Study

This study is limited to the answers of the students who studied in Bandırma Onyedi Eylül University Faculty of Health Sciences and to the questions asked in line with the current conditions of the time when the study was conducted and the answers given (26 March 2020-14 April 2020).

RESULTS

The mean age of the students was 20.65±1.58 (min:18, max: 32). Of them, 83.1% were female and 16.9 were male. Of the students, 40.3% studied Nursing, 21% studied Healthcare Management, 19ç4% studied Physical Therapy and Rehabilitation, and 19.2% studied Nutrition and Dietetics. Of them, 41.3% were in first grade, 37.3% were in second grade, 13.1% were in third grade and 8.3% were in fourth grade (Table 1).

Table 1. Distribution of the Students' Personal Characteristics

Age (Mean±SD)		20.65±1.58
Sex	**n (=504)**	**%**
Female	419	83.1
Male	85	16.9
Department		
Nursing	203	40.3
Nutrition and Dietetics	97	19.2
Physical Therapy and Rehabilitation	98	19.4
Healthcare Management	106	21.0
Grade		
1. Grade	208	41.3
2. Grade	188	37.3
3. Grade	66	13.1
4. Grade	42	8.3

Considering the answers of the students to the question *"From what source do you get information about Covid-19 disease?"*, it was determined that 86.9% of the students received information from the official announcements of the Ministry of Health, 81.5% received information from social media and 80.4% received information from TV news. Considering the precautions that the students took, the students stated that of them, 94% washed their hands, 91.1% stayed away from crowded places and 89.5% did not go out of the house. Of the students, 96.6% answered as no to the following question while 3.4% answered as yes: *"Have you or any of your relatives tested for Covid-19?* Among those who answered as yes, 0.4% got positive test results. Of the students, 84.5% stated that they are anxious about the Covid-19 disease; thus, they generally did not go out of the house. The study determined that 92.3% of the students went back to their hometowns since the universities were closed (Table 2).

Table 2. The Students' Situation Analysis About Covid-19 Disease

	n (504)	%
Source of Information About the Covid-19 Disease		
Official announcements from the Ministry of Health	438	86.9
Social media	411	81.5
TV news	405	80.4
Internet (other websites)	333	66.1
Family members and close friends	192	38.1
Health care personnel	146	29.0
Other (poster, brochure, journal, etc.)	58	11.5
Precautions Taken About the Covid-19 Disease*		
Washing hands	474	94.0
Not going to crowded places	459	91.1
Staying at the house	451	89.5
Using hand sanitizer/cologne	441	87.5
Not shaking hands/ contacting with people	428	84.9
Trying to keep a healthy diet	264	52.4
Using mask	153	30.4
Getting Tested for the Covid-19 (Themselves or any of their relatives)		
No	487	96.6
Yes (negative result)	15	3.0
Yes (positive result)	2	0.4
Worrying About Covid-19 Disease		
Yes	426	84.5
No	78	15.5
Going out of the house/staying in the house		
I do not go out of the house	342	67.9
I sometimes go out of the house	157	31.2
I often go out of the house	5	0.9
Leaving the city due to university holidays		
Those who went to their hometowns	465	92.2
Those who stayed in the city since their families were here	12	2.4
Those who stayed in the city because of work	6	1.2
Those who stayed due to other reasons	21	4.2

*More than one answer was given.

The total mean scores of the students on the health anxiety inventory was 18.55±6.07 while their mean scores on the body dimension was 14.07±4.87 and on the additional dimension was 4.47±2.43 (Table 3).

Table 3. The Students' Mean Scores on the Health Anxiety Inventory

	Min.	Max.	Mean±SD
Body dimension score	3	34	14.07±4.87
Additional dimension score	0	12	4.47±2.43
Total scale score	4	42	18.55±6.07

Table 4 shows the distribution of the students in terms of their personal characteristics and health anxiety mean scores. A significant difference was found between sex and health anxiety level (subdimensions and total). Accordingly, female students had a higher level of anxiety than male students ($p<0.05$). There were no significant differences between the department and grade the students and the mean scores on the health anxiety scale subdimensions and total mean scores ($p>0.05$).

Table 4. Evaluation on the students' health anxiety scores based on their personal characteristics

Personal Characteristics	Body Dimension	Additional Dimension	Health Anxiety
Sex	Mean rank value	Mean rank value	Mean rank value
Female	264.05	260.39	265.54
Male	185.27	203.71	177.76
Test value (z)	-4.540	-3.284	-5.054
P value	**0.001**	**0.001**	**0.001**
Department			
Nursing	254.31	246.40	251.31
Nutrition and Dietetics	263.72	232.50	253.36
Physical Therapy and Rehabilitation	263.06	261.66	263.75
Healthcare Management	221.75	267.10	236.44
Test value (2)	5.843	3.670	1.848
P value	0.120	0.299	0.605
Grade			
1. Grade	237.35	256.30	243.11
2. Grade	256.51	243.77	251.82
3. Grade	288.55	250.14	281.45
4. Grade	236.11	258.11	239.33
Test value (2)	6.968	0.860	3.786
P value	0.073	0.835	0.286

CONCLUSION AND DISCUSSION

This study was conducted to learn the knowledge and attitudes of the students, who received education in the Faculty of Health Sciences, about the Covid-19 and to measure their health anxiety levels. Considering the general profile of the students participating in the study, the mean age was 20.65±1.5, and most students were female (83.1%), first grade (41.3%) and nursing students (40.3%). The most common sources of information about the Covid-19 were the official announcements from the Ministry of Health (86.9%), social media (81.5%) and TV news (80.4%). Considering the high percentage of receiving information from social media, false and malicious news on these platforms may increase the level of anxiety of students. Sing and Brown (2014) found a correlation between the students' state of obtaining information about health from the Internet and their health anxiety levels. It was found that information obtained through the Internet increased the individuals' anxiety levels.

Most of the participants stated that the most common precautions taken in this period were washing hands (94%) and staying away from crowded places (91.1%). About getting tested for the Covid-19 (themselves or their relatives), 96.6% of the students answered as no and 3% of them answered as yes. Among those who answered as yes, 0.4% got positive test results. The reason for this low rate might be that the first case in Turkey emerged on the 11th of March 2020 and that the data of this study were collected between 26 March and 15 April and the number of tests made in that time was small.

The total mean scores of the students on the health anxiety inventory was 18.55±6.07 while their mean scores on the body dimension was 14.07±4.87 and on the additional dimension was 4.47±2.43. When the significance level of the correlation between the variables and health anxiety was evaluated, a significant difference was found only with the variable of sex, and there were no significant differences between the variables of the department and grade of the students. Accordingly, female students had higher anxiety levels than the male students.

There are two other studies that aimed to measure the health anxiety levels of the students using the same scale in the literature. Ünalan (2014) conducted a study with 400 university students and found that 206 students had low level of anxiety and 193 had high level of anxiety. According to the results of this study, no significant correlation was found between health anxiety and sex, income level, sheltering type and academic achievement mean. The same study found a significant correlation between the perceived general health status (low, high and moderate) and health anxiety. The individuals who regarded their general health status as high has low level of anxiety. Karaçadır and Çelik (2019) conducted a study with 353 university students and found that the mean health score of the students was 26. According to this mean score, 53.8% of the participants had low level of anxiety while 47.2% had low level of anxiety. Additionally, a significant correlation was found between the health anxiety and sex and perceived general health status in the study. It was seen that women's health anxiety levels were higher than men. The individuals with high perceived general health status had low level of anxiety.

It is thought that some measures such as quarantine, curfew, and using masks applied during the pandemic period will affect the anxiety levels of young people since they have a lot of movement, abilities and desires and think that these precautions limit them. It is also expected that the anxiety levels of the students who do internships/practices in healthcare institutions will be higher. However, there is no longer any reason for these students to be more anxious than other university students since the universities are closed and there is no opportunity to do face-to-face internship/practice in the healthcare institutions. It can be said that the anxiety levels of the students may increase due to the fact that it is uncertain when the effect of the pandemic will end and students will have to go on internship if it continues in the next academic semesters. It is recommended that the study should be conducted with all students and similar studies should be carried out after the pandemic since there are differences between the period in which the study was conducted and in the following periods.

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Conceptual Analysis of the Change in the Historical Process in Thermal Tourism

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ABSTRACT

In this study, the development processes of health tourism and related basic concepts were revealed by n-gram analysis. In the digitalized books in Google database; concepts related to health tourism such as medical categorization, bathing and water treatment, tourism and tourism types have been selected as key words and the evolution of these words with respect to time has been studied. The frequency of occurrence was determined, and the relationships between the usage frequencies of these concepts and their time-dependent changes were analyzed and visualized.

Obtained findings evaluated together, it is observed that the concept of modern medicine has existed in the literature since the 1800s and rise after the 1890s. It has been determined that the concepts of hot springs, mineral water and balneology were used before the 1800s, but did not vary much except for small fluctuations. While the concept of spa was observed with high frequency between 1800 and 1850, it was found to be relatively low until the 1960s. After the 1960s it showed an increasing trend. The concepts related to health and tourism have increased after the 1960s, but have a widespread use frequency especially after the 1990s. Especially with the increase in the welfare level of societies, the increase in the frequency of use of these concepts is remarkably parallel.

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INTRODUCTION

Along with the existence of humanity, well-being has been one of the top priorities. From the earliest times, religious, divine and legendary meanings were attributed to phenomena, environments, large water resources, natural temperature environments, and hot springs that people had difficulty understanding. For this reason, such areas have always been thought to be healing addresses for people and have always been intense visit environments (Connell, 2006; Eriş, 2019; Rolker et al., 2015; Stober & Bucher, 2013). The oldest and most famous of these are:

Hammam Essalihine, Hammam Chellala (Cezayir), Oyoun Mossa (Moses Springs), Hammam Pharaon (Pharaoh Bath), Hammam Musa (Moses' Bath) (Mısır), Pamukkale-Hierapolis (Türkiye), Ojo Caliente Mineral Springs (New Mexcico), Banjar Hot Springs (Bali), Cascate del Mulino (Italy), Khir Ganga, Himachal Pradesh (India).

Since natural water resources are the source of life and power in most religions, they have had a special place in society. People's search for healing in such places and their intense visits have made these places social, cultural centers and development centers of civilization (Eriş & Kemer, 2020; Mueller & Kaufmann, 2001; Vural, 2019, 2018b, 2018c, 2018a). In the Roman Empire, the Middle Chinese Dynasties and the Ottoman Empire, hot springs were both places used for physical health and hygiene, and also balneological centers where cultural and political discussions were held and time was spent. There were many hot springs in Japan and their popularity was also high. First of all, the bath culture, which had an important place in the Western Roman Empire, the use of such places as health and healing centers and the use of such places as visiting areas began to come to the fore in Eastern Rome after the collapse of Western Rome (Eriş, 2020; Eriş & Barut, 2020; Smith & Puczkó, 2017).

As the Western culture got more in contact with Arabs and Turks, the bath culture and treatment approach gained a new dimension and enriched. During the Middle Ages, many hot springs and baths were established all over Europe. The real revival in this area started after the 17th century. Spring waters are now being used for balneotherapy and balneology, both for bathing, drinking, and for regular treatment (Alonso-Alvarez, 2012; Walton, 2012).

18th and 19th centuries coincide with the golden age of hot springs in Europe. Therefore, during these periods, travels for health purposes (health tourism) were mostly carried out specifically for healing waters, springs and thermal springs. With the transportation security, the development of highways, the safe transportation opportunities provided by the railways, such health seeking travels have increased gradually (Miles, 2005).

After the rise of industrialization and urbanization, the protection of human health has become one of the important agenda items of countries. People gathered in big cities, the deterioration of the natural environment due to industrialization and industrial wastes, waste and dirty water, gases released into the air from factories and fuel-using transportation vehicles, the industrialization-based health problem has begun to take place on the agenda of humanity. Infectious diseases, which come to the fore from time to time, have also been effective in the increase of health problems. At the same time, the increased production and consumption after the Second World War caused the rapid depletion of natural resources and the rapid destruction of the environment (Tiryakioğlu & Tuna, 2016).

The Spanish flu at the end of the First World War, the Hong Kong flu in the late 1960s, the HIV virus in the 1980s, the SARS virus in the first quarter of the 21st century, the Ebola epidemic, Swine flu, Avian flu, and most recently from China in 2019. The new type of Coronavirus (Covid 19) spreading around the world has repeatedly revealed the importance of health.

After the rise of industrialization and urbanization, protection of human health has become one of the important agenda items of countries. People gathered in big cities, the deterioration of the natural environment due to industrialization and industrial wastes, waste and dirty water, gases released into the air from factories and fuel-using transportation vehicles, the industrialization-based health problem has begun to take place on the agenda of humanity. Infectious diseases, which come to the fore from time to time, have also been effective in the increase of health problems. Spanish flu at the end of the First World War, Hong Kong flu in the late 1960s, HIV virus in the 1980s, SARS virus encountered in the first quarter of the 21st century, Ebola epidemic, Swine flu, Avian flu and finally, the new type of Coronavirus (Covid 19) that spread from China to the world in 2019 has repeatedly demonstrated the importance of health.

Along with industrialization, a wide variety of ways and methods for the protection of human health and the treatment of diseases have come to the fore (Bomar, 2013). Some of these are protective methods applied before the disease starts. Some of them are interventions after the disease starts.

A distinction can be made between traditional methods and modern methods in protecting health and fighting against diseases. Modern methods are more operative, interventionist and positivist approaches that prioritize intervention in the human body with drugs and other medical devices. Traditional methods, on the other hand, are the ones that make use of the areas that are seen as healing places identified with

tradition, as given the general information above. Physician control in healing and health services in such areas has also developed over time. In the beginning, while the people here served as consultants / guides, over time, physicians began to replace specialized people.

Health seeking tourism has gained an important place in time as a natural result of traditional treatment methods generally being performed in certain geographies, places and centers (Smith & Puczkó, 2017). The actions of planning and realizing tourism for people to move from one place to another in order to live healthily or to solve the health problem they are experiencing are accepted as health tourism by WHO (Bushell & Staiff, 2001). Such activities may occur within the country or between countries. Hot springs, healing waters, springs, mountain sports, places that are suitable for health in terms of climate and weather conditions are among the main destinations in health tourism.

In this study, some basic concepts related to health tourism were taken as keywords and their usage frequencies in the literature were examined with the n-gram analysis method. Thus, the historical development of the use of concepts related to health tourism in the literature has been tried to be seen and their relationship with social and economic events. It was investigated whether there was a meaningful relationship between them.

MATERIALS AND METHODS

N-grams is a probabilistic model used to predict the next symbol in a sequence. Language modeling in the classical approach refers to the prediction of the next word by looking at the previous words (Aleahmad et al., 2007; Bellegarda et al., 2014; Çiftçi, Ural, et al., 2020; Çiftçi et al., 2019; Çiftçi, Vural, et al., 2020; Huang et al., 2012; Kukich, 1992; Manning & Schütze, 1999; Osmanbeyoğlu & Ganapathiraju, 2011; Ural, M.N. Vural, A. Çiftçi, 2019; Ural et al., 2020a, 2020b; Vural et al., 2020, 2019).

Google has put the n-gram interface application into service so that users can analyze more than 1,500,000 books registered in the database with the n-gram statistical analysis method. This application, where the data can be displayed graphically, allows obtaining different analysis results by using many different analysis parameters in a wide variety of fields. In this study on health tourism, it has been tried to reveal whether the usage frequencies of basic concepts in the literature show a significant relationship between each other.

Although the starting date of the search for the expressions to be searched in this study was started from the past as much as possible, the graphics were redrawn according to the date on which the searched expressions increased. In addition, 3 was preferred as a smoothing factor.

RESULTS

In order to address the issue in a multidimensional way, firstly, an n-gram analysis was performed for different tourism types in the Google books database (Figure 1). In this study, the most used 10 types of tourism are automatically selected and graphed by the interface using the wildcard operator.

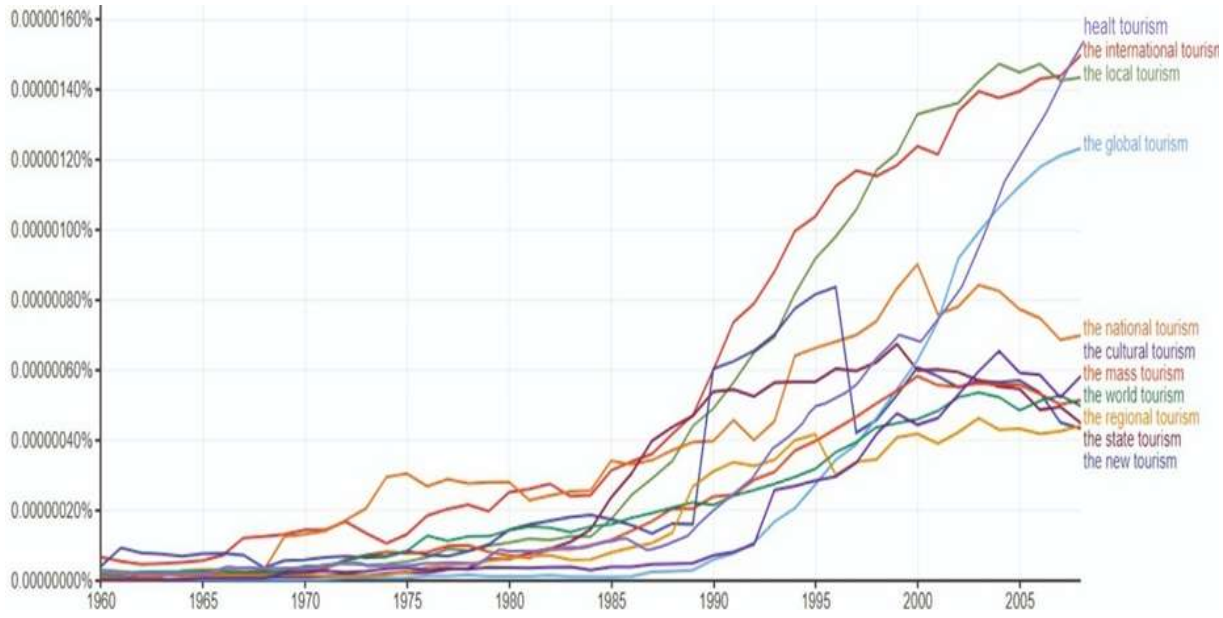

Figure 1. N-gram graphic of the most common tourism expressions

In the graphic, it is seen that the concepts related to tourism types have started to be used prominently in the literature since the 1960s, but it is seen that there is a generally horizontal trend until 1985. The increase in the frequency of use starting from 1985 draws attention. In addition, when the graphic is analyzed, it is observed that the use of concepts such as international tourism, local tourism, global tourism and national tourism in the literature is relatively higher.

However, when the graph was examined, it was observed that none of the concepts that were the subject of this study could reach the top ten in this graph. For this reason, the concept of health tourism was also transferred to the graphic, paying attention to the proportions, and combining two graphics with third-party programs. It is the fact that tourism phenomenon, with its many types, has become widespread after the second half of the 20th century. The most common usage is the concepts of international tourism, local tourism and global tourism.

Health tourism, on the other hand, has historically been identified with concepts such as hot springs, hot springs, healing waters, and baths, but their use with tourism began when the concept of tourism was on the agenda. In order to determine which expressions related to "bath" occur more frequently in the Google books database, the graph of the 10 most used concepts was obtained by using the wildcard operator in the interface (Figure 2).

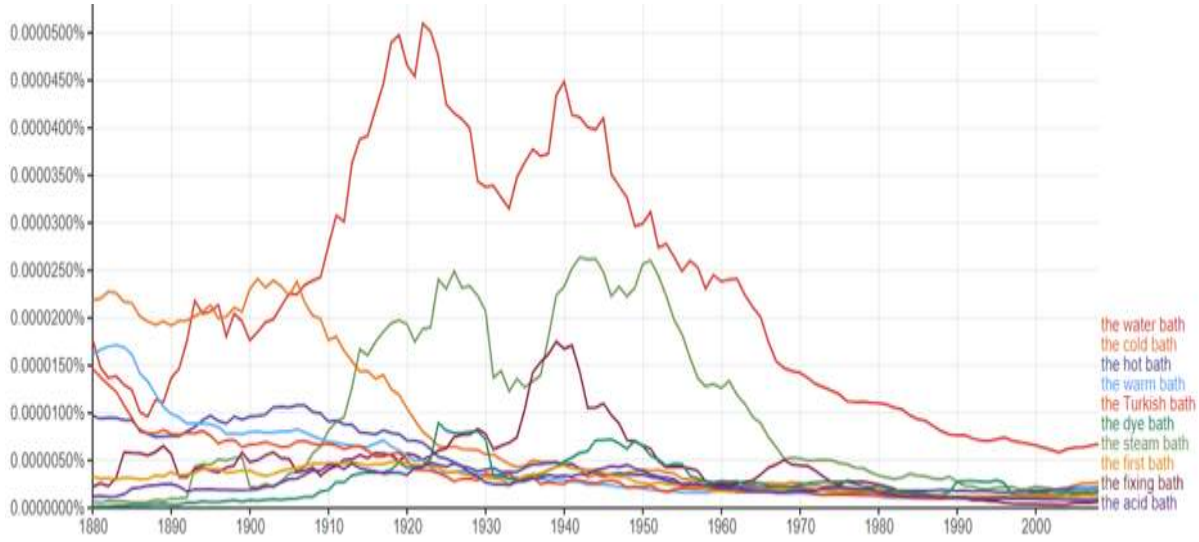

Figure 2. The most common bath expressions

When the graph is examined, it is observed that the varieties such as water bath, cold bath, hot bath and Turkish bath are relatively more popular (Figure 2). An interesting finding in this graph is that these concepts were also seen in the 1880s. However, the frequency of use of basic concepts in the literature started to rise significantly in the 1910s, peaked between 1920-1950, then declined afterwards. After the 1970s, the downtrend draws attention. One reason for this may be that the house has its own heating and bathroom facilities with the urbanization that took place after the Industrial Revolution.

When the graphic is examined carefully, it is seen that while the concept of tourism was frequently used independently at the beginning, the use of concepts such as baths and baths decreased while the frequency of use of the concept of tourism increased after the 1960s (Figure 1 and Figure 2). Therefore, it can be said that after this date, the concepts in Figure 2 have found their place among the concepts in Figure 1 and melted in a crucible. When the graphic is examined carefully, it is seen that while the concept of tourism was frequently used independently at the beginning, the use of concepts such as baths and baths decreased while the frequency of use of the concept of tourism increased after the 1960s (Figure 1 and Figure 2). Therefore, it can be said that after this date, the concepts in Figure 2 found their place among the concepts in Figure 1 and were gathered under one roof.

When the n-gram graph (Figure 3) investigating the basic keywords related to bath treatment such as balneology, spa is examined, it is seen that the concepts of hot water, natural spring waters, mineral water and general bath treatment were also found in the literature before 1800s. Therefore, this frequency of use is parallel with the literature information (Aksu & Bayar, 2019; Carrera & Bridges, 2006; Mueller & Kaufmann, 2001; Reisman, 2010; Smith & Puczkó, 2017). It is seen that there is no serious increase in the use of these concepts between 1800-2000. There are slight fluctuating variations.

However, the same is not true for the spa-massage concept. Especially in line with the introduction of tourism into daily life, a constantly increasing trend in the concept of SPA after the 1960s is remarkably observed. SPA has started to take an important place in the tourism sector, especially with the concepts of spa and massage. It is thought that the opening up policies in the closed Far Eastern societies, especially

after the 1960s, were also effective in showing an upward trend (Figure 3). Although balneology has an important place in health tourism, the concept of SPA has dominated in the mentioned period.

In this study, n-gram analysis of concepts including types of medicine was also created by using the Google books database (Figure 4). In this context, keywords such as alternative medicine, modern medicine, traditional medicine and Far Eastern medicine were analyzed.

When Figure 4 is examined, it is seen that the usage frequency of the concept of modern medicine in the literature remained horizontal until the 1880s, and it started to increase regularly after this date. The concept of alternative medicine started to appear in the literature in the 1970s and suddenly it started to rise rapidly. Especially with the introduction of the concept of alternative medicine into the literature, the concept of modern medicine has started to be questioned. The graph clearly shows this relationship. When the graphic is examined, it is observed that the frequency of using the concept of alternative medicine in the literature has increased sharply in a short period of 10 years, such as 1990-2000. An important factor in this can be considered as the inclusion of eastern cultures in the western culture and the intensification of the search for cure from the eastern health culture as a result of this interaction.

As a result of this interaction, although it showed a serious upward trend in the beginning, it is seen that this usage frequency started to decrease over time after 2000s. Therefore, the idea that alternative medicine does not offer as great a miracle as expected has started to be accepted by the society can be seen as a result of this. After the 2000s, the frequency of using the concept has decreased and it has started to be out of date.

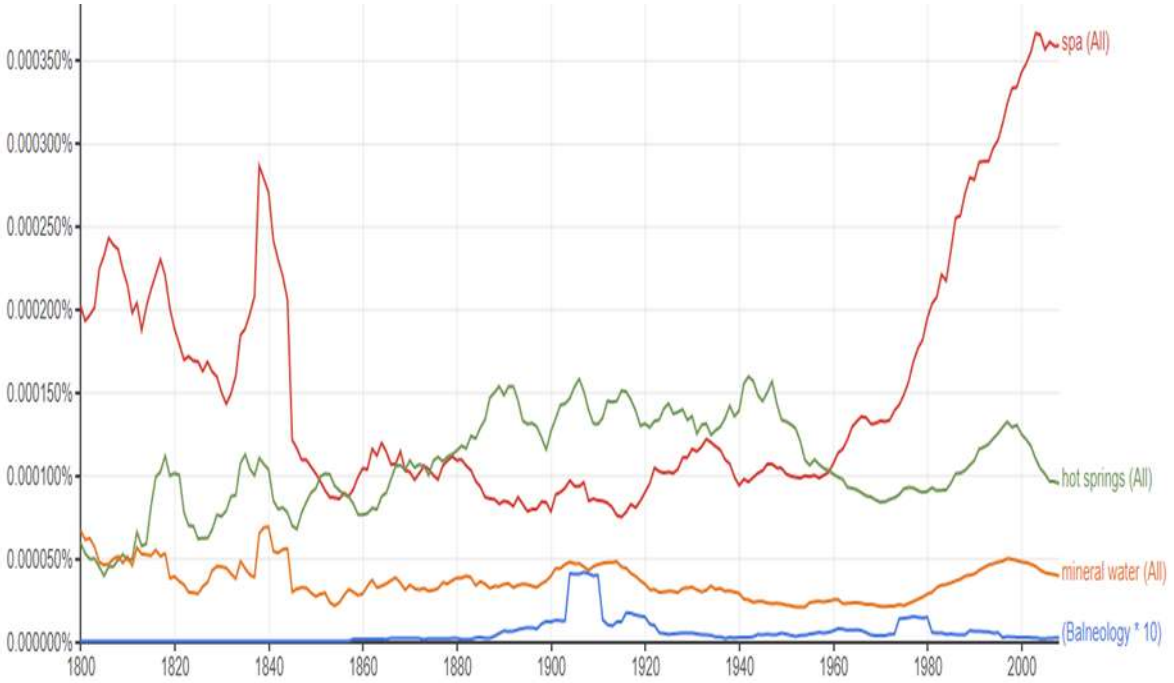

Figure 3. N-gram graph of concepts related to water bath and "balneology = bath therapy"

It is seen that the concept of traditional medicine came to the fore in the literature in the 1970s, started to rise rapidly in the 1990s and peaked in 2000. This result seems significant when considered together with the graphic of the concept of alternative medicine. Because these are concepts related to each other and it is quite natural that they should be handled together in the same literature. Discussion of concepts such as alternative medicine and traditional medicine, which came to the agenda in the 1990s against modern medicine, has affected the graphic (Reisman, 2010).

Looking at the chart, it is seen that there are no meaningful results in the analysis of Far Eastern medicine. The handling of Far Eastern medicine in the literature does not show a change that is suitable for interpretation. The reason for this may be that the concept of alternative medicine has been widely used instead of Far Eastern medicine.

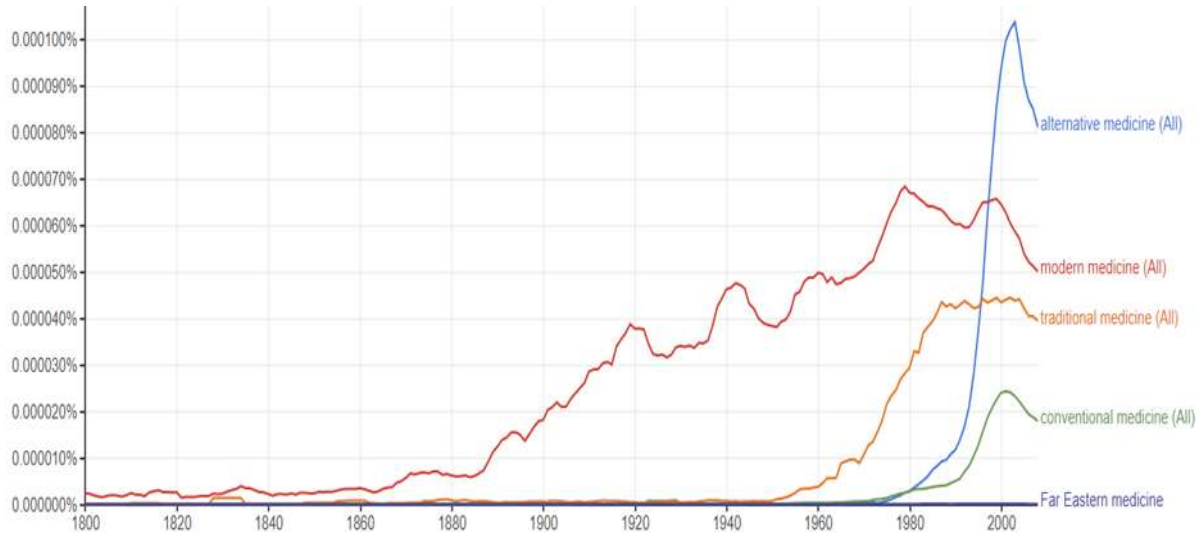

Figure 4. Historical trend of some types of medicine

CONCLUSIONS

When the obtained n-gram analyzes are evaluated together, it is observed that the concept of modern medicine has existed in the literature since the 1800s, but has been in a remarkable rise since the 1890s. This rise has been continuous over time. It has been observed that the concepts of traditional medicine and alternative medicine came to the agenda especially in the 1970s, and increased as a result of new searches in parallel with the increase in the difficulties that could not be overcome in modern medicine after the 1980s.

The increase in the frequency of using traditional medicine and alternative medicine concepts in the literature can also be associated with postmodern discourses that are getting stronger against modernism. Because the idea that there is only one truth in medicine, which belongs to modernism, has presented modern approaches in the field of medicine and health without any alternative. As the postmodern discourses get stronger, the concepts of traditional medicine and alternative medicine have started to take place more in the literature.

It has been determined that the concepts of hot springs, mineral water and balneology were used before the 1800s, which were accepted as the beginning of n-gram analysis, but did not vary much in general except for small fluctuations. The concept of spa-massage was observed with a high frequency between 1800 and 1850, it was found to be relatively low until the 1960s, and after the 1960s it showed an increasing trend. It is thought that this is due to the fact that the Far East countries, which are closed states, followed an open policy after the 1960s and the massage (SPA) culture, which was common in the Far East as a result of their efforts to integrate with the world, also took place in Western societies.

The concept of gym is also relatively similar to SPA. Concepts related to health and tourism have increased after the 1960s, but have a widespread use frequency especially after the 1990s. This situation can be seen as a development parallel to the increase in transportation facilities in the world.

As a result of this study, especially health tourism, thermal tourism, etc. It has been revealed that more research is needed on the concepts.

In addition, it has been shown in this case study that n-gram analysis, which is an NLP (Natural language processing) method, can also be used in health tourism and will contribute to understanding the historical development process of health tourism. By changing the searched keywords, it is possible to make a similar analysis in other concepts related to health tourism. It is hoped that this study will produce an original analysis method and original findings by using many sources in the literature. This analysis provides new findings to this discipline by expressing verbally transmitted historical information visually and numerically, thus providing the opportunity to check whether the verbal history and numerical findings match.

It is hoped that the method of this study will both inspire new researches in the field and present new findings for old studies.

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Conflict of Interest:

The authors declare that they have no conflict of interest.

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An Investigation on the Concept of Triage in The Event of Disasters and Emergencies: Definition, Ethical Decision-Making

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ABSTRACT

All rescuers and health professionals, who take part in minimizing injuries and deaths depending on the status of a disaster and emergency in case of an extraordinary incident, undertake responsibilities. Disaster triage decision is a vital practice to save as many human lives as possible by using the right methods fast and effectively, with a focus on creating optimal benefit. Ethical decision-making and ethical dilemma problems may arise during disasters. The effectiveness of disaster triage services has been established for all disaster service workers. The goal of this study is to provide suggestions to all rescuers and health professionals with regards to making ethical decisions and cope with ethical dilemmas they may face during triage. This study has been prepared by analysing national/international reports and reviewing documents from electronic databases and printed resources by taking previously published resources as a basis. This study is a document analysis study based on investigation of reports. The amount of medical resources and the number of intervening healthcare professionals are limited during disasters, therefore triage applications during disasters are crucial to reducing the number of preventable mortality and morbidity. It is a fact that healthcare professionals' ethical knowledge level regarding disaster triage has an impact on their ability to make triage decisions. It is inevitable for them to fall into ethical dilemmas due to various factors during triage. In this section, examples from world literature and studies from our country will be presented. Meaningful suggestions will be made at the end of the study.

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INTRODUCTION

All rescuers and health professionals, who take part in minimizing injuries and deaths depending on the status of a disaster and emergency in case of an extraordinary incident, undertake great responsibilities. Disaster triage decision is a vital practice to save as many human lives as possible by using the right methods fast and effectively, with a focus on creating optimal benefit. The amount of basic medical resources and the number of intervening healthcare professionals are limited during disasters. Mortality and morbidity can be reduced by effective triage applications.

Ethical decision-making and ethical dilemma problems may arise during disasters. Theeffectiveness of disaster triage services has been established for all disaster service workers.

MATERIALS AND METHODS

The study is theoretical research based on literature review. This study has been prepared by analyzing national/international reports and national documents and reviewing documents from electronic databases and printed resources by taking previously published resources as a basis. This study is a document analysis study based on the investigation of reports.

RESULTS

It would be beneficial to define certain concepts used in the study. Definitions for the concepts of Emergency, Disaster, and Triage were taken from the Disaster and Emergency Management Presidency (AFAD,2014) Disaster Terms dictionary whereas the concept of Ethics has been defined based on Turkish Language Association (TDK, 2018)

Emergency: All situations and conditions that require urgency, usually at large scale but manageable with local resources. Law No. 5902 defines an emergency as an event that halts or interrupts normal life and activities for all or certain segments of society and requires immediate intervention as well as the state of crisis caused by such an event.

Disaster: Nature-, technology- or human-induced event that causes physical, economic, and social losses for all or certain segments of society, halts or interrupts normal life and human activities, and in which the capacity of the affected society to cope with is insufficient. A disaster is not the event itself but rather the consequence of it.

Triage: The process of quick selection and codification carried out at the scene or in healthcare facilities to which such individuals are admitted to identify individuals who require treatment priority or transfer in case of an event that causes multiple diseased or injured.

Ethics (ethique): As a noun; morals, the science of ethics, a set of behaviours that members of a profession must comply or abstain from. As an adjective; moral, related to morality.

The Concept of Ethics and Ethical Dilemmas in Triage Decisions

Ethics is the study of moral rules and judgments about what is right or wrong (Jenson, 1997:445). Ethics is the foundation of societies and cultures and constitutes the basis for political, social, and financial decisions. Ethics defines what is right or wrong, acceptable or unacceptable, tolerable, or not tolerable for an individual.

The study of ethics and the ethics theory is divided into two sections, namely metaethics and normative. (Fieser, 2009:1). In essence, metaethics questions the foundation, principles, and source of ethics and focuses on the meaning of terms related to ethics. It questions universal truths and locates the mind to judge it. Besides, normative ethics focuses on what moral standards and truths are to regulate behaviours.

Ethical dilemmas have sparked controversy throughout the years. According to Garrett Hardin (2001), “lifesaving ethics” is defined as difficulties faced in case of scarce resources. A boat with 50 people in it with enough capacity for 10 more people but with 100 people in water would be a good example. How to decide whom to save? Who should be allowed on board? Who will be left in the water? Certain decisions have to be made at that time. Another current example would be the ethical decision-making process during a pandemic in which medical resources are limited. Certain decisions are taken based on the principle of final justification. The decisions taken will be based on utilitarianism. It is not easy to evaluate an action based on its results Hardin (2001). We can never make a single decision; the truth is that an action will have multiple consequences while we are conducting our ethical analysis. When providing healthcare services; secrecy, confidentiality, and autonomy of those in need as well as the actions taken should be respected. There are multiple seriously ill and injured people and the situation requires enacting certain principles. Multiple individuals requiring care are present at the same time. The individuals to be treated first have to be determined. Limited available resources and the question of what the most appropriate use of them resulted in the emergence of the concept of triage. Triage, from the French word "trier", means ranking, eliminating, distinguishing, sorting (Streger, 1998:1).

Triage was initially used to separate dying soldiers from those with lesser wounds on the battlefield.

Here, the decision-making mechanism was based on prioritizing the soldiers who were slightly wounded and therefore could heal quickly and return to the battlefield. In modern medicine, it means ranking patients based on their urgency (Williams, 1996:506). Ethical dilemmas may be experienced from time to time and a choice may have to be made among equally severe events and conflicting ethical rules (Jenson, 1997:8).

History of Triage and Disaster Triage

Before the concept of medical triage, triage was used as a tool to rate the quality of goods such as coffee beans and wool (Woolwich, 2000:476). The wars fought in history have laid the foundation for today's triage. The areas most needed in application fields of life-saving treatments according to patients' condition and the treatment they need such as accidents scenes before the hospitals, trauma centers of hospitals during disasters, emergence rooms, intensive care units, organ transplantations, and battlefields (Repine et al., 2005:505). Patients are initially received and assessed by emergency service healthcare personnel (such as nurses, paramedics, or emergency medical technicians). The staff in charge begins to life-saving procedures that prevent deterioration of the patient's condition while at the same time striving to lower mortality and morbidity in a multidisciplinary manner with doctor intervention and assessment.

Before the concept of medical triage, triage was used as a tool to rate the quality of goods such as coffee beans and wool (Woolwich, 2000:476).

The founder of the concept of medical triage was Baron Dominique Jean Larrey (1766-1842), Napoleon's surgeon (Howell, 1988:9). Triage means when and how to provide healthcare services at what level due to scarce resources in case of chaotic emergencies and disasters (Hogan and Burstein, 2007:7).

Soldiers condition would usually be ignored during the French Revolution as well as the war period of the 18th and 19th centuries. (Nestor, 2003:3). However, Baron Larrey, a dynamic and respected French military surgeon, revolutionized the treatment of soldiers on the battlefield in an era when surgeons were often perceived as butchers. With better care of the injured, Larrey was recognized as a good surgeon (Howell, 1988:9). Dominique Jean Larrey, the French war surgeon who was the first to apply the first triage practices, determined that a system for grouping soldiers injured in battle was necessary and started this procedure. He initiated basic medical care at the scene as soon as possible, thereby allowing them to recover quickly and survive. In 1846, John Wilson, a medical doctor in the English Navy, accepted the fact that better use of resources by way of treating those with most grievous wounds was necessary, which was the next major development in triage systems (Hogan and Lairet, 2007:17).

During the American Civil War, Jonathan Letterman, medical director of the Potomac Army, initiated triage and frontline medical care which resulted in a significant reduction in death rates of privates in his unit (Christian et al., 2002:5). Horse carts called flying ambulances or *"Les ambulances valantes"* (Figure 1) would be used to evacuate injured soldiers who are likely to survive from the battlefield and bring them to treatment areas (Mitchell, 2008:5).

The ambulance corps of Baron Dominique-Jean Larrey, circa 1809.

Figure 1

During World War One, the wounded would be transported to a location that was turned into a treatment center and then directed to appropriate centers for advanced care.

During World War One, ambulances comprised of civilian volunteers were at the forefront; they would stand right behind the frontlines and many wounded soldiers were evacuated by ambulance vehicles while the fighting continued, as shown in Figure 2 (Mitchell, 2008: 5).

Red Cross ambulances being loaded with stretchers in front of the 1st Line Hospital at the foot of Monte Grappa on the Italian front, circa 1914–1918.

Figure 2

The use of chemicals and machine guns in combat resulted in a large number of injuries, forcing paramedics to use triage techniques. In order to optimize overall patient outcomes in a catastrophic situation, there is a shift from doing what is best for the individual patient to doing the greatest good for the largest number of people The war now involved civilian population centers; triage spread throughout the medical community and medical staff had to prioritize treatment of civilian casualties (Lee,2010:466)

Significant advancements were made in the field of medicine during World War Two; the concept of "Buddy Aid" emerged and each soldier was provided a package of medical items and a tourniquet for first aid on himself and his teammates. The doctor was an integral part of each combat unit, and they would aid the injured who shouted "Medic!" Contents of a small medical aid bag allowed initial treatment which enabled many soldiers, who would otherwise die of blood loss or chest wounds, to survive. Today, the stepped treatment has been developed to treat injuries. Treatment is initiated by healthcare professionals in the field; afterward the individual transitions into necessary advanced treatment. Badly injured soldiers were brought into nearby aid stations (Mitchell, 2008:4). The surgical hospitals allowed treatment of many surgical wounds which would be fatal (Dolev, 1996:785). Later, surgeons were moved away from the conflict zones to operate in a safe environment. The emerging aviation technology would be used for quick evacuation of injured soldiers; a helicopter was launched as shown in Figure 3. (Mitchell, 2008:5). This allowed lowering mortality rates during wartime to below 30%.

Personnel, equipment, and a Bell H-13 helicopter needed to save a man's life are assembled at the 8225th Mobile Army Surgical Hospital, Korea, 1951. Photograph by Cpl Charles Abrahamson (Army), from *www.defenselink.mil, Commemorating the Korean War (http://www.defenselink.mil/specials/koreanwar/warvets.html)*.

Figure 3

Advancements in helicopter evacuation have revolutionized wartime medical care. This allowed providing quick medical care to soldiers who would otherwise die in conflicts (Eisman, 1967, 153).

Mortality due to injuries in the battlefield reduced to 24% in Vietnam and 10% in Iraq and Afghanistan. Triage became what it is today after the Vietnam War (Mitchell, 2008:6).

This change in approach to triage was one of the factors that influenced instant life save during the Korean War and the Vietnam War, during which fast triage and evacuation system was further improved. The goal of military triage was to treat the injured at higher rates, whereas civilian triage was focused on keeping as many people alive as possible (Nocera and Garner, 1999:603). The disaster medicine was developed as a method of coping with a high number of injured people. Many scientists have adopted advanced triage plans; however, few of these could be used in case of a disaster. Triage was developing in the scientific sense but the US government has focused on the development of advancement of designed triage systems after the 9-11 attacks Triage has become an integral part of various medical fields; even approaches towards the quick treatment of slightly wounded individuals, such as firemen and policemen, to have them return to duty have been developed. A coordinated and multidisciplinary triage approach is suggested for effective triage functions in case of mass injuries (Mitchell, 2008:5).

Triage in case of mass accidents or incidents such as derailed trains is different from triage used in case of extraordinary events. This table is part of a healthcare facility's daily work system. It requires Incident Command Management and the process can be managed with good planning. Triage used in emergency services or healthcare facilities daily is focused on treating individuals with the most severe illness or those requiring urgent care. This group of people has to be prioritized for life-saving treatments. Advanced techniques are applied to increase patients' probability of survival.

Disaster triage differs significantly from triage used in the emergency rooms daily. Patients who apply to the emergency department are assorted based on urgency and are treated. Every patient who presented to emergency room can receive medical care and be treated.

In case of mass casualties such as disasters, the goal of triage is to quickly classify individuals to save as many lives as possible and this is where we come across the concept of utilitarian ethics The system ensures that scarce resources go to those who will benefit the most from the most appropriate care and rapid surgical intervention. Ethical difficulties might occur during disasters due to insufficient or disorganized resources, limited time, a high number of injuries, or a chaotic environment. Nevertheless, the individual providing healthcare services combines the basic ethics of respect for autonomy and fairness with his own ethical rules and his behavior takes shape accordingly (Bosticks, 2008:35).

Disasters create a large portion of aid efforts; the management requires an institutional approach (Cariappa, Khanduri, 2003:286). Many people try to work in an alien environment and at a speed with

which they would not be able to keep up under normal conditions (Auf Der Heide, 1984: 4). Because disasters cause never before seen, extraordinary problems and people try to solve these problems. Disasters are events that occur suddenly and require timely intervention to mitigate the damage caused by unfolding events.

There are many disaster triage systems around the world, each of them aims to do the best for as many injured people as possible (Brosnan et al., 2010). Triage systems developed for use in non- military systems are divided into two groups, namely primary and secondary triage. In primary triage systems, injured people are prioritized for evacuation, they are transferred to medical centers for medical care (Brosnan et al.,2010:178).

In secondary triage systems, the injured people are triaged after arriving at the scene; on-scene treatment is provided if evacuation is going to delay. (Jenkins et al., 2008:138).

Triage classification is based on the condition of injuries.

START triage system: This system is the most commonly used triage system in the United States. In this system, all injured adults older than 8 years are evaluated, based on the algorithm of the system in 60 seconds or less (preferably 30 seconds). In this system, the criteria including the ability to walk, respiratory rate, capillary filling, radial pulse and obeying the commands are used. By examining each criterion, the patient will be marked by one of the red, yellow, green and black tags (Figure 4).

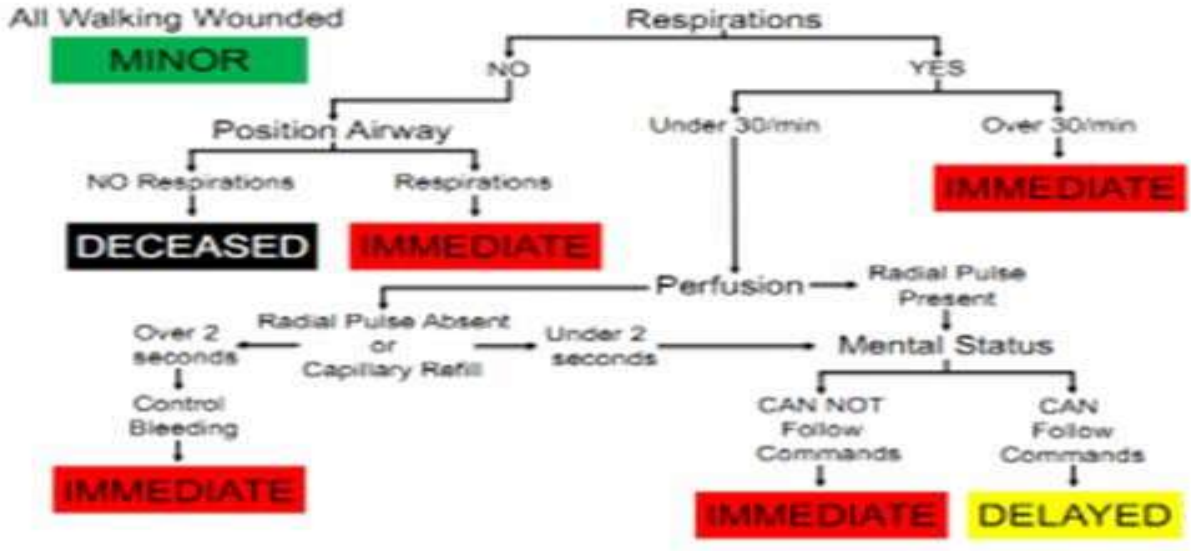

Figure 4. START Triage Algorithm (Bhalla et al.,2015:7)

Reverse Triage: Reverse triage is a method that is commonly used during emergencies and disasters. In reverse triage, injured people with fewer damages and minor injuries are at the priority of receiving services. This is also used in cases, where the treatment team or soldiers, during the war, are injured. Moreover, this kind of triage system is used in the disaster and emergencies, where medical resources are limited, with the aim of returning people as quickly as possible and helping other people (Jenkıns at al.,2008:5).

Military Triage: The main goal of the military triage is to treat and return more injured soldiers to the battlefield. In this method, immediate and rapid classification of the injured people is based on the type and severity of the injury, the probability of survival, as well as the priority of treatment in order to provide the best health care services for the largest number of people (Adams,2008:216).

Sieve Triage: Similar to the START method, this method, which is used in parts of Europe, Australia, and the United Kingdom, first uses the walking filter to examine the injured individual, and uses four tags encompassing red, yellow, green and black tags to classify the injured patients (Figure 5).

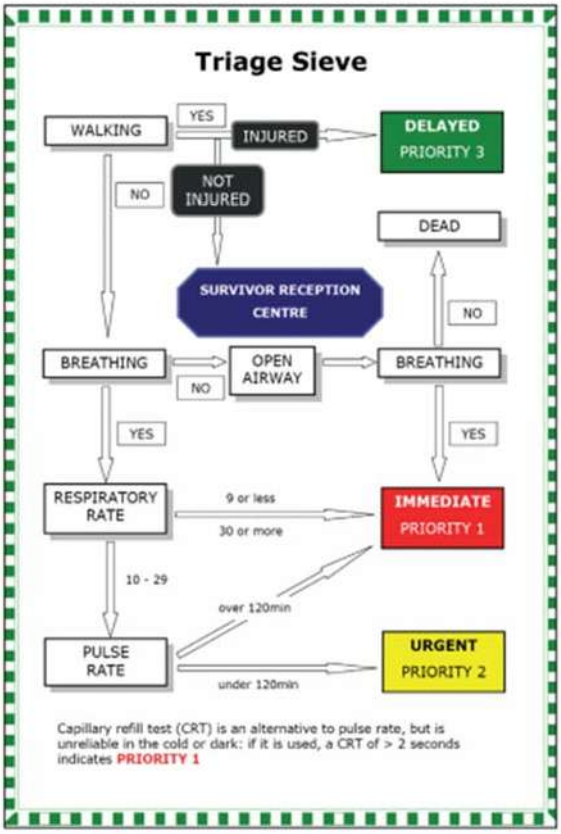

Figure 5. START Triage Algorithm (Smith, 2012:414)

MASS triage (Move, Assess, Sort, Send): This system is a disaster triage system used in the United States. Although this system is based on the START triage system, it does classify the injured people before individual examination. This includes four stages of moving, evaluating, classifying and transferring. This system, whose algorithm is very and green classes. The red class includes people, who are unconscious and in shock, have bleeding, and ineffective breathing. The yellow class involves patients with fractures of the bones and other injuries, and the green class includes injured people, who can walk (Figure 6).

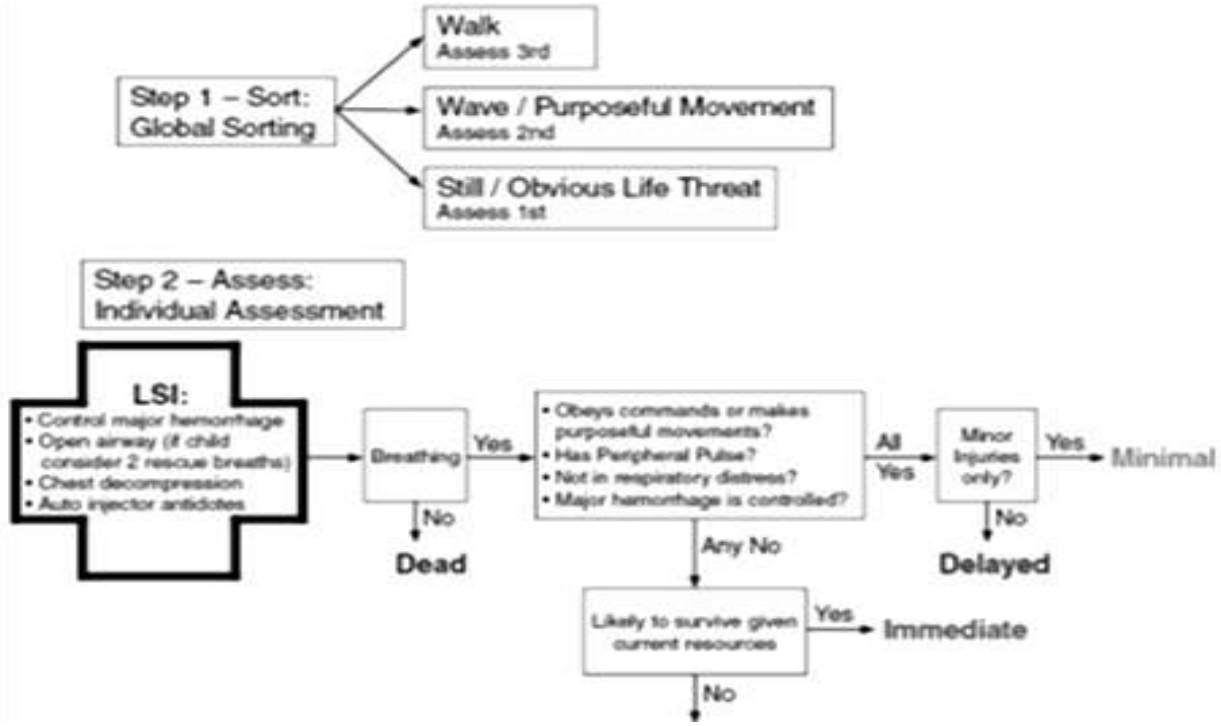

Figure 6. Proposed national triage guideline: SALT mass casualty triage (Lerner,2008:35)

Burn Triage: In this method, which is used to prioritise injured persons in burn events, the classification of the injured people is based on the severity and level of the burn (Figure 7).

Category	Profile
Green group	First- degree and superficial burns
Yellow group	Burns above 30% in people over 5 and under 60 years old
Red group	Second- degree burns in head and neck, genital area and joints Third- degree burns in an anatomical region of the body Burn in people under 5 years of age and over 60 years of age Burn in pregnant women, people with underlying conditions with second- degree burns more than 10%, people with second-degree burns above 30%

Figure 7. Classification of the injured people in the Burn triage (Brandt et al., 2000: 26).

Medical Triage Protocol: In this protocol, the walking ability criterion is initially controlled, and those who can walk are classified in the green group. Then, other criteria such as the level of consciousness, arterial bleeding, shock, breathlessness, fractures and injuries of the head and spine, and ultimately pathologies such as myocardial infarction, poisoning, burns, hypothermia, and chest pain are checked and the patient is tagged as red or yellow according to the following algorithm (Figure 8).

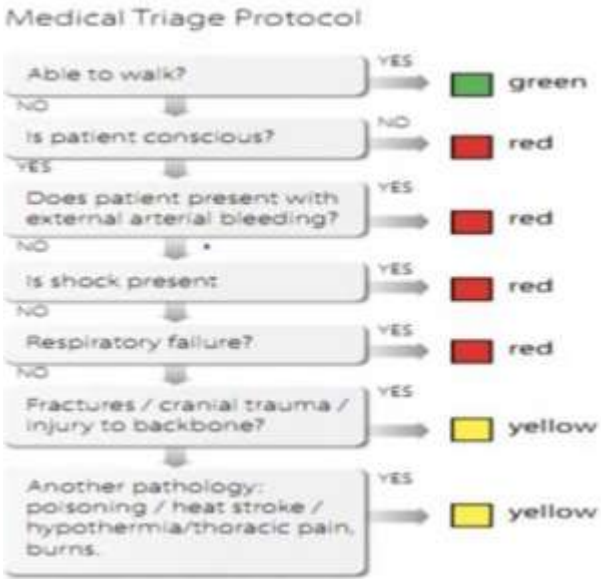

Figure 8. Medical Triage Algorithm (Alexander, 2013:27)

Hospital Triage: The aim of the hospital triage in the emergency department is to place patients in a suitable clinical setting at the right time to receive the appropriate level of health care. There are two, three, four, and five level systems for hospital triage proposed in the world, among which five-level systems including Manchester Triage System (MTS), Canadian Triage and Acuity Scale (CTAS), Australia Triage System (ATS). All hospitals should design and develop a program for hospital triage in disaster situations and mass casualty incidents as part of the hospital emergency plan (Powers, 2010:10) Regardless of the system used, triage requires ethical decision-making. Disaster triage is utilitarian by nature (Hogan and Burstein, 2007:8). In cases of disasters, triage is an ongoing process. It starts at the scene and continues when you arrive at a healthcare facility. Each process within the care system of a healthcare facility such as surgery, intensive care admission, or discharging patients requires medical teams to make ethical decisions. Healthcare professionals' failure to treat injuries based on the decision taken due to low resources or prioritization is not considered as a failure of duty. The goal here is to provide as much benefit as possible based on the approach of providing a benefit by using limited resources. Mill used this as the functional basis of ethics (Mill, 1867:8).

Healthcare professionals may act slowly, be late for saving lives or breach the principle of not harm by disregarding the fact that time is of vital importance (Demirhan,2009:28). Over the years, sets of ethical rules have been developed to guide medical personnel in their work. Ongoing debates over triage decisions based on age, gender, social status, ethnicity, or profession (e.g. healthcare workers) of victims generally conflict with the basic right of survival at the individual level as well as the principle of fairness. In their study, Halpern and Larkin concluded that "ideological issues should not overshadow human priorities embodied by ethical rules" They regard the patient's health as being the first priority for the physician, who is mandated to use the power of medicine forthe general good and maintain good relationships with his or her colleagues, while forbidding any kind of discrimination among patients (Halpern et al, 2006:63).

Another important issue is the fact that disaster victims may reject treatment while healthcare professionals working in the disaster areas are trying to initiate and continue treatment according to triage rules. In such cases, treatment should continue to avoid medical or legal problems if the victim's ability to make decisions is doubtful while assessing his/her

mental capacity. Victims who have been grievously wounded during a disaster may demand euthanasia. Euthanasia is prohibited under international public law and most medical ethics around the world (Massue JP,2000:462). This prohibition was declared by the WMA in the Declaration of Euthanasia (1987) stating euthanasia is not ethical (WMA, 1987). Health workers working in disasters should particularly pay attention to vulnerable groups; such groups including children, women, the elderly, the disabled, refugees, and other minority groups, all of which are defenseless and therefore affected more severely by disasters. (UNDP, 1997). Besides, any activity that may result in stigmatization or discrimination against vulnerable groups should be avoided based on the principle of ethical fairness (Karadağ et al, 2012: 609).

CONCLUSIONS

The results obtained from literature research and review show that disaster triages cause ethical dilemmas due to crumbled weak structures in disaster areas and a high amount of victims who were buried in the wreckage as well as lack of current resources and personnel trained to use such resources. Disasters will continue to occur and certain ethical issues and dilemmas will accompany them.

Disasters will occur in different shapes based on time, location, the affected area, and the number of affected people, therefore the ethical issues that arise will not be uniform.

Establishing ethical values and principles in each area where healthcare services are provided in case of a disaster is crucial.

RECOMMENDATIONS

The ultimate goal of triage is the preservation of lives. A group of healthcare professionals, who have the skills and dynamic structure to create the most benefit with limited resources in case of a disaster and the midst of a chaotic environment, should be trained. The presence of a group with disaster medicine and war surgery skills is important. It is suggested that the formation of professional medical teams similar to those previously present in the military healthcare system would be beneficial.

Having experienced experts provide training, conducting drills, and enacting scenarios are suggested to develop healthcare professionals' ethical decision-making and ethics-based triage application skills during triage training. Also, it is suggested that having the trained teams engage in missions for actual exercises in the event of a disaster would contribute to the teams' training and development.

Establishing a legal definition for the ethical disaster triage practices deemed fit for use in case of a disaster that occurs in our country as well as detailing it, is suggested as it would enable us to react to various problems that may occur following a disaster.

It is suggested that inefficient practices during any disaster should be criticized and recorded, as it would be beneficial in initiating corrective/preventive actions in later stages.

It is suggested that developing guides, protocols, and emergency/disaster relief plans by reviewing legal and institutional regulations and taking possible ethical dilemmas into considerations, creating on-call ethical committees and giving sufficient in-service ethical competence training to healthcare professionals would be beneficial as steps to be taken before any disaster.

It is suggested that discussing reformatory efforts at the national and international level would provide a holistic benefit.

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