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Dear Scientists,

We are happy to publish the first issue of 6th volume of our journal by publishing your scientific studies. We can predict that our journal, which has high international accessibility because it is published in English, will become much more effective in the coming years.

You will see some innovations in this issue in our journal. We strengthened our citation to ethical principles. Our authors must make a commitment to their scientific studies that they do not need to take an ethical committee approval, that they do their work in accordance with ethical principles. We will start publishing accepted articles in the "Accepted Articles" tab before the issue is released.

In these days while we experience the COVID-19 pandemic, we will give priority to the evaluation processes of the studies you will carry out in the field of study of our journal related to the COVID-19 pandemic by taking scientific responsibility.

In the field of health management, we will continue to create a suitable situation for your studies.

With Regards...

Assoc. Prof. Dr. Sedat Bostan

JIHSAM Editör in Chief

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RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

THE RELATIONSHIP PERSONALITY TYPES WITH POLITICAL SKILL IN HEALTH INSTITUTIONS EMPLOYEE*

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ABSTRACT

Personality characteristics, growing conditions, experiences, social environment conditions of individuals show differences in their behaviors due to reasons. On account of, it is normal for the employees to work in organizations to differ their political skills in their relations with their superiors, subordinates and colleagues. In line with these explanations in study, the effect of type A and B personality traits on political skills was investigated in this study. The population of this research, which is designed as descriptive and cross-sectional type, consists of administrative staff of Sivas Cumhuriyet University Health Services Application and Research Hospital. 273 people included in the study sample and 276 people were reached. Survey method as data collection tool. The questionnaire consists of three parts; demographic information form, a and b type personality trait scale, political skill inventory. The data were evaluated with SPSS 22 descriptive statistics and analyzes. 62.7% of the participants were male, 69.9% in the 30-39 age group, 35.9% were pre-associate and 43.1% had a total working period of more than 10 years. 70.3% of the participants has been identified that they have a type personality characteristics. It found that type A personalities (5,16) are above the averages of political skills according to type B personalities (3,59).

Keywords: Personality Types, Political Skills, A and B Personality, Health Sector and Services, Health Management

A R T I C L E I N F O

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1. INTRODUCTION

In today's competitive conditions, businesses need more time, money and talent in order to have a sustainable and profitable structure. The time, money and talent needed should be organized with the right planning and goals. At this point, the harmonization of organizational goals and personal goals helps enterprises and employees achieve their desired success (Akçakanat and Uzunbacak, 2017: 787).

Based on personality models, it is seen that personality traits of individuals have come to the fore in business and social life behaviors (Aydın, 2016: 31). In this context, in order to provide good services to enterprises, qualified human resources and human resources need to be upgraded. The success graph in enterprises is realized only with qualified human resources (Seferoglu, 2004: 85).

Due to the rapid changes and developments in science and technology, working life renews itself. In this process of innovation, the employees affected by the change need to be equipped with some knowledge and skills and develop their existing skills in order to adapt to the development process and contribute to the development. Employees can gain some negative behaviors while gaining the existing skills (Yıldız, 2018: 60-61).

In recent years, many new concepts related to organization and organizational effectiveness have been discussed and explored in the literature. One of these behaviors is political behavior. Political behavior is considered as a process consisting of activities related to its advantages / disadvantages within the organization, which is not seen as part of the official duty understanding of the employee in the workplace, but which affects / tries to influence it (Özdemir and Gören, 2015: 522).

People with political skills and those who can use them will have a better interaction with their leaders, making more use of their leaders' limited time and organization resources. Therefore, people with political skills will be able to reach their career success faster (Katı, 2016: 5).

2. LITERATURE

2.1. A and B Personality

Type A and B personalities were first observed by two cardiologists Meyer Friedman and Ray Rosenman. The idea first came about when most of the workers' chairs repairing the chairs of their clinic's waiting room were only torn from the front. From this situation, both cardiologists understood that most heart patients were anxious and had a hard time sitting. They concluded that when they used this observation as a starting point and based on their clinical practice, their patients exhibited two different types of behavioral models. Their research led them to conclude that differences are personality-based (Griffin and Moorhead, 2013: 183).

The type A personality person is extremely competitive, impatient, dedicated to his / her work, sensitive to time, feeling more energetic than other people and maintains an intense work tempo. B-type personality characteristics of individuals with less conflict, maintaining a more balanced and comfortable life, trying to give enough opportunities for leisure activities outside of work (Durna, 2004: 199).

Table 1: Type A and B Personality Characteristics (Luthans, 2009: 285)

Type A Personality Characteristics	Type B Personality Characteristics
They are always on the move.	They do not have time concerns.
They walk and eat quickly.	They are patient.
They speak fast and are impatient.	They don't praise themselves.
They do two things at once.	Play for fun, not for winning.
They don't like to be idle.	They like to be comfortable.
They are obsessed with numbers.	They don't rush when they do their jobs.
They are aggressive and competitive.	They are naive.

In Table 1, the expressions regarding type A and B personality traits cover the contradictions and include general outlines. Although these expressions, which characterize these personality traits, are opposed to each other, there are no sharp distinctions in individuals.

Friedman and Rosenman stated that people cannot be purely A type or B type personalities, but they may be more prone to one of these two types (Griffin and Moorhead, 2013: 183).

2.2. Political Skills

Ferris et al. (2005: 127) stated that this concept "was using knowledge to influence others and behaving in a way that enriches the personal and organizational goals of others". Concerning political skill, Ahearn et al. (2004: 311), “the ability of an employee to use his knowledge of other employees to influence them to act for his or her goals".

Political skills are also closely related to the concepts of social intelligence, emotional intelligence, flexibility, self-efficacy, self-control, implicit knowledge and practical intelligence, machiavelism, self-esteem, ambition of power and desire to control (Ferris et al. , 2000: 28; Ammeter et al., 2002: 759).

Looking at the working areas from a wide angle; factors such as employee selection, performance evaluation, training opportunities and promotion are seen as political concepts in organizational conditions. In this direction, political skills; It is an interpersonal style that combines social intelligence and the ability to apply appropriate behavior. Political skills are basic career competencies that become even more important as the corporate ladder rises (Çokar, 2018: 15).

Considering the process of conceptualizing political skills in the organizational policy literature, many important different perspectives draw attention by both Ferris et al. Ferris et al. (2007: 292), it is seen that four basic sub-dimensions, namely the ability to establish networking ability, apparent sincerity, social astuteness and interpersonal influence, are put forward and the mentioned sub-dimensions are widely adopted by the researchers.

These four main dimensions are summarized below (Ferris et al., 2005: 128-129; Ferris et al., 2007: 292-293; Atay, 2010: 67-68; Moss and Barbuto, 2010: 159-161; Nair, 2018: 46 -47):

a) Networking Ability: In the political skills sub-dimension, people who have the ability to establish a relationship network are very easily able to make new friendships with other people, to conduct relationships and to communicate. They develop network of friendships and coalitions with valuable, influential and wealthy individuals for situations that may positively affect their goals and objectives of the organization in the future, and develop their friendship and try to dominate their relations. Internal and external networking enables employees to accumulate the social capital needed to receive promotions and high salaries.

b) Apparent Sincerity: In this sub-dimension, people who seem politically sincere exhibit a high level of accuracy, honesty, authenticity, sincerity, open-mindedness, reliability and sincerity. These people create a sense of trust and inspiration when they are perceived correctly by people without external factors. The success and effectiveness of the leader depends on the employees who trust that the leader acts in the interests of the employees. Looking sincere raises the level of trust that employees have in their leaders because the leader appears to have a high level of integrity and accuracy.

c) Social Astuteness: People with political skills observe other people in the organization in a smart and meaningful way; it has a strong insight and a high self-consciousness. Acts creatively and intelligently when establishing relationships with people. Socially intelligent leaders can quickly assess a situation, identify alternative ways to address it, and consistently make the right behavioral choice. The social mentality allows leaders to successfully guide units, conduct high performance and positive peer reviews.

d) Interpersonal Influence: Politically, people with this ability have a subtle and convincing personal ability that has a strong impact on people within and around the organization. Interpersonal influence consists of the ability to shape decisions, gain strength through influence, and change impact initiatives to achieve compliance from superiors, subordinates, and peers. However, in order to achieve a specific purpose, it can behave according to a situation according to the behaviors of other individuals and adapt itself to the new situation. It also affects other employees and accustomed to the new situation.

2.3. The Relationship A and B Personality with Political Skills

It is possible to see if there is something in common when you look at it by using your type A personality and political abilities. For example, individuals with type A personality have an action-oriented structure. They tend to act well by analyzing opportunities to influence their environment, as in politically skilled individuals. Without being overly affected by situational changes and power foci, they are patient until they get the change they want and take action when they have the time (Bateman and Crant, 1993: 105). However, as B-type personality trait, they differ in their ability to show political skills because they are comfortable, not in a hurry in their work, act more flexibly in human relations and do not have a competitive structure.

When the researches related to political skills are considered, it is determined that there is no study which examines the relationship between type A and type B personality. Therefore, this study was designed to explain and determine the relationship between them.

3. MATERIAL AND METHOD

3.1. Purpose and Scope of the Research

The aim of this study is to determine the A and B type personality traits and political skill usage levels of administrative staff in hospital units and to measure the predictive power of A and B type personality, political skills and sub-dimensions. In addition, it is aimed to determine whether there is a significant relationship between political skills with type a and b personality types, whether personality types have a significant effect on political skills. For this purpose, administrative staff working in various administrative units of the hospital were included in the study.

3.2.Population and Sample of the Research

The population of the study consisted of 938 administrative staff working in Sivas Cumhuriyet University Health Services Application and Research Hospital. In the research, simple random sampling method, which is one of the probable sampling methods, was selected. For $\alpha = 0.05$, $H = \pm 0.05$ and proportions $p = 0.5$ and $q = 0.5$, the sample size was calculated as 273 administrative staff (Ural and Kılıç, 2013: 46). Data were collected from 276 administrative staff in March-April 2019 by explaining the purpose of the study and obtaining verbal consent of the participants.

3.3. Model and Hypothesis of the Research

The research model which is formed by considering the relationships between variables used in the research is shown below.

Model 1: Model of the Research

The hypotheses developed within the research model established are as follows:

H_0: There is no a statistically significant relationship between personality types and political skills.

H_1: There is a statistically significant relationship between personality types and political skills.

H_2: Personality types have a significant effect on political skills.

3.4. Data Collection Tool and Analysis Methods

Descriptive and cross-sectional type data were collected by questionnaire method. The survey method consists of three parts. In the first part, there are 5 questions prepared by using the relevant literature in order to determine the characteristics of the participants. In the second part, the scale for measuring personality traits of type A and type B is 8-point Likert type and consists of 7 expressions with two opposite poles. The scale was developed by using the expressions of the scale adapted to Turkish by Arıkan and Aktaş (1988) by using the personality inventory developed by Friedman and Rosenman. In order to determine the personality traits according to this scale, the numerical values of the responses they gave to the expressions were summed and multiplied by three. In case the score obtained is above 100 (minimum 21, maximum 168), the participant's type A; If it is less than 100, it is concluded that it exhibits B

type personality (Aktaş, 2001: 34). In the third part, the Political Skill Inventory Scale for measuring political skills, 7 of Likert type, which was developed by Ferris et al. (2005) and used by Özdemir and Gören (2015), consisted of 18 items.

Data were collected from 276 administrative staff in March-April 2019 by explaining the purpose of the study and obtaining verbal consent of the participants. SPSS (Statistical Package for Social Sciences) 22.0 package program was used in the analysis of the data obtained from the data collection tool.

The reliability of the data collection tools was tested by calculating the Cronbach Alpha coefficient based on the alpha value. The overall internal consistency coefficient of Politicall Skill Inventory Scale was 0.939. Whether the data is normally distributed, as a result of the normality analysis the skewness coefficient was -0.454 and the kurtosis coefficient was -0.727. Kolmogorov – Smirnov was evaluated and p> 0.05 was found. The data is normal distribution with 95% confidence for all groups. Parametric tests were used in the study because the data fit the normal distribution. In this context, descriptive statistics, t tests, pearson correlation analysis were used to reveal the relationships between variables, and simple linear regression analysis was used to test the explanatory power of variables. In addition, descriptive statistical methods such as arithmetic mean, standard deviation, frequency and percentage distribution were used.

4. FINDINGS

Table 2: Distribution of Demographic Characteristics of the Participants

Gender	**N**	**%**
Female	103	37.3
Male	**173**	**62.7**
Total	276	100.0
Age	**N**	**%**
20-29	50	18.1
30-39	**193**	**69.9**
40 and Above	33	12
Total	276	100.0
Education Status	**N**	**%**
High School	73	26.4
Associate Degree	**99**	**35.9**
Bachelor's Degree	92	**33.3**
Master's Degree	12	4.3
Total	276	100.0
Working Experience	**N**	**%**
1-5 year	46	16.7
6-10 year	111	40.2
More than 10 year	**119**	**43.1**
Total	276	100.0
Personality Type	**N**	**%**
Type A	**194**	**70.3**
Type B	82	29.7
Total	276	100.0

When the demographic distributions of the participants were examined; It is seen that 62.7% are men, 69.9% are in the 30-39 age range, 35.9% are associate degree graduates and 43.1% are working for more than 10 years. It was determined that 70.3% of the participants had A type personality.

Table 3: Descriptive Statistics of the Political Skill Scale of the Education Status of the Participants

Variables	(I)Education Status	(J)Education Status	Average Difference (I-J)	Standard Error	P
Networking Ability	**Associate Degree**	High School	-.2345	.1848	0.583
		Bachelor's Degree	**-.5228**	**.1735**	**0.015***
		Master's Degree	-.5336	.3662	0.465

*p< 0,05

In terms of educational status, statistically significant difference was only found between associate graduates and bachelor's degree graduates in the relationship building sub-dimension. In the other t test results, not statistically significant difference was found between the participants' gender, age, total working year and political skills and sub-dimensions.

Table 4: Descriptive Statistics of the Political Skill Scale of the Personality Types of the Participants

	Personality Types	N	$\overline{X}$	S.S.	p
Networking Ability	A Personality	194	4.67	0.99	0.000*
	B Personality	82	3.18	1.01	
Apparent Sincerity	A Personality	194	5.82	1.11	0.000*
	B Personality	82	4.30	1.52	
Social Astuteness	A Personality	194	5.19	1.09	0.000*
	B Personality	82	3.53	1.05	
Interpersonal Influence	A Personality	194	5.35	1.10	0.000*
	B Personality	82	3.73	1.36	
Political Skills	**A Personality**	**194**	**5.16**	**0.87**	0.000*
	B Personality	**82**	**3.59**	**1.00**	

Descriptive statistics of the study variables are given in Table 4. When the arithmetic mean values in Table 4 are examined, it is seen that the administrative personnel who participated in the research had A type personality trait (5.16 ± 0.87) and they were quite successful in using their political skills compared to those with B type personality (3.16 ± 1.00). The same successful situation is also seen in terms of the sub-dimensions of political skill, and averages above 5 values have been obtained in all of the sub-dimensions, except for establishing networking ability.

Table 5: Correlation Analysis Results of Research Variables

Variables	1	2	3	4	5	6
1. Personality Types	1					
2. Networking Ability	-.566**	1				
3. Apparent Sincerity	-.486**	.614**	1			
4. Social Astuteness	-.576**	.759**	.626**	1		
5. Interpersonal Influence	-.531**	.743**	.648**	.743**	1	
6. Political Skills	-.619**	.910**	.788**	.905**	.891**	1

N= 276, **p<0,01

When the relationships between the variables were examined by means of Table 5, it was found that there was a negative, moderate and statistically significant relationship (r = - 0.619, p <, 01), especially between personality types and political skill. In this case, the hypothesis H_1 (there is a statistically significant relationship between personality types and political skills) is accepted.

It is seen that there is a negative, moderate and statistically significant relationship (r = -0.566, p <, 01) between personality types and forming a network ability from the sub-dimensions of political skill. A negative, moderate and statistically significant relationship was found between personality types and apparent sincerity, another sub-dimension of political skill (r = -0.486, p <, 01). The presence of a negative, moderate and statistically significant relationship (r = -0.576, p <, 01) between personality types and social astuteness, another sub-dimension of political skill, can be seen in Table 5. Finally, there was a negative, moderate and statistically significant relationship (r = -0.531, p <, 01) between personality types and interpersonal influence, another sub-dimension of political skill. Table 5 also includes the relationships among the political skills sub-dimensions themselves. Accordingly, there are positive, moderate and statistically significant relationships between the dimensions.

Table 6: Results of Regression Analysis to Determine the Effect of Personality Types on Political Skills

Variables	B	t	P	R^2	Adjusted R^2	F
Constant	6.728	40.591	-0.619	0.383	0.381	169.966
Personality Types	-1.571	-13.037	0.000*			

N=276, *p<0,05

When the results of the regression analysis in Table 6 are examined, it is seen that personality types are a significant predictor of political skill (R = -, 619, R2 =, 383, F = 169,966, p <, 05). In this case, it can be said that 38.1% of the variance of political skill is explained by personality types. In this case, H_2 (Personality types have a significant effect on political skills) hypothesis was accepted.

Political Skills = 6,728 + (-1,571* Personality Types) One unit increase in personality types decreases political skills by 1,571 units.

The hypothesis H_0 (There is no a statistically significant relationship between personality types and political skills.) was rejected because there was a significant relationship between personality types and political skills.

5. DISCUSSION AND CONCLUSION

When the demographic distributions of the participants were examined; It is seen that 62.7% are men, 69.9% are in the 30-39 age range, 35.9% are associate degree graduates and 43.1% are working for more than 10 years. It was determined that 70.3% of the participants had A type personality. The average score of the political skills scale was 5,16 ± 0,87 for type A personality and 3,16 ± 1,00 for type B personality. According to this, it was found that the administrative personnel had type A of personality trait above their average level of political skills and subdimensions.

Correlation analysis revealed that there was a significant and negative relationship between personality types and political skills (r = -0.619, p <, 01). As a result, it can be stated that the level of using political skills of individuals with type B personality is lower than those with type A personality. It was found that there was a significant and negative relationship between personality types and subdimensions of political skills (networking ability → -0.566; apparent sincerity → -0.486; social astuteness → -0.576; interpersonal influence → -0.531).

The findings indicated that the mean score of the political skills of the participants was 4.69; the mean score of interpersonal influence was 4.88; the average score of social astuteness 4.70; the mean apparent sincerity of 5.37. When the averages of the sub-dimensions of political skills are considered, it is seen that apparent sincerity is highest; it is seen that networking ability is the lowest average dimension. When the political skills are evaluated in general and the subdimensions one by one, it can be said that the political skills of the participants are moderate medium.

These findings, that Özdemir and Gören (2016: 7) in the study explained the relationship between political skills and psychological capital with the sample of 325 teachers working in 15 primary and secondary schools in Altındağ district of Ankara; Braddy and Campbell's (2014: 6) study of the leaders' political skills in 2009 and 2010 based on the opinions of 200 leaders of their work; Wihler et al. (2015: 46) examined the relationship between the political skills, leadership and performance of the leaders by taking the opinions of 190 leaders; Akçakanat and Uzunbacak's (2017: 798) study of 324 university administrative staff and the relationship between proactive personality and political skills explain study; Nair's (2018: 64) study of 593 teachers and explaining the relationship between political skills and leadership styles; Alga and Özdemir (2018: 320) explained the relationship between impression skills and political skills with 201 employees; Yıldız (2018: 68) 442 students with the sample of the study of social skills and social skills explained the results are consistent with the moderate level of political skills is compatible with.

Findings of this study; Özdemir and Gören (2016), Braddy and Campbell (2014), Akçakanat and Uzunbacak (2017), Nair (2018), Alga and Özdemir (2018) with Yıldız (2018) in his studies overlap the highest dimension of the political skills coincided with the fact that apparent sincere and the lowest one was to networking ability.

6. RECOMMENDATIONS

In subsequent studies in order to confirm the results of this study, white collar or health personnel working in the private sector can be identified as a sampling. It is thought that the inclusion of other variables that have mediator or regulatory effect in the relationship between personality variables A and B and political skills used in this study will contribute to the literature. Hospital decision-making bodies are thought to be better for the institution in the context of political skills in the selection of personnel with type A personality in the manager selection process.

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RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

RESEARCHING THE RELATIONSHİP BETWEEN ORGANIZATIONAL HEALTH AND WHİSTLEBLOWING BEHAVIOR: EDUCATION AND HEALTH ORGANIZATIONS VERSION*

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ABSTRACT

Whistleblowing behavior is considered as an important tool in exposing unethical or illegal behaviors occurring in education and health institutions. Whistleblowing behavior, which plays a role as a control system in organizations, is a starting point especially for organizations to control themselves. Organizational health is a state of integrity created by all kinds of physical, psychological and mental conditions that contribute to employee productivity and efficiency, job satisfaction, corporate loyalty and a sense of loyalty. In this context, the purpose of this research is to determine the relationship between the perception of organizational health and whistleblowing behavior.

The research is a study that investigates the relationship between the two concepts and quantitative research method was used in the research. The sample of the study consisted of a total of 370 people, including 212 education workers and 158 health workers, who voluntarily agreed to participate in the study. The survey technique was used to collect the data and the data obtained were analyzed using the SPSS 22.00 package program. Exploratory and Confirmatory Factor Analysis, Mann-Whitney U test, Kruskal Wallis Variance Analysis and Spearman Correlation Analysis were used to evaluate the findings in the study.

As a result of the findings obtained from the study, a positive, weak ($r = 0.143$; $p < 0.05$) but statistically significant relationship was found between organizational health perception and whistleblowing behavior. In addition, when the sub-dimensions of organizational health perception and whistleblowing behavior were examined, the presence of significant relationships in all dimensions were determined except for the "indifference" dimension.

Keywords: Education Organization, Health Organization, Organizational Health, Whistleblowing.

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1. INTRODUCTION

The reason for the existence of an organization is that certain objectives are realized as more than one person and a group. Organizations are social creatures that exist in social life, open to the influence of social conditions and able to adapt to changing conditions (Koçel, 2013: 71). Organizations are structures that are seen as systems. The system is a whole formed by the parts that come together for a purpose, by relying on each other and influencing each other. According to the system approach, the organization is an open system that consists of sub-systems that interact with each other and has an input-output relationship with its environment. Organizations take various inputs from the environment and process them and present them back to the environment. Therefore, the organization is in constant interaction with the environment (Ayduğ, 2014: 1). In our age, organizations should be able to adapt to rapidly changing environmental conditions, technological advances, transition to information society, global progress and changes in order to achieve their goals; they must target success by achieving competition in free market conditions. Organizations must first adapt to these environmental changes in order to survive and achieve their goals (Karacan, 2017:1).

It is possible to talk about many factors that affect the achievement of the targets and success and efficiency of the organizations in ensuring their continuity. The goals determined by the organization for success are the realization of the targets, leadership skills of the managers, the level of commitment of the employees to the organization, and whether or not the organization is healthy (Batmaz, 2012:6).

Improving health in organizations is a situation that can be monitored and determined by the behavior of people in the organization. To understand this situation, first of all, interpersonal relations are handled. As a result, the physical, mental and social health status of individuals can be determined and adapted to the organization. Geller (2004:11) investigated this situation and made a model proposal for multinational companies and their leaders. In the model, there are suggestions in the context of how the health status of the organization can be good in big companies. The commitment and motivation of the human resources working in healthy organizations to the organization is high. Efficiency and success will increase in organizations where there are managers who value human resources, have effective leadership, and employees with high organizational commitment (Çakınberk & Demirel, 2010: 104).

The concept of organizational health is a concept that emerged in the field of organizational behavior and work psychology. The concept was first introduced by Matthew Miles (Polatcı et al., 2008: 146). Although the concept of organizational health is used a lot in the literature, it appears as a concept that has been subjected to very weak definitions (McHugh & Brotherton, 2000). In general terms, organizational health refers to the skills that an organization can successfully adapt both to its internal and external environment, to collaborate among the employees and to achieve the goals of the organization (Köseoğlu & Karayormuk, 2009; Altun, 2001; Akbaba, 1997; Hoy & Tarter, 1997; Hoy & Miskel, 1991; Cox & Howarth, 1990; Cooper & Williams, 1994; Newell, 1995). According to another approach, organizational health is related to the fact that the employee is good and healthy both physically and mentally (Mchugh, 1993; Ho, 1997). According to some researchers, organizational health is a concept that can be explained with the help of learning organizations (Pettigrew & Whipp, 1991; Miller & Dess, 1996). Organizational health can be defined as not only maintaining its life in its environment, but also developing and sustaining its ability to cope and live in a long time (Miles, 1965). When the studies on organizational health are analyzed, it is observed that studies on organizational health of primary and secondary schools are carried out first (Kimpston and Sonnabend, 1975; Miller, 1983; Childer and Fairman, 1986; Hoy et al., 1990; Akbaba, 1997; Uras, 1998 ; 2000; Çakır, 2002; Korkmaz, 2005; Buluç, 2008). Later, studies were carried out in higher education organizations (Hoy and Feldman, 1999; Smith et al., 2001; Smith, 2002). When the studies conducted in the literature in recent years are examined, it is seen that the concept of "organizational health" is used extensively in other organizations (Emhan, 2005; Köseoğlu & Karayormuk, 2009; Tutar, 2010; Başar, 2011; Taş, 2014; Açıkgöz, 2015; Büyükyılmaz and others,

2018). The main purpose of determining organizational health is whether organizations are "healthy or unhealthy?" The answer to the question is not to seek. The main purpose is to identify and eliminate deficiencies by making situation analysis in organizations and to improve their good features. In addition, the strength and weaknesses of the organizations, opportunities, risks are seen and some sort of SWOT Analysis is performed (Açıkgöz, 2015: 4).

Organizations can be considered as units that provide developments that increase the welfare level of the society, offer new services, products, information and technologies to the service of people, and ensure the economic and social development of societies. In addition, organizations are structures that facilitate the revealing of corruption, immoral behavior and corruption that lead to the loss of ethical values in the society (Koçel, 2013: 72). The concept known as whistleblowing in the foreign literature has been named as "virtuous reporting" in this study. "Virtuous Reporting" behavior is seen as an important tool for revealing these facts. In the local literature, it is seen that the concept, which has different meanings such as disclosure of information, whistleblowing, reporting, reporting unethical behaviors, has started to be examined recently as an organizational behavior subject (Alpaslan Danışman, 2006; Sayğan, 2011; Demirtaş, 2014; Toker Gökçe & Oğuz, 2015; Yurur and Nart, 2016). It is stated that the concept was first included in the text presented to the US Senate Internal Security Commission by Otto Otepeka in 1963 (Nalcı Arıbaş, 2017: 14).

It is stated that the first scientific definition was made by Near and Miceli in 1985. By definition, whistleblowing; It is stated as “disclosure of illegal, immoral or illegitimate practices under the control of employers to the members of the organization (old or present) to the persons or organizations that can carry out the action” (Nalcı Arıbaş, 2017: 16). According to another definition, whistleblowing for organizations is defined as the action of "reporting the unethical or illegal behavior of another employee or supervisor to the public game or top management" (Fleddermann, 2012). It was seen that Nader and his colleagues used the concept of "whistleblowing" for the first time in their studies. Nader et al. (1971) described the concept of whistleblowing as "an act of notification because an individual who prioritizes the public interest over the interests of the organization he served, because the organization is involved in immoral, illegal, harmful or fraudulent activities". According to Near and Miceli (1985), whistleblowing is stated as the disclosure of the behaviors that occur. It is seen that there are many studies on the subject in domestic and foreign literature (Near and Miceli, 1985; 1996; Dworkin & Near, 1997; Rocha & Kleiner, 2005; Alpaslan Consultant, 2006; Sayğan, 2011; Toker Gökçe, 2014a; Demirtaş, 2014; Candan & Kaya, 2015; Yener, 2018; Aydan & Kaya, 2018). In studies on whistleblowing, it is stated that there are four main factors in the emergence of the action. These; The person reporting the action, the person or authority whose action is reported, is the occurrence of wrong or wrong action by a person or group and reporting of the action (Yarmacı, 2018: 71). It can be said that individuals' perspectives on moral situations, religious views and values, personality traits are effective in whistleblowing behavior. In addition, many managerial factors - trust, job satisfaction, retaliation - are the underlying causes of this behavior (Miceli et al., 1991; Miceli & Near 1992; Sims, Keenan 1998; Vadera et al., 2009; Cassematis & Wortley, 2012).

The health status of an organization is not only beneficial for the organization, but it also contributes to the society it interacts with. On the other hand, wrong practices, moral and unethical behaviors in an organization affect the society as well as the organization. In this context, it is important to apply organizational health and whistleblowing concepts in education and health organizations. Educational organizations serve as the main venue in terms of forming the next generations. Because the basic moral understanding of the students in it is shaped in these institutions (Güvercin, 2016: 3). Health organizations, on the other hand, are the institutions that produce the health services that all living things in the world benefit and need. The main element of health care is human. The basis of health policies is the best service to the human element; to present them in an effective, fair, fast and accessible way (Açıkgöz, 2015: 1). Education and health organizations must report wrong practices internally and externally. Education employees are of great importance for students benefiting from these services, healthcare professionals and individuals who receive these services. It is seen that the

studies examining whistleblowing behavior in our country have become widespread in recent years. In the solution of this problem, it will be tried to ensure that education and health professionals recognize both the concept of organizational health and whistleblowing and increase their awareness. Understanding the importance of the concepts and approaching the events with this awareness, from the lowest level employees to the highest level of education and health institutions, will be beneficial for both the organization and individuals who receive service from the organization and the society.

2. METHOD

This research is a study investigating the relationship between the two concepts and quantitative research method was used in the research. The research was carried out between the education personnel working in high schools affiliated to Kırşehir National Education Directorate and the health personnel working in Kırşehir Ahi Evran University Education and Research Hospital. It was conducted to determine the relationship between the organizational health perceptions of the participants and their whistleblowing behavior. In education and health organizations, the examination of whistleblowing behavior with the perception of organizational health is important for corporate effectiveness.

In the research, survey technique was used as a data collection tool. Two different scales were used in the research. Questions measuring the organizational health dimension were taken from the master thesis "Organizational Health: Research in a Municipality in Izmir" researched by Başar (2011). The questionnaire used in the organizational health research was developed by Rosen and Berger (1992) in order to measure the employees' perceptions of organizational health and consists of 20 statements.

In the research, survey technique was used as a data collection tool. Two different scales were used in the study. Questions that measure the organizational health dimension are taken from the master thesis on "Organizational Health: Research in a Municipality in Izmir" researched by Başar (2011). Organizational health scale consists of three dimensions. These are: "organizational level", "general level" and "individual level". The scale's score of 1-49 is unhealthy, the score of 50-84 is healthy and unhealthy, and the score of 85-100 is healthy. In the survey questions; 1) Never (2) Rarely, (3) Sometimes, (4) Often, (5) Always Likert scale structure was used (Başar, 2011: 69). In the relevant study, the reliability analysis of the measuring tool was found to be 0.94. In the reliability analysis for this study, the Cronbach Alpha coefficient was found to be 0.96 and the measurement tool was found reliable. Questions measuring the whistleblowing behavior were taken from Yılmaz (2015) master thesis on "Managerial Ethics and Disclosure of Women Entrepreneurship in Disclosure (Whistleblowing)". The questionnaire that measures whistleblowing consists of 8 questions and 3 dimensions. These are the dimensions of "external whistleblowing", "internal whistleblowing" and "indifference". In the survey questions; 1) I definitely disagree, (2) I disagree, (3) What I Agree, What I Disagree, (4) I Agree, (5) Likert I agree, Likert scale structure a used (Yılmaz, 2015: 82). As a result of the reliability analysis of the measurement tool, the Cronbach Alpha coefficient was found to be 0.70. Cronbach Alpha coefficient was determined as 0.84 in the reliability analysis for this study. The measuring tool has been found to be reliable.

The population of the study consists of 480 personnel working in high schools in the central district of Kırşehir National Education Directorate and 275 personnel working in polyclinics in Kırşehir Ahi Evran University Training and Research Hospital. In the study, simple random sampling method was used to determine the sample and the sample calculation was 214 for educational institutions and 162 for health institutions. A face-to-face survey was conducted. When missing surveys were removed, 370 surveys is included in the study.

2.1. Validity Analysis of the Scales Used in the Study

In this study, Exploratory and Confirmatory Factor Analysis was applied to analyze the validity of the data based on the data obtained from the sample. In this context, exploratory factor analysis was performed for the purpose of testing separation and merger validities. For these purposes, factor analysis was used using the Principle Components and Varimax factor rotation methods, and the correlation matrix used in this analysis was examined for discriminant validity. Whether factor

analysis is suitable for the structure is determined by the results of the Kaiser-Meyer-Olkin sample proficiency test and Bartlett's test of sphericity.

Factor analysis is a multivariate statistics that aims to find a small number of unrelated and conceptually meaningful new variables (factors, dimensions) by bringing together p variables. There are two types of factor analysis approaches, EFA (Explanatory Factor Analysis) and CFA(Confirmatory Factor Analysis). In EFA, action is taken to find factors based on the relationships between variables (Büyüköztürk, 2013: 133). In CFA, there is a test of a previously determined model or hypothesis about the relationship between variables. In terms of the operations performed, EFA is a method used to test the construct validity of newly created scales and aims to reach less factors based on the observed variables in the scale. CFA, on the other hand, is made to test whether the scales, which were previously discovered and combined under few factors, are similar in the sample in which the research was conducted (Meydan and Şeşen, 2015: 21).

2.1.1. Organizational Health Scale Exploratory Factor Analysis Results

Exploratory factor analysis was performed to reduce the organizational health scale to dimensions and to test the merger validities. The EFA results of the Organizational Health Scale are shown in Table 1 and Table 2.

Table 1. Organizational Health KMO (Kaiser-Meyer Olkin) and Bartlett's Test Results

Kaiser-Meyer-Olkin Sampling Adequacy Measure (KMO)		0.96
Sphericity Test	Chi-square Value	6332.712
	Df	190
	p	.000

Table 2. Organizational Health Scale Exploratory Factor Analysis Loads

	Organizational Level	General Level	Individual Level
Employees at the institution are not considered as cost factors. It is seen as the values that need to be invested.	0.769		
The policies of the institution are flexible, taking into account the employees and their families.	0.710		
Health and safety of employees is the first priority.	0.683		
Changes and crises that occur are well managed.	0.680		
Individual and group activities are rewarded.	0.680		
Employees' thoughts and lives are respected.	0.676		
In solving the problems that occur, the problems are shared with the employees and solutions are sought for.	0.649		
Employees are satisfied with the social opportunities provided by the institution.	0.642		
The institution has learning and career opportunities.	0.632		
Employees are treated fairly.		0.793	
The degree of participation of the employees in the decisions taken in relation to the work to be done in this institution is high.		0.752	
Employees come to their jobs with pleasure.		0.740	
Communication in the institution is clear and timely.		0.738	
Successful people are respected and appreciated within the organization.		0.664	
Employees value the quality of the service produced.			0.872
Employees spend their time on service delivery rather than complaining.			0.658
Employees have the resources they need to do their jobs.			0.621
Employees have information about the status of the institution.			0.538
There are feelings of solidarity and friendship among the employees.			0.508
Employees are able to cope with the work stresses that occur.			0.474

As seen in Tables 1 and 2, Bartlett's Sphericity value was found to be significant and KMO value was 0.96 in factor analysis using Principle Components and Varimax factor rotation methods. As a result of the exploratory factor analysis applied, it was observed that 20 questions in the organizational health variable were gathered under 3 factors. As a result of the factor analysis, it was determined that

the eigen value was 3 factors above 1, the items in the organizational health scale were loaded to 3 factors without any problems and the total variance value explained by 3 factors was 70.95%. This shows that there is an important relationship between the items in the scale and the factors to which the items belong.

Considering the relationship between the scale items and the factors they are loaded, the mentioned factors are determined as organizational level (factor 1), general level (factor 2) and individual level (factor 3), respectively. 61.73% of the total variance, which is 70.95%, is explained by the first factor, 5.30% by the second factor and 3.91% by the third factor.

2.1.2. Whistleblowing Scale Exploratory Factor Analysis Results

Exploratory factor analysis was performed to reduce the whistleblowing scale to dimensions and to test the validity of merger. Exploratory factor analysis results of the whistleblowing scale are shown in Table 3 and Table 4.

Table 3. Whistleblowing KMO (Kaiser-Meyer Olkin) and Barlett's Test Results

Kaiser-Meyer-Olkin Sampling Adequacy Measure (KMO)		0.78
Sphericity Test	Chi-square Value	1.81
	Df	28
	p	.000

Table 4. Whistleblowing Scale Exploratory Factor Analysis Loads

	External Whistleblowing	Intrinsic Whistleblowing	Indifference
Situations are shared with people outside the institution.	0.840		
The incident is reported to the relevant legal authorities.	0.762		
The event is disclosed to the public.	0.846		
Situations are forwarded to senior management		0.806	
The incident is reported to the hill manager.		0.742	
The incident is reported through people who deal with such situations within the organization.		0.919	
I ignore the situations. **			0.916
I keep quiet.**			0.905

** Reversed questions

As seen in Tables 3 and 4, Bartlett's Sphericity value was found to be significant and KMO value was 0.78 in the factor analysis using Principle Components and Varimax factor rotation methods. As a result of the exploratory factor analysis applied, it was seen that 8 questions in the virtuous reporting variable were gathered under 3 factors. As a result of the factor analysis, it was determined that the eigen value was 3 factors above 1, the items in the virtuous reporting scale were loaded to 3 factors without any problems, and the total variance value explained by 3 factors was 77.65%. This shows that there is an important relationship between the items in the scale and the factors to which the items belong.

Considering the relationship between the scale items and the factors they are loaded, the mentioned factors are determined as external virtuous reporting (1st factor), internal virtuous reporting (2nd factor) and indifference (3rd factor), respectively. 50.79% of the total variance, which is 77.65%, is explained by the first factor, 17.65% by the second factor and 9.20% by the third factor.

2.1.3. Confirmatory Factor Analysis Results of Organizational Health Scale and Whistleblowing Scale

Confirmatory factor analysis for the organizational health scale, which was determined to be composed of three dimensions as a result of exploratory factor analyzes, was created as a three-factor model from the confirmatory factor analysis models by paying attention to the theoretical relationships. The single factor model is defined as the model where all observable variables are gathered under one factor (Meydan and Şeşen, 2015: 22). By determining the primary level confirmatory factor analysis, the predictive power between the parameters in the structure of the

organizational health scale and latent factors was tested. Findings obtained according to CFA are shown in Table 5.

Table 5. Organizational Health Scale Fit Values

Fit Index	Before Modification	Post Modification	Acceptable Fit Value
$\chi 2$/df (CMIN/df)	3.271	2.546	$0 \leq \chi 2/df \leq 5$
GFI	0.872	0.901	$0.90 \leq GFI \leq 1.00$
CFI	0.940	0.960	$0.95 \leq CFI \leq 1.00$
RMSEA	0.078	0.065	$0 \leq RMSEA \leq 0.08$
NFI	0.916	0.937	$0.90 \leq NFI \leq 1.00$
RMR	0.061	0.049	$RMR \leq 0.08$

As can be seen in Table 5, the first values in the model are given under the heading "before modification". After the first values, the modification process was obtained to the model. Then new values were obtained. The model was found to be statistically significant because the RMSEA value was determined to be 0.065. The GFI value was found to be 0.901, which is consistent with the model's data. X2 / df = 2,546, because it is less than 5, it is within acceptable limits. Other values; NFI (0.937) was found as RMR (0.049), and values are among the good fit limits. These results show that the developed conceptual model is compatible with the data, the sample size is sufficient for the model and the model is statistically valid and significant. Goodness of fit values for the whistleblowing scale are shown in Table 6.

Table 6. Whistleblowing Scale Fit Values

Fit Index	Before Modification	Post Modification	Acceptable Fit Value
$\chi 2$/df (CMIN/df)	5.771	1.338	$0 \leq \chi 2/df \leq 5$
GFI	0.942	0.986	$0.90 \leq GFI \leq 1.00$
CFI	0.957	0.997	$0.95 \leq CFI \leq 1.00$
RMSEA	0.114	0.030	$0 \leq RMSEA \leq 0.08$
NFI	0.948	0.989	$0.90 \leq NFI \leq 1.00$
RMR	0.129	0.057	$RMR \leq 0.08$

As can be seen in Table 6, the first values in the model are given under the heading "before modification". After the first values, the modification process was applied to the model. Then new values were obtained. The model was found statistically significant because the RMSEA value was determined to be 0.030. The GFI value was found to be 0.986, which is consistent with the model's data. X2 / df = 1,338, since it is less than 5, it is within the acceptable fit limits. Other values; NFI (0.989) was found as RMR (0.057), and values are among the good fit limits. These results show that the developed conceptual model is compatible with the data, the sample size is sufficient for the model and the model is statistically valid and significant.

2.2. Normal Distribution Compliance Test

Nonparametric tests were used in the study. This is because the data do not conform to the normal distribution test. fitness distribution test is presented in Table 7.

Table 7. Normal Distribution Compliance Test

	Kolmogorov-	**Smirnov[a]**		**Shapiro-**	**Wilk**	
	Statistic	df	p	Statistic	df	p
Organizational Health	0.076	370	0.000	0.969	370	0.000
Whistleblowing	0.162	370	0.000	0.901	370	0.000

There are many methods to determine whether the data are suitable for normal distribution and it is another method to decide whether the data is suitable for normal distribution or not. Three different tests are shown in Table 7 above. Shapiro-Wilk test if the group size is less than 50, and Kolmogorov-Smirnov test if it is large, are two tests used to examine the appropriateness of scores. If the p value

calculated in the analysis is higher than 0.05, it means that the scores in this level of significance do not deviate excessively from the normal distribution. If the calculated p value is less than 0.05, this indicates a significant deviation from the normal distribution of scores at this level of significance (Büyüköztürk, 2013: 42). When Table 7 is examined; Since the p value is less than $p < 0.05$, it was seen that the data showed excessive deviation from the normal distribution. Based on this result, the application of nonparametric tests was found appropriate.

3. FINDINGS

In the study, descriptive statistics, socio-demographic variables and organizational health and whistleblowing total scores were analyzed using the Mann-Whitney U test and Kruskal Wallis variance analysis. In addition, Spearman correlation analysis was applied between organizational health and whistleblowing.

Table 8. Socio-Demographic Information of Educational Employees Examined in the Scope of the Research

	Variable	Number	Percent
Age	25-34 Age	43	20.3
	35-44 Age	100	47.2
	45 Years and older	69	32.5
Gender	Woman	81	38.2
	Man	131	61.8
Marital status	Married	191	90.1
	Single	21	9.9
Education status	Associate degree	15	7.1
	Undergraduate education	181	85.4
	Graduate education	16	7.5
Working Time in the Institution	1-4 Year	76	35.8
	5-9 Year	53	25.0
	10-14 Year	48	22.6
	15 Year and over	35	16.5
Working Time in the Profession	1-9 Year	31	14.6
	10-19 Year	93	43.9
	20 Year and over	88	41.5
Monthly Income	0-4000 TL	149	70.3
	4000 TL and over	63	29.7
Total		212	100.00

Table 8 presents the socio-demographic findings of the education workers examined within the scope of the research. As it is seen in Table 8, when the age distribution is examined, the number of personnel between the ages of 25-34 is 43 (20.3%); The number of personnel between the ages of 35-44 is 100 (47.2%); The number of employees aged 45 and over was 69 (32.5%). In terms of gender; 81 (38.2%) of the participants were female, 131 (61.8%) were male, and it was observed that men were more likely to participate. When the marital status is examined; 191 (90.1%) were married and 21 (9.9%) were single. In terms of educational status; The number of associate degree graduates is 15 (7.1%), the number of undergraduate graduates is 181 (85.4%) and the number of graduate graduates is 16 (7.5%). In terms of working time in the institution; 76 (35.8%) employees between 1-4 years, 53 (25.0%) employees between 5-9 years, 48 (22.6%) employees between 10-14 years, 15 years and over employees and 35 (16.5%) of the patients. In terms of working time in the profession; 31 (14.6%) of employees between 1-9 years, 93 (43.9%) of employees between 10-19 years, 88 (41.5%) of employees over 20 years were identified. When examined in terms of monthly income; It is seen that 149 (70.3%) people have an income of 4000 TL or less and 63 (29.7%) have an income of more than 4000 TL.

Table 9. Socio-Demographic Information of Health Workers Examined in the Scope of the Study

	Variable	Number	Percent
Age	25-34 Age	51	32.3
	35-44 Age	74	46.8
	45 Years and older	33	20.9
Gender	Woman	95	60.1
	Man	63	39.9
Marital status	Married	132	83.5
	Single	26	16.5
Education status	Associate degree	64	40.5
	Undergraduate education	72	45.6
	Graduate education	22	13.9
Working Time in the Institution	1-4 Year	33	20.9
	5-9 Year	56	35.4
	10-14 Year	26	16.5
	15 Year and over	43	27.2
Working Time in the Profession	1-9 Year	48	30.4
	10-19 Year	55	34.8
	20 Year and over	55	34.8
Monthly Income	0-4000 TL	134	84.8
	4000 TL and over	24	15.2
Total		158	100.00

Table 9 presents the socio-demographic findings of the health workers examined within the scope of the research. As seen in Table 9, when the age distributions are examined, the number of personnel between the ages of 25-34 is 51 (32.3%); The number of personnel between the ages of 35-44 was 74 (46.8%); The number of employees aged 45 and over was 33 (20.9%). In terms of gender; 95 (60.1%) of the participants were female and 63 (39.9%) were male. When the marital status was examined, it was found that the number of married staff was 132 (83.5%), while the number of unmarried staff was 26 (16.5%). In terms of educational status; 64 (40.5%) of the associate degree graduates, 72 (45.6%) of the undergraduate graduates and 22 (13.9%) of the graduate graduates. In terms of working hours, the number of employees between 1-4 years is 33 (20.9%), the number of employees between 5-9 years is 56 (35.4%), the number of employees between 10-14 years is 26 (16.5%). And 43 (27.2%) were employed for 15 years and over. In terms of working time in the profession; The number of employees between the years 1-9 was 48 (30.4%), the number of employees between 10-19 years was 55 (34.8%), and the number of employees 20 years and over was 55 (34.8%). When the monthly income is analyzed, it is seen that 134 (84.8%) people have an income of 4000 TL or less and 24 (15.2%) have an income of more than 4000 TL.

In order to determine the organizational health perception and whistleblowing behavior of the education and health care workers, analyzes were conducted between the scale total scores and socio-demographic variables. Non-parametric tests were used because the data obtained did not correspond to the normal distribution. Mann-Whitney U test was performed in paired groups and Kruskal Wallis analysis of variance was performed in more than two groups.

Table 10. Results of Kruskal Wallis Variance Analysis Showing the Organizational Health Levels of Education and Health Workers in Terms of Age.

	Age	N	Mean Rank	Chi-square	Sd	p
Organizational Health Total	25-34 Age	94	179.37	9.961	2	0.007
	35-44 Age	174	172.36			
	45 Years and older	102	213.56			
	Total	370				

As can be seen in Table 10, the organizational health perceptions of education and healthcare professionals examined within the scope of the research were compared in terms of age variable. As a result of the comparison, it was seen that the organizational health perceptions of the

personnel differed in terms of total organizational health scores (p <0.01). It is understood that the difference is generally caused by the age group of 45 and over.

Table 11. Mann-Whitney U Test Results Showing the Organizational Health Levels of Education and Health Workers in Terms of Gender

	Gender	N	Mean Rank	Mann-Whitney U	p
Organizational	Woman	176	167.42		
Health	Man	194	201.90	13889.500	0.002
Total	Total	370			

As seen in Table 11, the organizational health perceptions of education and healthcare professionals examined within the scope of the research were compared in terms of gender variable. As a result of the comparison, it was seen that the organizational health perceptions of the personnel differed in terms of total organizational health scores (p <0.01).

Table 12. Mann-Whitney U Test Results Showing the Organizational Health Levels of Education and Health Workers in Terms of Marital Status

	Marital status	N	Mean Rank	Mann-Whitney U	p
Organizational	Married	323	189.38		
Health	Single	47	158.83	6337.000	0.067
Total	Total	370			

As seen in Table 12, the organizational health perceptions of the education and health professionals examined within the scope of the research were compared in terms of the marital status variable. As a result of the comparison, it was seen that the perceptions of organizational health of the staff did not differ in terms of total organizational health scores (p> 0.05).

Table 13. Results of Kruskal Wallis Variance Analysis Showing Organizational Health Levels in Terms of Education and Health Workers' Educational Status

	Education status	N	Mean Rank	Chi-square	Sd	p
	Associate degree	79	142.23			
Organizational	Undergraduate education	253	203.31	22.670	2	0.000
Health	Graduate education	38	156.89			
Total	Total	370				

As can be seen in Table 13, the organizational health perceptions of the education and health personnel examined within the scope of the research were compared in terms of the learning status variable. As a result of the comparison, it was seen that the organizational health perceptions of the personnel differed in terms of total organizational health scores (p <0.01). It is understood that the difference in terms of organizational health total scores and scale sub-dimensions originated from the group having undergraduate education.

Table 14. Mann-Whitney U Test Results Showing the Organizational Health Levels of Education and Health Workers in Terms of the Institution Worked

	Organization	N	Mean Rank	Mann-Whitney U	p
Organizational Health	Education Organization	212	244.26	4291.000	0.000
	Health Organization	158	106.66		
Total	Total	370			

As can be seen in Table 14, the organizational health perceptions of the education and health professionals examined within the scope of the research were compared in terms of the institutional variable studied. As a result of the comparison, it was seen that the organizational health perceptions of the personnel differed in terms of total organizational health scores ($p < 0.01$).

Table 15. Results of Kruskal Wallis Variance Analysis Showing the Organizational Health Levels of Education and Health Workers in Terms of Working Time in the Institution

	Working Time in the Institution	N	Mean Rank	Chi-square	Sd	p
Organizational Health	1-4 Year	109	208.62	19.128	3	0.000
	5-9 Year	109	171.35			
	10-14 Year	74	209.36			
	15 Year and over	78	150.32			
Total	Total	370				

As seen in Table 15, the organizational health perceptions of the education and health personnel examined within the scope of the research were compared in terms of the working time variable in the institution. As a result of the comparison, it was seen that the organizational health perceptions of the personnel differed in terms of total organizational health scores ($p < 0.01$). It is understood that the difference generally results from the group working 15 years and more.

Table 16. Results of Kruskal Wallis Variance Analysis Showing the Organizational Health Levels in Terms of Education and Health Workers' Working Time.

	Working Time in the Profession	N	Mean Rank	Chi-square	Sd	p
Organizational Health	1-9 Year	79	172.98	5.279	2	0.071
	10-19 Year	148	176.73			
	20 Year and over	143	201.50			
Total	Total	370				

As can be seen in Table 16, the organizational health perceptions of education and healthcare professionals examined within the scope of the research were compared in terms of variable of working time in the profession. As a result of the comparison, it was seen that the organizational health perceptions of the personnel did not differ statistically from the total points of the organizational health ($p > 0.05$).

Table 17. Mann-Whitney U Test Results Showing the Organizational Health Levels of Education and Health Workers in Terms of Monthly Income.

	Monthly Income	N	Mean Rank	Mann-Whitney U	p
Organizational Health	0-4000 TL	283	173.57	8935.500	0.000
	4000 and over	87	224.29		
Total	Total	370			

As it can be seen in Table 17, the organizational health perceptions of education and healthcare professionals examined within the scope of the research were compared in terms of monthly income variable. As a result of the comparison, it was seen that the organizational health perceptions of the personnel differed in terms of total organizational health scores ($p<0.01$).

Table 18. Results of Kruskal Wallis Variance Analysis Showing the Whistleblowing Behaviors of Education and Health Workers in Terms of Age.

	Age	N	Mean Rank	Chi-square	Sd	Age
Whistleblowing Total	25-34 Age	94	197.81	1.701	2	0.427
	35-44 Age	174	182.01			
	45 Years and older	102	188.10			
	Total	370				

As seen in Table 18, whistleblowing behaviors of education and healthcare professionals examined within the scope of the study were compared in terms of age variable. As a result of the comparison, it was seen that whistleblowing behaviors of the staff did not differ statistically between the total scores of whistleblowing ($p> 0.05$).

Table 19. Mann-Whitney U Test Results Showing the Whistleblowing Behavior of Education and Health Workers in Terms of Gender.

	Gender	N	Mean Rank	Mann-Whitney U	p
Whistleblowing Total	Woman	176	169.00	14168.500	0.005
	Man	194	200.47		
	Total	370			

As seen in Table 19, whistleblowing behaviors of education and healthcare professionals examined within the scope of the research were compared in terms of gender variable. As a result of the comparison, it was determined that there was a significant difference between the whistleblowing behaviors of the staff and the total scores of the whistleblowing ($p <0.01$).

Table 20. Mann-Whitney U Test Results Showing the Whistleblowing Behavior of Education and Health Workers in Terms of Marital Status.

	Marital status	N	Mean Rank	Mann-Whitney U	p
Whistleblowing Total	Married	323	185.94	7449.500	0.836
	Single	47	182.50		
	Total	370			

As seen in Table 20, whistleblowing behaviors of education and healthcare professionals examined within the scope of the research were compared in terms of marital status variable. As a result of the comparison, it was determined that the whistleblowing behaviors of the staff and whistleblowing total scores did not differ ($p> 0.05$).

Table 21. Kruskal Wallis Variance Analysis Results Showing Education and Health Workers' Whistleblowing Behavior in Terms of Educational Status.

	Education status	N	Mean Rank	Chi-square	Sd	p
Whistleblowing Total	Associate degree	79	162.59	4.636	2	0.098
	Undergraduate education	253	191.69			
	Graduate education	38	191.93			
	Total	370				

As can be seen in Table 21, whistleblowing behaviors of education and healthcare professional examined within the scope of the research were compared in terms of educational status variable. As a result of the comparison, it was determined that the total scores of the whistleblowing behaviors of the staff did not differ statistically (p> 0.05).

Table 22. Mann-Whitney U Test Results Showing Education and Health Workers' Whistleblowing Behavior in Terms of the Institution Worked.

	Organization	N	Mean Rank	Mann-Whitney U	p
Whistleblowing	Education Organization	212	199.56	13768.000	0.003
	Health Organization	158	166.64		
Total	Total	370			

As seen in Table 22, whistleblowing behaviors of education and healthcare professionals examined within the scope of the research were compared in terms of the institution variable studied. As a result of the comparison, it was seen that the staff's whistleblowing behaviors differed in terms of their whistleblowing total scores (p <0,01).

Table 23. Kruskal Wallis Variance Analysis Results Showing Education and Health Workers' Whistleblowing Behavior in Terms of Working Time in the Institution.

	Working Time in the Institution	N	Mean Rank	Chi-square	Sd	p
Whistleblowing	1-4 Year	109	191.68	5.423	3	0.143
	5-9 Year	109	199.61			
	10-14 Year	74	175.98			
	15 Year and over	78	166.18			
Total	Total	370				

As can be seen in Table 23, whistleblowing behaviors of education and healthcare professionals examined within the scope of the study were compared in terms of working time variable in the institution. As a result of the comparison, it was determined that the staff did not differ in terms of whistleblowing behavior and whistleblowing total scores (p> 0.05).

Table 24. Results of Kruskal Wallis Variance Analysis Showing the Whistleblowing Behaviors of Education and Health Workers in Terms of duration of work in the profession.

	Working Time in the Institution	N	Mean Rank	Chi-square	Sd	p
Whistleblowing	1-9 Year	79	197.39	2.292	2	0.318
	10-19 Year	148	176.00			
	20 Year and over	143	188.77			
Total	Total	370				

As can be seen in Table 24, whistleblowing behaviors of education and healthcare professionals examined within the scope of the study were compared in terms of working time variable. As a result of the comparison, there was no significant difference between the staff's whistleblowing behavior and whistleblowing total scores (p> 0.05).

Table 25. Mann-Whitney U Test Results Showing Education and Health Workers' Whistleblowing Behavior in Terms of Monthly Income.

	Monthly Income	N	Mean Rank	Mann-Whitney U	p
Whistleblowing	0-4000 TL	283	177.35	100004.500	0.008
	4000 and over	87	212.01		
Total	Total	370			

As seen in Table 25, whistleblowing behaviors of education and healthcare professionals examined within the scope of the research were compared in terms of monthly income variable. As a result of the comparison, it was determined that the whistleblowing behaviors of the staff showed a significant difference in terms of the total scores of the whistleblowing ($p < 0.01$). Correlation analysis results for determining the relationship between organizational health perception and whistleblowing behavior are presented in Table 26.

Table 26. Correlation Analysis Results Between Organizational Health Perception and Whistleblowing Behavior

		Organizational Health Total	Organizational Level	General Level	Individual Level	Whistle-blowing	External	Internal	Indifference
Organizational Health Total	r	1							
	p	-							
	N.	370							
Organizational Level	r	0.971**	1						
	p	0.000	-						
	N.	370	370						
General Level	r	0.932**	0.858**	1					
	p	0.000	0.000	-					
	N.	370	370	370					
Individual Level	r	0.905**	0.828**	0.790**	1				
	p	0.000	0.000	0.000	-				
	N.	370	370	370	370				
Whistle-blowing	r	0.143**	0.122*	0.146**	0.156**	1			
	p	0.006	0.018	0.005	0.003	-			
	N.	370	370	370	370	370			
External	r	0.120*	0.103*	0.140**	0.101	0.784**	1		
	p	0.021	0.047	0.007	0.053	0.000	-		
	N.	370	370	370	370	370	370		
Internal	r	0.175**	0.164*	0.158**	0.194**	0.854**	0.478**	1	
	p	0.001	0.002	0.002	0.000	0.000	0.000	-	
	N.	370	370	370	370	370	370	370	
Indifference	r	0.092	0.079	0.070	0.120*	0.621**	0.334**	0.502**	1
	p	0.078	0.131	0.180	0.020	0.000	0.000	0.000	-
	N.	370	370	370	370	370	370	370	370

Correlation analysis was carried out to determine the relationship between organizational health perception and whistleblowing behavior. As can be seen in Table 26, a positive but weak ($r = 0.143$) but statistically significant relationship was found between organizational health perception and whistleblowing behavior ($p < 0.01$).

4. DISCUSSION AND RESULTS

The purpose of this study is to determine the relationship between the organizational health perception and whistleblowing behaviors of the staff working in the education and health sector. Within the framework of the aforementioned purpose, the research was conducted in high schools affiliated to the Provincial Directorate of National Education in Kırşehir and Kırşehir Ahi Evran University Training and Research Hospital. The data in the study were obtained from 370 education and healthcare professionals. In educational and health organizations, it is important to examine the perception of organizational health and whistleblowing behavior and to reveal the relationships between these concepts. When the related literature is examined, a study examining the relationship between organizational health and whistleblowing concepts could not be found. Considering these factors, the study is thought to have a original value.

When the findings are evaluated as a result of the analysis of the data obtained from the research, with the perception of organizational health; It was observed that there was a significant difference between age, gender, educational background, institution worked, duration of employment in the institution and monthly income. There is no significant difference between marital status and working time variables. On the other hand, there was a significant difference between whistleblowing behavior and gender, institution worked and monthly income variable. There is no significant difference

between age, education status, marital status, working time in the institution and working time in the profession.

When the findings of the organizational health perception in terms of age variable are examined, it is seen that the difference is caused by the group of participants aged 45 and over. It can be said that there is a direct relationship between the age of the individuals and the perception of organizational health. This situation is thought to be due to reasons such as professional experience of people working in educational and health institutions within the scope of the research, working in the state institution. It comes to mind that the ability of employees aged 45 and over to compare the events they encounter in their social lives at the organizational level is more developed. In parallel with our study, in the study of Kısa (2011) in educational organizations, significant differences were determined in terms of age variable. Similarly, it was determined that the difference in terms of age variable was significant in the study in which Soylu (2017) investigated the effect of organizational trust and leader-member interaction on organizational health in educational organizations. In line with the findings of our study, the age variable differs according to the perception of organizational health in the study of Lee et al. (2014). In contrast to the findings of our study, no significant difference was found in organizational health scores in terms of age in the studies of Gül (2018) and Başar (2011). The fact that different results have been achieved in the researches may depend on reasons such as the organization in which the study is conducted, the personal characteristics of the individuals and cultural differences.

When the findings of the organizational health perception are examined in terms of gender variable, it is seen that male participants have more organizational health perception than female participants. Education and health institutions within the scope of the research; It is thought that women are not flexible enough to consider their families and there is no equal reward system among the staff, women experience more problems in their work environments than men, and women are responding negatively about the organization's health. On the other hand, as in many sectors in our country, it can be said that such results have occurred due to organizational discrimination between women and men in the education and health sector, women having less say in management, and women being pushed aside in some cases. Similar to the findings of our study, organizational health showed a significant difference in terms of gender in the study of Kısa (2011). Again, in the study of Başar (2011) in the municipal institution, there is a significant difference in terms of gender variable. Unlike the findings of our study, there is a significant difference in terms of gender in organizational health scores in the studies of Karacan (2017) and Ertaş and Töre (2016). It can be said that there are more than one reason for different results in terms of gender in studies. Socially; It is thought that gender discrimination in many areas is reflected in the business life of individuals and affects their thoughts. It is thought that situations such as putting women into the second plan, not seen as a part of life, trying to apply the situations that people see in their families and in their organizations are effective.

Considering the findings of whistleblowing behavior in terms of gender variable; male participants were observed to tend to show more whistleblowing behavior than female participants. It can be said that this situation stems from the social status differences in our society. Considering that the life of the Turkish society still depends on tradition, tradition and culture, it can be said that a woman brings up a wrong, immoral or illegal incident, and her retaliation behavior is higher than that of a man. In parallel with the findings of our study, in the study of Topgül (2018) investigating the effect of demographic characteristics on whistleblowing behavior in an educational institution, it was stated that whistleblowing perceptions differed significantly in terms of gender. In the related study, it was concluded that male participants were more prone to whistleblowing behavior compared to women.

Similarly, in the study that Toker Gökçe (2014) examined the action of whistleblowing in educational institutions, a significant difference was found between gender and whistleblowing scores. According to the related study, male participants were found to be more prone to whistleblowing action than women. The research conducted by Cassematis and Wortley (2013) in the foreign literature, which examines the effect of demographic variables on whistleblowing behavior, supports our study. In the related study, it was determined that gender influenced whistleblowing action; men were found to have more whistleblowing tendencies than women. Similarly, similar results were obtained in the study of Buckley et al. (2010); In this study, it was concluded that the gender variable influenced the whistleblowing action and that male participants had more whistleblowing tendencies than women. Unlike the findings of our study, Büyükarslan (2016) and Kızıltaş (2015) did not show any significant difference between gender and whistleblowing in different studies.

When the findings of the organizational health perception in terms of the educational status variable are examined; It was observed that the difference occurred due to the group of participants who had undergraduate education. It is thought that individuals will be able to look at the events more positively and make healthier decisions with the increase in the level of education. In line with the findings of our study, in the study of Ertaş and Töre (2016), organizational health scores showed a significant difference in terms of educational status. In the related study, it is stated that the graduates of "Vocational High School" have more perception of organizational health than other groups. Similar to our findings, in the study of Vural (2013), perceptions of organizational health showed a significant difference in terms of education level. In the relevant study, similar to the findings of our study, organizational health sub-dimensions differ in terms of educational status. In contrast to the findings of our study, in the study conducted by Güllü (2018) in sports enterprises and examining the mediating role of organizational health, no significant difference was found in terms of educational status. In the studies of Deniz (2016) and Ayduğ (2014), no significant difference was found in terms of educational status. The perception that people with high educational level are respected and valued in Turkish society may have been shaped in the world of thought of individuals in this research. Therefore, giving importance to the opinions of organizations with high education level may play an important role in improving their health status. Especially, benefiting from the knowledge, experience and history of the experts in the field can produce positive results for the organization.

When the findings of the organizational health perception in terms of the "institution worked" variable are examined; it can be thought that this situation is caused by the stress in the workplace, the mass served, the environment in interaction. In terms of educational organizations, it can be said that it is generally a more stress-free and comfortable working environment. From the point of view of health institutions, it is thought that the people who receive services are sick, as well as the relatives of the patients with aggressive attitudes, abnormal working hours, and previously experienced health workers have less perception of organizational health. In line with the findings of our study, in the organizational health study conducted by Gül (2018), the hospital type was considered as private and public sector. According to the findings obtained from the relevant study, the institution variable studied differs in terms of organizational health scores. In contrast to our study, the organizational health scores of Yıldız (2014) and Kıvrak (2013) in high school dimension did not differ significantly in terms of the institution variable studied.

When the findings of the whistleblowing behavior in terms of the "institution studied" variable are examined; It can be said that the working environment of educational institutions is more comfortable than the working environment of health institutions. Similar to the findings of our study, significant

differences were found between the whistleblowing sub-dimension, the internal whistleblowing, according to the institution variable studied in Alper (2018). In the study carried out in educational institutions, it was stated that the difference originated from Commercial Vocational High School. Similarly, the education and packaging sector was examined in the study of Oran (2018). In the relevant study, a significant difference was found between the internal, external, implied, formal and informal sub-dimensions of whistleblowing subscales in terms of the institution variable studied in these sectors.

When the findings of organizational health perception in terms of "working time in the institution" variable are examined; It was observed that the difference occurred was caused by the group of participants who had 15 years or more working time in the institution. In this case, it is thought that the employees have become accustomed to working environments because they have been in their institutions for a long time, and that their friendship relations in their institutions have become stronger during this period. In addition, it can be said that employees differentiate their perception of organizational health because they learn the functioning of the institution they work for too long, have knowledge in that institution and act accordingly. Similar to the findings of our study, in the study where Deniz (2016) investigated organizational health in high schools, perceptions of organizational health showed a significant difference in terms of working time in the institution. Unlike the findings of our study, no significant difference was found between the perception of organizational health in terms of working time variable in the institution in different studies conducted by Soylu (2017) and Uğur (2017).

When the findings of organizational health perception in terms of "monthly income" variable are examined; It was observed that those who earn 4000 TRY or more have higher perceptions of organizational health than those who earn 4000 TRY or less. Therefore, it can be said that the excessive salaries of employees affect the perception of organizational health positively. It is thought that the wages received by the employees in terms of maintaining their lives satisfy the people. When the relevant local literature is analyzed, it is seen that there are few studies where the monthly income variable is used. Similar to the findings of our study, in Arıkan (2011), it was determined that the total scores of organizational health differ in terms of monthly income variable. In the related study, it was stated that those who earn 650 TL or less find the institution they work more unhealthy than those who earn 650 TL or more. Therefore, overpayment differs employees' perception of organizational health.

When the findings of whistleblowing behavior in terms of "monthly income" variable are examined; It is seen that whistleblowing tendency is high in those earning 4000 TL and above. Similar to our study, in the study of Yarmacı (2018), whistleblowing perceptions differ significantly in terms of monthly income. According to the related study, it is stated that employees who have income between 1300-1900 TL perform less whistleblowing action.

In the study, correlation analysis was applied to examine the relationship between organizational health perception and whistleblowing behavior. According to the results of the correlation analysis, a positive weak ($r = 0.143$) but statistically significant relationship was found between organizational health perception and whistleblowing behavior ($p < 0.01$). In this case, the increase in whistleblowing action also creates an increase in the perception of organizational health. According to the results of the study, reporting the wrong, unethical or illegal incidents in an institution to the relevant authorities, exposing the incident directly affects the health status of the institution. On the other hand, it can be said that whistleblowing behaviour can be more in healthy organizations. Especially considering the educational institutions, considering the institutions that respect the thoughts and lives

of the employees, the behaviour of the employees in their whistleblowing can be respected. One of the features seen in healthy organizations; The fact that the opinions of the employees are taken into consideration in the solution of the problems that may arise may also be effective in this. When employees have the perception that their ideas are important, they may tend to perform whistleblowing behaviour easily.

It is possible to say that features such as loyalty to authority, loyalty to power and loyalty to communities, which are traditionally seen in Turkish society, are reflected in the modern business management of Turks. It can be argued that these situations make Turks more introverted and utilitarian individuals. In cases that do not belong to them, their preference to remain silent can be counted as indicators of this understanding. Turks expect the act of providing public services by someone else depending on the culture (Alper, 2018: 207). In studies between culture and whistleblowing, Turks are separated as individualist and socialist. In a study conducted by Zamantılı Nayır (2012) in private and public institutions, the relationship between individualism and communityism, which is considered as one of the personal factors, with whistleblowing forms is revealed. When the results of this research are analyzed, it is stated that individualist people prefer internal reporting; however, it is understood that there is no meaningful relationship between whistleblowing behavior being tacit or public and formal or informal, and between individualistic and collective personality traits. In fact, it can be expected that individuals with individualistic characteristics prefer external whistleblowing behavior. Different research findings also support this expectation. It can be thought that individualist individuals adopt exogenous whistleblowing behavior because their organizational commitment is weaker than socialist individuals. On the other hand, individualistic individuals may reach a different conclusion when they evaluate the results of their external and internal whistleblowing behavior in terms of egoistic and utilitarian ethical theories. In a study examining the relationship between Machiavelism and whistleblowing, Demirtaş and Biçkes (2014) found a finding that the intention to disclose negative situations decreased as the level of Machiavelism increased. According to this result, it is understood that people who focus on self-interest avoid the behavior of reporting unethical and illegal actions and behaviors in working life.

Although there are no legal regulations regarding whistleblowing, the existence of whistleblowing policies is noticeable in some private companies. Pirelli brand, which is a world-renowned tire company, state this on its official website as "Group Information Policy" (corporate.pirelli.com, 2018). As another example, Netafim Drip Irrigation Company state that they implemented it in their institutions with the “Information Whistleblowing Policy” declaration published (www.netafim.com.tr, 2018).

There is "CIMER (Presidential Communication Center)" as another complaint and notification mechanism in our country. This app provides a service about people's requests, complaints, suggestions or information. However, the missing aspect of the "CIMER" service is that the identity information of the people is given to the complaining authority. Therefore, sanctions can be imposed on the person making the complaint by the relevant authority. Especially people working in state institutions do not prefer to use this service with the concern that they will face various reprisals.

There are various complaints centres within the Ministry of National Education and the Ministry of Health. "Ministry of Health Communication Center" (SABİM), established within the Ministry of Health, is an application that helps people to get information and make complaints about health services (www.sabim.saglik.gov.tr, 2019). The Ministry of National Education has the "Ministry of National Education Communication Center" (MEBİM) application. It is ensured that people receive

information or make a complaint by phone (www.meb.gov.tr, 2019). When these applications are examined, it is seen that the channels in the concept of whistleblowing are not fully fulfilled. Therefore, "whistleblowing" channels should be established legally in all public institutions, especially education and health institutions.

5. SUGGESTIONS

The study was carried out to determine the relationship between organizational health and whistleblowing in education and health institutions. In order for this research to be a guide for future studies, when the findings and statistical results of the research are evaluated, the suggestions to be made are listed as follows:

- According to the results of this research, it is revealed that the concept of organizational health in high schools and hospitals in Kırşehir is unknown and not applied naturally. Therefore, first of all, organizational health concept awareness should be provided in these organizations.
- To establish a healthy educational organization, a healthy communication network should be established within the organization, and the concepts of student-teacher, teacher-manager, family-teacher and family-manager should be addressed more. Staff should be seen as values in educational institutions. In addition, an organizational climate should be created where everyone values the concept of respect. The morale and motivation of the employees should be increased.
- Organization managers should develop their internal whistleblowing channels in order to be aware of wrong, immoral or illegal events that may arise. The constructive reporting behavior and the opposing reporting behavior should be separated from each other, and a rewarding system should be introduced within the organization to those who do so. In addition, it should be ensured by the manager that the employees within the organization feel confident that they will not be retaliated and dismissed in an uncovering incident. Considering the cultural features, internal whistleblowing channels should be created at a level that every employee can easily access.
- For the whistleblowing behavior, government agencies should establish policies specifically for them, remember that whistleblowers work for the benefit of organizations and avoid being referred to as bad adjectives. In addition, problems arising from the lack of management in organizations should be addressed. This issue should be handled appropriately by experts in this field. Finally, the legal dimension regarding whistleblowing should be fully established.

The following suggestions can be made for future research:

- This research is limited to two of the public institutions. The field of application can be done in public and private organizations in different regions, but also with business organizations operating in the public and private sectors. It is also possible to conduct the research among different professional groups. Thus, comparisons can be made between different professional groups and sectors. In order to generalize the results of the study, it may be suggested to conduct studies with more organizations and samples.
- Studies can be conducted with the qualitative research method on the subject of the research.
- Moreover, studies can be made by adding new variables such as leadership characteristics and social culture characteristics of managers to the socio-demographic variables used in this research. The underlying causes of whistleblowing behavior can be investigated in the future studies.
- Finally, it is thought that the concept known as whistleblowing in the foreign literature and which does not have a complete equivalent in Turkish is appropriate to be used as "virtuous reporting" in future research. Considering the scientific understandability of the researches and the aims of contributing, the concept of "virtuous reporting" should be used.

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RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

INVESTIGATION OF NURSES' ORGANIZATIONAL COMMITMENT LEVEL: THE CASE OF TURKEY*

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ABSTRACT

Organizational commitment is one of the concepts that are widely researched in the nursing. However, there are differences in the research results regarding the level of organizational commitment of nurses.

This study aimed to investigate the results of researches on the organizational commitment levels of nurses in Turkey. This study was designed as a literature review model and it was conducted using several keywords such as "organizational commitment" and "nurse" in different databases in Turkish and English. As a result, 41 studies were accessed complying with the inclusion criteria. The total sample size of the research was 10,287 nurses for affective commitment, 9,836 nurses for continuance commitment, and 9,898 nurses for normative commitment.

The research included 41 studies that were published between 2006-2018. 68.29% (28 studies) of these studies were graduate studies (master theses and doctoral dissertations) and 92.68% (38 studies) were published in 2010 and afterward. It was reported that 84.2% of these studies in the research had lower levels of affective commitment, lower levels of continuance commitment in 84.2% of these studies and lower levels of normative commitment in 97.4% of these studies. The results of correlation analysis indicated no correlation between affective, continuance and normative commitment level of the nurses and data collection years.

It was concluded that the organizational commitment level of nurses were low and no linear increase or decrease was found in the commitment level over the years.

Keywords: Affective commitment, continuance commitment, normative commitment, nurse, organizational commitment, Turkey.

A R T I C L E I N F O

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1. INTRODUCTION

Organizational commitment is defined as the emotional state that is characterized by the employee's relationship with the organization and is effective in making the decision to continue or not to organizational membership (Meyer & Allen, 1991). Organizational commitment is also defined as "an individual's deliberate decision to recognize an organization's goals and values and their endeavour to achieve these goals and commitment to maintain membership in the organization (Mowday et al., 1982). Although it has frequently been stated that organizational commitment is a multi-dimensional concept, the three-dimensional organizational commitment model designed by Meyer and Allen (1991) is widely accepted as the generic model which includes three basic components, affective commitment, continuance commitment and normative commitment. Affective commitment basically means the identification and the affective attachment of the individual with the organization (Allen and Meyer, 1990; Meyer et al., 2002). In continuance commitment, on the other hand, individuals remain as members of the organization simply because there are no better alternatives or their decision to leave the organization will bring out certain consequences (Meyer et al., 2002). In normative commitment, employees are affiliated with their organizations because they "feel obliged to continue being a member of the organization" with a sense of responsibility and moral obligation (Allen and Meyer, 1990).

Organizational commitment bears much significance since it has various influences on several organizational factors. Recent studies have shown that high levels of organizational commitment affirm job satisfaction, organizational trust, employee productivity, job quality, organizational citizenship behavior, job performance, leadership behaviors (Demirel & Aslan, 2008; Geisler et al., 2019; Holmgren et al., 2014; Lin et al., 2019; Top, 2012). Nevertheless, it has been also reported that poor organizational commitment causes challenges such as productivity problems, job dissatisfaction, job stress, absenteeism and leaving the organization (Jacobs et al., 2010; Labrague et al., 2018; Lambert and Hogan, 2007; Lin et al.,2019; McCunn et al., 2018).

There have been numerous studies, both at international and national scale, on organizational commitment. Aharon et al. (2019), for instance, investigated the correlation between organizational commitment and quality of life at work among public health nurses in Israel, Church et al. (2018) analyzed the factors affecting organizational commitment and leaving the organization in nurses. In Turkey, on the other hand, Karaaslan and Aslan (2019) conducted a study on nurses serving in prisons in Turkey and their work-related quality of life. Ergun and Celik (2015) focused on the correlation between nurses' job satisfaction and job stress and

organizational commitment, Arı et al. (2017) discussed the correlation between organizational justice and organizational commitment in healthcare workers. In researches related to the organizational commitment levels of nurses, Labrague et al. (2018) determined that nurses in the Philippines show moderate organizational commitment and are undecided about leaving job. Timalsina et al. (2018) carried out a study on predictive factors of organizational commitment in a nursing faculty in Nepal and reported that a majority of the participants (68%) had moderate levels of organizational commitment. In relevant studies conducted in Turkey, on the other hand, Top (2012) investigated the organizational commitment, organizational trust and job satisfaction profiles of physicians and nurses and similarly reported moderate levels of organizational commitment among nurses. Durukan et al. (2010) also conducted a study and noted that the organizational commitment levels of nurses were almost at moderate levels. Additionally, Sevinç and Şahin (2012) found lower levels of organizational commitment among nurses. A review of studies on organizational commitment levels of nurses in Turkey indicates no comprehensive studies on such issues allowing a holistic approach. It is especially suggested that this particular study enables a thorough assessment of the results of studies on the organizational commitment of nurses in Turkey.

Research questions

1-What is the organizational commitment level of nurses?

2-Has the level of organizational commitment of nurses considerably changed over time?

2. METHODS

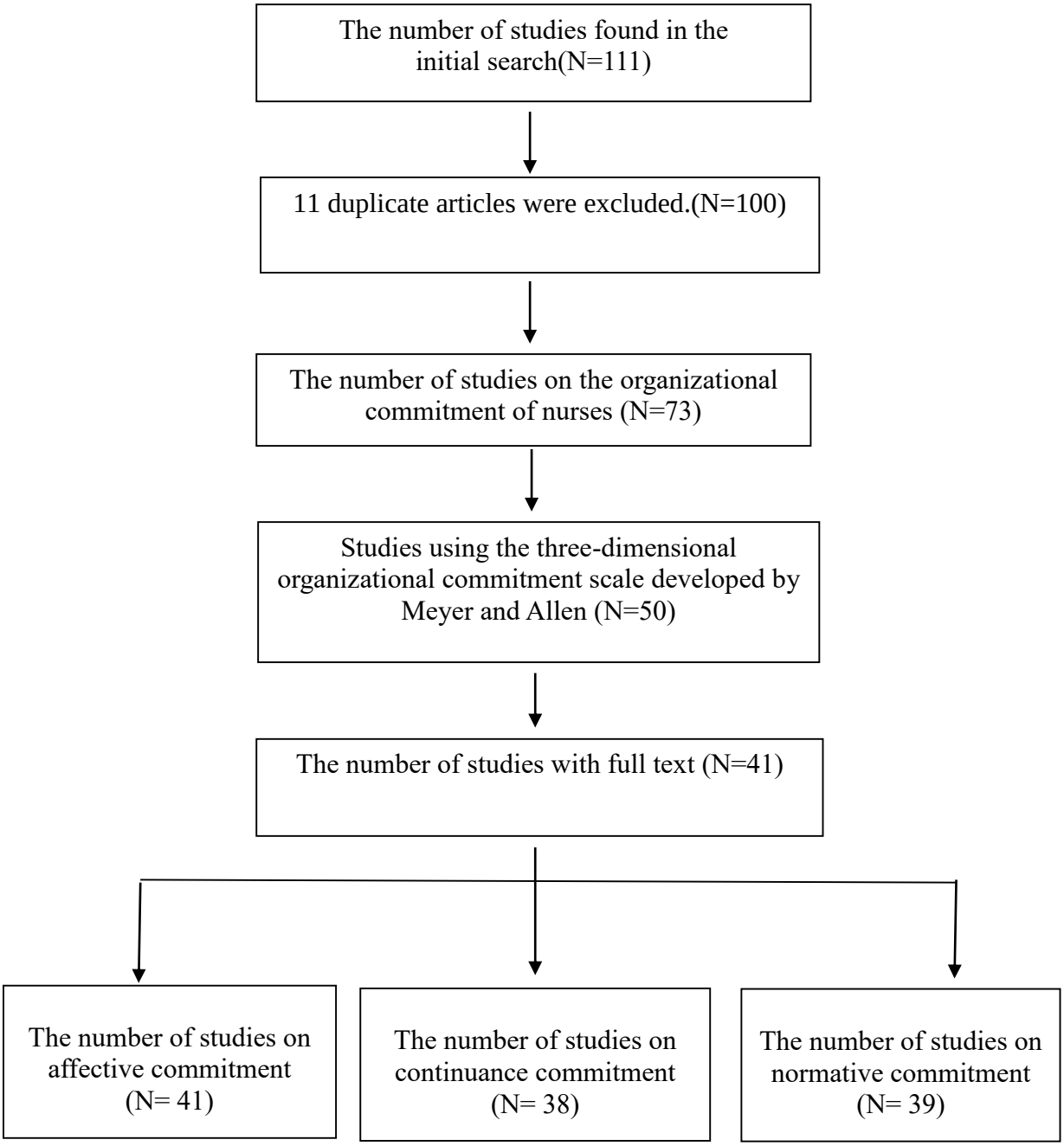
This study primarily aimed to investigate organizational commitment level of nurses in Turkey and analyze changes in the organizational commitment level over time. The study was designed based on a literature review model. Using the three-dimensional organizational commitment scale developed by Meyer and Allen (1991), the results of studies on the organizational commitment levels of nurses were compiled and analyzed. The three-dimensional organizational commitment scale is widely used to evaluate the organizational commitment levels of nurses with a comparative approach and the researchers, therefore, decided to included those studies using the scale in the research. The researchers also benefited from the cross-temporal meta-analysis, a special meta-analysis technique used to analyze the change in organizational commitment levels of nurses (Twenge et al., 2010).

Research Strategy

The researchers reviewed studies on the levels of organizational commitment among nurses in Turkey. To this end, the researchers searched for certain keywords, “organizational commitment" " nurses" and "Turkey" in Turkish and English in several databases such as Turkish Medical Directory, National Graduate Studies Center, Pubmed, Google Scholar, EBSCO Host, Scopus and Web of Science until May 2019.

The studies were included in the research if (a) they were published in English or Turkish, (b) they were conducted in Turkey, (c) the study sample was composed of nurses, (d) the study data were available for a quantitative data analysis, (e) the study data were measured by the three-dimensional organizational commitment scale designed by Meyer and Allen (1991), (f) the study was a graduate study or an article, and (g) the study data enabled the analysis of change in organizational commitment (sample size, mean and standard deviation).

Figure 1. Study selection process flow diagram



The flow diagram indicating the process of inclusion of the studies is given in Figure 1. The researchers conducted a comprehensive search and individually evaluated all titles and abstracts of the studies that were initially enlisted. They accessed a total of 111 studies consequently. 11 of these studies had duplicate copies, the sample of 27 studies were not nurses, and 23 studies did not use the three-dimensional organizational commitment scale. Moreover, nine of the studies did not have a full text. As a result, 41 studies on affective commitment, 38 studies on continuance commitment and 39 studies on normative commitment were included in the study. The included studies in the research are given in Appendix 1.

The study data were collected with a data coding form developed by the researchers, which included title of the studies, name of the author / authors, the year of publication, publication type, publication language, a measurement tool, sample size, data collection year, mean scores of organizational commitment sub-dimensions and standard deviations of each individual study. When the data collection year was not specified, the data collection year was considered to being two years earlier than the publication year as suggested in previous studies (Konrath et al., 2011; Twenge, 2001). The reliability of the coded data was tested by comparing the coding forms of each researcher. In case of disagreements in data coding, the researchers reassessed the forms and consequently achieved a 100% consensus.

Cross-Temporal Meta-Analysis Procedure

The cross-temporal meta-analysis focuses on the mean values of the measurement results and aims to figure out to what extent there is a change in the mean values over time rather than merely summarizing the impact size (Twenge, 2001; Twenge and Campbell, 2001; Twenge and Nolen-Hoeksema, 2002).

The mean scores of studies were weighted with the sample size and inverse variance (Twenge and Campbell 2001), thus eliminating the impact of the sample size on the mean scores. In order to measure the weighted mean scores (w), the square of the standard deviations of the mean scores was divided by the sample size (SD2 / n) and the result was reversed. The correlation between weighted means and data collection year were analyzed with correlation analysis (Twenge, 2001; Twenge and Campbell, 2001). In addition, the correlation between the data collection years and the weighted mean scores were analyzed in order to find out if there is any change over time. It was consequently found that any positive or negative correlation indicated a change in the mean of that particular variable. (Wegman et al., 2018). Although it was unnecessary in this study, in case any changes in the cross-temporal meta-analysis process are

reported, the size of that change is measured with regression analysis (Twenge, 2001; Twenge and Campbell, 2001).

Data analysis

The study data were analyzed with SPSS 23.0 and Excel 2013 software. In data analysis, number and percentage distribution and correlation analysis were used.

Ethical considerations

As the study was based on a literature review model, it did not have any direct influences on humans or animals. Thus, the researchers didn't seek any approval from the board of ethics.

Limitations of the study

There are a variety of measurement tools to analyze the level of organizational commitment. The researchers deliberately preferred the three-dimensional organizational commitment scale developed by Meyer and Allen (1991) to compare the commitment levels. As this research particularly focused on investigating the level of organizational commitment among nurses in Turkey, it can not be generalizable for different countries.

3. RESULTS

Chart 1 indicates the distribution of the studies in the research by years. Accordingly, the studies in the research were published between 2006-2018 and the number of publications ranged from 1 to 6 each year. When the publication type of the studies was examined, it was determined that 68.29% (28 studies) consist of master's and doctoral theses and 31.70% (13 studies) consist of research articles.

Chart 1. The distribution of the studies in the research by years.

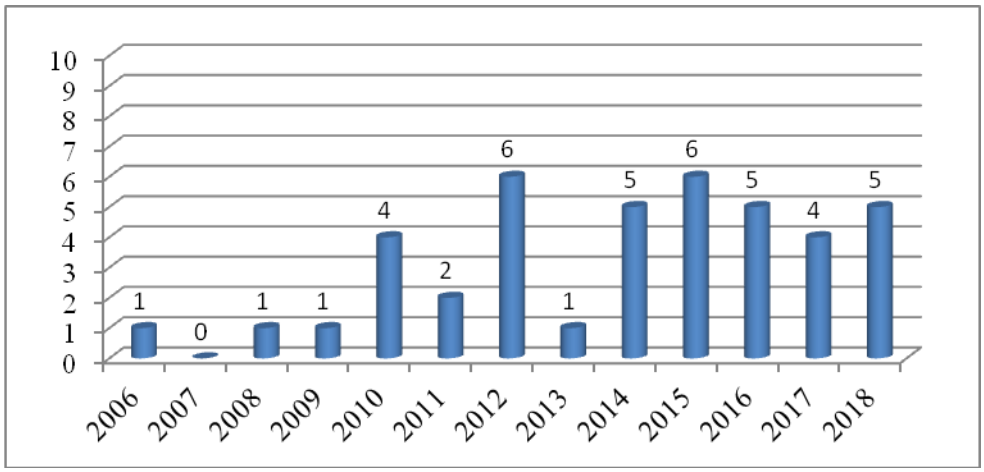


Table 1 demonstrates the results of the level of organizational commitment of nurses. Affective commitment (87.8%), continuance commitment (84.2%) and normative commitment (97.4%) were found to be lower.

Table 1. The results of the level of organizational commitment of nurses

Organizational commitment	Low		High	
	Number	%	Number	%
Affective commitment	36	87,8	5	12,1
Continuance commitment	32	84,2	6	15,8
Normative commitment	38	97,4	1	2,6

The mean scores of affective commitment by data collection year are given in Chart 2. It was found that the data collection years of the studies on the level of affective commitment of the nurses were between 2004 and 2018, and the mean score of affective commitment was the highest in 2004 (mean = 4.73) and the lowest in 2013 (mean = 2.83).

Chart 2. The mean scores of affective commitment by data collection year

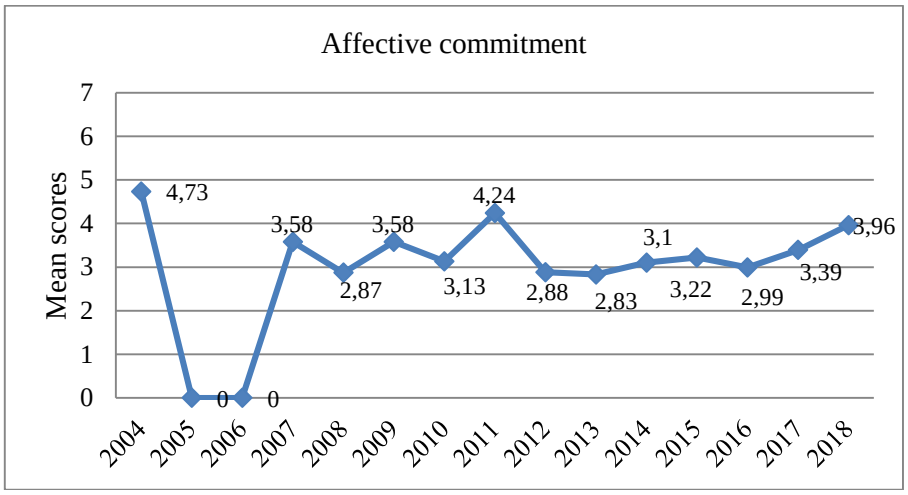
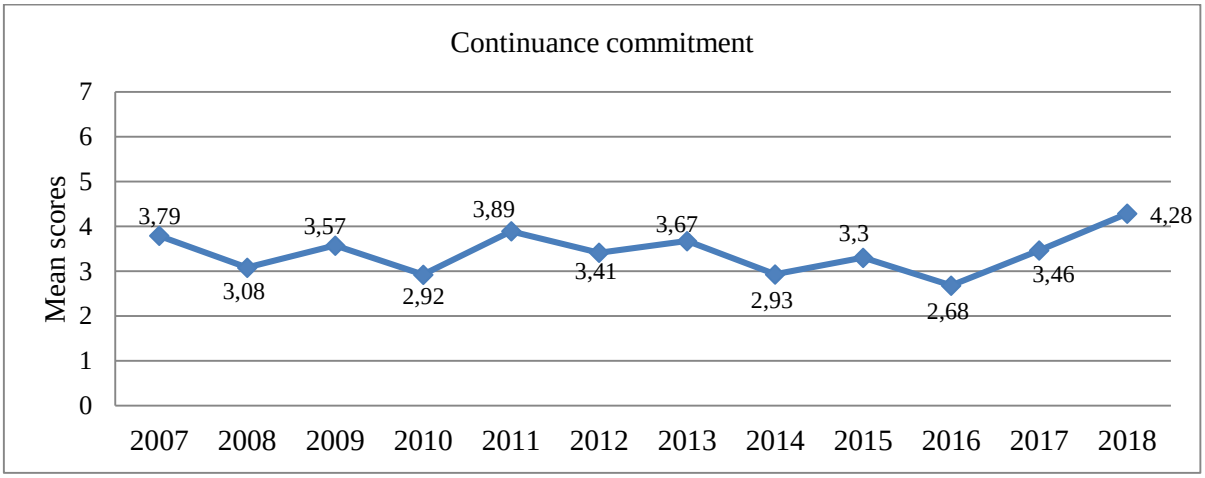


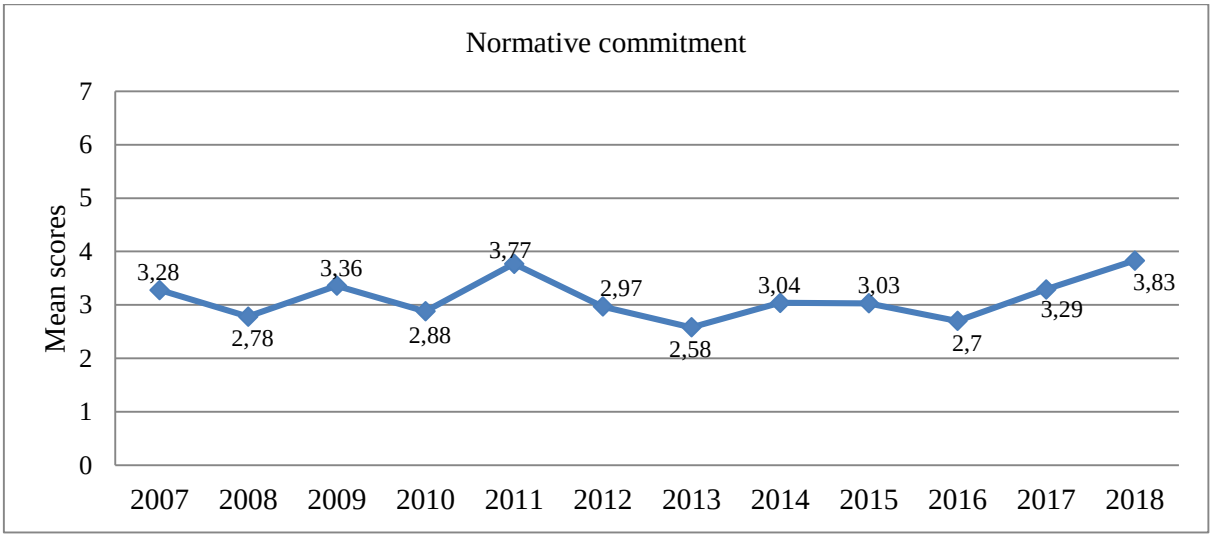
Chart 3 presents the mean continuance scores of nurses by data collection year. It was noted that the data collection years of the studies on continuance commitment levels of the nurses were between 2007 and 2018, and the mean continuance commitment score was the highest (mean = 4.28) in 2018 and the lowest (mean = 2.92) in 2010.

Chart 3. The mean scores of continuance commitment of nurses by data collection year



The mean scores of normative commitment of nurses by data collection year are given in Chart 4. It was reported that the data collection years of the studies on the normative commitment levels of the nurses were between 2007 and 2018, and the mean of normative commitment scores was the highest (mean = 3.83) in 2018 and the lowest (mean = 2.58) in 2013.

Chart 4. The mean scores of normative commitment of nurses by data collection year



The correlation between the weighted mean scores of organizational commitment and data collection year was analyzed with correlation analysis. The results indicated no correlation between the mean scores and data collection year (Table 2).

Table 2.The correlation between the weighted mean scores of organizational commitment and data collection year

Organizational commitment (w)	Data collection year	
	r	p
Affective commitment	-,176	,270
Continuance commitment	-,041	,807
Normative commitment	-,153	,354

4. DISCUSSION

Organizational commitment is one of the best indicators for understanding nurses' behavior in regard to their perception of institution (Kim et al., 2017). Organizational commitment has frequently been investigated in nursing but the study results have not been evaluated with a holistic approach. This research seeks to answer questions such as "What is the level of organizational commitment of nurses?" and "Has there been a change in the level of organizational commitment?" based on the research data from studies on the organizational commitment of nurses in Turkey. Therefore, this research aimed to contribute to the improvement of the organizational commitment of the nurses by providing an overview of the current situation about the organizational commitment levels of nurses.

The study findings demonstrated that affective, attendance and normative commitment of nurses varied between high and low levels but often with lower levels of organizational commitment. Moreover, it was reported that the study findings indicated no linear increase or decrease in affective, attendance and normative commitment levels of nurses over time. Lower levels of organizational commitment entail a weak relationship between employees and the organization and organization's incapacity to fulfill its duties, potentials, and responsibilities to achieve its goals (Üçgül, 2017). The low organizational commitment are also characterized with negative outcomes such as slowdown in professional development, increased absenteeism, high rates of leaving the job and the professional career, low job satisfaction, low job quality and low customer satisfaction (Baykal & Türkmen, 2014; Duygulu & Abaan, 2007). Therefore, it is suggested that hospital managers, especially managing nurses, prioritize the attempts to increase the organizational commitment of nurses.

Although low organizational commitment is commonly regarded as a result of the insufficiency of institutions to meet the expectations of employees (Duygulu & Abaan, 2007), job satisfaction (Al-Hussami, 2008; Hoş & Oksay, 2015), intention to leave (Labrague et al., 2018), employee empowerment (Asiri et al., 2016; Oh and Chung, 2011; Samaa et al., 2013), organizational trust (Bağcı and Akbaş, 2016; Durukan et al., 2010), organizational justice (Arı et al., 2017), organizational support (Chang, 2015), working environment (Üçgül, 2017) are also among other causes of low organizational commitment. Therefore, managers should pay utmost attention to the impact of managerial decisions and practices on the organizational commitment of nurses. Besides, it is recommended for managers to evaluate regularly the organizational commitment and institutional expectations of nurses in order to ameliorate organizational commitment.

This research has provided a broad perspective on the organizational commitment levels of nurses in Turkey and their transformation over time. However, the research has certain limitations. There are a variety of measurement tools to investigate the levels of organizational commitment. This research focused on the studies that used the three-dimensional organizational commitment scale developed by Meyer and Allen (1991) in order to compare commitment levels. It aimed to analyze the levels of organizational commitment of nurses in Turkey and therefore, the results of this research cannot be generalized for other countries. The research data were collected from online databases and thus, the research results were confined with the publications in these databases. In line with the purpose of the research, the research

focused only on the levels of organizational commitment of the nurses and the institution types (public, university, private hospital, etc.) were not particularly analyzed. However, organizational commitment levels of nurses may also depend on the institution types, which is suggested to be particularly analyzed in further studies.

5. CONCLUSION

It was concluded that the organizational commitment levels of nurses were generally low with no linear increase or decrease in the commitment levels over the years. It is recommended for nursing managers to prioritize initiatives that would enhance the organizational commitment of nurses. In addition, examining the results of nurses' organizational commitment by hospital type will contribute to a better understanding of the cause of low organizational commitment and to develop appropriate strategy.

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APPENDIX 1. STUDIES INCLUDED IN THE RESEARCH

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RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

MATERIAL MANAGEMENT IN NURSING SERVICES: ORGANIZATION DEVELOPMENT STUDY*

Berra YILMAZ KUŞAKLI[1]

ABSTRACT

In order to provide quality services in the field of health practices, the resources allocated to materials as well as manpower should be used effectively. In this respect, it is known that the most consumed materials of health services are pharmaceuticals, medical consumables and most of these materials are applied by nurses. In nursing services, managing nurses should be able to provide quality health services with good method and control of resources. In this direction, nurses should take an active role in the realization of the change to the benefit of the organization with the necessary practices and controls.

The aim of this study was to determine the problems experienced in the management of clinical drug&medical consumables in a public hospital nursing services, and to ensure that the drug management procedures for solving these problems were revised and implemented by all clinical nurses.

Prior to the study, regular interviews were conducted with permission from the Hospital Management. The problems and requirements related to the drug&medical consumables method of the institution are determined and the activities to be done to eliminate them are planned.

As a result of this application, clinical based pharmaceutical&medical consumables management of nursing services, job analysis of responsible nurses, related job descriptions were determined, related procedures were arranged. Implementation was carried out to ensure drug&medical consumables management, unit warehouses were carried out with record controls over both physical warehouse and hospital information management system warehouse module.It is recommended that this practice be developed to cover other nursing practice areas within the institutional framework.

Key words: Nurse, medication, material management, organizational development, medical consumables

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1.INTRODUCTION

1.1. Organization Development

Organizational development is the process of developing the internal capacity of an organization which is very effective in maintaining its long-term existence and accomplishing its mission (Ünüvar & Bektaş, 2017).

Organizations' effectiveness, adaptation to change, supervision, etc. reviewing and reconstructing strategies, structural features and procedures in order to eliminate the problems that arise over time (Şencan, 2008). According to Cummings, organization development; states that it is a process that uses behavioral sciences to strengthen, develop and change strategies, structures and processes that enable organizations to be effective (Cummings & Worley, 2008). Organizational development is a managerial activity aimed at ensuring the planned changes in the organization in a planned way and includes different parts of the organization (Helvacı 2008).

The benefits of organizational development can be listed as follows:

- ✓ It creates an open problem-solving climate in which everyone can take part in the organization.
- ✓ It increases the productivity of both the organization and the individuals.
- ✓ It creates trust among individuals and groups for the employees of the organization.
- ✓ In the rewarding system, it provides a structure that can fulfill the development of individuals and the basic functions of the organization.
- ✓ It increases the ability of individuals to control and direct themselves within the organization.
- ✓ Develops an understanding that emphasizes the innovative attitude of managers.
- ✓ Allows the organization to develop its mission and vision.
- ✓ It helps the organization to adapt to changing environmental conditions (Öktem & Kocaoğlu, 2012).

Organizational development involves a repetitive process consisting of several stages. However, each organization development process has to include the following five stages. These are; diagnosis, selection and design of agents, implementation of the tool, evaluation and adaptation and protection of the system. The "diagnostic" stage of organizational development is to determine the current state of the organization. The problems in the organization and what causes these problems are defined. Any person, or group working in the organization may be the cause of the problem. At this stage, activities such as surveys, interviews, direct observations, document and report analyzes can be carried out to gather information to identify problems and situation (Helvacı, 2008). In the second stage, "selection and design of intermediaries and designs, suggestions and alternatives about how to solve problems" are detected. Alternative proposals are succested on which mediators should be used for these alternatives.

In the third stage, which of these alternative solution proposals or which "decisions to be implemented" are suggested. The application is implemented. Since the development of the organization basically includes practices aimed at changing human behavior, it is not possible to get an immediate result during the implementation phase. The changes that are expected to occur in the attitudes and behaviors of the employees within the organization require

considerable time and effort. As with all managerial activities, "evaluation" is the fourth stage. During the evaluation phase, it is checked whether the desired planned change has been realized. Planned change needs to be well analyzed and elaborated in order to make the evaluation stage correct in organizational development. In the last stage, if the applied method is successful, it is decided to continue and to maintain and adapt to the system and to carry out "preservation activities" (Helvacı, 2008). At the end of the targeted organization development program, if the desired situation is not reached, then the problem persists. Information is collected again for this problem. Thus, the organization development program will be started again (Dinçer, 2007; Bumin, 2003).

1.2. Materials Management in Health Care

Today, the roles and functions of health institutions are expanding. This situation leads to structural complexity of health institutions and makes management difficult. Charles Austin, in his work "What is Health Administiration", stated that Health institutions management is a management discipline specific to the field of health services, and therefore, examining all aspects of health services from the perspective of business administration, which is developed to meet the management requirements emerging in the field of "health, discipline". Although the concept of business is emphasized at first glance, the concept of business is rational use of resources (Kavuncubaşı & Yıldırım, 2018). The regulation of health services with the development of value creating industries should be evaluated from a holistic point of view considering the costs of national health services (Karahan, 2009).

In order for hospitals to continue their services without interruption, they need two important resources: manpower and materials. These two sources are important in the hospital budget as expenditure groups (Göktepe, 2014). In order to provide quality health services, hospitals have to use the resources allocated to materials in addition to manpower effectively (Uzuntarla et al., 2015). The effectiveness of the two mentioned elements will ensure the quality of the service provided. Materials: medicines (tablets, capsules, solutions, ointments, etc.), medical equipment (bandage, hydrophilic cotton, syringe, suture material, etc.), non-medical material (bed sheets, covers, linen, stationery, etc.), equipment (tables, beds, refrigerators, generators, transportable parts such as vehicles that can be used for years), installations (such as buildings that can be used for years can not be moved)) is understood (Eren, 2016). In this context, the requests of the hospitals to have the materials they want ready for use at any time creates the need for stocking. Because of this need, hospitals, regardless of their size, face some problems with the control and management of stocks. Having very little stock in hospitals leads to the risk of failure to meet the expectations of health services as it will lead to possible service interruptions. Excessive stock in hospitals (causing increased losses as a result of theft and deterioration) may cause the financial structure to be adversely affected due to the capital attached to the stocks (Eren, 2016; Karagöz & Yıldız, 2015). With cost-benefit analysis, material efficiency can only be achieved by a well-structured inventory management (Aytekin, 2009; Uzuntarla et al., 2015). Organizations have to develop policies that minimize stocking costs by balancing service efficiency and customer demands (Collier, 2009). Stocks should be controlled with a central and good monitoring system, unnecessary storage of materials should be prevented and coordinated operation of functions should be ensured by identifying lost materials (Göktepe, 2014).

The purpose of stock management, which means material management, which has a very important place for hospital enterprises; means to have the right material, at the right time, at the right amount, at the right cost and at the right place (Aytekin, 2009). Cost reduction can be

achieved through careful use and protection of materials and equipment, such as reducing costs and performing stock controls. Control of material inventories, purchase requests, storage can help in determining long and short term inventory costs (Tomey, 2009).

The scope of material management; is to purchase, carry out stock control, follow up material movements and, delivery, distribution and storage functions. It is a process that includes planning, purchasing, acceptance, storage, stock planning and control of the materials required for the hospital and waste utilization or recycling for the environment. Material management is an organizational structure that enables more efficient planning, coordination and control of all material activities in the process before the actual use of materials. The scope of material management is wide. It includes planning activities and material requirements, purchasing, obtaining the necessary materials and resources, presenting the materials to the organization and materializing their status as valid assets, and storing the materials in the right place and at the right time to meet the need for used material. Their responsibility starts with the planning of the material need and ends only when the materials are used successfully (Uzuntarla et al., 2015).

There are many important reasons for stocking as low as possible. These include: minimizing wear-out factors such as life-span and depreciation of materials, easier inventory control, reducing losses during storage, taking measures against possible production inefficiencies, reducing transportation and labor costs during access and storage, reducing the number of corporate warehouses. and saving time and reducing alternative costs due to capital investment (Kamauff, 2009; Türk & Şeker, 2011).

The fact that material expenses have an important ratio in total operating expenses reveals the importance of material management for enterprises (Göktepe, 2014). The impact of material management on the company's profits is even more striking. A small reduction in material costs greatly increases the profitability. In a research conducted by the American Management Association; As a result of effective purchasing and material management, an annual savings of 2% leads to a 10% increase in operating profitability, while a 10% decrease in material expenses results in a 52% increase in profitability. A significant portion of the profit is realized at the time of purchase. Operating profit increases by 20-30% if appropriate supply is provided (Uzuntarla et al., 2015). Similar studies in the literature have shown that the cost of materials and medicines in hospital institutions is 10% -15% of the total annual costs (Kaptanoğlu, 2013). Taking into account that the annual costs of the hospital subject to the research is 50-60 million TL, the importance of the study will becomes more clear (Karagöz & Yıldız, 2015).

No health program can run without material management. Good material management ensures the optimal use of the limited resources available and thus minimizes the negative consequences of deficiencies or degradation (Eren, 2016).

3. Materials Management in Nursing Services

In nursing services, managing nurses can ensure the quality and supervision of nursing services with good management of resources. Nurses play an important role in the implementation of care and in determining the financial impact of the materials and equipment used. Thinking in terms of cost and the development of cost awareness is of great importance for all nurses and nursing practices (Yoder-Wise, 2007). In this context, nurses have an important position in accessing medicines, medical consumables etc. which are involved in patient care and treatment processes and have to examine and evaluate the materials purchased and used (Nobiling, 2010). It is stated that the most common expenditure items in nursing budgeting are salaries, materials and equipment (Nobiling, 2010). The inventory of pharmaceuticals and medical consumables constitutes an important part of the hospital's expenditure items.

Although the concepts of budgeting, cost and material management are important in terms of nursing services applications, they are not fully understood by the nurses or their value is not

known. The studies created in this direction will help nurses to be more effective in their work habits, decision making, financial management, communication with employees, access and sharing of scarce resources (Göktepe, 2014). With the evaluations made within this scope, the needs of hospitals to develop themselves and their services emerge. In order to meet this requirement, organization development studies are used (Seren & Baykal, 2003).

2.MATERIALS AND METHODS

In order to decide the general framework of the study and to get support in planning the study, firstly, regular interviews were conducted with the permission of Hospital Management. The problems and requirements related to the drug and medical consumables method of the institution were determined and the activities to be done to eliminate them were planned. Method: Prior to the study, permission was obtained from the Hospital Management and regular interviews were conducted. The problems and requirements related to the drug and medical consumables method of the institution are determined and the activities to be done to eliminate them are planned. Qualitative and quantitative research methods and descriptive research design were used in the research. In this study, pharmaceutical and medical consumables stock management in all clinical areas in a public hospital is examined as a process and process definition, process improvement and process improvement techniques are discussed with brainstorming and 5 W1H. The Action Plan for this study is given in Annex I and Annex 5W1H. The user group consists of nurses and medical secretaries responsible for unit-based pharmaceutical and medical pharmaceutical materials management. Microsoft Office Word and Excel programs were used during the study.

3. RESULTS - Status Analysis

Material management considers all processes that develop from procurement of materials to consumption by end users as a process. In this context, workflows should be determined, the materials should be recorded in every environment where they are physically present and kept within the framework of stock management principles. Again, inventory management will be controlled, effectively, reducing unnecessary material usage, accurately determining the material needs of the past by clearly identifying the material consumption in the past, and reducing the costs of the stock and ensuring the exact recording of the medical equipment used for the patients, ensuring the correct reflecting of the material costs used in the treatment.
Problem Analysis: The medical warehouse (pharmacy) operate in the hospital between 08-17 working hours. Outside office hours, the need for medication and medical supplies from the clinics is reported to the supervising nurse. The supervisor opens the pharmacy with the nurse on duty officer and delivers the medication or medical consumables to the service, and the records of the materials taken from the pharmacy are sent to the Director of Health Care Services (researcher) and to the responsible pharmacist. The Director of Health Care Services realized that this was happening frequently and the pharmacist responsible for the opening of the pharmacy was notified frequently. On this issue, the Director of Health Care Services asked the supervisor nurse a report on the dates, which clinics and for which materials they had to open the pharmacy. According to the report, it was seen that the pharmacy was opened at different times in order to meet the material (drug, serum, etc.) requirements of all clinics, including specialty units that have intermediate storage facilities. Upon this situation, it was determined that all clinics' warehouses were de facto controlled and the stock controls of the material warehouses were not carried out and were not followed up. In all clinical areas, the number and material type seen on the Hospital Information Management System (HIMS) inventory module does not match the number of existing warehouses. Unused drugs, discontinued treatment or drug returns are not made daily (no refunds are made) among the

services. Materials circulation, lock and count controls of emergency ambulances were not registered, and medication were stored in different areas of the clinic in the nursing rooms of physicians and nurses without any temperature-humidity control. Almost all clinic were in the same condition.

Taking Action: The current situation was communicated with the Hospital Management. It was decided to establish an organizational development group consisting of nurses who were thought to support the change and have the power to influence other nurses. Hospital Health Care Services Manager, Coordinator nurse, Hospital Quality and Productivity Director and researcher, "Nursing Services Pharmaceutical and Medical Consumables Management Development Group" is planned to be established. The results of the job analyzes will first be examined in this group under the supervision of the researcher, and then a drug management procedure will be planned under the guidance of the researcher. With this organization development team, necessary studies have been planned in line with the Ministry of Health, Health Quality Standards-HQS Hospital Pharmaceutical Management. In this context, it is stated that there should not be any drug stores in all clinical areas except in intensive care units, in emergency room and in operating rooms etc. and that medical consumables should be kept in a maximum of 5 days in all areas, minimum, maximum and critical stock levels should be determined and revision of their definitions over (HIMS). In this direction, the transfer of excess drugs and materials in the areas was planned by negotiating with the pharmacist responsible for medical depot and medical consumables depot officer. It is planned to return the identified above-stock materials (if there is no defined warehouse, all non-use material) to the central warehouses via (HIMS) warehouse module.

It is aimed to optimize stock levels of clinics. A common consensus was reached that the pharmacy, which was opened frequently after working hours, should not be opened unless it is necessary for the safety of the drug (it cannot be found in any clinic, etc.). Within this scope, providing the clinics with intermediate storage facilities such as emergency service or intensive care unit with 5-day stock under the coordination of supervisor for orders of inpatients (or changing) after working hours, and producing solutions for supplying medicine and medical supplies through inter-unit warehouse transfer decision. It was decided that all responsible nurses and supervisors should be trained in accordance with the procedure established for drug and medical consumables management. In order to update the information of all working nurses, it was decided to organize internal HIMS warehouse module trainings. It is planned to define the storage areas, to determine the sketches, to carry out the temperature and humidity controls, and to prevent the storage of out-of-site material with frequent inspections. In general, the revision of the Drug Safety procedure is planned within the framework of Health Quality Standards.

Activity plan and intervention

"Action plans" have been prepared in line with the activities determined in the solution of the problems experienced in the inventory management of pharmaceutical and medical consumables in the unit warehouses. A meeting was held with the organization development group "Nursing Services Pharmaceutical and Medical Consumables Management Development Group" in order to review the activity plan and the changes to be made for the last time. The decisions were reviewed and the opinions were evaluated by determining whether there were different opinions against the change. Decisions determined during the action phase were communicated to the Chief Physician of the Hospital and compliance was obtained. First of all, the activity plans were shared with all the nurses in charge of the clinical area and the decisions

taken were put into practice. Material delivery processes to pharmacy and medical consumables warehouse have been completed.

Evaluating results

Each step and every aspect of the clinics were evaluated by evaluating the stages of drug and medical consumables management. With the data to be obtained at this stage, it may be decided to go back to the planning stage in order to proceed to the next stage of the process or to make certain corrections. In the evaluation of the results, it is also important to get the opinions of the interested parties. Because the change plan and the execution of the plan with the relevant people, the results of the evaluation is required together. This situation will also contribute to the development of participatory management approach in the enterprise (Dinçer, 2008; Ekinci, 2011). In this context; process evaluation meetings were held with the researcher, organization development group "Nursing Services Pharmaceutical and Medical Consumables Management Development Group" and related responsible nurses. Necessary arrangements were made through the HIMS stock modules and physical warehouse controls in the areas.
Application controls were provided with the researcher during the working hours and supervisor nurses determined after the working hours with Nursing Services Pharmaceutical and Medical Consumables Management Development Group and subjected to in-service training in this field. In the evaluation of the applications, "Clinical Based Drug and Medical Consumables Management Evaluation Form" developed in line with the literature was created and the process was followed closely. Application integrity between clinics was ensured.

End of organizational development program

The management of the nurses and the clinics to which they are responsible, weekly warehouse checks and organization development group "Nursing Services Pharmaceuticals and Medical Consumables Management Development Group" by organizing monthly visits and the integrity of the application was observed by closely monitoring the material management process. However, a 3-month evaluation process was planned in order to monitor sustainability closely. In this three-month evaluation process, it was decided that the organization development program should be terminated in case of compliance with the activities.

4. CONCLUSIONS AND RECOMMENDATIONS

As a result of this practice, clinical-based drug and medical consumables management of nursing services, job analysis of responsible nurses and related job descriptions were determined and procedures for drug management and medical consumables management were arranged. Pharmaceutical and medical consumables management is provided by the procedure. Application integrity between clinics was ensured. It is recommended that this practice be developed to cover other nursing practice areas within the institutional framework.

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ADDITIONAL.I 5W1H					
What to do?	**Why?**	**How?**	**Who-whom?**	**Where?**	**When?**
The hospital manager will be interviewed and official permission will be obtained for the study and information flow will be provided in certain periods.	By obtaining information and permission of the executives about the process, by providing ease of application, in order to avoid problems in the supervision and regulation of pharmaceutical and medical	The implementation steps of the application will be discussed with face to face managers in advance.	Hospital Manager and Health Care Services Manager (Researcher)	In the administrative unit of the hospital	08.03.2019 10.04.2019 02.05.2019
Hospital clinical medicines and medical consumables management procedures will be examined and their compliance with the literature will be evaluated and necessary arrangements will be made.	Analysis of clinical drug management	Field evaluations of drug and medical consumables management of all responsible nurses, polyclinic, clinic, emergency, operating room, intensive care unit nurses will be made	All responsible nurses, polyclinic, clinic, emergency, operating room, intensive care unit nurses-Researcher	At hospital	11.03.2019
Creating an activity plan	To determine the workflow	Determining the activities in the solution of the problems experienced in the inventory management of pharmaceutical and medical consumables in the unit warehouses.	Researcher	In the administrative unit of the hospital	12.03.2019
Establishment of the organization development group "Nursing Services Pharmaceutical and Medical Consumables Management Development Group"	An organization development group consisting of nurses who are thought to support the change and have the power to influence other nurses will be formed.	Assignment to the organization development group consisting of Quality Director and Coordinator nurse in the hospital	Researcher- Hospital Quality Director and Coordinator nurse	In the administrative unit of the hospital	12.03.2019
Organizational development group Meeting with "Nursing Services Pharmaceutical and Medical Consumables Management Development Group"	The activity plan was prepared with the "Nursing Services Pharmaceutical and Medical Consumables Management Development Group" which is the organization development group in order to review the changes for the last time.	A meeting was held and the action plan was revised in line with the decisions taken.	Researcher- Hospital Quality Director and Coordinator nurse	In the administrative unit of the hospital	12.03.2019
Examination of clinical drug and medical consumables management processes according to procedures	To determine the reliability of the data, to identify the situations that are overlooked	The results of the job analysis will first be examined in this group under the supervision of the researcher and then the job descriptions created by the researcher will be discussed.	Nursing Services Pharmaceutical and Medical Consumables Management Development Group - Researcher	At hospital	15.03.2019
Clinical medicines and medical consumables management procedure will be updated and regulated	To make the nurses working in the institution more aware of their roles in clinical drug management and to work more systematically and regularly	Performance criteria and performance evaluation form will be established under the guidance of developed procedures and job descriptions in this scope	Nursing Services Pharmaceutical and Medical Consumables Management Development Group - Researcher	At hospital	16.03.2019
Communicating team meetings with clinically responsible nurses and starting activities	Implementation in line with the activity plan	Implementation in line with the activity plan	Nursing services pharmaceutical and medical consumables management development group, Researcher- All responsible nurses	At hospital	20.03.2019 ile 23.03.2019
Training of clinical drug and medical consumables management procedures	To ensure that all nurses learn the drug and medical consumables warehouse management procedure and apply the procedure	Training	Nursing services pharmaceutical and medical consumables management development group, Researcher- All responsible nurses	At hospital	20.03.2019 ile 23.03.2019
Performance evaluation of clinical drug and medical consumables management	Ensuring the continuity of applications	Consistency assessment for inventory follow-up by counting performance evaluations through system and field controls. In this context, the "Clinical Based Pharmaceutical and Medical Consumables Management Evaluation Form" developed in line with the literature to ensure the control of the areas.	Nursing Services Pharmaceutical and Medical Consumables Management Development Group, Supervisor Nurses, Researcher- All Responsible Nurses	At hospital	20.04.2019-24.04.2019
Ensuring sustainability	3-month evaluation process is planned to closely monitor sustainability. In this three-month evaluation process, it was decided that the organization development program should be terminated if the activities were found to be eligible	Clinical Based Drug and Medical Consumables Management Evaluation Form to ensure the control of the field.	Nursing Services Pharmaceutical and Medical Consumables Management Development Group, Supervisor Nurses, Researcher- All Responsible Nurses	At hospital	10.07.2019
Project Reporting	Sharing the results with the top management and recording the organization development activities in the field	Preparation of the report of all activities recorded systematically in writing	All Hospital Management-Researcher	At hospital	31.08.2019

ADDITIONAL II

	Logic / Structure of the Study	Verifiable Indicators	Verification Resources	Assumptions / Risks
General Purpose	Ensuring that drug and medical consumables management is carried out in hospital clinics safely and accurately in accordance with the procedures	Drug and medical consumables warehouse minimum, maximum and critical stock quantities to determine the correct warehouse compliance / consistency ratio error rate from 28% to a minimum of 95% to increase	Hospital Information Management System warehouse screens	Necessary measures should be taken in terms of drug safety and control of medical consumables
Special Purposes	Ensuring that responsible nurses act in accordance with the procedure of all nurses working in the clinic in drug management	Ensuring that the drugs are complete and complete in the process of receiving them from the pharmacy	Lack of drug reporting during seizure hours.	Error 0 (zero) cannot be reduced because it is a human factor.
Expected Results	Manage pharmaceuticals and medical consumables in clinical areas, minimize errors, increase productivity, ensure effective cost management	* Revision of procedures and training, revision of stocks (min. Max and critical stock levels) in the first month, return of surplus drugs to pharmacy, return of medical consumables to medical consumables warehouse, and regulation of physical structures of warehouses * Increased awareness of employees * Pharmaceutical and medical consumption management Active use of the procedure	Hospital Information Management System and weekly reports received * Numerical values * Physical storage conditions	Errors due to system-related problems
Activities	* Drug management and medical consumables warehouse management procedures * Training Program	Hospital Information Management System weekly and monthly reports * Numerical values * Physical storage conditions	Evaluation and follow-up of the reports, kontroller Clinical Based Drug and Medical Consumables Management Evaluation Form "to ensure the control of the areas.	* This issue should not be handled by the responsible nurses in unit orientation trainings for the nurses who have just started the institution. * Pharmacy and medical consumables warehouse problems caused by the business processes

ADDITIONAL III

MATERIAL MANAGEMENT IN NURSING SERVICES: AN ORGANIZATION DEVELOPMENT STUDY

ACTIVITY PLAN	1st MONTH (March 2019)	2nd MONTH (April 2019)	3rd MONTH (May 2019)	4th MONTH (June 2019)	5th MONTH (July 2019)	6th MONTH (August 2019)
Problem Detection	08.03.2019					
Determining the Subject of the Study	08.03.2019					
Literature Search	08.03.2019	15.04.2019				
Meeting with the Manager	08.03.2019	10.04.2019	02.05.2019			
Hospital clinical drug and medical consumables management procedure, physical fields and literature review, evaluation of compliance with the literature	11.03.2019					
Creating an activity plan	12.03.2019					
Establishment of the organization development group "Nursing Services Pharmaceutical and Medical Consumables Management Development Group"	12.03.2019					
Organizational development group Meeting with "Nursing Services Pharmaceutical and Medical Consumables Management Development Group"	12.03.2019					
Examination of the procedures of clinical drug and medical consumables management processes	15.03.2019					
Clinical drug and medical consumables management procedure updated and regulated	16.03.2019					
Communicating team meetings with clinically responsible nurses and starting activities	20.03.2019-23.03.2019					
Training of clinical drug and medical consumable management procedures	20.03.2019-23.03.2019					
Monitoring of results	20.03.2019	20.04.2019				
Evaluation of results		20.04.2019-24.04.2019				
Ensuring sustainability						
Project Reporting						31.08.2019

Completed	In Progress	Not Started

RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

SIGMA LEVELS ANALYSIS OF INTERNATIONAL PATIENT SAFETY GOALS FOR A PRIVATE HOSPITAL*

Nuray GİRGİNER[1]

Mine İSKENDEROĞLU[2]

ABSTRACT

In this study, sigma levels of International Patient Safety Goals (IPSG) of a private hospital accredited by JCI were analyzed. The data related to the processes were obtained from the security reporting notices of the hospital for 2011-2018. The error numbers obtained from the security reporting reports and the error numbers per million were found using the Defects Per Million Opportunities (DPMO) formula and sigma levels were obtained by using sigma conversion table.

As results of analysis, although the increases and decreases observed in the years, IPSG' sigma levels have taken 4.2 and above values it's over the acceptable range 3-4 sigma for health institutions in Turkey. Also the sigma level of the infection prevention process was found to be lower than the others while the sigma level of the process of ensuring effective communication was the highest. The sigma levels calculated for the goals support that IPSG processes are well managed in this hospital. As a result it can be said that this hospital managed well process of IPSG.

Key Words: Patient Safety, Six Sigma, International Patient Safety Goals, Sigma Level analysis

A R T I C L E I N F O

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1. INTRODUCTION

The basic principle of health services is patient safety. The fact that the most basic element of the patient care process is the patient requires responsibility awareness, current knowledge and attention to be valid throughout the whole process. Various problems that occur in the process or system in patient-oriented treatment practices may reveal situations that may harm the patient. Patient safety; It is a complex system that includes performance improvement, environmental safety and risk management as well as service improvements, infection control, safe use of medicines, equipment safety, safe clinical practices and safe care environment (Aştı ve Acaroğlu, 2000: 22).

Some institutions that are aware of the importance of patient safety have made patient safety a standard. One of them is Joint Commission International (JCI). There are 6 International Patient Safety goals in the context of JCI standards. These are can be sorted as (Joint Commission International, 5th Ed. 2014);

1. Accurate identification of the patient
2. Enhancing Effective Communication
3. Improving the Safety of High Risk Drugs
4. Ensuring Right-Side, Right-Procedure and Right-Patient Surgery
5. Reducing Health Care Related Infections
6. Reducing the Risk of Damage to Patients from Falls

Each of the International Patient Safety goals is important for patients. An error in any of these goals may cause unwanted results. For each goal, process definitions should be made and standardization should be ensured. To adopt a culture of improvement and safety in patient safety; It is primarily based on the adoption by the employees of the organization into a corporate culture and the implementation of system improvements with a systematic and planned approach. Since the Six Sigma approach has a "zero defect" focus in practice, it is thought that it will be increasingly preferred for quality improvement. (This sentence has not been cited from a resource).

Six Sigma is a quality approach that aims to reduce the error in processes to zero. A business with a Six Sigma level has a maximum error of 3.4 per million. Six Sigma which aims to reduce the variation in processes, is a measurement technique that shows how much businesses have detected from zero error locations. Six Sigma, which measures and analyzes the processes, although it first appeared in a company serving in the manufacturing sector due to the fact that concrete outputs are easier to measure, it has started to gain importance in the service sector and health sector influenced by changing and diversifying socio-economic factors (Deniz et al, 2016).

The importance of six sigma and patient safety has attracted the attention of researchers. (Sehwail and DeYong, 2003; Revere, et al., 2004; Antony et al., 2007; Feng, 2008; Souza, 2009; Gowen, 2012; Chiarini, 2012; Andrea, 2013; Jiju et al., 2013; Alessandro et al. 2013; Bhat vd., 2014; Nilson and Sandoff 2015; Gijo et al., 2016). Academic studies have been done on Six Sigma in Turkey, began to concentrate in the early 2000s. It is seen that these studies are mostly related to the theoretical structure of Six Sigma philosophy and principles, factors affecting Six Sigma success, Six Sigma applications and successes or Six Sigma's statistical and data processing dimension. Although these studies are oriented towards the production sector, it is seen that few studies related to the service sector have been included in

the literature in recent years. (Dağlıoğlu 2009; Öztop, 2010, Akyalçın, 2010; Dinçel, 2011; Emekli, 2012; Cebe, 2013; Deniz, 2015). Similarly, studies on patient safety in Turkey is not sufficient in number (Aştı ve Acaroğlu, 2000; Aslan ve Ünal, 2005; Candaş ve Gürsoy, 2015; Korkmazer et al., 2016; Yurttaş vd., 2016; Bişkin ve Cebeci, 2017; Karayurt et al., 2017; Mesken, 2018; İskenderoğlu et al., 2018). The absence of a study combining Six Sigma and International Patient Safety in the domestic and foreign literature is the starting point of this study.

The aim of this study is to reveal the sigma level of International Patient Safety Goals in a private hospital that adopts patient safety as a culture in its own institution, routinely provides training to its employees on patient safety and tries to produce solutions by focusing on the system in case of any error. The sigma levels were analyzed through the data obtained from the security reporting notification system of the hospital and the errors that occurred in the processes.

APPLICATION: Determination of Sigma Levels for International Patient Safety Goals

This study was carried out in a private hospital accredited by JCI to determine sigma levels for International Patient Safety Goals. This hospital has 103 beds and 400 employees. In addition, the importance given to lean practices in the hospital has been the reason for preference of this hospital in the study. The data related to the processes were obtained from the safety reporting notifications of the hospital for 2011-2018. The number of errors received from the security reporting notices and the number of errors per million were calculated using the DPMO formula. Then sigma conversion table was used to obtain sigma levels corresponding to DPMO.

Calculation of Sigma Levels for Ipsg

To calculate the sigma level, the number of errors per million in the process is first calculated using the errors in the processes, the total number of operations, and the events that generate the errors (probability of failure). DPMO formula was used to determine sigma levels of IPSG. The table of sigma levels is then used to find the sigma level corresponding to the DPMO values obtained (Işığıçok, 2011: 7).

$$\text{DPMO}=\left(\frac{D}{N*O}\right)*1.000.000$$

N: Total number of products

D: Total Number of Defective Products

O: Total Number of Error Types

DPMO: Error Probability in Millions

DPMO formula used for each goal to determine sigma levels of IPSG are summarized in Table 1.

Table 1: Formulas Used in Sigma Levels Analysis

Goals	DPMO
Verification of patient identity	Reported incorrect authentication counts /Total number of application in a year x1.000.000 Number of error type (1)
Ensuring effective communication	Number of communication errors reported/Total number of application in a yearx1.000.000 Number of error type (3)
Ensuring safety of high risk drug	Number of drug errors reported / total number of hospitalizations in a year x1.000.000 Number of error type (5)
Ensuring safe surgery	Number of reported surgical errors / total number of operations in one year x1.000.000 Number of error type (4)
Prevention of infections	Number of patients with infection // total number of hospitalizations in a year x1.000.000 Number of error type (3)
Prevention of falls	Number of patients falling reported/ total number of hospitalizations in a year x1.000.000 Number of error type (2)

2. FINDINGS

DPMO and sigma levels for each of IPSG processes using the formulas in Table 1 for 2011-2018 are shown in Table 2. According to Table 2 sigma levels of IPSG are higher due to literature. Considering that 2-3 sigma levels are acceptable in the literature, the International Patient Safety Goals sigma level is the smallest value of 4.2 over the years and is higher.

Table 2: DPMO of IPSG and Sigma Levels

IPSG	Years	DPMO	Sigma Level
Verification of patient identity	2011	-	-
	2012	7.13	5.8
	2013	25.98	5.5
	2014	41.00	5.4
	2015	65.29	5.3
	2016	78.59	5.2
	2017	59.61	5.3
	2018	29.86	5.5
Ensuring effective communication	2011	71.53	5.3
	2012	-	-
	2013	4.06	5.9
	2014	-	-
	2015	-	-
	2016	78.30	5.2
	2017	25.73	5.5
	2018	-	-
Safety of High Risk Drugs	2011	-	-
	2012	-	-
	2013	414.28	4.8
	2014	230.81	5
	2015	3036.0	4.2
	2016	3242.7	4.2
	2017	61.76	5.3
	2018	28.44	5.5
Ensuring The Right Field. The Right Procedure. The Right Patient Surgery	2011	111.70	5.1
	2012	40.84	5.4
	2013	-	-
	2014	61.41	5.3
	2015	25.70	5.5
	2016	167.65	5
	2017	90.20	5.2
	2018	42.44	5.4
Reducing Risks caused by infection	2011	-	-
	2012	2101.49	4.3
	2013	1340.31	4.5
	2014	769.37	4.6
	2015	805.01	4.6
	2016	1827.05	4.4
	2017	1338.27	4.5
	2018	758.43	4.6
Prevention of falls	2011	321.88	4.9
	2012	134.13	5.1
	2013	365.54	4.8
	2014	346.22	4.85
	2015	215.62	5
	2016	156.60	5.1
	2017	154.41	5.1
	2018	193.82	5

Examining the sigma levels in Table 2 for each goal separately:

- *Verification of patient identity*: Although its sigma level has not shown a steady increasing trend over the years it is quite high. Based on these findings, it is observed how the processes of patient identity verification perform in practice. The compliance rate of this indicator followed up since 2016, is 98.90% for 2016; 98.45% for 2017 and 98.21% for 2018.
- Effective communication: It is seen that the processes related to this target have sigma levels above 5 and there is no standardization in the trend of sigma values of process. The compliance rate of this indicator followed up since 2016, is 98.94% for 2016; 95.45% for 2017 and 96.80% for 2018.
- Ensuring drug safety: The sigma level of this goal is higher than the literature (4.2 sigma and above), but there is no linear increase in the tendency of the processes over the years. In 2011 and 2012, no safety reporting records related to drug safety were found. However, when the error records and theirs values made in the following years are taken into consideration, it is concluded that there were not any errors in the processes in 2011 and 2012, but not notification. The compliance rate of this indicator followed up since 2013, is 95,68% for 2013; 95.23% for 2014, 98,31% for 2015, 97.97% for 2016, 99.54% for 2017 and 100% for 2018.
- Ensuring The Right Field, The Right Procedure, The Right Patient Surgery: The sigma level for this process was higher than the literature (min. 5 sigma), but there was no linear increase in the tendency of the processes over the years. In 2013, no safety reporting was made within the scope of safe surgery, and the reports made in other years were near-event reports, and it was detected that the situation was corrected without any permanent damage to the patient. According to the indicator data that has been followed since 2011, it is determined that a safe surgical checklist is used for each patient who underwent surgery. Patient files are prepared by the hospital unit when the patient comes to hospitalization thus avoiding the overlook of document being included in the file.
- Prevention of infections: Hospital infection rate was started to be monitored since 2012. In the process of prevention of infections; In general, there is an increase in sigma levels over the years. Three of the indicators are directly related to the prevention of infections followed by the quality unit in the hospital every month. These; hospital infection rate, hand hygiene compliance rate and correct use of surgical prophylaxis. The hospital infection rate for the years 2011-2018 respectively was 0.64; 0.48; 0.23; 0.18; 0.59; 0.43; 0.28 and these values were parallel to the sigma level. The rate of hand hygiene compliance, which was started to be monitored in 2016 was 71.55, 68 in 2017, 70.67 in 2018. Considering that the hand hygiene compliance rate in the literature is around 60%, it is seen that the hand hygiene compliance of the hospital is above the literature average.
- Prevention of falls: It has been observed that the sigma levels of the processes related to reducing the risk of injury due to falls ranged from 4.8 sigma levels to 5 sigma levels over the years. The compliance rate of this indicator followed up since 2016 is 99.08% for 2016, 98.22% for 2017 and 98.12% for 2018.

3. CONCLUSION

In this study, sigma levels of International Patient Safety Goals (IPSG) of a private hospital accredited by JCI were analyzed. Data related to the processes were obtained from the safety reporting notifications of the hospital for 2011-2018. The number of errors received from the security reporting notices and the number of errors per million were calculated using the DPMO formula. Then, sigma conversion table was used to obtain sigma levels corresponding to DPMO.

As a result of the analysis, although sigma levels decreased / increased compared to years, values were 4.2 and above and these values are above of the acceptable range (3-4 sigma) for healthcare institutions in Turkey. The minimum sigma level of 4.2 indicates that there are very few errors in the process. It can also be said that the staff are careful not to make mistakes in the related processes.

When sigma levels of International Patient Safety Goals are evaluated; sigma level of infection prevention process is lower than others. Infection control should be the responsibility of everyone working in the institution. Within the scope of the in-service training program, training should be planned for each field regardless of occupational groups. The process with the highest sigma level is the process of ensuring effective communication. Sigma levels confirm that the hospital manages the IPSG processes well and adopts it as an institutional culture. Despite the awareness in the organization and all the processes written down and made available to the employees, it was observed that although the errors might occur in the processes, the sigma level of the organization was high.

Today, institutions make use of data in decision making and policy making. Thus, the previous month/year/period and so on period, they follow the development curves. However, as the institution does not have the same denominator as the previous period, the results do not fully reflect the current situation. If the institution expresses the current status indicators by sigma level, it will be easier and more understandable to follow the development curve of the processes between periods. With the determination of sigma levels of processes, institutions will make more efforts to achieve excellence (6 sigma) and they will also have the opportunity to improve by seeing where the staff is missing.

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RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

EXAMINATION OF SOME PSYCHOLOGICAL VARIABLES THAT PREDICT INTERNET ADDICTION IN UNIVERSITY STUDENTS: A UNIVERSITY IN CAPPADOCIA

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ABSTRACT

This is a predictive study with a descriptive method and a relational screening model and it was aimed to examine some psychological variables that predict internet addiction. The sample was formed by using the proportional cluster sampling based on stratum weight of the schools. The study was conducted with a total of 521 students. Introductory Information Form, Symptom Check List (SCL-90-R) and Internet Addiction Scale were used. It was found that Cronbach's Alpha coefficient of SCL-90-R scale was 0.97 and Cronbach's Alpha coefficient of the addiction scale was 0.92. The data were assessed by using number, percentage, chi-square, Kruskal-Wallis, Man Whitney U, spearman's correlation and regression analysis. Ethics committee approval and verbal consent were obtained. The average score of the students' general psychological symptom index (GSI) was found to be 1.96 ± 0.63 and 5.3% of the students were addicted to internet. There are statistically significant differences between students' both internet addiction scale scores and Symptom Check List (SCL-90-R) scores and some variables (gender, smoking). It was determined that there was a difference between internet use durations and internet addiction levels and a significant and positive interaction between psychological symptoms and internet addiction. This study shows that the most important predictor of addiction is psychoticism from psychological symptoms. These results are considered to be likely helpful for clinicians and researchers in stages of determining, preventing and treating risk groups.

Key Words: Student, Psychological Variables, Internet Addiction

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1. INTRODUCTION

Along with the developments in information and communication technologies, technology usage is also increasing rapidly in every field and especially the use of computers and internet has become considerably widespread (Çuhadar and Dursun, 2010; Esenyel, 2017). According to the data of the Internet World Stats, the number of internet users which was 3.035.749.340 in 2014 reached to 3.739.698.500 people in 2017. With 46.196.720 internet users, Turkey is the 18th country among the top 20 countries using the internet at the highest rate in the world, and since 56.7% of the its population are the internet users, Turkey is ranked as the 4th in internet usage among European countries (Internet World Stats, 2017a; Internet World Stats, 2017b). Ever increasing rate of the internet users in Turkey has become 61.2% according to the latest data (TÜİK, 2016). While internet usage increasing mostly due to various reasons such as sharing information, communicating, shopping, chatting, etc. causes many problems, it has also become an important mental health problem because of the loss of control over the internet use, its negative effects on the daily life function and affecting the relationships (Anderson, 2000; Rju et al., 2004). Some researchers have identified internet use behaviour at problem level; whereas, some also have used different descriptions based on different causalities. They can be regarded as "internet addiction", "pathological internet use", "problematic internet use", "excessive internet use", "compulsive internet use" and even "internetomani". However, studies conducted until today have indicated that prevalence of problematic internet addiction vary between 0.3-38% even if they have used different criteria. Problematic internet use is prevalent in girls 2-3 times greater than boys and adolescents constitute an important risk group in particular (Bozkurt et al., 2016). It is stated that the increase in the duration of the internet use, the unconscious use of the internet and the satisfaction with communication increase the tendency to internet addiction (Chou and Hsiao, 2005) However, since the dependency measures defined in DSM-V cover only chemical substances and do not cover behavioural addictions, non-chemical behavioural addictions are evaluated as "impulse control disorders" in DSM-V. Studies have revealed that internet users are beginning to exhibit behaviours that resemble drug, alcohol, or gambling addictions for Internet use (Griffiths, 1996). Uncontrolled and unlimited use of the Internet can create negative physical and psychosocial effects especially on young people (Caplan, 2002; Niemz et.al., 2005). In general, internet addiction can be defined as not being able to resist the desire to use excessive internet by the individual, considering time spent without being connected to the internet as insignificant, displaying excessive tension and aggression by the person when it is not connected to the internet, and damaged work, social and family aspects of the life (Young, 1996).

The fact that almost everything is done via technological devices in everyday life has reduced and damaged the relations of people with one another. Human-machine relations have increased instead of human-human relations (Tekeli, 1994). It is found that the Internet can cause some consequences such as isolation of the individual from the society, depression, weakening of social relations, decrease in close friend relations, and feeling of loneliness (Yalçın, 2006). It is also stated that internet addiction may carry as much risk as other substance dependencies due to various psychological, sociological, physical and academic new mental health outbreak for university students in different countries of the world, especially in the Far East (Bernardi and Pallanti, 2009; Shapira et al., 2000). The research examining the factors related to internet addiction in adolescents in recent years revealed that there are other psychiatric disorders that accompany internet addiction in more than half of the adolescents with internet addiction (Çam and Nur, 2015). Internet addiction has recently been defined as a psychological problem and families have been in search of treatment due to problems associated with internet use of their children. Treatment centres related to this disorder and new treatment methods have been implemented anymore in Far East countries and the USA where this problem, which is new to Turkey have been experienced for a long time (Sharma and Palanichamy, 2018). Given the

increasing popularity of internet usage in recent years due to the surplus of young population in Turkey, examining the psychological variables that predict internet addiction in university students is important in terms of putting forward appropriate preventive treatment approaches. It is thought that the study would contribute to the elimination of this need and will lead the way for the future studies in the field.

2. MATERIALS AND METHODS

Type of study

This research aimed to examine the psychosocial variables that predict internet addiction in university students is a predictive study with a descriptive method and a relational screening model. The screening model is a research approach aimed at describing the past and present as they are (Karasar, 1998).

Population and Sample

The population of the study consisted of 16.371 students studying in the associate degree and undergraduate departments at central campus of Nevsehir Hacı Bektaş Veli University in the academic year of 2016-2017.The sample size of the study was calculated as 355 when considering that the size of the population was 16.371, the prevalence of the incident was 0.38 and the significance level was 0.05 (probability of 95%). Although this number was the minimum number to achieve the aimed hypothesis, it was decided to keep the sample size wider by taking the expert opinion and to include 500 students in the sample. In the study, stratified sampling method was used for sample selection. In the sample selection, each school was taken as a stratum, the number of students to be included in the sample from each school was determined by using the ratio cluster method depending on the stratum's weight. The study was completed with a total of 521 students.

Ethical Principles Of The Research

In order to conduct the study, permission was obtained from X University Non-invasive Clinical Trials Ethics Committee (30.03.2017 N:84902927), and verbal consent from the participants was obtained.

Data Collection

Introductory Information Form

In the introductory information form, there were questions about gender, age, educational status, department, the presence of chronic health problems, family structure, occupation of parents, income level, smoking-alcohol use, internet use, and spare time activities.

Internet Addiction Test

İt is a likert type scale including 20 questions prepared by Dr. Kimberly Young (Young, 1996) by adapting from "Pathological Gambling" criteria of DSM-IV. The Internet Addiction Centre was founded by Young in 1995. This test, which is also available through http://netaddiction.com, developed as a reference for research articles, books, blogs and tests, is a self-assessment test. In the Internet Addiction Test, the participants are asked to mark one of the following options: "continuously", "very often", "mostly", "occasionally", "rarely" and "never". These answer options are scored as 5, 4, 3, 2, 1, and 0, respectively. The lowest score is 0 and the highest one is 100 points. If the scores taken from the scale are between 80 and 100,

then the person is defined as internet addict. While those getting a score between 50-79 points are defined as showing limited symptoms between 50-79 points, those getting a score between 49-0 points are defined as not showing symptoms (Bayraktar, 2001). The reliability of the internet addiction test translated into Turkish was found as 0.91 in terms of standardized Alpha value and 0.87 in terms of Spearman-Brown value. These results suggest that the scale is reliable (Bayraktar, 2001). In this study, the Cronbach's alpha coefficient was found to be 0.91.

Symptom Distress Check List SCL-90-R

SCL-90-R was developed by Derogatis et al., (Derogatis, 1973) and its validity and reliability study was performed by Dağ (Dağ, 1991). Each of the symptoms expressed in the 90 items of the scale is evaluated by a Likert type rating of "none", "very little", "moderate", "quite" and "advanced" considering the situation in the last 15 days by the subject and the scale score is found by scoring each of them between 0 and 4 points. The scale consists of 10 subscales: Somatization, Obsessive-Compulsive Disorder (OCD), Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic anxiety, Paranoid Ideation, Psychoticism and additional items (Dağ, 1991; Dağ, 2000; Öner, 1997). The state of the individual for each subscale is determined by dividing the sum of the numerical response values given to the items into the number of items in that subscale. The "General Symptom Mean Score" is obtained by dividing the sum of the scores obtained from all subscales by 90. In the interpretation of each subscale score and general symptom score, it was accepted that the scores between 0-1.50 are normal, symptom level of those getting a score between 1.51-2.50 are "high", and symptom level of those getting a score between 2.50-4.00 are very high (Öner, 1997).

Exploratory factor analysis was conducted to measure the validity of the structures of the scales utilized for the purposes of the study. In the exploratory factor analysis conducted for the Symptom Distress Check List SCL-90-R, 10 factors with eigenvalues greater than 1 were identified. While the factor loadings of the items varied from .30 to.68, the dimensions accounted for 49.4% of the total variance. Since the factor loadings of 3 items in the scale were below .30, they were not included in the scope of the study. Cronbach's Alpha value was found as 0.97 in the reliability and validity study of the scale for university students (Dağ, 1991). In the exploratory factor analysis conducted on addictive scale, three dimensions with eigenvalues greater than 1 were determined. While the values of the scale varied between .-31 and.-80, it accounts for 55% of the total variance.

Data Analysis

In the data analysis; number, percentage, mean, chi square, Kruskal-Wallis, Mann Whitney U test, Spearman correlation and regression analysis were performed and p values less than 0.05 were considered as significant.

Study Limitations

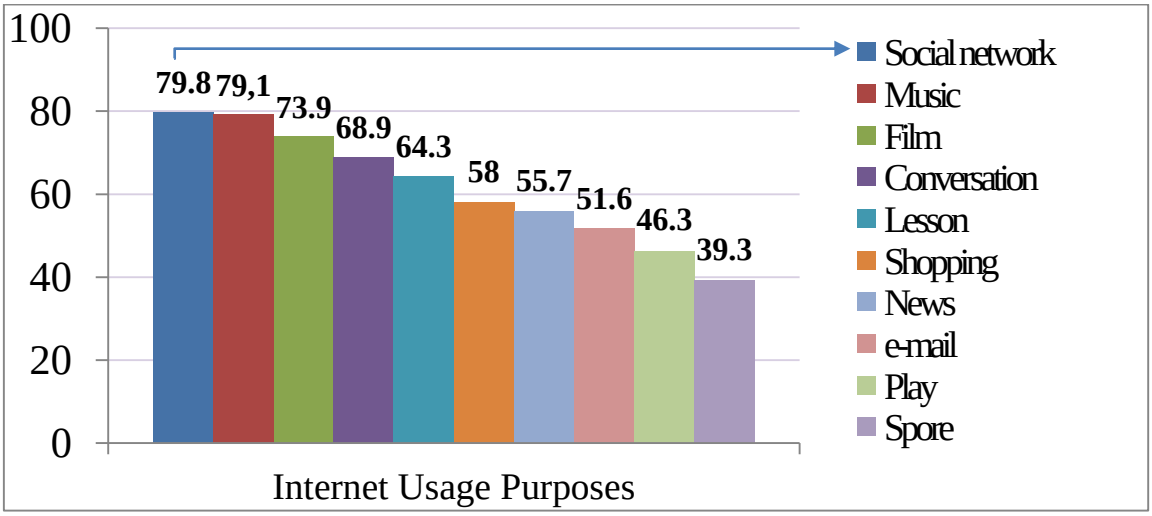
One of the most important limitations of this study is that only the Symptom Distress Check List (SCL-90-R) was used as data collection tool for mental health in the study. The measurements were performed by evaluating reports by the students concerning the scale items. Therefore higher mean score of symptom distress level (GSI) than the based value does not indicate that mental problems of these students were at clinical level. Another limitation of the study is that the sample was limited only with a single university. This limitation of the study was tried to be eliminated by using proportional cluster sampling method in sample selection.

3. RESULTS

It was reported that the average age of the students included in the study was 21.00 ± 0.62(18-45.00),54.9% of them were female, 55.7% had bachelor's degree, 44.3% had associate's degree and 6.9% had mental illness. 62.2% of the students reported that their mothers were literate, 57.8% stated that their fathers were literate, 67.6% said that they had nuclear family type, and 69.9% stated that their family incomes were equivalent to their expenses. 35.5% of the students stated that they were smoker, 24% used alcohol, and 65.1% said that they did not do sports (N=521).

When the students' characteristics related to the internet usage were examined, 82.1% of the students reported that they always had internet connection, 58.7% among the internet connection places were mobile phones, 92.7% had social network accounts, and 57.2% had a daily internet usage duration of more than 3 hours. When the students' internet usage purposes were examined, it was determined that these aims are social network (79.8%), music (79.1%), movie (73.9%), chat (68.9%), class (64.3%), shopping (58%), news reading (55.7%), e-mail (51.6%), games (46.3%), and sports (39.3%). .

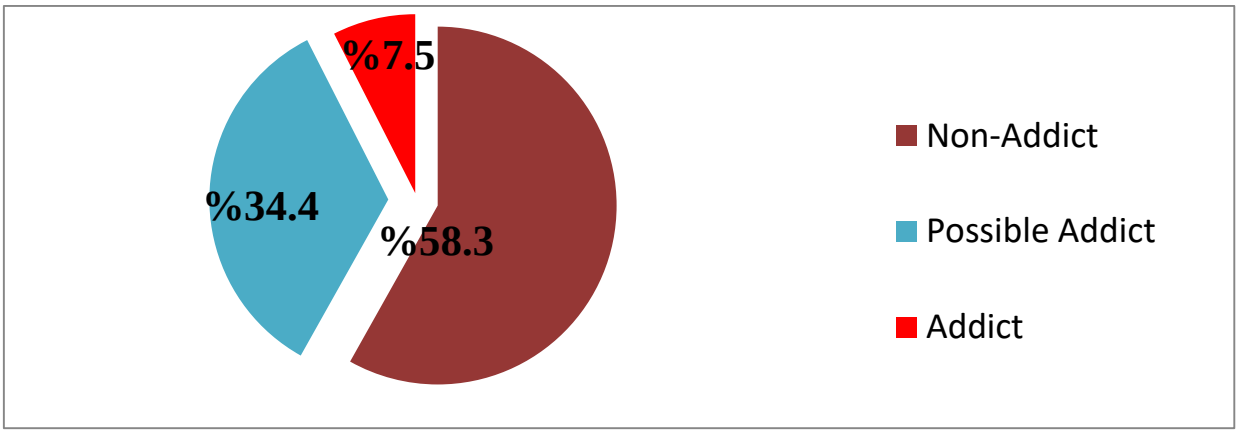
Figure 1. Distribution of Students by Internet Usage Purposes and Frequencies



***** *84.1% (438) of the students answered more than one n(%)*

According to the total scores obtained by the students from the Internet Addiction Test, the addiction status is divided into three groups and the first group is defined as "non-addict", the second group as "Possible Addict", and the third group as "Addict". Of 521 students participating in the study, 303 (58.2%) were non-addict, 179 (34.4%) were possible addict and 39 (5.3%) were addict (Figure 2).

Figure 2. Distribution of Students According to the Scores Received by the Internet Addiction Scale



When the distribution of internet addiction over certain socio-demographic characteristics of students who had smoking habit was examined, the rate of addiction was found to be relatively high among the ones with a fragmented family (p = 0.030) and those whose income is higher than their expenses (p = 0.001).

The difference between the internet addiction levels of the students and their status' of owning a social network account, their places of internet access, their daily phone and internet use durations, and their status of internet use for sports- and course-related purposes is statistically significant (p <0.05)

The mean score of the students' General Psychiatric Pymptom Level (GSI) was found as 1.96±0.63(1.00-3.00).The highest mean score from the subscales of SCL 90-R scale was determined as 2.94 for Psychoticism, 2.19 for Obsessive-compulsive, 2.16 for Paranoid Ideation, 2.10 for Additional items, 2.05 for Anger-Hostility, 2.03 for Interpersonal Sensitivity, 2.02 for Depression, 1.88 for Anxiety, 1.87 for Somatization, and 1.62 for Phobic Anxiety (Table 1). As seen in Table 3, psychoticism symptom levels of the students from the subscales were very high, the overall mean score the symptom levels in and all of the other subscales were high. In terms of the overall test and all subscales, the students were seen to be at risk in terms of the mental health symptoms.

Table 1. Point Average Distribution of Students' Scale of SCL-90-R from General and Subscale Scale

	Mean	SD	Min-Max
Somatization	1.87	0.66	1.00-4.67
Obsessive-Compulsive	2.19	0.77	0.80-6.10
Interpersonal Sensitivity	2.03	0.80	0.89-5.00
Depression	2.02	0.77	0.77-4.85
Anxiety	1.88	0.71	0.70-5.00
Anger / hostility	2.05	0.88	0.67-5.00
Phobic Anxiety	1.62	0.63	0.57-5.00
Paranoid Thought	2.16	0.85	0.67-5.00
psychotism	2.94	1.09	1.17-8.33
Additional Materials	2.10	0.74	1.00-5.00
General (SCL-90-R)	1.96	0.63	0.90-4.91

According to the descriptive characteristics of the students, the relationship between their SCL-90-R Scale overall scores was shown. The difference between SCL-90-R scale total scores and

gender, educational levels, smoking status, status of doing sporting, the status of using internet for sports and games was found to be significant ($p< 0.05$) (Table 2).

Table 2. Distribution of the General Symptom Level Mean Score over Certain Descriptive Characteristics of the Students

Descriptive characteristics		SCL-90 General Symptom Score				
		n	**Mean rank**	**KW U**	**z**	**p**
Gender	Female	286	283.45	27183.00**	-3.756	*0.000*
	Male	235	233.67			
Education statute	Pre-License	231	239.92	28624.50**	-2.853	*0.004*
	License	290	277.79			
Income Rate	Less than Income	117	297.22	8.767*	2	0.012
	Equivalent to Income	364	250.07			
	More than Income	40	254.54			
Cigaret use	Uses	185	254.93	6.77*	2	0.034
	Can Not Use	322	260.04			
	Left	14	363.29			
Exercising	Yes	182	232.82	25718.00**	-3.132	0.002
	No	339	276.14			
Internet use for sports	Yes	205	239.43	27968.00**	-2.634	0.008
	No	316	274.99			
Internet use for game	Yes	241	276.22	30071.500**	-2.141	0.032
	No	280	247.90			

According to the R^2 coefficient of determination in the simple linear regression analysis in Table 3, 4% (R^2=.040) of the changes in internet addiction are explained by psychological symptoms which are independent variables. Accordingly, there was a significant positive interaction between psychological symptom and internet addiction (β =.201; t = 4.67;p = .000). The bilateral correlation between psychological symptom and internet addiction was found to be significant and positive at a weak level ($r = 0.346$, $p<0.05$).

Table 3. Impact of Psychological Symptoms on Internet Addiction

Variables	Model Summary		Anova		Coefficient		
	R^2	R	F	p	β	t	p
Independent Variables							
Psychological Symptoms	.040	.201	21.833	.00	.201	4.67	.00

*p<0. **Internet Addiction**

According to the R^2 coefficient of determination in the equation of multiple linear regression analysis, 10.1% (R^2= .101) of the changes in internet addiction are explained by Somatization, Obsessive-Compulsive Disorder, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Thought and Psychoticism sub-dimensions which are independent variables (Table 4). It is also seen that there are psychological symptoms that affect internet addiction based on β value. Psychoticism is an important independent variable affecting internet addiction (β=.229). However, apart from paranoid thought and psychoticism from psychological symptoms, there is no statistically significant interaction between the other sub-dimensions (interpersonal sensitivity, depression etc.) and internet addiction (β = - 137, t = -1.501, p =.134, β = .024, t =.242, p =.809). There was a significant weak correlation between all the scores of the sub-dimensions of psychological symptom scale and internet addiction scale score (P <0.05) (Table 5).

Table 4. Impact of Psychological Symptom Sub-Dimensions on Internet Addiction

Variables	Model Summary		Anova		Coefficient	
Independent Variables	**R^2**	**R**	**F**	**p**	**B**	**t**
					p	
Somatization					-.059	-872
					.384	
Obsessive-Compulsive					-.144	-1.613
					.107	
Interpersonal Sensitivity	.101	.318	5.739	.000	-.137	-1.501
					.134	
Depression					.024	.242
					.809	
Anxiety					.012	.132
					.895	
Anger / hostility					.054	.806
					.421	
Phobic Anxiety					.058	.875
					.382	
Paranoid Thought					.183	.2.270
					.024	
Psychotism					.229	2.867
					.004	

Table 5. The Relationship Between SCL 90-R Subscales and General Scale of Students and Internet Addiction Scale

SCL-90-R Subscales (N=521)	Internet Addiction Scale	
	Rho	**p***
Somatization	0.221	0.001
Obsessive-Compulsive	0.262	0.001
Interpersonal Sensitivity	0.263	0.001
Depression	0.308	0.001
Anxiety	0.327	0.001
Anger / hostility	0.292	0.001
Phobic Anxiety	0.292	0.001
Paranoid Thought	0.339	0.001
Psychotism	0.377	0.001
Additional Materials	0.297	0.001
General (SCL-90-R)	0.346	0.001

* Spearman

4. DISCUSSION

When the purposes of internet usage were examined in different studies, it was found that the internet use for education purpose was in the first place and the students also used internet for the purpose of reading newspapers and magazines, using social networks, downloading music, game-fun and spending time (Khang et al., 2013; Özdemir and Usta, 2007). It was reported in a previous study that 42% of the internet addicts used the internet for game, 30.3% for chatting, 9% for pornography, and 5.3% for sharing (Yen et al., 2007). In a study conducted in Germany with internet addict adolescents, it was stated that the internet was used to concentrate on school lessons (Grusser et al., 2005). In another study conducted in Turkey with university students, when they were asked for what purposes they used internet for a time period of 1 hour, 46.2% of the students stated that they used the internet for getting news, 41.8% for preparing homework, 30.8% for using social networks, and 31.8% for downloading music (Çalışkan et al., 2017). In a study, it was determined that 84.2% of the participants used internet for communication purpose, 67.7% for information, research and messaging purposes, 51.2% for purposes of entertainment, listening music, watching movies and playing games and 4.6% for other purposes (Hawi, 2012). In another study conducted with Turkish young people, it was determined that students mostly used internet for communication and research purposes and they reported their reasons for internet use as Facebook, Research/Homework, MSN, reading Newspaper/ Magazine, downloading music, e-mail, downloading video, playing games (Ak et al., 2013). In this study, it was found that the students used internet for social networking, music, movie, chat, studying, shopping, e-mail and game purposes. It was observed in the studies that while the purpose of internet use was changing, its use for social purposes was higher and it was similar to the result obtained from this study.

According to the results obtained from this study, it was found that 5.3% of the students were internet addict, 34.4% were possible addict, and 58.2% were non-addict. In different studies conducted with university students in Turkey, the rate of internet addict students varied between 0.6% and 23.2% (Aslıyürek Karagözlüoğlu, 2017; Balcı and Gülnar 2009; Esenyel, 2017; Şaşmaz et al., 2013**).** In a study conducted in Iran; it was reported that 0.9% of the students had

internet addiction of high level and 5.4% had internet addiction of moderate level (Naffise et al., 2013). In a study conducted with medical students in India, it was reported that 10% of the students were internet addicts, 30% were possible addict, and 60% were non-addict (Kumar et al., 2017). In another study, it was found as addict at the rate of 0.7% in collage population in India (Upadhyay et al., 2017). In a study conducted in UK, 3.2% of the students were stated to be internet addicts (Kuss et al., 2013). In a study investigating the prevalence of internet addiction among Chinese adolescents, the internet addiction rate of the adolescents was found to be 2.4% (Cao and Su, 2007). In another study investigating the prevalence of internet addiction among South Korean adolescents, 10.7% of them were found to be internet addicts (Park et al., 2008). Based on the results of the study, the difference between the internet addiction rates was thought to be associated with time, country, region, culture and the departments they were studying at.

In this study, the difference between the internet addiction levels and the family type, income level, frequency of book reading and smoking status was found to be statistically significant. In the literature, the results between the internet addiction and income level show differences. While a correlation was reported between the internet addiction and income level in some studies (Dağ, 1991), internet addiction did not vary based on the income level in the results of some other studies (Park et al., 2008). These differences in the study results can be associated with the measurement type of the economic level as well as the fact that the internet access has become easier and cheaper in recent years.

When the literature was examined, there are numerous studies investigating the correlation between the internet addiction and the internet usage duration. It was found in the study that 81.8% of the students had continuous internet connection, 88.5% had social network accounts, and 57.2% had daily duration of internet usage of more than 3 hours. In a previous study, it was determined that the participants spend averagely 3 hours on the internet per day and the addict users used the internet for 6.5 hours per day (Hawi, 2012). In different studies conducted in Turkey, the rate of those spending more than 3 hours on the internet was determined to vary between 26.1% and 70% (Bicen and Çavuş, 2010; Vural and Bat, 2010). The result obtained in this study is similar to other study results.

General Results for SCL-R

In this study, the mean score of the general psychiatric symptom level (GSI) of the students was found as 1.96±0.63. The highest mean scores of SCL 90-R Scale were found to be 2.94 for Psychoticism, 2.19 for Obsessive-Compulsive, 2.16 for Paranoid Ideation, 2.10 for Additional items, 2.05 for Anger-Hostility, 2.03 for Personality Sensitivity, 2.02 for Depression, 1.88 for Anxiety, 1.87 for Somatization, and 1.62 for Phobic Anxiety. As is seen in Table 3, the symptom level of the students in Psychoticism subscale was very high and the symptom level in the all other subscales was high. In the validity and reliability study of SCL-90-R scale by Dağ, it was suggested to base on normal value of GSI mean score as 1.00 for university students. In this study, GSI mean score was higher than the based value and the students were seen to be at risk in terms of mental health symptoms in terms of all subscales (Dağ, 1991).

According to the descriptive characteristics of the students, the relationship between the SCL-90-R Scale general scores was shown. The difference between SCL-90-R scale total scores and gender, education levels, income level, smoking status, status of doing sporting, internet connection place, status of using internet for sports and game purposes was found to be statistically significant.

In this study, a weak positive significant correlation was determined between the SCL-90-R scale total score and the internet addiction test score. A weak significant correlation was found

between the all subscale scores of SCL-90-R scale and the internet addiction test score. In a study where the young people using the internet showed high psychiatric symptoms, significant correlations were determined between the internet usage and degree of psychiatric symptoms such as depression, obsessive-compulsion and interpersonal sensitivity (Jang et al., 2008). In another study, it was found that 18.3% of the participants had pathological internet use and internet addicts experienced more problems in their social and interpersonal relationships (Niemz et al., 2005). It was reported in other studies conducted with young people that depression was associated with the internet addiction (Ha et al., 2006; Kim et al., 2006). Although the correlation between the İnternet Addiction and Attention Deficit Hyperactivity Disorder (ADHD) in young people was not directly assessed, the young people who were playing video-games on the internet were reported to have higher ADHD symptoms (Chan, 2006). It was reported that social phobia was positively associated with internet use in young people (Shepherd, 2005). It was reported in the study by Yen and Ko that the hostility level of the adolescents who had internet addiction was higher (Yen et al., 2007). In the study investigating the relationship of the high level of internet usage with the depression and social loneliness in adolescents, it was reported that the ability of establishing relationships was better in students with low level of internet usage (with parents and friends) (Pawlak, 2002; Sanders et al., 2000). In a study investigating the relationship between the internet addiction of the young people and various variables like loneliness, social support, personality type, gender, academic success, it was found that the loneliness and social support was associated with internet addiction, no correlation was found between the internet addiction and the personality type, academic success, romantic relationship and gender variables (Pawlak, 2002).

Simple linear regression analysis conducted for the purposes of the research found that there is a significant and positive interaction between psychological symptom and internet addiction. Accordingly, as the psychological symptoms increase in students, so does internet addiction. It can be said that there is a two-way relationship between internet addiction and psychological problems; psychological problems can cause internet addiction or vice versa. In order to determine the effect of psychological symptom sub-dimensions on internet addiction in the research, multiple linear regression analysis was conducted. According to the analysis results, paranoid thought and psychoticism, which are sub-dimensions of psychological symptoms, have a significant effect on internet addiction; other sub-dimensions (interpersonal sensitivity, depression, etc.) did not seem to have a significant effect on internet addiction. On the other hand, the use of the internet can be supportive for the development of emotions such as excitement and happiness. While psychological problems contribute to internet addiction, internet addiction may also increase psychological problems in this process (Şaşmaz et al., 2013). In a study conducted with students in Iran, narcissistic personality disorder, obsessive-compulsive disorder, anxiety, bipolar disorders, depression and phobia also increased internet addiction 2.1, 1.1, 2.6, 1.1, 2.2, and 2.5 times, respectively (Farahani et al., 2018). Therefore, it can be said that students with psychological problems constitute a risk group for internet addiction

When the studies on internet addiction were examined, it was observed that the researchers used demographic characteristics such as age, gender and variables like depression, loneliness, impulse control, psychological well-being, social support, peer pressure, personality traits, and self- esteem in their studies (Bayraktar, 2001; Cao and Su, 2007; Günüç, 2009; Pawlak, 2002; Thatcher and Goolam, 2005). There are many studies indicating that loneliness scores of individuals with pathological internet use are significantly higher (Eijnden et al., 2008; Erdoğan, 2008). When the given information are considered, those who have internet addiction

have some problems in their living spaces and their physical and psychological health are affected negatively by being isolated from the social life (Esen, 2010).

5. CONCLUSION AND RECOMMENDATIONS

In this study, it was determined that the students used internet more for social purposes like social networks, music, movies, chat, studying, shopping, e-mail and game, 5.3% of the students were internet addicts, there was a difference between the internet usage duration and their internet addiction levels and there was a significant positive interaction between psychological symptom and internet addiction. It was observed that the most important predictor of addition is psychoticism variable from psychological variables, which was followed by paranoid ideation. Considering that increased internet usage may represent a risk for "internet addiction" and it may negatively affect the physical and psychological health of the students by creating various problems in living spaces, it is thought that all of these results can be useful for determining the risk group, preventing and treatment phases of the mental illnesses. It is recommended to provide training and consultancy to the students about the more conscious use of internet. Additionally, it can be recommended to conduct quantitative and qualitative studies investigating the relationships between the internet addiction and psychiatric symptoms. In addition, use of objective measures and prospective type studies may be suggested to assess the relationship between students' internet addiction and their psychological state.

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RESEARCH ARTICLE

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THE EFFECT OF PATERNALIST LEADERSHIP ON WORK ENGAGEMENT: A RESEARCH ON HEALTH WORKERS

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ABSTRACT

The aim of this study was to determine whether paternalistic leadership behavior shown by health managers has an effect on work engagement behavior of health workers. A total of 410 volunteer health workers participated in this study. In this study, paternalistic leadership scale and work engagement scale (UWES-TR) were used. SPSS (Statistical Package for Social Sciences) program was used for the analysis of the data obtained as a result of the survey application and descriptive statistical methods were used. Correlation Analysis and Simple Linear Regression Analysis were used to examine the relationship between the measured variables. As a result of the study, it was found that paternalist leadership had a positively and medium level effect on work engagement behavior. In addition, in this study, it was found that paternalist leadership had a positively effect on all dimensions of work engagement. As a result, it can be said that paternalist leadership can be an effective leadership model in health sector in terms of work engagement. Health managers can demonstrate paternalistic leadership behavior and enable healthcare workers to exhibit more work engagement behavior. There are not many studies investigating the relationship between paternalistic leadership and work engagement. This study investigated the influence of paternalistic leadership on work engagement of health workers is the first study in Turkey.

Keywords: Paternalist leadership, Work engagement, Health workers.

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1. INTRODUCTION

Employees may have a positive or negative behavior towards their work. Employees are expected to have a positive behavior towards their work in terms of the success of the organization. Work engagement is one of the positive behaviors related to a person's work.

The organizational results of work engagement are the behaviors of the individuals in the organizational environment, behaving their behavior and contributing to personal and organizational success (Kanten, 2012). Employees with high levels of work engagement were observed to have high psychological capital, creating their own resources, performing better and being happy employees (Bakker et al., 2011). In addition, work engagement has an impact on the quality of the work done, care for work, experience, creativity and employee health (Keser & Yilmaz, 2018). Organizations feel the need to implement the best policies to ensure employee work engagement in order to reduce labor force turnover and increase organizational efficiency (Kanten, 2012).

Work engagement has recently become a very popular concept in business, consultancy and academia (Bakker & Leiter, 2010). According to Schaufeli and friends work engagement is defined as a positive, satisfactory, work-related mood (Schaufeli et al., 2002). The degree to which a person internalizes her job, how much he gives to her job, the quality of her work and the relationship with her colleagues is important in terms of job passion (Kahn, 1990). In some studies, it has been determined that the passion for work has a positive effect on business performance (Bakker & Bal, 2010), job satisfaction (Yeh, 2013), institution performance (Markos & Sridevi, 2010), academic success (Green et al., 2012) and organizational financial performance (Xanthopoulou et al., 2009).

Leaders directly involved in the work life of employees have an important role in determining the level of employee participation (Bamford et al., 2013). A number of previous studies have shown that work engagament affects leadership behavior such as ethical leadership (Den Hartog & Belschak, 2012), leader-member interaction (Agarwal et al., 2012), authoritarian leadership (Cenkci and Ozcelik, 2018).

Paternalism is the preferred leadership model, with many countries, such as Turkey, India, China and Mexico (Salminen-Karlsson, 2015). Paternalist leadership behaviors are common in cultures with high power distances (Schroeder, 2011). The involvement of the paternalist leader in the lives of subordinates is seen as part of the anxiety and protection role of the leader in the eastern culture with high power distances, but the individualist is seen as a violation of privacy

in western culture with low power distances (Jackson, 2016). Aycan and Kanungo (2000), in their study, among the ten countries surveyed showed that Turkey ranks second in the size of paternalism and community commitment. In a study conducted by Aycan (2006), in Turkey has been identified as a high level that paternalism both as a cultural property and leadership style. It is possible to say that the basic assumptions of Turkish social culture pattern are in line with paternalism characteristics (Erben, 2004). This topic has been studied in different sectors in Turkey (Korkmaz et al., 2018; Oge et al., 2018; Tuan, 2018; Cenkci & Ozcelik, 2015). However there is no research in the health sector in Turkey to investigate the effects of paternalistic leadership engagement. This is an important study to resolve the deficiency. This study investigated the influence of paternalistic leadership on work engagement of health workers is the first study in Turkey. For these reasons, in this study, the effect of paternalist leadership on the work engagement behaviors of health workers were investigated.

1.1. Work Engagement

Work engagement is defined as the ability of individuals to perform work-related activities, to be energetic and effective and to fulfill the demands that the work demands from individuals (Schaufeli & Bakker, 2001). The origin of the word "employee engagement" is not entirely clear, but it is highly likely that it was first used by the Gallup organization in the 1990s (Buckingham & Coffman, 1999). Work engagement was first described by William A. Kahn. According to Kahn, the passion to work is that when a person does his job, he gives himself to his job both physically and cognitively and emotionally (Kahn, 1990). It is defined as a mental state that is characterized by work engagement, vigor, dedication and absorption, and that satisfies the employee in a positive way. This commitment explains a more permanent and common emotional state that does not focus on a specific object, event, person or behavior, rather than an instant and specific situation. This mood; it covers three dimensions: vigor, dedication and absorption. Vigor, high energy level while working, mentally durable, effort to express effort and easily refers to the quality. Dedication means a strong commitment to work and includes concepts of importance, fervor, inspiration, praise and struggle. Absorption, refers to the full focus on the work done and the dive into working happily (Schaufeli et al., 2002).

Maslach and his friends considered work engagement as the opposite of burnout and they described burnout as the erosion of work engagement (Maslach et al., 2001). Work engagement is considered the positive antithesis of burnout (Schaufeli, 2012). According to Maslach and Leiter, it is sufficient to measure the level of burnout in order to determine the level of employee engagement (Maslach & Leiter, 2008). Unlike those who suffer from burnout, their workforce

has an energetic and effective connection with their business activities and feels they can best meet the demands of their jobs (Schaufeli et al., 2008). Most study in the fields of burnout and work engagement propose that individual feature play a important role in the mediation of sentimental demands on burnout conditions, but actually, very few studies backup this idea (Xanthopoulou, et al., 2013). Leiter and Maslach state that managers need to undertake some therapeutic interventions in order to ensure the work engagement. According to them, as a result of this intervention, the employees may have a positive effect on employees (Leiter & Maslach, (2010). When a person is work engagement, he works in a motivated way and ensures job satisfaction (Robert & Davenport, 2002).

Bakker and Demerouti mentioned that there are four reasons why better-performing employees can perform better. Accordingly, highly engagement employees, *positive emotions, including happiness*, *joy*, *and enthusiasm*; *experience better health; create their own job and personal resources*; and *transfer their engagement to others* (Bakker & Demerouti, 2008). Recent research shows that employees with positive emotions are more productive (Schaufeli & Van Rhenen, 2006). One of the important reasons why work engagement is more efficient may be their capability to create their own resources. In most organizations, performance is the result of the joined working of private employees. It is thus thinkable that the crossover of work engagement among members of the similar work team rises performance (Bakker & Demerouti, 2008).

1.2. Paternalist Leadership

Paternalism comes from the Latin word “pater” and includes protective means such as father. This case is quite old. Homer calls Zeus in the Iliad epic as ’the Father of Gods and Humanity Hom (Reeve, 1998). Aristotle, in his work called Nicomachean Etics, emphasizes that the political system can remind the individual of his daily work about his house and that the political system is concerned with the children of the father and that the kingdom consists of paternal rules in the kingdom (Crisp, 2004). According to Weber paternalism; It is one of the few forms of legal authority in the pre-bureaucracy period. Paternalism is patriarchal domination based on personal loyalty, which requires not to be bound by abstract norms and powers, rules of tradition (Weber, 1968).

Paternalist leadership is a concept followed by renewed interest in the last period (Salminen-Karlsson, 2015). Paternalist leadership, in hierarchical relations, defines the leader as a kind of family member, an approach that guides the personal and professional lives of his subordinates

and, in return, expects the subordinates to be loyal to him (Gelfand et al., 2007). In paternalistic culture, parents and elderly family members have a role in protecting the welfare of their young members, acting on their decisions, disciplining their activities and acting on their behalf (Mustafa & Lines, 2012). Paternalist leadership can be thought of as a leadership style in which a manager directs or controls employees subordinates for the sake of they sake, and takes part in the professional and personal lives of his employees (Schroeder, 2011). The paternalistic leader even takes part in the private lives of subordinates, treats them like a "father" and protects them (Pellegrini & Scandura, 2008). Employees in paternalist relations respond to the leader's attention and protection by showing loyalty, respect and obedience. The followers are expected to dedicate themselves to their leaders in return for the full attention of the leader. If the leaders ignore their paternalistic responsibilities, the viewers can criticize their leaders (Pellegrini et al, 2010). In an organization carried out with a paternalist approach, employees expect the leader to deal with health, education, personal happiness and family life; The leader expects his employees to be loyal and respectful (Cerit, 2013). In the application of paternalist leadership, employees are provided with the necessary resources, they are protected against criticism from outside the group and employees are working hard in return, respectful, respectful and loyal to the leader (Schroeder, 2011). The paternalist leader participates in the special invitations (weddings, celebrations, graduation ceremonies) of the employees and their relatives and even contributes to the solution of the problems of the employees. The paternalist leader, his close relationship with his employees, as a result of which they expect a high level of commitment (Erben & Otken, 2014).

According to Aycan, there are five dimensions that form the paternalist leadership. These dimensions include: "*creating a family atmosphere in the workplace, individualized relationships, involvement in employees' non-work lives, loyalty expectation, status hierarchy and authority" (Aycan, 2006).*

Farh and Cheng discussed paternalist leadership in three dimensions: "*benevolent, moral and authoritarian leadership"* (Farh & Chang, 2000). The authoritarian dimension expresses the behaviors of the leader who prefers authority and control and who are obedient to his subordinates. The benevolence dimension expresses the leadership behavior of their subordinates, both concerned with personal and family well-being and helping them in these matters. Moral paternalist leadership dimension refers to the leader's behavior that reveals superior personal virtues. For example, the leader does not abuse his or her authority for personal interests, and be engaged in exemplary acts (Pellegrini & Scandura, 2008). The moral

leadership, which is the sub-dimension of paternalistic leadership, uses the power of the leader not for the personal gain but for the profit and benefit of the organization and its employees (Cheng et. al., 2000).

Paternalism, especially individualism, unlike the cultures of equality, is found in cultures with high collectivist and power distances (Dorfman, et al., 1997). Paternalism can be considered as a cultural dimension that can be used to reveal differences between cultures (Pellegrini & Scandura, 2006). Paternalist leadership is seen as common in the countries of Asia, Latin America, the Middle East and Asia (Aycan & Fikret-Pasa, 2003). According to Hofstede (1980), leadership behaviors may be effective in some cultures, regions and countries, but may not be effective in other countries (Hofstede, 1980). While the paternalist leader's interest in the family life of the employee can be perceived as a violation of privacy in individualist cultures, it can be met as a desired and expected event in collectivist cultures (Aycan, 2006). Researchers interpret paternalist leadership in cultural terms as positive and negative in a different way. For example, while western researchers regard paternalist leadership as negative, researchers in societies where paternalist leadership is widespread consider it paternalistic leadership as positive (Salminen-Karlsson, 2015). A study by Pellegrini et al., (2010), paternalism had a significant positive effect on job satisfaction in India, but in the United States the relationship was not meaning. In addition to their search indicate that paternalistic leadership may significantly influence organizational commitment across diverse cultural contexts.

The reason why paternalism is widely seen in Turkish society is closely related to the adoption of the father's decision and direction without any questioning (Yesiltas, 2013). In a study conducted by Aycan and Kanungo over ten countries, Turkey's in terms of level paternalism and commitment to the community have been found to be in second among the ten countries (Aycan et al., 2000).

1.3. Hypotheses

When the literature is examined, researches related to work engagement are related to: burnout, financial performance, corporate performance, work performance, workforce deviation, workaholism, ethical leadership, leader member interaction, intention to quit, work life balance, emotional labor behavior, organizational citizenship (Garczynski et al., 2013; Alfes et al., 2013, Ozsoy et al., 2013; Den Hartog and Belschak, 2012; Agarwal, 2012; Konermann, 2012; Johnson, 2011; Van Wijhe et al., 2011; Xanthopoulou et al., 2009; Schaufeli & Bakker, 2004). Consistent with these concept concerning the motivational role of job resources, some research

have indicate a positive correlation between job resources (performance feedback, social support, and supervisory coaching) and work engagement (vigor, dedication and absorption) (Bakker & Demerouti, 2008). There have been few studies investigating the relationship between paternalist leadership and work engagement.

In a study conducted by Aycan (2006), in Turkey, paternalism both as a cultural property that has been identified as a high level of leadership style. Turkish workers, rather than individualist organizational cultures, in which their individual labor is evaluated and independent; It is understood that employees prefer to work in organizations that protect and protect family environment. Turkish employees attach importance to the quality of the relations at the workplace and the interest shown to the employer's employees (Turesin Tetik & Kose, 2015).

In research done on health care workers in Turkey shows that the positive effects of paternalistic leadership on employees (Ugurluoglu et al., 2018; Nal & Tarim, 2017; Akdeniz, 2016; Buyukyavuz, 2015; Demirer, 2012; Yaman, 2011; Erben & Guneser, 2008). Therefore, it was thought that paternalist leadership might have an impact on work engagement behavior. The following hypotheses were created for the purpose of the research:

Hypotheses 1: There is a significant relationship between paternalistic leadership and work engagement

Hypotheses 2: There is a significant relationship between paternalistic leadership and dedication.

Hypotheses 3: There is a significant relationship between paternalistic leadership and absorption.

Hypotheses 4: There is a significant relationship between paternalistic leadership and vigor.

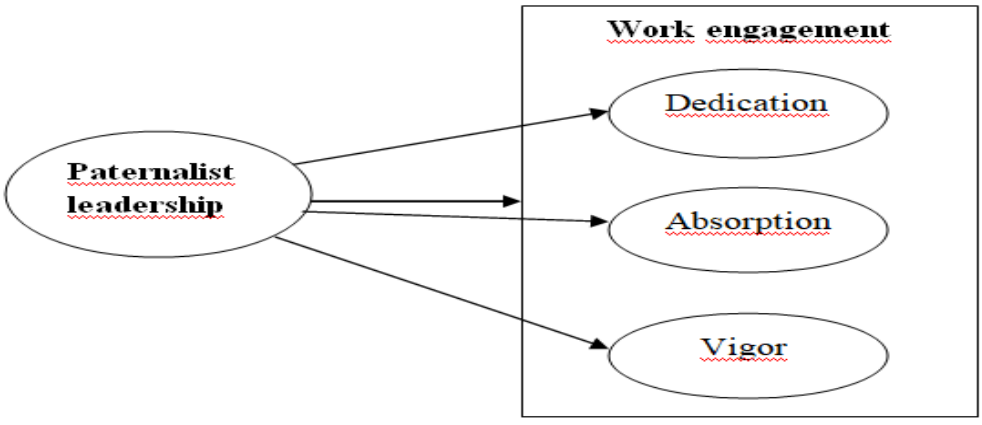

Figure 1. Model of research

2. MATERIAL AND METHODS

2.1. Participants and procedure

This research was conducted on medical staff in public and private hospitals in Turkey. The universe of this research is composed is 115020 (114600 working in public and private hospitals in Istanbul province, 420 working in two private hospitals in Isparta province). The number of participants required for sampling was calculated as 383 with 95% confidence interval and 0.05 error rate. Ethics committee permission was obtained for the research. Research data were collected between February and March 2019. A total of 410 volunteer health workers participated in the study. 54.1% of the participants were public hospital workers and 45.9% were private hospital employees. The gender of the employees consisted of 66.3% female and 33.7% male. The distribution of the employees according to the occupations is composed of 50% of the nurses and the other health personnel (doctor, health technician, dietician etc.) constitutes 50%.

2.2. Measurements

The survey method was used to collect data. In the first part of the questionnaire, the statements about the demographic characteristics of the participants, the second part of the work engagement scale and the third part of the paternalist leadership scale.

To measure the level of engagement of participants; Schaufeli et al. (2002) and Work Engagement Scale (UWES-TR) which was adapted to Turkish by Eryilmaz and Dogan (2012). This scale is 5-point Likert type consisting of 17 items. The reliability level of the work engagement scale (Cronbachs Alpha value) was found to be .939.

The Paternalist Leadership Scale developed by Pellegrini and Scandura (2006) was used to measure paternalist leadership behaviors in Turkey. This scale is a 5-point Likert type consisting of 13 items. The neutral score of the scales is three. The reliability level of the paternalist leadership scale (Cronbachs Alpha value) was found to be .895. As a result of the analyzes, it was found that both scales were highly reliable.

2.3. Statistics

In this research, SPSS 16.0 (Statistical Package for the Social Sciences) program was used for data analysis. The descriptive data was distributed in percentage and number, and the data were analyzed by correlation analysis and regression analysis. The significance level (p) in the statistical tests has been accepted as 0.05.

3. RESULTS

Scale mean scores are shown in Table 1. The mean paternalist leadership score of the participants was found to be 3.16 ± 0.84. The average of the work engagement score was 3.63 ± 0.79. The average of the vigor score was 3.53 ± 0.86. The average of the dedication score was 3.96 ± 0.87. The average of the abortion score was 3.45 ± 0.83.

Table 1. Scale average scores

	n	Mean	Standard deviation
Paternalist Leadership	410	3.16	0.84
Work Engagement	410	3.63	0.79
Vigor	410	3.53	0.86
Dedication	410	3.96	0.87
Absorption	410	3.45	0.83

Correlation analysis and simple linear regression analysis were performed to test the hypotheses of the study. The correlation analysis findings are shown in Table 2. According to the findings, it has been determined that there is medium-level and a positive relationship between paternalist leadership and work engagement and sub-dimensions of work engagement (vigor, dedication, absorption).

Table 2. Correlation analysis findings

Değişkenler	1	2	3	4	5
1. Paternalist leadership	1	0.496**	0.474**	0.438**	0.460**
2. Work Engagement		1	0.946**	0.892**	0.930**
3. Vigor			1	0.771**	0.835**
4. Dedication				1	0.728**
5. Absorption					1

*: p<0.05, **: p<0.01

Simple linear regression analysis was performed to measure the effect of paternalistic leadership on the dimensions of work engagement and work engagement. The analysis results are shown in Table 3. According to the findings, paternalist leadership has a positive effect on work engagement ($\beta = 0.496$, $t = 11.531$, $p < 0.01$). 24.6% of the change in work engagement behavior is explained by paternalist leadership ($R^2 = 0.246$). According to this result, Hypothesis 1 was accepted.

Paternalist leadership has been found to have a positive effect on vigor ($\beta = 0.474$, $t = 10.866$, $p < 0.001$). 24.4% of the change in vigor is explained by paternalist leadership ($R^2 = 0.244$). According to this result, Hypothesis 2 was accepted.

Paternalist leadership has been found to have a positive effect on dedication to work and hypothesis 3 has been accepted ($\beta = 0.438$, $t = 9.840$, $p < 0.001$). 19.2% of the change in dedication is explained by paternalist leadership ($R^2 = 0.192$). According to this result, Hypothesis 3 was accepted.

Paternalist leadership has been found to have a positive effect on absorption ($\beta = 0.466$, $t = 10.378$, $p < 0.001$). 21.2% of the change in absorption is explained by paternalist leadership ($R^2 = 0.212$). According to this result, Hypothesis 4 was accepted.

The results found support all of the hypotheses we have established.

Table 3. Simple linear regression analysis findings

Independent variable: Paternalist Leadership Scale							
Dependent variable	B	β	t	R^2	Adj.R^2	F	p
Work Engagement	0.467	0.496	11.531	0.246	0.244	132.955	0.000
Vigor	0.486	0.474	10.866	0.244	0.223	118.079	0.000
Dedication	0.454	0.438	9.840	0.192	0.190	96.826	0.000
Absorption	0.465	0.466	10.378	0.212	0.209	54.876	0.000

4. DISCUSSION

Recently, it has been observed that researches on the effect of paternalist leadership on employee behavior have become widespread. In this study, we investigated the effect of perceived paternalistic leadership behavior on employee engagement. The results have supported all of the hypotheses we have established.

Korkmaz et al. (2018), in their study on different sectors, did not find a significant relationship between authoritarian paternalist leadership and work engagement but it has been determined that there is a positive relationship between paternalistic leadership and moral paternalist leadership and work engagement.

Öge et al. (2018), in their study on aviation industry workers, found a positive relationship between paternalist leadership and work engagement.

Tuan (2018), in his research on hotel workers, also found a negative relationship between authoritarian paternalist leadership and work engagement, benevolent and moral behaviors paternalistic leader were significantly and positively linked to employee work engagement.

Cenkci and Ozcelik (2015), white collar on their research it was found that benevolent leadership is positively associated with the absorption dimension of work engagement.

In studies conducted in different sectors (aviation, tourism), a positive relationship was found between paternalistic leadership and work engagement (Korkmaz et al., 2018; Oge et al., 2018; Tuan, 2018; Cenkci & Ozcelik, 2015). It is seen that the results of the researches in different sectors and the results of our research are similar. The results of the research can be explained by the fact that paternalist leadership is compatible with the Turkish culture.

A study by Caglar (2012) on hotel employees found that paternalist leadership has more influence on work engagement than other leadership styles (transactional, transformational, laissez-faire, ethical and servant leadership).

Bakker et al. (2006) conducted a study on work engagement and performance between the school principal and the teacher. Their search display of meaning and positive associations between school principals' work engagement scores and teacher of school principals' performance and leadership. Engaged school principals were seen as transformational leaders, being able to inspire, encoruce and coach their co-workers.

The reason for having a high level of paternalist leadership of Turkey is that it has a structure in Turkey collectivist. The reason for this is that paternalist leadership is compatible with the life style of Turkish society. The paternalistic leadership in Turkey, be said that there is a leadership desired by employees. As a result, the increase in paternalist leadership behavior of the managers causes employees to increase their work engagement.

4.1. Limitations

This research was carried out collectivist a country which has a structure in Turkey. While paternalist leadership is perceived as a positive behavior in collectivist societies, it is perceived as an interference with private life in individual (western) societies. Therefore, paternalist leadership in individualistic societies may not have a positive effect on Work Engagement, in other words, the same results may not be obtained in individualistic societies. Therefore, this research is limited to health care workers in Turkey.

5. CONCLUSION

In this article, we emphasizes that as the paternalist leadership behavior of the managers increases, the engagement of the healthcare workers will increase. In addition, this study showed that paternalist leadership has positive effects on job intention and concentration on work. Future research should be conducted on health workers in different countries. In this way, it will be possible to evaluate the effects of paternalist leadership on work engagement in terms of cultural differences. As a result, an effective leadership model of paternalistic leadership in the health sector in Turkey is likely to occur. In later studies, the effects of paternalist leadership on different organizational behaviors can be investigated. In addition, different leadership behaviors (transactional, transformational, authoritarian, charismatic leadership) can be investigated in relation to the relationship of work engagement.

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RESEARCH ARTICLE

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NURSING DOCUMENTATION IN SELECTED HOSPITALS IN KHARTOUM STATE-SUDAN

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ABSTRACT

Nurses as a front line of patient care are accountable for maintaining accurate records. In Sudan, the tendency for documentation errors which accompanied by persistent shortage of nursing staff, lack of training and resources necessitate an evaluation of the quality of nursing documentation. To evaluate the quality of nursing documentation at selected hospitals in Khartoum, Sudan. Across sectional descriptive hospital-based study done during January to February 2019 in selected hospitals in Khartoum, Sudan; 237 nurses were interviewed using a structured questionnaire to assess their level of knowledge, training, and availability of documentation format; moreover, quality of nurses records assessed using checklists, data analyzed using SPSS. This study revealed that most of the nurses had good knowledge, did not train in documentation and agree with the availability of documentation format in their hospital with percent (69.00%), (74.7%) and (68.8%) respectively; besides, the quality of their documentation is poor compered to that of developing cuntries due to rudimentary, limited, with bad handwriting nursing records and lack of training, policy-standers- procedures-guidelines.

Keywords: Quality, nursing documentation, teaching hospitals, Sudan.

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1. INTRODUCTION

Nursing documentation is a fundamental part in the character of nursing profession (Karkkaninen. O., 2003), and essential for arrangement, estimate of medical interventions and ongoing patient care; consequently, nurses are responsible for maintaining correct report of that care (Potter. P., 2012), it described as a vital factor in the nursing quality improvement and promotion as well as efficient aspect in nursing practice transparency and accountability (Wang. N., 2011). It was defined by American Nursing Association as communication instrument for exchange patient information in the health care setting inter-disciplinary and with other disciplines, it asserted crucial for the patient's care decisions and safety as it guaranteeing the continuity of care through improving valuable communication, and collaboration among healthcare profisionals (Jefferies. D., 2010) (Wang. N., 2011), more over it considered as synonymous with nursing care itself. It is worth to mention that nurses produce 50% of the care information (Vafaei. S., 2018). Nursing documentation generally preserved to be paper based or electronic (Alkouri. O. A., 2016); basically there are different documentation frameworks and tools including narrative, nursing process, care plans…..etc; even though different clinical setting were found to be practiced documentation differently (Johnson. M., 2010), (Jefferies. D., 2010).

Quality of nursing documentation is that depend on the principles which include, specific, objective, clear, comprehensive, concise, complete, accurate, factual, true, honest, consistent, timely, confidential, legible, permanent and representative of professional observational assessments. Furthermore, it should be a contemporary, including date and time, with nun duplicated information, centered on the patient. On the other hand, reveal the concerns, responses, perception, identify the person who provided or documented the care. Moreover, reflects the nursing process, the real effort of nurses includes education, emotional support, the objective clinical judgment of nurses that describes findings, and reports retrievable information on a permanent base in a nursing-specific manner(Alkouri. O. A., 2016), Quality nursing document should include sufficient patient information, sequential report of measures and procedures with full description of nursing process including signature, date and time. More over it should support diagnosis, justify line and results of treatment (Wang. N., 2011). Factors which responsible of quality nursing documentation comprise competencies, empower confidence, nursing policy/standers/procedures/guidelines, resources, auditing, supervision, and human resources (Ofi. B., 2012). Education is playing an essential role in maintenance and improvement of standard and quality of nursing documentation (Kamil. H., 2018), this is confirmed with many studies which recommend continuous education to ensure adherence to the nursing documentation procedures (Kamil. H., 2018) (Noorkasiani. N., 2015). Knowledge had an observable responsibility in building nursing documents' structure (Chevakasemsook. A, 2006). More over pre and in-service training and experience has a key role in the quality of documentation. Thus, all nurses, in any clinical position and at any levels of service is obliged to be offers ample Knowledge and skills in the procedural essentials of documentation. Despite it was proved that the nature of quality nursing documentation confronted by much uncertainty and lack of knowledge, it was apparent that nursing care documentation is implemented with varying standards and models (Gunningberg. L., 2004). Many studies evedent that nurses are aware of the importance of documentation; however, their performance of documentation is still poor in quality(Vagias. A, 2006) Prideaux(P. A., 2011) consequence to many factors including lack of comprehensive nursing education, organizational support and supervision on documentation (Mutshatshi. T., 2018) (P. A., 2011), (Rhulanci. C., 2016), (Björvell. C., 2003), (Johnson. M., 2010), (Machudo. S., 2015), (Karkkaninen**.** O**.**, 2003)

Policies, standers, procedures, guidelines, and protocols are vital for performance within acceptable standards which prevent mal practice and insure quality. In view of the fact that nursing documentation has official and dependable information, it should be compatible with working standards (Idval. E.), (Urquhart. C., 2009), (Gunningberg. L., 2004). Nursing documentation guidelines used as source of information about how to document nursing car that enhances nursing documentation practice, improve daily use of standardized nursing languages and provide sustained continuing training opportunities for nurses; consequently, every nurse must be familiar with their organizational policies or procedures related to documentation. Many nursing studies reported that nurses who had operational nursing standards in their hospitals had good documentation practice as compared to those without operational nursing standards; (Gugerty. B., 2007), (Tasew.H., 2019); in contrast, African nurses' performance of documentation is still poor in quality due to lack of principles, policies, or procedures commitment. Morover shortage of staff is stated as responsible of poor quality in developing countries (Alkouri. O. A., 2016), (Paans. W, 2010).

Recently the quality nursing documents is stressed as being of the extreme importance in health framework, (Machudo. S., 2015), (Wang. N., 2011), since they are used as basis for evaluating the excellence and suitability of health care provided, official record of patient care, evidence of practice and malpractice, means of professional accountability and liability, in addition to planning and budgeting (Amesa. A, 2017). Nursing researchers are confirmed that profession standard and patient care safety are reversed by the quality of the documentation (Blair. W, 2012), (Jefferies. D., 2010), (M., 2011). The important of the quality of nursing documentation has been addressed by nurses both locally and globally; Since it lead to gaining more information about nursing protocols, clinical procedures and practices generate, management recommendations, which improve both nursing career and documentation, (Blair. W, 2012). Furthermore, it reflects the application of nursing knowledge, skills and judgment (Jefferies. D., 2010); This supports the nurse's contribution to development of professional policies and promotes evidence informed practice which enables nurses to meet standards of practice for registered nurses every day in every client care. Quality of nursing care and nursing process can be steadily evaluated through accurate nursing documentation (Wang. N., 2011). More over evaluation of nurses' documents in patient health records can be supportive in improving the accuracy of nursing documentation (Urquhart. C., 2009). Poor quality nursing documentation is that deficit in totality and comprehensiveness of vital information, (Amesa. A, 2017), including un standardized abbreviations, erroneous use of vocabulary, poor handwriting, and misspellings (Grespan. V, 2009). Failure of the Nurses to document can result in poor patient outcomes and legal responsibility (Jefferies. D., 2010). Documentation has been associated with failure in detecting patients whose therapeutics situations were deteriorated (Amesa. A, 2017), which can place patients, staff and organizations at considerable risk of physical and legal harm. Furthermore it is stated as one of the top five reasons for nurses incurring sanctions or even being removed from the registration, and declared as associated with poor patient outcome even death, which triggering elevation of the health care expenditure (Andrews. A 2015), (Okaisu. E, 2014). In numerous countries the quality of nursing documentation including limited documentation of the nurses work, incomplete crucial related data, mistakes, insufficient documentation of significant aspects of measurement and other related nursing care remains poor. Nevertheless global trend of improper, missed, or poor documentation of nursing care is frightening, which continue to be announced (Chevakasemsook. A, 2006), (Potter. P., 2012), (Jefferies. D., 2010), (Okaisu. E, 2014), many nursing studies evidence that documents are of low quality or far from existing standards and stress on additional concern to the factors

affecting the discrepancy in perform, flaws in documentation quality as well the effects of these on nursing and patient care drawback (Jasemi. M, 2013), (Wang. N., 2011).

In Sudan the tendency to documentation errors likely consequence to huge shortage of nursing staff, which accompanied by lack of training and resources necessitate evaluation of the quality of nursing documentation (WHO., 2014). Due to the limited number of studies about this the subject, the information from this study will be a data base for farther studies which we hope to fill the gaps. In this study we interest in quality it terms of Knowledge, availability of resources (documentation format, policy, standards, procedures and guiltiness), training, quantity and quality of available nursing documents.

2. MATERIALS AND METHODS

Cross sectional hospital base study was conducted during the period of January to February 2019 in two big hospitals in Khartoum state -Sudan, which are main public greatest teaching and referral hospitals in Sudan. The hospitals were selected purposefully to represent the Khartoum state; One of this hospitals located at Khartoum north town, it is the oldest hospital in the town, with 600 bed capacity, employ 322 nursing staff at the time of study with their different categories and type of enrolment in the clinical service provide health care for public with varied groups and with different levels- primary, secondary and tertiary levels; For local patient and patient referred from other towns and states. More over provide training for all types of health professional's with their different level of qualification from different educational institutes and achieve researches covering the flied related to the different specialties. The other selected hospital located at southern of Khartoum town; with the same criteria of the first hospital and it employ 294 nurses with their different categories and type of enrolment in the clinical service and provides health care for an area of high density of population.

The study population was the nursing staff works at selected hospitals with their different categories and qualification works at selected hospitals, employ in permanent or temporal job, and nurses spend national service works at least one year and directly involved in patient care; In addition to and their evedent documentation. The total number of nurses in the two selected hospitals were 619 nurses and the available were 19 document most of them are shift report
The sample size was c alculate by using the equation N: N×P (1-P)/ [{N-1× (d 2÷z2) +P (1-P)]. N is sample size , P =0.5, d = 5% and z =1.96 in confidence level 95%

A total of two hundred and thirty-seven bed side nurses were chosen as a representative sample selected according to their population percent. The percent of nurses from the hospital which represent Khartoum north town public hospitals equal 53.2% of the sample size (126nurses), and the percent nurses from the hospital which represent Khartoum town public hospitals equal 46.8%of the sample size (111nurses); The total sample is 237 nurse.
The Sample selected using multi stage sampling for hospitals, clinical area and participants:
Stage one is hospital selections: Hospital was selected purposefully census because they are main biggest referral public hospital from each locality situated in area of high density of population, provide health service for vast majority of the population in the state and they have all types and levels of health care service so the result can be representative.
Stage two is selections of the clinical area (words and high dependency units, for adult male/femal and pediatric) are selected simple randomly.
Stage three is selection of nurses' sample: Sample was selected by first available participates in each selected clinical area that fulfills the criterion and complete the sample size as

convenience (126 nurses from the first hospital and 111 nurses from the second hospital) according to their proportional representation.
Total coverage is adopted for selection of the available documents because nursing documents were so limited (only 19 decument were available most of them were shift report in nun formal sheets).

Data was collected using two instroments: **Structured questionnaire** which formed in English and translated to Arabic to insure equal understanding. Background characteristics of the respondents were assessed by the questions of the firest Part while knowledge regarding documentation, training of staff, availability of policy/standers/procedures/ protocols/guidelines, and formats of nursing documentation were assessed by the questions of the second part. And **Check list**A which dopted and modified of The Nursing and Midwifery Content Audit Tool (NMCAT) from Walden University used to asse the quality of the available documents (Obioma., 2017)
Data was collected through face to face interview using the Arabic translated questioner which filled during the participants' break time with in 15-20minutes by the researcher and assistant who trained on how to ask and how to fill the questioner. Data was collected in 7 days to meet nurses in different working shifts. Wile available document (nineteen documents represent the different clinical areas) were asssesset using the (NMCAT) by the research teem.
Questioner and check list were revised sevral time by the researchers and coleages fore sutability and copleetness. On the other hand a pioloted study using 10 of nurses and 5 of documents from ahosptal other than the studied hosptals was carried out to teast the data collection tools validity and reliability.
Likert scale was used to evaluate the level of knowledge; Each variable,s question evaluated in five parameters as followed:

Excellent level: referred to score of (80%-100%)
Very good level: referred to score of (70%-79%)
Good level: referred to score of (60%-69%)
Fair level: referred to score of (50%-59%)
Poor level: referred to score of less than 50%

The aggregate data was checked for completeness then coded, entered in a computer and analyzed by statistical packed for social sciences SPSS (version 18.). Person Chi-square was used to find the association between background charcteristics and dependent variable with setting confidanvce interval in 95%.
Ethical Approval obtained from Al Neelien University Committee, ethical clearness from ministry of health, Khartoum, Sudan. Moreover agreement letter from the hospital manneger wre gained, and informed consent were taken from participants. Confidentiality assured by no name disclosure.

3. RESULTS

Two hundred seventy-three nurses in selected hospital in Khartoum were interviewed to assess the quality including the availability of resources, knowledge and practice concerning nursing documentation, more over available documents were investigated; so as clear the picture about the quality of nursing documentation. The results have been explained objectively in four main themes; background characteristics, resources, knowledge, and practicing of documentation process respectively.

The only available nursing documents during the period of the study are 19 documents most of them are nursing report of shift change that founded in nun-formal formats which reflect the poor practice of respondents' nursing documentation.

Table 1. Background characteristics of the nurses in selected hospitals (n=237)

Age group	**Frequency**	**Percentage**
(20-29) yrs.	165	69.6
(30-39) yrs.	56	23.6
(40-49) yrs.	7	3.0
More than50 yrs.	9	3.8
Professional Qualification		
Nurse school certificate	49	20.7
Diploma degree	68	28.7
Bachelor degree	118	49.8
Master degree	2	0.8
Years of working experience		
Less than 3 years.	122	51.5
3 years and more.	115	48.

Table 2. Availability of resources that facilitate nursing documentation in the selected hospitals

	ANSWERS	**Yes**		**No**		**Level**
		No.	**%**	**No.**	**%**	
	Taught documentation how to document clearly **in the university study**	178	75.1	59	24.9	Good
3	Through your hospital employment there are training program/ programs about nursing documentation.	60	25.3	177	74.7	Poor
1	There is clear standers, procedures, guidelines or protocol for nursing documentation in your hospital	95	40.1	142	59.9	Poor
2	Availability of documentation formats in your hospital (vital signs, drug, fluid, GCS (Glasgow coma scale), nursing note and etc. …….).	163	68.8	74	31.2	Good
	Mean percent	49.9				Poor

(80% -100%) ***Excellen****t (70%-79%)* ***very good*** *(60%-69%)* ***good*** *(50%-59%)* ***fair*** *less than 50% (****poor****)(Vagias. A, 2006)*

Table 3. Nurses knowledge regarding essential information of nursing documentation the selected hospital in Khartoum state (*n=237*)

	ANSWERS	Yes		No		Knowledge level
		No.	%	No.	%	
	Purpose of documentation					
1.	For communication among health professional	183	77.2	54	22.8	Excellent
2.	For research and evidence base practice	115	48.5	122	51.5	Poor
3.	Allocation of resource and quality assurance	83	35.0	154	65.0	Poor
4.	Reimbursement and Credentialing	47	19.8	190	80.2	Poor
	Mean percent	45.13				Poor
	Principles and Characteristics of nursing documentation					
1.	You know principles for documentation (tool, frame, characteristic)	227	95.8	10	4.2	Excellent
2.	Is it important to follow documentation principles	231	97.5	6	2.5	Excellent
3.	Proper documentation is important evidence in legal matter.	226	95.4	11	4.6	Excellent
4.	Nursing documentation is important, not optional and integral part from nursing process.	217	91.6	20	8.4	Excellent
5.	Nursing documentation is necessary to improve the quality of nursing care.	230	97.1	7	2.9	Excellent
6.	Nursing documentation is necessary for continuity of nursing care	226	95.4	11	4.6	Excellent
7.	Characteristics of nursing documentation are complete, clear, timely, and chronological	219	92.4	18	7.6	Excellent
	Mean percent	94.9				Excellent
	Data that should be documented					
1.	Patient information about admission, transfer, and discharge.	216	91.1	21	8.9	Excellent
2.	Changes in patient status and nurse's action.	214	90.3	23	9.7	Excellent
3.	Patient education and counseling	195	82.3	42	17.7	Excellent
	Mean percent	87.9				Very good
The overall level of knowledge		75.98				Very good

(80% -100%) ***Excellen****t (70%-79%)* ***very good*** *(60%-69%)* ***good*** *(50%-59%)* ***fair*** *less than 50% (****poor****).(Vagias. A, 2006)*

4. DISCUSSION

Nursing documentation is tremendously critical and vital part of nursing practice or intervention process. Its contribution to the patient's health is unquestionable. Appropriate documentation demonstrates a nurse's knowledge and judgment skills. The importance of proper documentation in nursing cannot be overrated since failure to document can result in poor outcomes for patients and liability issues. Limited studies are available on nursing documentation in developing countries, Sudan is not exception so the current study is unique in several ways and the results can be considered a database toward nursing documentation in Sudan. In this study we interested in quality it terms of knowledge, availability of resources (documentation format, policy/ procedures and guiltiness), training, quantity and quality of available nursing documents.

Most of our respondents are young (age range between 20 and 39 years) with mean age about 29 years, their educational backgrounds are varying, but about half of them are qualified with Bachelor Degree in nursing science (BSc), (Table 1) this finding is differ from the finding of Jasemi et al.(2013) in their study in Tbraz Hospital-Iran in which approximately all of respondent have had B.S in nursing (Jasemi. M, 2013).

Education is one of the top listed contributing factors to guarantee quality nursing reports which are aimed at improving and maintaining the standard of documentation. This is confirmed with many studies which recommend continuous educational to guarantee adherence to the nursing documentation procedure (Kamil. H., 2018). In our study, the majority of participants were taught how to document when they are nursing students (Table 2), consistent to the finding of study done in Indonesia 2005 which stated that nurses have been educated to prepare appropriate nursing records during their graduation, and study took place in Iran and Ethiopia that declared participants were obtained their knowledge about nursing documentation from their nursing schools (Andualem. A, 2019). Furthermore, in-service experience has a key role in the quality of documentation, the clinicians and nursing staff ought to be trained on the importance of proper documentation; but our study participants did not involve in any training program concerning documentation in their hospitals; this is different from that of Andualem et al. (Andualem. A, 2019) and Gunningberg. (Gunningberg. L., 2004). Every health care professional must be familiar with their organizational policies or procedures related to documentation so as to operate within what is acceptable and avoid getting into problems (Association, 2011). Yet most of our respondents are unanimous that there is no any policies, standers, procedures, guidelines, or protocols for nursing documentation in their hospital which underwrote by all nursing managers of the studies hospitals when verbal interviewed in concern to this issue; this is disagree with study done in Sweden and Amhara Ethiopia in which most of nurses reported that the documentation concurred with regulations and guidelines in their hospital (Idval. E.), (Andualem. A, 2019).

Nursing documentation requires a format that allows easy access to relevant information. Although most of respondents of this study agree with the availability of the documentation format (paper biased) in the patient file in their hospitals, they do not use them as cleared by the result of this study (they used nun formal papers for report shift).

Regarding nurses knowledge about documentation (Table 3), the respondents had poor knowledge in some aspects of nursing documentation for example purpose of documentation and they had excellent knowledge in some other aspects for example principles and characteristics of documentation however the finding of the current study represent good over-all level of knowledge for most of the respondent which along with a studies conducted in

Zambia, Iran, and Addis Ababa, (Mulugeta, 2015), (K. A., 2011), (Paans. W, 2010), (Mohajjel. A et al 2012), but lower compared with results of study done in Iran, and in Uganda ((Kizza., 2012). In contrast, the result of this study is better than the study of Ethiopia in which just half of the responded had good knowledge and in Amhara Ethiopia (Andualem. A, 2019). This result may be related to that most of our participants are well qualified since their earning BSc in nursing in addition to they gained background knowledge about documentation during their graduation; more over our clinical teaching of nursing students stress on important of documentation through all levels of graduation as a trend of nursing training in Sudan.

The quality of the documents is a mirror image of the standard of professional practice(s) and an indicator of the safe care provide (Blair. W, 2012). Although most of our respondent agree with the availability of documentation format in their hospitals; all most of them did not use this format and those who used them they did not complete the data; in the current study the available nursing documents in all study settings are so deficient in quantity (just 19 documents in all settings) this is in congruent with an Australian study by Jefferies et al which found limited documents (Jefferies. D., 2010). More over most of the available nursing documents in this study are shift report which are in nun formal sheet, rudimentary, in bad hand writing, lacking for proper reporting and with poor quality; consistent with the result of many studies, (Amesa. A, 2017) (Gunningberg. L., 2004), but in contrast with the results of study of Lee (Lee.T., 2005), whose declare that most of their respondent documentations had moderate quality. This poorness of our respondent nursing documentation in quantity and quality possibly due to lak of policy/standers/procedures/guidelines, training, supervision with auditing and shortage of nursing staff, more over lake of payment and incentive, non-conducive working invironment and poor attention for documentation by nurses (don't consider it as part of professional duties or responsibility).

5. CONCLUSIONS

Depend on the results of this study it concluded that nurses in the selected hospitals in Khartoum had good level of knowledge; but the quality of thier documentation in quantity and quality is poor comparing to that of the developing countries. The poorness of this documentation appers to be due to lack of policy-standers- procedures/guidelines, training, supervision and auditing; more over lack of empowerment due to les payment and non-conducive working surroundings as well as persistent shortage of nursing staff.

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RESEARCH ARTICLE

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PERCEPTION AND ATTITUDE TOWARDS MENOPAUSE IN THE CLIMACTERIUM PHASE: EXAMPLE OF EASTERN BLACK SEA REGION IN TURKEY

Çağla YİĞİTBAŞ[1]

ABSTRACT

The aim of this study is to reveal the perceptions and attitudes of women in the centre of a province in the Black Sea region of Turkey towards menopause and their symptoms with regards to their socio-demographic properties.

The participants were determined by the snowball sampling method. Data were collected according to the face to face interview method through house visits. The data form used consists of the descriptive qualities, Menopause Rating Scale and Scale of Attitude towards Menopause. Data were evaluated by a statistics package program, parametric and non-parametric tests were conducted, correlation analyses were applied, and the significance limit was accepted to be $p<0.05$.

It was observed that the menopause symptoms and scores of participants were below average. It was determined that seeing oneself physiologically weak and having no knowledge about menopause were high in the attitude score; having a chronic disease, having no knowledge about menopause and using any medicine and HRT for complaints were high in the menopause symptoms evaluation score; living in a rural region, having a chronic disease and having no knowledge about menopause were high in the psychological symptom dimension which was statistically significant.

The approach of the participants in the climacteric phase is mainly positive with low levels of symptoms. The evaluation of the menopause symptoms is related to the menopause attitude.

Keywords: Climacterium, phase, menopause, perception, attitude.

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1. INTRODUCTION

Women have many remarkable changes throughout their lives such as menarche, sexual initiation, pregnancy and menopause. Among these stages it is worth highlighting the climacteric period, which is characterized by a long transition period between the reproductive (menacme) and the not reproductive (agedness). The climacteric phase, regardless of irregular menstrual cycles and observable endocrine changes, comprises the period between 40 to 65 years old, subdividing in: pre-menopause (commonly beginning after 40 years old), perimenopause (starting about 2 years before the last period and going to one year after it) and post-menopause (initiate one year after the last period)(Sozeri Varma et al., 2006; Koc and Saglam, 2008; Melo and Costa, 2018). Calculations indicate that the number of women in menopause will reach 1.2 billion in 2030. In a developed country, almost every woman reach to the period of menopause and spend one-third of their lives in the climacteric phase (Zıvdır and Sohbet, 2017). Menopause is one of most an important phase women‟s life (Rossouw et al., 2002) and it is associated with biological, psychological and somatic changes affecting women's Health and well-being, as well as the capacity to adapt to a new role (Tamaria et al., 2013). While menopause as a physiological event has been essentially unchanged over a long time, attitudes and expectations have changed considerably and differ in various cultures (Olofsson and Collins, 2000). Its harmful effects are associated with psychological problems including stress, anxiety, depression, sexual function sexual arousal, sexual fantasies, sexual desire, night sweats, hot flushes, vasomotor symptoms, breast and skin atrophy, muscular, cardiovascular system diseases, skeletal problems, and senile vaginitis (Freitas et al., 2015; Arbab et al., 2018).

Menopause is a highly individualized phenomenon; complaints of menopause are not universal and vary among cultures.For example, although most women in India have no complaints about menopausal symptoms, except irregular menstruation, most women in Western cultures commonly experience hot flashes and night sweats. Attitudes and perceptions toward menopause have also been acknowledged to greatly influence menopausal experiences. Women with negative attitudes toward menopause, in general, have more complaints of symptoms.Western culture often deemsmenopause as an end and a ‘‘disease’’ to be treated, whereas other cultures, like that of the Mayans, perceivemenopause as a symbolismof freedom, an elevation of status, and respect. Given that differences in menopausal experiences between cultures have been well established, it is necessary to examine the menopausal experiences of women within the same culture to inform the development of culture-specific management methods (Shorey et al., 2018).

According to the 2017 data of the Turkish Statistical Institute (TSI), 25.63% of the women in Turkey are in the climacteric phase (TSI; 2018). According to 2015 data, the life expectancy in Turkey was 78 for the whole population with 75.3 years for men and 80.7 years for women which indicates an increase compared to previous years (Ilcıoglu et al., 2017). With the increase of life expectancy of women, the number of women in the climacteric phase also increased, and this phase began to cover around 1/3 of the lives of women. The average age of menopause for women in Turkey is 49 age (TDHS, 2008) while this ratio is 51 for women in the United States, 48 in Italy, 46 in Egypt and 44 in Iran (Sis Celik and Pasinlioglu, 2014). In

this phase, the effect of socio-cultural factors should also be taken into consideration. In this phase, women may have concerns about ageing, experience psychological changes with the loss of fertility, have the perception of losing social and symbolic gainings and have the feeling of inadequacy concerning sexual identity. A study conducted in Turkey reported 62.8% of having health issues based on menopause (Abay and Kaplan, 2015), while another study determined that 77.5% of women didn't have any behaviour for seeking health assistance due to the problems based on the process. This was associated with the traditional ways of thinking and conservative behavioural habits of women in Turkey (Ozgur et al., 2010). Women in Turkey are mainly Muslim and in Islam, having no menstrual bleeding is associated with positive considerations including cleanliness and maturity and considered to be an advantage concerning religious rituals and prayers (Metintas et al., 2010).

Besides, it is reported in the literature that the severity of the menopause based symptoms and the levels of women being affected vary by societies and according to experiences (Uludag, 2014). In a study, it was reported that the menopause found somatic and psychological complaints in women from Tunisia are more than the French women (Ferrand et al., 2013).The positions of women in the family, their duties and responsibilities, and even the perceptions of their husbands towards the menopause period are significant in Turkish society. Studies in Turkey report that women have positive and negative views concerning the approach to the menopause period (Koc and Saglam, 2008; Ozgur et al., 2010).

The objective of this study to determine the sociodemographic properties that affect the menopause perceptions, symptoms and attitudes of women in the climacteric phase living in the centre of a province in the Black Sea region of Turkey.

2. MATERIAL AND METHODS

This study is quantitative. The data of the descriptive and cross-sectional study was collected between February 2017 and April 2017 from the women living in the centre of a province in the Eastern Blacksea Region in the age group of 45 to 65 years. The women in the specified age group were reached by the snowball sampling method within the scope of the content of an education program carried out as a field study. With house visits, data were collected from the women in the climacteric phase who accepted the interview. In accordance with Helsinki criteria, the researchers provided information about the content, purpose, importance, and scope of the study through the informed consent form attached to the questionnaire. After obtaining required permissions, The survey form with questions about the socio-demographic qualities and measuring the symptoms and menopause attitude prepared by the researcher was applied to the voluntary participants (120 people). Data were collected by the face to face method by five students in the last year of the faculty of health faithfully to the original of the survey, the students having standard education on data collection. The students were informed about the climacterium period. The participants were willing to learn the climacteric period. Therefore, after the study, the students who collected the data made two house visits to the participants about the climacteric phase, menopause problems, coping with these problems and increasing life quality.

The independent variables of the study consist of the socio-demographic qualities and menopause perceptions of the participants while the dependent variables consist of the Menopause Rating Scale (MRS) [including the subscales of Somatic Complaints (SC), Psychological Complaints (PC), Urogenital Complaints (UC)] and the Attitude For Menopause Scale (AFMS)].

Menopause Rating Scale (MRS): It was developed by Schneider et al., in 1992 in German to measure the severity of menopausal symptoms and adapted to English in 1996. MRS was adapted to Turkish in 2005 by Gürkan. The Likert type scale consists of total 11 items including menopausal complaints with the following choices for each item: “0= none”, “1= mild”, “2= moderate", "3= severe" and "4= very severe". Scores for each item are used to calculate the total score of the scale. The lowest score from the scale is 0, and the highest score is 44. There is no cutoff score on the scale. The increase in the total score from the scale indicates the increase in the severity of the complaints that are experienced. The scale consists of three subscales, i.e. Somatic Complaints (SC), Psychological Complaints (PC) and Urogenital Complaints (UC). The Cronbach α reliability coefficient was reported to be .84 for MRS .79 for SC, .65 for PC and .72 for UC. The Cronbach α reliability coefficient for this study was .87 for MRS, .58 for PC, .85 for PC and .74 for UC.

1. SC: It consists of the 1st and 2nd items on the scale. The scores are between 0-8.
2. PC: They are the items 3, 4, 5, 6, 7 and 11 in the scale. The scores are between 0-24.
3. UC: It consists of the items 8, 9 and 10 in the scale. The scores are between 0-12.

Attitude for Menopause Scale (AFMS): The scale developed by Uçanok in 1994 is a 5 point Likert type scale consisting of positive and negative statements on the menopause life and after that. The subjects are requested to mark the suitable choice next to each statement including "0-strongly disagree", "1-disagree", "2-no idea", "3-agree" and "4-strongly agree". The scale includes two positive statements (statements 1 and 18) and 18 negative statements (statements 2-17, 19 and 20). In negative statements, scoring is reverse. The lowest score from the scale is 0, and the highest score is 80. The high scores from the scale indicate a positive attitude towards menopause and low scores indicate a negative attitude. Higher scores than the average (40) indicate that the attitude is more positive. The coefficient of consistency for the whole scale is .86, and the same score was found to be .84 for the present study.

The analysis of the data obtained from the study was conducted with the statistics package program and the percentage distribution, Student t-test, Mann Whitney U test, Kruskal Wallis test,andOne-wayANOVA tests were used in the evaluation. The significance limit was accepted to be $p<0.05$.

3. RESULTS

The score averages of the participants on the quantitative data are 50.10±3.75 (45-65) for age and 45.84±3.45 (35-55) for the menopausal age. The score average in MRS is 19.25±8.82 (0-44) and 3.60±1.93 (0-8) for SC, 12.10±5.52 (0-24) for PC and 3.55±2.89 (0-12) for UC. The scoring average for AFMS is found to be 44.96±10.63 (26-72).6.7% of the participants are not

literate, %17.5 of them are were literate but did not go to school, %39.2 of them are primary school graduates, %16.7 of them are middle school, %12.5 of them are high school, %39.2 of them are primary school graduates graduates and 7.5% are university graduates. The ratio of housewives is 75.8% while 4.2% of the participants are health employee. The ratio of married participants is 79.2%. The ratio of the participants without a child is 1.7%. The ratio of the participants who spend most of their lives in a province is 60%. The ratio of the participants with a large family is 22.5%, while 5.0% has a fragmented family while the rest has a core family type. 1.7% of the participants stated that they don't find themselves to be physically strong while 79.2 % of them stated that they participate in the family decisions, 10.0 % stated that they smoke, 0.8% stated that they use alcohol and 30.0% of them stated that they have a chronic disease.

78.3% of the participants stated they are in the menopause phase, 40.0% of them stated they have knowledge about the menopause process, 27.1 % of them stated they did not/would not tell anyone about their menopausal problems, 22.4% of them stated that they explained/would explain their problems to a health personnel, 15.0% of them stated that they used/would use if necessary some medications to cope with the symptoms of the process, 15.0% of them stated that they received Hormone Replacement Treatment (HRT), 70.6% stated that they used this treatment for a period more than 4 months.

In the study, 78.3% of the women stated that they found the menopause to be a normal process, 61.7 be the beginning of feeling old, 30.0% a process of maturity, 43.3% end of female characteristics, 38.7% a reduction/end of sexuality, 64.2% end of fertility and 4.2% a disease.

The MRS, SC, PC and UC scores of the participants were not found to be significant concerning age, marital status, family type, finding oneself physiologically strong, having a child, participating in the family decisions, perception on the economic status, smoking and alcohol consumption ($p>0.05$).

Table1. Distribution of the AFMS, MRS and SC, PC and UC Score Averages of the Participants According to Some of Their Characteristics (N=120)

			AFMS	MRS	SC	PC	UC
Somecharacteristics		**n**	**Mean± SD**	**Mean± SD**	**MeanRank**	**Mean± SD**	**MeanRank**
Place where the majority of life is spent	**Province**	73	45.13±11.46	17.78±8.91	56.29	11.10±5.48[a]	56.66
	County	27	46.03±10.38	22.11±8.50	67.70	13.88±5.09[a]	67.98
	Village	20	42.90±7.53	20.80±8.10	62.95	13.30±5.64	64.40
	Test Value		F=0.52; p=0.59	F=2.82; p=0.06	KW=2.38; p=0.30	F=3.17; **p=0.04**	KW=2.42; p=0.29
Oneselfphysiologicallystrong	**Very**	32	43.64±10.52[a]	18.12±9.05	58.28	11.25±5.65	57.17
	Quite	55	42.81±10.20	18.90±8.32	59.99	12.23±5.31	56.31
	Little	24	52.04±10.40[a]	21.45±10.58	64.02	12.75±6.52	76.04
	None	9	43.77±6.86	19.55±5.59	62.11	12.55±3.53	56.50
	Test Value		**F=4.93; p=0.003**	F= 0.69; p=0.55	KW=0.41; p=0.93	F=0.38; p=0.76	KW=6.10; p=0.10
Havingchronicillness	**Yes**	36	47.52±10.29	23.00±9.94	74.06	14.13±6.15	72.79
	No	84	43.85±10.64	17.65±7.83	54.69	11.22±5.02	55.23
	Test Value		t=1.74; p=0.08	t=3.15; **p=0.002**	U=1024.00; p=0.005	t=2.71; **p=0.008**	U=1069.50; p=0.011
Knowing menopause	**Yes**	48	41.91±11.21[a]	17.33±9.15[a]	56.64	10.56±5.52[a]	58.35
	Partially	53	46.81±9.68[a]	21.43±7.83[a]	66.75	13.77±4.70[a]	61.73
	No	19	47.26±10.09	18.05±9.68	52.84	11.31±6.56	62.50
	Test Value		F=3.36; **p=0.03**	F=3.02; **p=0.05**	KW=3.31; p=0.85	F=4.76; **p=0.01**	KW=0.3; p=0.85
Druguse for menopausalcomplaints (n=108)	**Yes**	23	47.86±10.99	23.56±8.55	63.63	14.26±4.99	61.93
	No	85	44.89±10.13	19.76±7.89	52.03	12.42±5.18	52.49
	Test Value		t=1.22; p=0.22	t=2.01; **p=0.04**	U=767.50; p=0.11	t=1.52 p=0.13	U=806,50; p=0.19
HRT (n=107)	**Yes**	16	49.43±11.61	24.43±8.97	65.06	15.12±5.27	65.94
	No	91	44.79±10.05	20.01±7.82	52.05	12.49±5.04	51.90
	Test Value		t=1.66; p=0.06	t=2.04; **p=0.04**	U=551.00; p=0.12	t=1.91; p=0.05	t=537.00; p=0.09

AFMS: Attitude For Menopause Scale. MRS: Menopause Rating Scale, SC: Somatic Complaints, PC: Psychological Complaints, UC: Urogenital Complaints (UC). [a,b]*GroupsaccordingtoTukey HSD test results.*

As shown in Table 1, a significant difference was found between the MRS scores and the variables of having a chronic disease, having knowledge about menopause and using medications about the menopausal complaints ($p<0.05$). In the post hoc analysis about the difference in the variable for knowing menopause, it was determined that the difference was between those with knowledge and those with partial knowledge ($p>0.05$).

In this study, a difference was found between the PS subdimension and the variables of the place where the majority of life is spent, having a chronic disease and having knowledge about menopause ($p<0.05$). In the post hoc analysis after the difference found between the education level and PC subdimension, the difference was found to be caused by those who are not literate and who are graduates of the primary school and university ($p>0.05$). The variable of the place where the majority of life is spent caused a difference concerning the PC subdimension and the post hoc analysis showed that the difference was caused by the participants who live in the province and a district ($p>0.05$).

In addition, the variables of age, education, marital status, having a child, family type, place where most of your lifeis spent, participating in the family decisions, finding oneself psychologically strong, perception on the economic condition of the family, smoking,and alcohol consumption were not found to be significant with respect to the AFMS scores in the present study ($p>0.05$).

As shown in Table 1, the variables of finding oneself physiologically strong and having knowledge about menopause were found to be significant concerning the AFMS scores ($p<0.05$). The post hoc analysis for finding oneself psychologically strong regarding the AFMS indicated that the difference was between the groups with answers "very" and "little" ($p<0.05$).

As shown in Graphics 1, heart disease was stated to be none and slight by the participants being the two highest ratios. Again as the highest ratios, the menopause symptoms stated to be none consisted of the urination problems and vaginal dryness; the mild symptoms consisted of grief, physical and mental fatigue, sexual problems, joint and muscle diseases; moderate symptoms consisted of sleep problems and anxiety; severe symptoms included hot flush and nervous temperament. No signs were stated to be very severe.

Graphics 1. Ratios of the Menopause Symptoms/Complaints of the Participants (N=120)

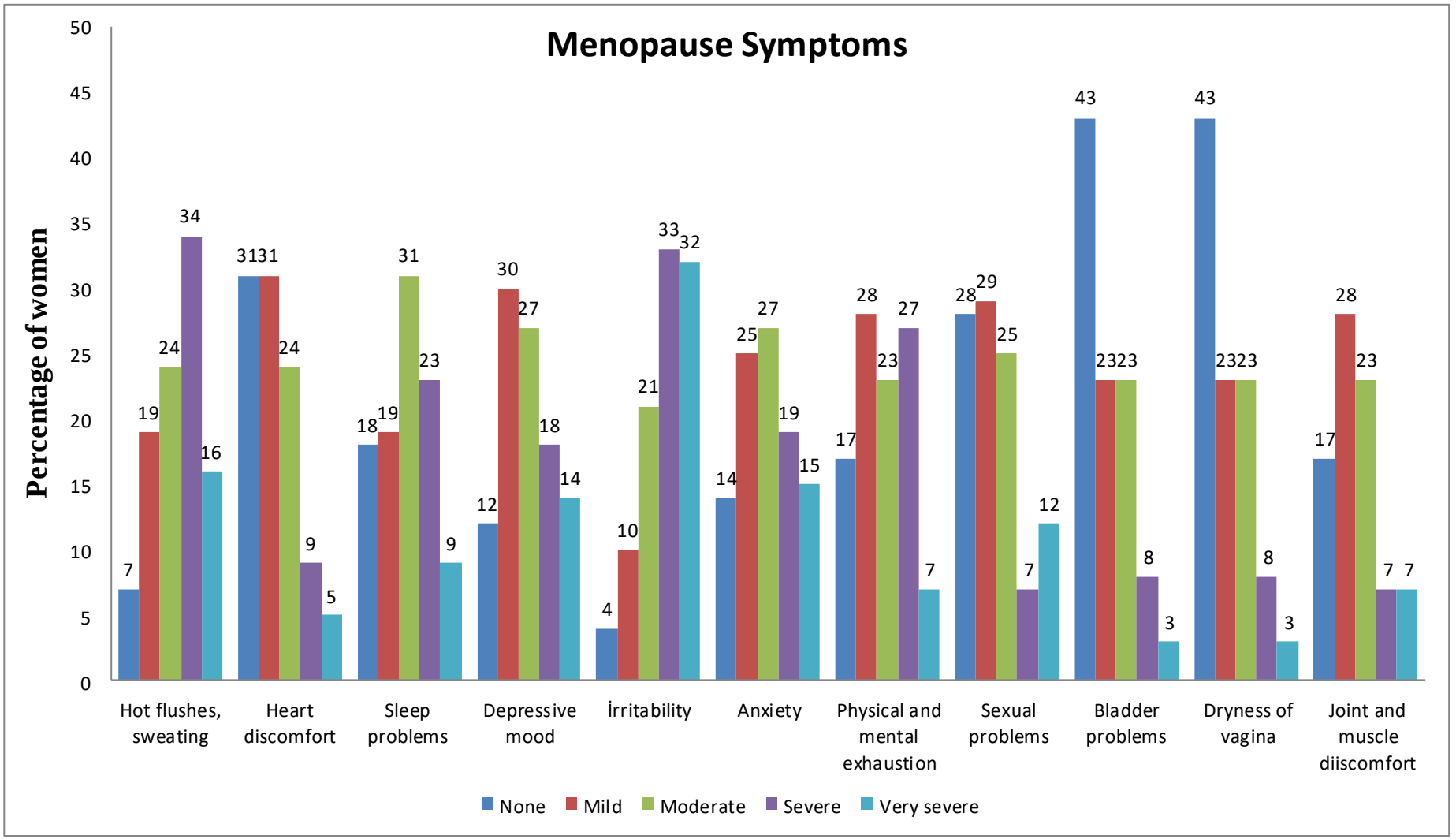

Table 2. Distribution of the MRS and AFMS Score Averages of the Participants According to their Menopause Perceptions (N=120)

Menopause			MRS	AFMS
		n	Mean± SD	Mean± SD
It's a normal process	**Yes**	94	18.60±8.82	44.43±10.96
	No	26	21.61±8.60	46.88±9.26
	Test Value		t=-1.54; p=.12	t=-1.04; p=.30
It makes me feel old.	**Yes**	74	20.28±8.88	48.01±9.73
	No	46	17.60±8.58	39.95±10.21
	Test Value		t=1.62; p=.10	t=4.29; **p=.001**
It makes me more mature.	**Yes**	36	16.50±8.87	44.86±12.08
	No	84	20.44±8.59	45.01±10.01
	Test Value		t=-2.28; **p=.02**	t=-.07; p=.94
It is a loss of femininity.	**Yes**	52	20.96±8.58	50.09±9.50
	No	68	17.95±8.85	41.02±9.70
	Test Value		t=1.86; p=.06	t=5.11; **p=.001**
It is a(n) decrease/end of sexuality.	**Yes**	46	21.89±9.75	49.39±9.08
	No	73	17.68±7.99	42.36±10.54
	Test Value		t=2.58; **p=.01**	t=3.72; **p=.001**
It is the end of the fertility.	**Yes**	77	19.87±8.57	45.93±10.39
	No	43	18.16±9.26	43.20±10.82
	Test Value		t=1.01; p=.31	t=1.35; p=.17
It is like an illness.	**Yes**	5	23.00±4.74	50.69±4.50
	No	115	19.09±8.94	44.71±10.71
	Test Value		t=.96; p=.33	t=1.22; p=.22

MRS: *Menopause Rating Scale; AFMS: Attitude For Menopause Scale*

MRS score average was found to be higher among those who don't consider menopause to be maturity and those who consider it to be reduction/end of sexuality. AFMS score average was found to be high among those who consider menopause to be the feeling to be old, loss of female characteristics and reduction/end of sexuality (Table 2).

In the study, a positive and weak relation was found between MRS and all dimensions of this scale as well as between the age of the participant and the AFMS score. Besides, a similar relationship was found between AFMS, MDSD and the sub-dimensions while there was no relation between the age of the participant entering menopause and any of the scales (Table 3).

Table 3.The Relation between the AFMS and MRS, SC, PC and UC Scores and the Age and the Age Entering Menopause (N=120)

Characteristics		AFMS[a]	MRS[a]	SC[b]	PC[a]	UC[b]
Age	**r**	0.210*	0.350**	0.321**	0.345**	0.216**
	p	**0.02**	**0.001**	**0.001**	**0.001**	**0.01**
Age Entering Menopause	**r**	0.153	0.039	0.166	0.048	-0.08
	p	0.13	0.70	0.10	0.63	0.41
AFMS	**r**	1	0.372**	0.293**	0.351**	0.235**
	p	-	**0.001**	**0.001**	**0.001**	**0.01**

[a]Pearson correlation analysis, [b]Spearman Correlation analysis, [*]Level of significance

4. DISCUSSION

The menopause perception, menopause symptoms and the attitude on these symptoms are an important issue of woman health that needs to be taken into consideration concerning offering and providing health services (Koyuncu et al., 2015).

In the present study, the average age of women in entering menopause was found to be 45.84±3.45 (35-55), and 78.3% of the participants consisted of individuals who entered menopause. The ratio of those who know about menopause is 40% while 27.1% of women don't tell anyone about their menopausal problems. 21.3% of the participants stated that they use symptomatic medications for their menopausal problems. The ratio of the participants receiving HRT is 15.0%. The average age for entering menopause was stated to be 45.1±1.52 in the study of Koc and Saglam, 47.74± 2.15 in the study of Ozgur et al., and 47.7± 4.5 in the study of Uludag et al (Koc and Saglam, 2008; Ozgur et al., 2010; Uludag et al., 2014). In the 2008 data of Turkey Population and Health Research (TPHR), the menopause age average of women in Turkey was stated to be 49 while the 2013 data indicated that the percentage of women in menopause increased by age from 1% in the beginning of the 30s to 49% in the ages of 48 to 49 (TPHR, 2008; Ozer and Gozukara, 2016). The ratio of women receiving HRT is 19.8% in the study of Koc and Saglam; 14% in the study of Uludag et al. and 4% in the study of Ozer and Gozukara (Koc and Saglam, 2008; Uludag et al., 2014; Ozer and Gozukara, 2016). The ratio differences were considered to be related to the region of the study. The study with the lowest ratio is the South-eastern Region of Turkey which is rather lower than the desired level concerning the socio-cultural health perception (Koc and Saglam, 2008; Uludag et al., 2014; Ozer and Gozukara, 2016). The study by Irmak Vural and Balcı Yangın on the comparison of Turkish and German women, the ratio of receiving HRT was found to be 23.1% in Turkish women and 31.3% in German women. The ratio of receiving information about menopause was found to be close in both groups (Irmak Vural and Balcı Yangın, 2016).

78.3% of the women stated that they found the menopause to be a normal process, 61.7 be the beginning of feeling old, 30.0% a process of maturity, 43.3% end of female characteristics, 38.7% a reduction/end of sexuality, 64.2% end of fertility and 4.2% a disease. The study by Koc and Saglam reported that the approach of the 57% of women towards the concerned phase is negative while the study of Ozer and Gozukara indicated that the 96.7% of the participants have positive feelings (not giving birth and end of menstruation) (Koc and Saglam, 2008; Ozer and Gozukara, 2016). In the study by Sis Celik and Pasinlioglu, 35.0% of women stated menopause to be a normal process, 60.8% to be the beginning of feeling old and 41.8% to be the end of fertility. The same study didn't find any difference between the MRS score averages and views about menopause of the women (Sis Celik and Pasinlioglu, 2015). The study by Irmak Vural and Balcı Yangın found that the menopause perceptions of the Turkish women were more positive than the German women (Irmak Vural and Balcı Yangın, 2016). Studies comparing the women in the Eastern and Western cultures indicated that Eastern women considered menopause to be a normal process and had more positive attitudes (Koc and Saglam, 2008). A study in China reported that the women had a more

positive approach towards menopause (Li et al., 2016). It is reported that the American Latin women defined menopause to be "Cambio de Vida", i.e. a natural condition that one has to experience without any intervention while the Irish women considered the process an annoying and unexpected condition (Hall et al., 2007). Chinese women consider the process to be a particular phase of life (Astbury-Ward, 2003). 65% of the German women have a positive view about menopause (Kowalcek et al., 2005). In Asian countries, menopause is accepted to be the beginning of freedom (Irmak Vural and Balcı Yangın, 2016).

38.7% of the participants in the study stated that they considered menopause to be the reduction/end of sexuality. Those with this perception had high score averages in both MRS and AFMS ($p<0.05$; Table 2). Studies in Turkey reported the loss of sexual drive in the pre-, peri-and postmenopausal periods to be respectively 35%, 55% and 60% (Demirel Bozkurt and Sevil, 2016). Similarly, in the study of Sözeri Varma et al., problems in sexual satisfaction were determined with menopause and this was explained as "it becomes clear that the reproduction function of individuals ends with the impact of cultural references as the years in menopause increase and the process means staying away from sexuality for some women" (Sozeri Varma et al., 2006).

The score averages of the scores used in this study are 19.25 ± 8.82 in MRS, 3.60 ± 1.93 in SC, 12.10 ± 5.52 in PC and 3.55 ± 2.89 in UC. The study by Sis Celik and Pasinlioglu (2014) revealed higher score averages in all of these values (MRS: 22.67 ± 8.06, SC: 4.19±2.08, PC: 13.12±4.59, UC: 5.35±3.09) (Sis Celik and Pasinlioglu). In the study by Uludag et al., (MRS score average is 16.3±8.9 (0-38) and lower than the value in the present study (Uludag et al., 2014). The reason for this is considered to be cultural differences, and the culture of the individuals is emphasised in the literature to be important with regards to menopause perception (Abay and Kaplan, 2015).

It was reported that the participant in the study didn't have urination problems and vaginal dryness complaints; had mild complaints of physical and mental fatigue; moderate sexual, joint and muscle problems and severe sleep issues and anxiety. None of the problems was reported to be very severe (Figure 1). The study by Sis Celik and Pasinlioglu reported sleep problems, nervous temperament, anxiety, sexual problems, urination problems and symptoms of vaginal dryness to be mostly in moderate levels (Sis Celik and Pasinlioglu, 2014). The difference of results is linked to the difference of receiving HRT by the participants while it is also reported in the literature that menopause symptoms were lower in the use of HRT (Ozcan and Oskay, 2013).

The study found the difference between the PC subscale and the education level, place where the most of life is spent, having a chronic disease and having knowledge about menopause ($p<0.05$). PC score average was found to be lower in the people with low education levels and who spend most of their lives in urban regions. Lower PC values in urban women are associated with the fact that they receive treatment due to their menopause based problems. The score averages of the participants in the PC dimension in this study were found to be close to half due to the menopause phase. The study by Yüksel Kocak reported that 6.9% of the women in the menopause phase received psychological support (Yüksel Kocak, 2017). In the study by Zıvdır and Sohbet, it was reported that 6.6% of women had psychological problems due to menopause and 87.8% had both physical and psychological problems, the

feelings of guilt and embarrassment due to menopause were reported to be higher than the average and the ratio of the women who stated that their respectability was reduced because of menopause to be 10% (Zıvdır and Sohbet, 2017). In the study by Bayraktar and Ucanok, they viewed the menopause perception through the perspective of the place where the majority of the lives of the participants is spent (living in the east/west) and emphasized higher tendency of the women living in the east to consider the process to be a natural mechanism (Bayraktar and Ucanok, 2002).

Concerning the scores of the MRS and subgroups, the variables including age, marital status, family type, finding themselves psychologically strong, having a child, participating in family decisions, perception about the economic condition of the family, smoking and alcohol consumption ($p>0.05$). Similar to the present study, the study by Sis Çelik and Pasinlioğlu found no difference between the MRS score averages and the variables of age, education level, employment status, family type and receiving HRT (Sis Celik and Pasinlioglu, 2014) while the study by Uludağ et al. found no difference concerning age and education level (Uludag et al. 2014).

Similarly, the variables including age, education, marital status, having a child, family type, place where the majority of life is spent, participation in the family decisions, finding oneself psychologically strong, perception on the economic condition of the family, smoking and alcohol consumption were not found to be significant with respect to the AFMS scores ($p>0.05$). Differently, from the present study, it is stated in the literature that the high education level and older age have a positive effect on the attitude towards menopause while the socio-economic qualities are significant in negative symptoms (Koc and Saglam, 2008).

5. CONCLUSION AND RECOMMENDATIONS

Women in the study having generally positive attitudes toward menopause and with low levels of symptoms. It was seen that they didn't have very severe menopause symptoms. Age, marital status, family type, finding oneself physiologically strong, finding oneself psychologically strong, having a child, participation in the family decisions, perception on the economic condition of the family, smoking, and alcohol consumption were not found to be significant with respect to the menopause symptoms. The development of culturally tailored programs for women, specifically on menopause, can be incorporated with existing primary health care to provide specific care and equip such women with adequate information and coping strategies to increase their preparedness for menopause and maintain a high quality of life.

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