JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

Volume: 5 Issue: 8 Year: 2019

Online and Open Acces Journal JIHSAM http://dergipark.gov.tr/jihsam

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

Vol: 5 No: 8 Year: 2019

E-ISSN: 2149-9519

CONTENTS

RESEARCH ARTİCLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

KNOWLEDGE, ATTITUDE AND BEHAVIOR OF HEALTHCARE PROFESSIONALS FOR PHYSICAL VIOLENCE

Çağla YİĞİTBAŞ[1]

Fatma GENÇ[2]

ABSTRACT

The aim of this study is to define the knowledge, attitude, and behavior of healthcare personnel working in a state hospital regarding physical violence in terms of several socio-demographic characteristics. The data was obtained by face-to-face interviews with participants voluntarily participating in the research (430 persons). The average age was 28.90±6.94 years. It was obtained that 81.6% of participants considered that violence against healthcare workers was increased. 20.4% of healthcare professionals stated that they experienced violence in the shift between 12:00 am and 08:00 am. The rate of healthcare professionals reporting violence was 44.0%. The rate of healthcare professionals who received psychological support against the violence they experienced was 12.8%, and 27.7% of the participants have been to considered to leave the profession. 77.9% of the participants reported that they thought that violence against healthcare professionals could be avoided. A safe and violence-free environment should be provided for healthcare professionals, and support for coping skills should be provided them.

Keywords: Healthcare professionals, physical violence, knowledge, attitude and behavior

A R T I C L E I N F O

[1]Assist. Prof., Faculty of Health Sciences, Giresun Universty, TURKEY

cagla.yigitbas@giresun.edu.tr

Orcid Number: https://orcid.org/0000-0002-3789-1156

[2]Assist. Prof., Faculty of Health Sciences, Giresun Universty, TURKEY

fatma.genc@giresun.edu.tr

Orcid Number: https://orcid.org/0000-0001-8777-4276

Recieved: 07.02.2019 Accepted: 08.03.2019

Cite This Paper: Yiğitbaş, Ç., Genç, F. (2019). Knowledge, Attitude and Behavior of Healthcare Professionals For Physical Violence. Journal of International Health Sciences and Management, 5(8): 1-18.

1. INTRODUCTION

The workplace violence is regarded as a substantial risk to be addressed and interested at international level by the World Health Organization (WHO), International Labor Organization (ILO) and International Council of Nurses (ICN). The Council also considers this to be a threatened to effective patient care service (Yesilbas, 2016). The violence at healthcare institutions is defined as a situation that poses a risk to healthcare professionals, involves threatening behavior performed by the patients/their family or other individuals, and may be in the form of physical/sexual assault and economic abuse (Saines, 1999). Physical violence is harsh and painful action that targets physical integrity and may be performed in the forms of beating, slapping, punching, kicking, pushing around and strangling (Buyukbayram and Okcay, 2013).

8-38% of healthcare professionals in the world are exposed to violence at some time of their professional life (WHO). It is reported that violence at the workplace is 16 times higher in the healthcare institutions where a wide range of employees work (Unsal Atan and Donmez, 2011; Camci and Kutlu, 2011). This is seen as a serious professional risk and increasingly growing in the world and in Turkey (Grand National Assembly of Turkey Report, 2013). The causes of violence against healthcare workers in Turkey include organizational causes (e.g., providing public with missing or inaccurate information on medical practices and labor rights, and characteristics of service providers and recipients); social factors (e.g., failure of individuals to properly communicate, broadcasting negative medial news by the media with a concern of low circulation and rating, and appearance of scenes on television series that would tarnish the image of healthcare workers); interaction and communication (e.g., negative communication of healthcare workers with their colleague due to competition, etc., long and demanding work hours, intensity of psychosocial situation in this field, insufficient training/education on communication techniques, uneven distribution of healthcare professionals over the country,

and not working in the area where they are a specialist); environmental factors (e.g., sound, ventilation, and noise-related problems); legal/judicial causes (lack of confidence in imposing sufficient punishment, long period for judicial judgement/conclusion, and legal actions that are taken without petition of the victim only in case of bodily injury, threats, and insult in the law) (Buyukbayram and Okcay, 2013; Keser Ozcan and Bilgin, 2011; Yigitbas and Deveci, 2011; Estryn-Behar et al., 2008; Gillespie et al., 2010; Doganay, 2014; Pinar and Pinar 2013; Serin et al., 2015). From the perspective of consequences, the violence causes physical-emotional and social damages, stress, difficulty in concentration, and increased medical faults (Cicek Durak et al., 2014). The aim of this study is to define the knowledge, attitude, and behavior of healthcare personnel working in a state hospital regarding physical violence in terms of several sociodemographic characteristics.

2. MATERIALS AND METHODS

This was a descriptive and cross-sectional study and the study universe was Healthcare Professionals of 112 Emergency Service and State Hospital located in a city center in the East Black Sea Region, Turkey. The sample of the research consist of 430 Healthcare Professionals. The data was collected by face-to-face interviews with participants voluntarily (between April 2015 and May 2015). Prior to the study, written permission of Provincial Directorate of Health and verbal consent of participants were obtained. The State Hospital where this study was carried out is a 208-bed hospital with 133 nurses and has a capacity for delivering inpatient treatment of approximately 10 thousand patients per year.

A form developed by the researchers in accordance with literature was used as a tool for acquiring data. The first section of the form (Personal Information Form) addresses to the socio-demographic history of participants and includes 12 questions. The second section of the form questions the knowledge, attitude and behavior of participants regarding physical violence and includes 24 questions.

The independent variable of this study included the data from personal information form, and the dependent variable included the knowledge, attitude, and behavior of participants regarding violence.

2.1. Statistics

SPSS (Statistical Package for the Social Sciences) 15.0 have been used in the analysis of the data obtained within the scope of the study. The descriptive data was distributed in percentage and number, and the data were analyzed by chi-square and Fisher's exact test-2-sided. The mean values were provided with standard deviations and the significance level (p) in the statistical tests has been accepted as 0.05.

3. RESULTS

The mean age of nurses included in this study was 28.90±6.94 years (min: 18 years, max: 58 years), and the mean of the term of office in nursing was 6.50±5.77 months (min: 1 year, max: 33 years). 31.9% of participants were male, and 51.9% were married (Table 1).

Table 1.Distribution of Participants by their Characteristics (N=430)

Characteristics	Number	%
Age		
18-25	163	37.9
26-35	222	46.5
36 and over	67	15.6
Gender		
Female	137	31.9
Male	293	68.1
Education (n=402)		
Vocational School of Health (SML)	197	66.5
Associate degree	76	28.8
Bachelor degree	120	4.2
Postgraduate degree	9	0.5
Place where most of their life was spent		
City	286	66.5
District	123	28.6
Village	21	4.9
Marital Status		
Married	224	52.1
Single	206	47.9
Smoker		
Yes	171	39.8
No	259	60.2

Alcohol Intake		
Yes	28	6.5
No	402	93.5
Occupation		
Doctor	55	12.8
Nurse/midwife	246	57.2
Emergency Medical Technician (ATT)- Paramedic	129	30.0
Total term of office in profession		
Less than 5 years	251	58.4
6 to 10 years	97	22.5
11 years and over	82	19.1
Income		
Sufficient	261	60.7
Insufficient	61	14.2
Partially sufficient	108	25.1
Like their profession?		
Yes	356	82.8
No	74	17.2

The participants in this study, 26.3% felt safe where they worked, 36.9% were exposed to physical violence minimum once throughout their professional life, 17.2% were subjected to physical violence by the patient and 42.3% were subjected to physical violence by the patient's family, 44% reported the violence they suffered, 16.3% found themselves negligent for violence they were exposed to, 37% wished to be trained on violence, 61.6% were aware of laws and regulations on violence, 8.1% found sufficient of such laws and regulations (Table 2).

Table 2. Knowledge, attitude and behavioral characteristics of participants for violence (N=430)

Characteristics	Number	%
Dou you feel safe where you work?		
Yes	113	26.3
No	148	34.5
Partially	169	39.2
Do you think that there is an increase in violence against healthcare professionals?	347	81.6
Yes	83	18.4
No		
What would you do if you experienced violence?*		
To avoid eye contact with the attacker	208	48.4
To keep a safe distance of minimum length of an arm to the attacker	235	54.7
Not to escape and fight if considered it would be a failure	136	31.6
No to be insistent if the patient keeps moving away, and stand where the patient wants you to stand	142	33.0
	106	24.7

To look like being afraid of the patient if needed	315	73.3
To ask for help in case of tendency to aggressiveness	204	47.4
To stand close to the door to escape in case of any threats		
Have you ever been exposed to any violence during your term of office? (n=425)		
Yes	157	36.9
No	268	63.1
When were you exposed to violence (n=245)		
Between 08:00 am and 4:00 pm	115	46.9
Between 4:00 pm and 12:00 am	77	31.4
Between 12:00 am and 08:00 am	50	20.4
It depends	3	1.3
Who was the last person that used violence against you?*		
Patient	74	17.2
Patient's family	182	42.3
Senior person	12	2.8
Similar senior person	5	1.2
Other healthcare professionals	12	2.8
Did you report the violence you experienced? (n=216)		
Yes	95	44.0
No	121	56.0
Where did you report the violence you experienced?*		
Ministry of Health	27	6.3
Provincial Directorate of Health	31	7.2
A manager of institution	56	13.0
Police/security	76	17.7
Prosecution office	26	6.0
Did you find yourself negligent in violence you experienced?(n=215)		
Yes	35	16.3
No	180	83.7
Have you considered to leave this occupation because of violence you experienced? (n=224)	62	27.7
Yes	162	72.3
No		
What do you think the cause of violence against healthcare professionals?*	105	24.4
Insufficient treatment	155	36.0
Delay in response	135	31.4
Lack of care for the patient	239	55.6
Inadequate laws and regulations on violence	231	53.7
Insufficient security services in institutions	198	46.0
Lack of support from hospital officers for employees	307	71.4
Low cultural level of society		
Do you think that violence against healthcare professionals can be prevented?	328	76.3
Yes	92	21.4
No	10	2.3
I don't know		
Which of the followings could be used to prevent violence against healthcare?*	212	49.3

Stress management of healthcare professionals, training them on	240	55.8
communication	346	80.5
Improving quality of service in healthcare institution	281	65.3
Strengthening laws and regulations		
Using security systems (e.g., cameras, detectors)		
Would you like to receive consultancy on violence? (n=411)		
Yes	152	37.0
No	259	63.0
Are you aware of laws and regulations on violence?		
Yes	265	61.6
No	165	38.4
Do you find sufficient laws and regulations on violence?		
Yes	35	8.1
No	395	91.9

**Multiple answers are provided.*

The following conditions appeared to make differences:

- Being exposed to any violence during the term of office in those who were between the ages of 26 and 35 years, married, graduated from Vocational School of Health, and had a term of office less than 5 years,
- Failure to report the violence to any authority by women, nurses and those who had a term of office less than 5 years,
- Personally finding oneself negligent for violence by those who did not smoke and who spent most of their lives in the city,
- Being aware of applicable laws and regulations on violence in those with sufficient income ($p>0.05$), (Table 3).

Table 3. Distribution of several characteristics of participants relating to physical violence by several sociodemographic characteristics of participants (N=430).

	Being exposed to physical violence during term of office*		**Reporting physical violence to any authority***		**Finding oneself negligent in experienced physical violence***		**Perception of whether physical violence can be prevented***		**Being aware of laws and regulations on physical violence***	
	p	**Description**	**p**	**Description**	**p**	**Description**	**p**	**Description**	**p**	**Description**
Age	**0.001**	26 to 35 years ↑	0.339	-	0.346	-	0.132	-	0.272	-
Gender	0.705	-	**0.021**	Not reporting by women ↑	0.063	-	0.979	-	0.346	-
Education	**0.050**	SML ↑	0.415	-	0.692		0.253	-	0.849	-
Place where most of life is spent	0.719	-	0.787	-	**0.001**	City ↑	**0.040**	City ↑	0.190	-
Marital status	**0.001**	Married ↑	0.934	-	0.951	-	0.532	-	0.993	-
Smoking	0.708	-	0.075	-	**0.008**	Non-smokers ↑	0.742	-	**0.003**	Smokers ↑
Alcohol intake	0.889	-	0.747	-	0.296	-	0.470	-	0.918	-
Occupation	0.422	-	0.006	Not reporting by nurses ↑	0.941	-	0.415	-	0.263	-
Total term of office	**0.003**	Not being exposed violence by those with term of office less than 5 years ↑	**0.050**	Not reporting by those with term of office less than 5 years ↑	0,623	-	**0.045**	Perception of whether violence is prevented in those with term of office less than 5 years ↑	0.398	-
Income	0.278	-	0.910	-	0.326	-	**0.021**	Those reported sufficient ↑	**0.029**	Those reported insufficient ↑
Whether they like their occupation	0.783	-	0.181	-	0.123	-	0.763	-	0.494	-

4. DISCUSSION

The healthcare sector requires direct contact with persons in a difficult condition and the employees of the healthcare sector may be the most important target of violence at the workplace or may occasionally be a victim (Celebi, 2016). Therefore, violence in the medical area is considered a serious occupational hazard (Lipscomb et al., 2012). The individuals must feel safe at the workplace for a proper working environment. However, the cases of violence due to insufficient security measures, gaps in the legal arrangements, etc., may cause employees to feel unsafe (Yigitbas and Deveci, 2011). In this study, one of approximately every four employees (26.3%) reported that they felt unsafe. This percentage was 38.3% in the study performed by Yakut et al. (2012). In this study, if they encountered violence, 73.3% of participants reported that they would ask for help if they felt a tendency to aggressiveness; and 54.7% stated that they would keep a safe distance of the minimum length of an arm between themselves and the attacker. The results were consistent with the literature. Annagur (2010) advised to avoid eye contact with the attacker in case of violence, keep a safe distance of the minimum length of an arm to the attacker, avoid being insistent if the patient keeps moving away, stand where the patient wants, look like being afraid of the patient if needed, ask for help in case of tendency to aggressiveness, and stay close to the door to escape in case of any threat. The report by WHO, ILO and ICN on "Violence at Workplace in Healthcare Sector" reports that more than half of the healthcare professionals are exposed to violence when they perform their job (Nau et al., 2009), and that 3-17% of this violence is physical (Chen et al., 2008). The violence in the healthcare sector is not a problem only specific to Turkey but also a significant problem in world countries. For example, the rate for violence against healthcare professionals is 27% in the UK (Winstanley and Whittington, 2004), 56% in Germany (Schablon et al., 2012), 11% in Spain (Gascón et al., 2009), 13% in the USA (Hodgson et al., 2004), 32.3% in Australia (Hills et al., 2012), 15.9% in Japan (Fujita et al., 2012), 9.3% in Egypt (Abbas et al., 2010),

6% in Brazil, 7% in Bulgaria, 6% in Lebanon, 17% in South Africa, and 10% in Thailand (Picakciefe, 2014), and the higher rates are significant in several countries. As provided in Table 2, the rate for being exposed to violence during the term of office was reported to be 36.9%. The same rate in the literature is reported to be 15.8% (Camci and Kutlu, 2011), 82.7% (Atik, 2013), 24.2% (Akca et al., 2014), 64.1% (Gunaydin and Kutlu, 2012), and 64.5% (Akbas et al., 2016). Likewise, the rate for being exposed to physical violence reported in other Turkish studies was 4.8% (Vural et al., 2013), 7.7% (Bickici, 2013), 8.3% (Elmas et al., 2013), 11% (Kahriman, 2014), 11.2% (Celebi, 2016), 12.5% (Bahar et al., 2015), 13% (Cicek Durak et al., 2014), 14.1% (Nart, 2014), 17% (Yakut et al., 2012), 22.7% (Atan and Donmez, 2011) and 60.6% (Durmaz et al., 2016). For both of the cases, the reason for differences might be explained by the differences in the profession of participants, work conditions, social-cultural factors, sample size, and sampling method.

The period of time when being subjected to violence at highest level was reported to be between 08:00 am and 4:00 pm with 46.9%, and similarly Bilisli and Hizay (2016) (75%), Bahar et al. (2015) (32%) and Vural et al. (2013) (66%) found that more violence was used between 08:00 am and 4:00 pm The reason for this might be attributed to congestion and increased circulation. As indicated in Table 2, the person who used violence was the patient's family with 42.3% on top, which was followed by the patient (17.2%) and senior personnel or another healthcare professional, respectively (the rate was 2.8% for both) in this study. Those who used violence against healthcare professionals were mostly the patients and their family (Buyukbayram and Okcay, 2013). The reason for this is that the patient's family see their patient as more urgent and have higher expectations. In the literature, there are several studies that placed the patient's family using violence on top, which is consistent with this study, and those studies include Kahriman (2014) (24.2%), Nart et al. (2014) (45.1%), Akca et al. (2014) (45,5%), Akbas et al. (2016) (57.5%) and Bahar et al. (2015) (60.2%).

Although many studies have found that the highest rate for using violence is observed in the healthcare sector, it is interesting that reporting violence has the lowest level. What those studies have in common is that only severe events such as bodily injury are regarded as violence, and other events are neglected, or even perceived as a requirement of the profession. In addition, lack of managerial support or problems with reporting procedures is also emphasized (Buyukbayram and Okcay, 2013; Estryn-Behar et al., 2008; Sahin et al., 2011; Elbek and Uslu, 2013). 44.0% of participants in this study stated that they reported the violence they were subjected to. In their study, Gunaydin and Kutlu (2012) indicated that only 3.4% of nurses reported the event after violence. The studies suggest that healthcare professionals are usually hesitant to report the violence used against them with a concern whether or not to receive support. However, the rate for reporting after a physical assault was reported to be higher than that of verbal assault (Al et al., 2012). A study concluded that no administrative or judicial actions are taken for the victims of violence (Akca et al., 2014). The study performed by Akbas et al. (2016) reported that the rate for those who did not react and continued what they were doing after violence was 80.9%, the rate for those who resorted to a remedy was 10.0%, the rate for those who reported to the police force was 16.1%, and the rate for those who reported to management was 28.1%. Bahar et al. (2015) reported a number of rates including the rate for taking a statement down with 42.2% and the rate for not reporting with 47.8%. In the study by Vural et al. (2013), the rate for reporting to judicial authorities was 19.5% while 85.6% of participants did not resort to any judicial units after being exposed to violence in the study by Cicek Durak et al. (2014). To prevent violence against healthcare professionals in Turkey, the important steps include White Code and Hello 113 that are implemented by the Ministry of Health, establishment of Employees' Security Units, and the "Regulation on Principles and Procedures for Legal Assistance for Crimes against Personnel of Ministry of Health" (Attar, 2017).

As provided in Table 2, the cause for violence reported by the participants included low cultural level of society (71.4%), insufficient laws and regulation on violence (55.6%), inadequate security services in institution (53.7%), lack of support from hospital officers (46.0%), delay in response (36.0%), inadequate care for the patient (31.4%), and insufficient treatment (24.4%). The studies reported that assaults rather occurred when the service was insufficient, the patient was admitted unwillingly, or an attempt was made by the healthcare worker to restrict eating, drinking, smoking or alcohol intake (Picakciefe, 2014). In his study, Celebi (2016) stated that 61.6% of participants reported aggressiveness-assaultiveness of society and %42.4 reported low education level of family and society as the cause of violence. Ozturk and Babacan (2014) identified impatience (85%) and lack of care for the patient (43%) as the cause of violence.

In the present study, a difference was made by being exposed to any type of violence during the term of office in those who were between the ages of 26 and 35 years, married, graduated from Health Vocational High School, and had a term of office less than 5 years. Incapability of healthcare professionals with a low term of office and low education level to coop with aggressive actions, communicate or manage crisis increase the rate for being subjected to violence (Buyukbayram and Okcay, 2013; Gillespie et al., 2010). Cicek Durak et al. (2014) found that under 25 years of age and the emergency service workers were found to have higher rates of exposed violence. It is detected that women and non-workers of the emergency room are exposed to less physical violence. Kahriman (2014) found that the nurses (81.8%) being exposed to physical violence by patients were mostly in the 30-39 age group, and reported a statistically significant difference between the age groups and being exposed to physical violence. From the perspective of gender variable for using violence against healthcare professional, several studies reported that male healthcare workers (Eker et al., 2011; Franzet et al., 2010; Dursun, 2012) were exposed to violence more frequently, and the others reported that female healthcare workers were exposed to violence more frequently (Abbas et al., 2010;

Akca et al., 2014; Bilisli and Hizay, 2016). Among the studies investigating the relationship between the education level and the occupational violence, the studies (Gunaydın &Kutlu, 2012; Sahin et al., 2011; Estryn-Behar et al., 2008) indicated that those with lower education level were highly likely to be exposed to violence, and several studies showed that education level was not important (Camci and Kutlu, 2011).

According to the results of the chi-square test, the difference between the gender of participants and the rate for reporting the violence to the competent authority was statistically significant. Atik (2013) concluded that 28.6% of women reported the violence to a competent authority after being exposed to violence but 71.4% did not report, 10.1% of men reported and 89.9% did not report to any competent authority.

5. IMPLICATIONS FOR PRACTICE

This study suggests that only one of every four healthcare professionals felt safe in the workplace. It was reported that violence rather occurred during the day shift. The rate for reporting/not reporting the violence is half and half. Approximately, one of every 8 healthcare professionals finds themselves to play a role in the violence. Four of every 5 healthcare professionals consider that violence cannot be prevented.

A safe and violence-free environment should be provided for healthcare professionals, and support for coping skills should be provided them.

ACKNOWLEDGMENT

The authors declare no conflict of interest.

REFERENCES

Abbas, M.A., Fiala, L.A., Abdel Rahman, A.G., Fahim,. AE. (2010). Epidemiology of workplace violence against nursing staff in Ismailia Governorate, Egypt. J Egypt Public Health Assoc, 85, 29-43.

Akbas, M., Boz, A., Dursun, A., Cetin, S., Kilicaslan, A. (2016). Determination of exposure status to violence of 112 employees and their behavior towards violence, DEUHFED, 9(3), 93-100.

Akca, N., Yilmaz, A., Isik, O. (2014). Violence applied to health employees: an example of a private medical center, Ankara Health Services Journal, 13(1), 1-12.

Al, B., Zengin. S., Deryal, Y., Gokcen, C., Arı Yilmaz, D., Yildirim,(2012). C. Increased violence towards health care staff, JAEM, 11, 115-124.

Annagur, B. (2010). Violence towards health care staff: risk factors, aftereffects, evaluation and prevention, current approaches in psychiatry, 2(2), -161-173.

Atan, S.U., Donmez, S. (2011). Workplace violence against nurses, Journal of Forensic Medicine, 25(11), 71-80.

Atik, D. (2013). Examination of the phenomenon of violence towards health workers in the case of a state hospıtal, NWSA-Medical Sciences, 8(2), 1-15.

Attar, G.E. (2017). Violence towards Physicians in Turkey: A Grounded theory analysis, Turkish Journal of Sociology 37(1), 157–178.

Bahar, A., Sahin, S., Akkaya, Z., Alkayis, M. (2015). Investigation of effects of exposure to violence and affecting factors on job satisfaction of emergency nurses, Journal of Psychiatric Nursing, 6(2), 57–64.

Bickici, F. (2013). Violence against health care workers and factors that cause violence an example of a public hospital, Health Performance and Quality Journal, 5(1), 43-56.

Bilisli, Y., Hizay, D. (2016). Violence against healthcare workers in workplace: A case of unıversıty hospıtal, International Journal of Social Science, 52, 473-486.

Buyukbayram, A., Okcay, H. (2013). The socio-cultural factors that affect violence in health care personnel, Journal of Psychiatric Nursing, 4(1), 46-53.

Camci, O., Kutlu, Y. (2011). Determination of workplace violence toward health workers in Kocaeli, Journal of Psychiatric Nursing, 2, 9-16.

Celebi, I. (2016). The condition of being exposed to violence of medical staffs working in 112 emergency medical service stations in çanakkale and ıts impact on burnout syndrom, Prehospital Journal, 1(2), 1-13.

Chen, W..C, Hwu, H.G., Kung, S.M., Chiu, H.J., Wang, J.D. (2008). Prevalence and determinants of workplace violence of health care workers in a psychiatric hospital in Taiwan. J. Occup. Health, 50, 288-293.

Cicek Durak, T., Yolcu, S., Akay, S., Demir, Y., Kilicaslan, R., Degerli, V., Parlak, I. (2014). Investigation of violence incidents by the patient or patients' relatives directed towards the health care professionals in Bozyaka Training and Research Hospital, Journal of General Medical, 24, 130-137.

Doganay, İ. (2014). Alo-113-White Code: Vulnerability of health care workers working in emergency health services and suggested solutions, Journal of Health Academiscian's, 1(2), 136-140.

Durmaz, H., Korkmaz, T., Okanli, A. (2016). Nurses' exposure to violence and their level of knowledge on the signs of violence against women nurses, International Refereed Journal of Nursing Research, 7(2), 1-15.

Dursun, S. (2012). The effect of workplace violence on employees' level burnout: an application on health sector, Journal of Labour Relations, 3, 105–115.

Eker, H.H., Topcu, I., Sahinoz, S., Ozder, A., Aydin, H. (2011). Violence frequency in a research and training hospital, Bidder Medical Sciences Hournal, 3(3), 16-22.

Elbek, O., Uslu, E. (2013). Analiz: Report of the parliamentary research commission established in order to determine the measures to be taken by investigating the increasing violence incidents for health workers, Thorax Bulletin, 2013: 52-56.

Elmas, S., Basturk, S., Catak, B. (2013). Frequency of verbal and phyical violence against healthcare workers at family health centers, Sted, 22 (1), 14-19.

Estryn-Behar,. M, Van der Heijden, B., Camerino, D., Fry, C., Le Nezet, O., Conway, P.M., et al. Violence risks in nursing-results from the European 'NEXT' Study. Occup Med (Lond), 58, 107-14.

Franz, S., Zeh, A., Schablon, A., Kuhnert, S., Nienhaus, A. (2010). Aggression and violence against health care workers in Germany-a cross sectional retrospective survey, BMC Health Serv Res, 10, 51.

Fujita, S., Ito, S., Seto, K., et al. (2012). Risk factors of workplace violence at hospitals in Japan, J Hosp Med, 7, 79-84

Gascón, S., Martínez-Jarreta, B., GonzálezAndrade, J.F., et al. (2009). Aggression towards health care workers in Spain: a multi-facility study to evaluate the distribution of growing violence among professionals, health facilities and departments, Int J Occup Environ Health, 15(1), 29-35.

Gillespie, G.L., Gates, D.M., Miller, M., Howard, P.K. (2010). Workplace violence in healthcare settings: risk factors and protective strategies, Rehabil Nurs, 35, 177-184.

Grand National Assembly of Turkey (2013). Report of the parliamentary research commission established for the purpose of determining the measures to be taken and investigating the increasing violence against health workers. January 2013; Legislative Period: 24; Legislative Year: 3; Number of Row: 454 Available from: 16.08.2017 http: // www. academia.edu/3654719

Gunaydın, N., Kutlu, Y. (2012). Experience of workplace violence among nurses in health-care settings, Journal of Psychiatric Nursing, 3, 1-5.

Hills, D.J., Joyce, C.M., Humphreys, J.S. (2012). A national study of workplace aggression in Australian clinical medical practice, Med J Aust, 197(6), 336-340.

Hodgson, M.J., Reed, R., Craig, T., Murphy, F., Lehmann, L., Belton, L., Warren, N. (2004). Violence in healthcare facilities: lessons from the Veterans Health Administration, J Occup Environ Med, 46(11), 1158-1165.

Kahriman, I. (2014). Determination of the Situation of exposedto verbal and physical violence of nurses, Journal of Psychiatric Nursing, 5(2), 77-83.

Keser Ozcan, N., Bilgin, H. (2011). Violence towards healthcare workers in Turkey: A systematic Review, J Med Sci, 31.

Lipscomb, J.A., London, M., Chen, Y.M., Flannery, K., Watt, M., Geiger-Brown, J., Johnson, J.V., McPhaul, K. (2012). Safety climate and workplace violence prevention in state-run residential addiction treatment centers, Work, 42, 47-56.

Nart, S. (2014). The relation between workplace violence burnout and job satisfaction: A study on health workres, Journal of Management and Economics Research, 23, 248-268.

Nau, J., Halfens,. R, Needham, I., Dassen, T. (2009). The de-escalating aggressive behaviour scale: Development and psychometric testing, J Adv Nurs, 65,1956-1964.

Ozturk, H., Babacan, E. (2014). Violence applied to health personnel working at hospitals by patients/their Relatives: The causes and factors regarding violence, Journal of Health and Nursing Management, 2(1), 71-80.

Picakciefe M. (2014). Violence and frekans against healthcare workers, Turkey Health Report 2014, 461-467.

Pinar, T, Pinar, G. (2013). Healthcare Workers and Workplace Violence, TAF Prev Med Bull, 12(3), 315-326.

Sahin, B., Gaygisiz, Ş., Balcı, F.M., Ozturk,. D et al. (2011). Violence against allied healthcare personnel in an emergency department, Tr J Emerg Med, 11, 110–114.

Saines, C. (1999). Violence and aggression in A&E: Recommendations for action, Accid Emerg Nursing, 7(1), 8-12.

Schablon, A., Zeh, A., Wendeler, D., Peters, C., et al. (2012). Frequency and consequences of violence and aggression towards employees in the German healthcare and welfare system: a cross-sectional study, BMJ, 2(5), 18.

Serin, H., Serin, S., Bakacak, M., Olmez, S. (2015). Violence towards health care staf, Journal of Continuing Medical Education, 24(3), 109-114.

Unsal Atan, S., Donmez, S. (2011). Workplace violence against nurses, Journal of Forensic Medicine, 5, 1.

Vural, F., Ciftci, S., Dura, A., Vural, B. (2013). Violence towards healthcare staff at emergency departmant of a public hospital: the rate of reported events of violence, TAHUD, 17(4), 147-152.

Winstanley, S., Whittington, R. (2004). Aggression towards health care staff in a UK general hospital: Variation among professions and departments, J Clin Nurs, 13(1), 3-10.

World Health Organization (WHO). Violence against health workers Available from: 17.08.2017. http://www.who.int/violence_injury_prevention/violence/workplace/en/

Yakut, H.I., Yalçın Burhan, B., Ciftci, A., Orhan M.F. (2012). Physical abuse and security in health workplace: A Study from Ankara Children's Hematology and Oncology Training and Research Hospital, Turkish J. Pediatr. Dis, 6(3), 146-154.

Yesilbas , H.A. (2016). General overview of violence in healthcare, Journal of Health and Nursing Management, 1(3), 44-54.

Yigitbas, C., Deveci, S.E. (2011). Mobbing towards health workers. Turkish Journal of Occupational Health and Safety, 42, 23-28.

REVİEW ARTİCLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

NUTRITIONAL CHANGES AND NURSING CARE IN INTENSIVE CARE PATIENTS

Beliz YEKELER KAHRAMAN[1]

Nuray ENÇ[2]

ABSTRACT

One of the routine treatments applied in intensive care units is nutritional support. The group that benefits most from nutritional support is patients with malnutrition. Enteral feeding is the first feeding route that should be preferred in the nutritional support of intensive care patients. However, for any reason, when the nutritional needs can not be met by enteral route alone, parenteral feeding is to be used. The success of nutrition and minimizing the complications are ensured by proper nursing care. This study includes current nutritional approaches for intensive care patients.

Keywords: Intensive care, Enteral nutrition, Parenteral nutrition, Nursing

A R T I C L E I N F O

[1]Lecturer, Vocational School of Health, Gümüşhane Universty, TURKEY

yekeler_beliz@hotmail.com

Orcid Number: https://orcid.org/0000-0003-3063-16588

[2]Prof. Dr., İstanbul Universty, Florence Nightingale Nursing Faculty, TURKEY

nuray.enc@istanbul.edu.tr

Orcid Number: https://orcid.org/0000-0002-2219-9124

Recieved: 03.04.2019 Accepted: 29.04.2019

Cite This Paper: Yekeler Kahraman, B. (2019). Nutritional Changes and Nursıng Care in Intensive Care Patients. Journal of International Health Sciences and Management, 5(8): 19-25.

The common feature seen in almost all of the inpatients in intensive care units is that their homeostasis is disrupted in some way (Dikmen, 2004). Malnutrition is an important problem that is seen in about 40% of these patients. Complications such as nosocomial infection and multiple organ failure cause morbidity, increase in mortality and prolongation of stay in the intensive care unit (Chan et al, 1999; Delgado et al, 2000; Moral & Uyar, 2011).

Artificial nourishment became an integral part of the patient treatment in consequence of detection in various studies published towards the end of the 1960s that nutritional support reduces the incidence of complications. Therefore, prevention and treatment of nutritional deficiencies in intensive care patients have an important role (Moral & Uyar, 2011; Şahinoğlu, 2003; Heidegger et al, 2008).

When the patient first arrives intensive care, he/she may have malnutrition or malnutrition may develop resulting in a metabolic response to the disease. Proper use of nutritional support in patients with or at risk of malnutrition may prevent increase in complications (Kreymanna, 2006). The consequences of poor nutritional support situations play also a significant role in the prognosis of the patient. These cause weight loss after fat and muscle tissue loss, deterioration of immune system, increase in risk of infection, decrease in albumin level, edemas in result of blood oncotic pressure, delay in wound healing, surgical incision, complications in suture and anastomosis, gastrointestinal disturbances, muscle weakness, cardiac output, myocardial infarction contractility and compliance decrease, metabolic acidosis, impaired pulmonary function, difficulties in transition to spontaneous ventilation in patients with ventilator support (Moral & Uyar, 2011; Tayek et al, 2011; Waitzberg & Correia, 2003). Preventing or treating malnutrition can make significant saving by avoiding unnecessary treatment costs, reduce hospital morbidity and increase life span (Elia et al, 2010).

In the treatment of the patient, assessment of the nutritional status and the determining of factors such as nutritional deficiency and metabolic stress that will result in nutritional deficiency, take an important place. Nutritional support is seen as life-saving treat to reduce catabolism, meet protein energy requirement and maintain fluid electrolyte balance in critically ill patients (Dikmen, 2004; Gündoğdu, 2008). Therefore, US and European Parenteral and Enteral Nutrition (ASPEN-ESPEN) nutrition guidelines recommend transition to artificial feeding within 24 or 24-48 hours to prevent malnutrition development in critically ill patients who cannot receive oral nutrition (Singer et al, 2009).

The main indication of parenteral nutrition is patients with intestinal failure table. It is also a preferred route for patients who cannot be fed by oral or enteral route. The osmolals of parenteral nutrition solutions are 3-8 times of the serum and hypertonic. Infusion of these solutions into small vessels or low-flow velocity vessels causes vascular damage, thrombosis. While subclavian vein is often preferred, internal juguler vein, basilar vein, axillary vein can be used. Peripheral veins can also be benefited for short-term feeding (Şahinoğlu, 2003; Singer et al, 2009; Gossum et al, 2015).

The success of nutrition and minimizing the complications are ensured by proper nursing care. High- flow velocity vessels should be preferred for the risk of vessel damage. Infusion sets used for nutrition are similar to sets used for intravenous infusion. It is recommended that these sets be replaced every day if lipid containing solutions are used and every 2-3 days if lipid-free solutions are used (Singer et al, 2009; Gossum et al, 2015; Gillies et al, 2005). Drug applications, blood and blood products should not be transfused and blood should not be taken through the catheter. Every 4-6 hours, vital signs and blood sugar should be followed up. If the parenteral nutrition application is to be terminated, the solutions should not be cut off immediately and the infusion velocity should be terminated by slow decreasing (Singer et al, 2009).

Early (<24 hours) enteral feeding should be initiated with nutrients in the appropriate amount for critically ill patients who are hemodynamically stabile and have active gastrointestinal system. The amount of enteral feeding is adjusted according to intestinal tolerance and course of illness. There is no need for additional parenteral feeding in patients who tolerate enteral feeding and can feed according to their target values (Kreymanna, 2006).

To the 2010 nursing law, intensive care nurse specifies the nutritional requirements (enteral and parenteral nutrition) of patients, plans nursing care according to their needs and provides continuity of sterilization of appliances used for nutrition (Republic of Turkey Ministry of Health, 2011). As stated in the regulation, nurses are responsible for meeting the nutritional requirements of the patients. When the doctor decides the patient to get enteral feeding, the role of the nurse varies according to the hospital policies, in addition he/she in charge of inserting nasal feeding tube into the patient, nutrition tube maintenance, giving the recommended nutrients to the patient, following gastric residual volume, giving 20-25 cc of water before and after each feeding and prevention of complications (Gündoğdu, 2008; Uysal et al, 2011; Persenius, 2006).

Nasogastric tube is enough for short-term feeding, such as four to six weeks. Before each feeding, coughing, vomiting, aspiration may also cause the wrong placement of the nasogastric tube. That's why, the nurse should regularly check the position of the tube (Uysal et al, 2011; Singer, 2015; Gürkan & Gülseven, 2013). If enteral feeding is planned for more than 4-8 weeks, percutaneous endoscopic gastrostomy (PEG) is recommended against nasogastric tuber. The risk of aspiration isn't reduced with PEG. But PEG is recommended for an agitated patient who removes the tube and/or a patient in vegetative state (Singer, 2015).

Preventable complications (tube blockage or displacement, vomiting, diarrhea, aspiration pneumonia, dehydration, etc.) may occur in case nurses fail to provide adequate care for enteral fed patients. That's why, the implementation of enteral feeding practices according to evidence-based practices is extremely important in terms of improving the quality of nursing care (Singer, 2009; Uysal, 2011; Singer, 2015; Gürkan & Gülseven, 2013) .

Enteral nutrition method is among the preventable risk factors of ventilator-associated pneumonia (VAP) that is one of the important hospital infections seen in intensive care units. And in evidence-based practices, it carries the value of evidence at A level. Enteral feeding protocols showed a reduction in pneumonia rates from 6.8 to 3.2 in 1000 ventilator days (Saltoğlu, 2008). To reduce risk of developing VAP; nurses should frequently wash their hands (at every feeding and earlier on), be careful to have the patient's head upright, feed in continuous infusion way instead of bolus style feeding, frequently check the position of the tube.

The responsibility of nurses is primarily to prevent complication developing, to recognize and interpret the changes over the patient when complication develops, inform the doctor by taking necessary precautions. In this context, nursing care, which has a key role in the success of enteral nutrition, should be facilitating nutrition, enhancing patient comfort and reducing complications. Since the bands used for the feeding tube's attachment to nose may cause irritation of the skin, the area should be rotated as the nose is detected. It is recommended to measure gastric residual volume at 6-8 hours intervals in patients who are fed continuously, before each feeding meal in patients who are fed intermittently. The injector used to measure the gastric residual volume should be replaced aonce in 24 hours, kept dry, and not left dirty after application. To prevent infection development, the feeding set should be changed once in 24 hours and the set change date should be recorded on the nurse follow-up form. Food used in the feed should be stored in the refrigerator after opening, not kept more than 4 hours in the room temperature. In order to prevent cramping, distension of the patient while waiting, food

should be given to the patient by keeping it in the room temperature for a while after removing it from the fridge. After all feedings, it is important to prevent blockage of the tube via giving water to the patient. Solid drug delivery from the supply tube is not recommended. If it is extremely necessary, the drug should be thoroughly crushed and diluted with 30 cc of water. Before and after the procedure, the tube should be washed again with 30 cc of water (Uysal, 2011; Bankhead et al, 2009; Williams & Leslie ,2005).

As a result, parenteral feeding should be given alone when only enteral feeding is not possible and parenteral feeding should be used additionally if enteral feeding can not be tolerated when it is given enough to meet the needs. In most studies, for critical patients, gastrointestinal surgery and oncology patients have achieved better results than parenteral nutrition alone, by enteral feeding or parenteral feeding in addition to enteral feeding. In both cases, parenteral feeding is seen as an addition to enteral feeding, and therefore, the two methods are complementary to each other instead of alternatives (Gossum, 2015; Kreymanna, 2006). It is important that all nurses follow evidence-based practices in their daily care, use them in their care, and make provable study or contribute to these studies.

REFERENCES

Bankhead, R., Boullata, J., Brantley, S., Corkins, M., Guenter, P., Krenitsky, J., Lyman, B., Metheny, N.A., Mueller, C., Robbins, S., Wessel, J., (2009). Enteral nutrition practice recommendations. Journal of Parenteral and Enteral Nutrition 33 (2): 122-167.

Delgado AF, Kimura HM, Cordoso AL, Uehara D, Corrazza FR., (2000). Nutritional follow-up of critically ill infants receiving short term parenteral nutrition. Rev Hosp Clin Fac Med Sao Paulo; 55: 3-8

Dikmen Y. (2004). Nutrition in Intensive Care Conditions. IU Cerrahpaşa Medical Faculty Continuous Medical Education Activities . Nutrition in Health and Illness, Symposium Series No: 41; Page:103-111

Elia, M., Russell, CA., Stratton, RJ. (2010). Malnutrition in the UK: policies to address the problem. Proc Nutr Soc; 69: 470-6.

Gillies D, O'Riordan L, Wallen M, Morrison A, Rankin K, Nagy S, (2005). Optimal timing for intravenous administration set replacement. Cochrane Database Syst Rev; 19 (4): CD003588

Gossum A.V., Ballarin A., Lievin V., (2015). http://kepan.org.tr/files/pdf/LLL_Kurs/T9_2_metin.pdf Access Date: 20.01.2018

Gündoğdu HR. (2008). Principles of Nutrition Support Treatment in Intensive Care Patient Intensive Care Magazine; 8 (1): 5-21

Gürkan A., Gülseven B., (2013). Enteral Nutrition: Current Approaches in Care. Journal of Anatolia Nursing and Health Sciences;; 16: 2

Heidegger CP, Darmon P, Pichard C., (2008). Enteral vs. parenteral nutrition for the critically ill patient: a combined support should be preferred. Current Opinion in Critical Care; 14:408-14

Chan S, Mc Cowen K, Blackburn GL., (1999). Nutrition management in the ICU. Chest, 115 (5): 145-148

Kreymanna K.G., Bergerb M.M., Deutzc N.E., Hiesmayr M., Jolliet P., Kazandjiev G., Nitenberg G., van den B.G., Wernerman J., DGEM (German Society for Nutritional Medicine), Ebner C., Hartl W., Heymann C., Spies C., (2006). ESPEN Guidelines on Enteral Nutrition: Intensive care. Clinical Nutrition 25, 210-223

Moral AR, Uyar M., (2011). Nutrition in Intensive Care Patients. Şahinoğlu H, Ed. Intensive Care Problems and Treatments. Nobel Medical Bookstores; 3rd Edition, Page: 525-542

Persenius MW., Larsson BW., Hall-Lord M., (2006). Enteral nutrition in intensive care nurses perceptions and bedside observations. Intensive and Critical Care Nursing; 22: 82-94.

Republic of Turkey Ministry of Health. (2011). Regulation on the Amendment of the Nursing Regulation. Official Gazette No. 27515,

Şahinoğlu AH. (2003). Intensive Care Problems and Treatments. Nobel Medical Bookstores; 3 rd Edition, Page:251-80

Saltoğlu, N. (2008). Prevention and Control of Ventilator Associated With Pneumonia. İ.U. Cerrahpaşa Medical Faculty Continuous Medical Education Activities. Hospital Infections: Prevention and Control Symposium Series No: 60 January; p.89-103

Singer P. (2015). http://kepan.org.tr/files/pdf/LLL_Kurs/T18_2_metin_yeni.pdf Access Date: 20.01.2018

Singer P., Berger M.M., Van den B.G., Biolo G., Calder P., Forbes A., Griffiths R., Kreyman G, Leverve X., Pichard C., (2009). ESPEN Guidelines on Parenteral Nutrition: Intensive Care. Clinical Nutrition, 28, 387-400

Tayek JA. Nutrition. Bongard FS, Sue DY, Vntch JRE, Ed., (2011). Intensive Care Diagnosis and Treatment. Lange Medical books, Güneş (Sun) Medical Bookstores; 3rd edition. Page: 117-134

Uysal N., Eşer İ., Khorsıd L. (2011). Examination of Practice and Records for Enteral Nutrition Process of Nurses. Journal of Anatolia Nursing and Health Sciences; 14: 2

Waitzberg DL, Correia MI., (2003). Nutritional assessment in the hospitalized patient. Curr Opin Clin Nutr Metab Care; 6: 531-8.

Williams TA, Leslie GD., (2005). A review of the nursing care of enteral feeding tubes in critically ill adults: Part II. Intensive and Critical Care Nursing 20: 330-343.

RESEARCH ARTİCLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

A RESEARCH ON PUBLIC HOSPITAL ASSOCIATION MANAGEMENT SYSTEM IN TURKEY

Sedat BOSTAN[1]

Gökhan AĞAÇ[2]

ABSTRACT

This study searches the impact of the Public Hospitals Association (PHA) structuring in the on the performance of hospital services. Based on the research findings, it has targeted to discuss the relation between the system change and hospital performances.

The research was made from on the inputs and outputs of eight hospitals connected to the PHA structuring in metropolitan status and three private hospitals and one university hospital in the same province. Malmquist productivity index (MPI) technique was used in order to analyze the total factor productivity (TFP) in the study.

In consequence of the study, it was determined that the PHA structuring provided an increase in the efficiency in hospitals with more than 150 beds but it did not provide any change in district hospitals. It was observed that hospital performance values did not support the decision to change the PHA management system.

Keywords: Public Hospitals, Public Hospitals Association, Performance, Malmquist Productivity Index

A R T I C L E I N F O

[1]Assoc. Prof. Dr. Ordu University/ Faculty of Health Sciences/Department of Health Management /Ordu/Turkey
sbostan29@gmail.com
Orcid Number: https://orcid.org/0000-0002-9439-8448

[2] Research Assistant Gümüşhane University/ Faculty of Health Sciences/Department of Health Management /Gümüşhane/Turkey
gokhanagacc@gmail.com
Orcid Number: https://orcid.org/0000-0002-4753-4689

Recieved: 19.03.2018 Accepted: 26.04.2019

Cite This Paper: Bostan, S., Ağaç, G. (2019). A Research on Public Hospital Association Management System in Turkey. Journal of International Health Sciences and Management, 5(8): 26-36.

1. INTRODUCTION

In consequence of the Health Transformation Program (HTP) which was actualized between 2002-2012 in Turkey, important changes were actualized in the organization, finance, and offering of the health services. Family medicine system is being implemented. General health insurance was established. Non-premium health insurance was combined with this system. A significant part of the changes made progressively was actualized within the treatment services. Public hospitals except for university hospitals are connected to the Ministry of Health (MoH). Public hospitals are designed to be managed by the "Public Hospitals Association (PHA)". The legal regulation of PHA was made in 2011 (“DL no. 663,” 2011) and started to be implemented in 2012. PHA's implementation lasted six years. In 2017, PHA was removed by a new legal regulation (“DL no. 694,” 2017).

Prior to PHA, public hospitals worked in the Ministry of Health, under the General Directorate of Treatment Services and the Provincial Health Directorate in the provinces. The chief physician administered public hospitals. The hospital director and the head nurse were administered by the chief physician. Public hospitals institution was established with the new regulation. In the provinces, the PHA General Secretaries was formed in 2012. These structures were autonomous. Hospitals were appointed to hospital director. Chief physician was the manager of medical services.

Thus, the public hospital management system was made autonomous. PHA was a holding type structure. The general secretary of the PHA was like a kind of CEO. The Secretary-General of the PHA was the highest and autonomous manager of self-connected hospitals in that province. The Secretary General was coordinating the financial, administrative and medical services of the hospitals. The Secretary General was responsible for success or failure. This change was expected to improve the efficiency of public hospitals. Managers in the public hospital system were working based on performance. Performance measurements were made every year. According to law, the performance of managers with low performance would be terminated. Although some problems were expressed in the routine, system was operating. The new system had designed the three-headed health management. Provincial Health Director, Public Hospitals Association, Directorate of Public Health. Especially this structure was criticized.

In the seventh year of the application of the PHA system, the system was suddenly abandoned. A new legal arrangement was made. The system has largely returned to its previous state. What

effect did the PHA management system have on health services and hospitals? This question was not on the agenda. Has PHA structured increased hospital productivity as expected? The PHA system disappeared in the fast-changing country agenda.

This study was produced from a scientific research project. The project was carried out in order to determine how the changes made in the management structure of the MoH hospitals by the name of PHA with the Decree Law (DL) no. 663 and its effects to the health service stakeholders and the hospital service outputs. This study included the analysis of the hospital output of the project with the Malmquist TFP index technique. The main purpose of the project was to analyze the stakeholder evaluations and outputs of the new PHA system. But unexpectedly, policymakers has abandoned from the PHA system in the process of preparing for publication after the project was finished. With the new amendment they made with the DL no. 694, they returned to a similar system to the pre-PHA system. Thus, this study realized the purpose to determine how PHA structuring reflects on the hospital performance, numerical indicators, before the changes was made by the DL no. 694. Today, this work has also become important in the sense of knowing that, at least in its own universe, the system has been altered to have an effect on the performances of hospital service displays. Therefore, it is hoped that this study will contribute to the meaning of the system change, to the sector decision makers, the practitioners and the theoreticians.

2. METHOD

In the literature, in many studies, Malmquist Index (MI) technique was used to measure the performance of hospitals (Kirigia et al., 2008; Pilyavsky and Staat, 2008; Ng, 2011; Ferreira and Marques, 2015; Zhang et al., 2017). Therefore, this study used this technique in the efficiency analysis of hospitals. MPI which is a Data Envelopment Analysis technique was used in order to analyze the TFP in the study (Färe et al., 1992; Färe et al., 1994).

As the DMUs, 13 general hospitals operating in the province of Trabzon were determined. There are 4 public hospitals with 150 and more beds capacity connected to the secretariat of public hospitals, 4 public hospitals with less than 150 beds capacity, 3 private hospitals and 1 university hospital among the hospitals determined. The reason why the public hospitals are separated with the 150 beds limit is the hospitals with less than 150 beds being district hospitals.

In the selection of the working years, the year 2012 was taken as a base because it was the last year before the structuring of the PHA came into force. The years 2013, 2014 and 2015 were

used in the determination of how the management system change was reflected in the services according to this year.

The input and output variables of the model approached in the study were prepared by the authors of the study paying regard to the data obtained considering the study conducted by Şahin (2009). Four variables which are Number of the Doctors, the Number of the Nurses, the Number of Other Medical Staff and the Number of Beds were determined as input. Three variables which are the Number of the Patients Having Ambulatory Treatment, the Number of Operations Made and the Proportion of the Occupation of the Beds were determined as output.

The data of the study were taken from General Secretariat of Trabzon Public Hospitals Association. The data of 2012 before the structuring and the data of the 2013-15 period for the time after the structuring were worked for the analysis. The variable of the Number of Operations among the data obtained was procured in a discrete way according to A, B, C and D categories (Büyükkayıkçı & Şahin, 2000). An output based approach was adopted in the study. DEAP 2.1 package software developed by Coelli (1996) was used for analyzing the data.

3. RESULTS

Firstly, some definitive statistical analyses (arithmetic average, minimum and maximum) of the inputs and outputs determined for the 2012-15 period were made. The findings are given in Table 1.

Table 1: Definitive Statistics for the Input and Output Variables

Year	Statistics	Input Variables				Output Variable		
		X1	X2	X3	X4	Y1	Y2	Y3
2012	Average	98	200	202	242	363049	2607	73,2
	Standard Deviation	159	188	113	244	273194	3483	19,0
	Minimum	13	60	52	69	150760	137	40,8
	Maximum	596	667	357	780	1111064	12718	101,3
2013	Average	95	201	205	240	374594	2689	68,1
	Standard Deviation	158	174	126	217	283674	3217	16,9
	Minimum	12	63	56	61	133915	300	28,3
	Maximum	593	603	440	780	1155538	11764	93,8
2014	Average	93	202	212	231	388888	3027	77,4
	Standard Deviation	151	174	123	217	277388	3517	20,1
	Minimum	16	61	56	61	130251	354	37,8
	Maximum	569	585	437	780	1098770	11766	107,4
2015	Average	96	208	206	227	385337	2579	82,2
	Standard Deviation	147	186	122	219	265625	3843	24,9
	Minimum	18	64	60	61	141409	370	41,7
	Maximum	556	618	443	780	1042391	14461	126,9

Moreover, in addition to the definitive statistical information, change rates of all variables according to the year 2012 as per cent were regarded (Table 2).

Table 2: Change Rates of the Input and Output Variables According to 2012 as Per Cent

Year	Input Variables				Output Variable		
	X1	X2	X3	X4	Y1	Y2	Y3
2013	-3,0	0,4	1,9	-1,1	3,2	3,1	-7,0
2014	-5,1	0,9	5,0	-4,8	7,1	16,1	5,6
2015	-2,7	4,1	2,4	-6,4	6,1	-1,1	12,2

According to Table 2, there is a decrease in the rates of 3,0 % and 1,1 % respectively in the number of doctors and beds for 2013. An increase in the rate of 0,4 % and 1,9 % respectively in the number of nurses and other personnel is seen. When the output variables for the same year are regarded, despite there is a decrease at the rate of 7,0 % in the value of bed occupation, there is an increase at the rates of 3,2 % and 3,1% in the number of ambulative treatments and operations. It can be said that the variables followed the trend of the previous year except for the rate of bed occupation for 2014. According to the table, when there is a decrease at the rates of 5,1 % and 4,8 % in the number of doctors and beds, an increase at the rates of 0,9 % and 5,0 % in the number of nurses and other personnel are observed. When the output variables are regarded, there is respectively 7,1 %, 16,1 % and 5,6 % increase in the variables of the number of the patients having ambulative treatment, number of operations and bed occupation rate. Finally, it was seen that the year 2015 resembled the previous year expect for the variable of number of operations. When the inputs and variables of one year were regarded, increases at the rate of 4,1 % and 6,4 % respectively were seen in the number of nurses and other personnel. Decrease at the rates of 2,7 % and 6,4 % in the number of doctors and beds was seen. Increase in the number of nurses and other personnel at the rates of 4,1 % and 2,4 % was determined.

The results of the TFP change (TFPC) and its components value for the 2012-15 period of the hospitals connected to the Turkish MoH and the other hospitals (university and private) are given in Table 3. Calculations according to both 2012 and the previous year were made while the analysis was being made. Moreover, the averages of the DMUs according to the efficiency types were calculated with geometric average.

Table 3: Efficiency Analysis Results of the Hospitals for the 2012-15 Period

Year	Hospitals	According to 2012 Year					According to the Previous Year				
		TEC	TC	PEC	SEC	TFPC	TEC	TC	PEC	SEC	TFPC
2013	≥ 150	1,071	1,092	1,079	0,993	1,169	1,071	1,092	1,079	0,993	1,169
	< 150	0,859	1,102	0,979	0,878	0,947	0,859	1,102	0,979	0,878	0,947
	A	1,000	0,783	1,000	1,000	0,783	1,000	0,783	1,000	1,000	0,783
	B	1,000	0,762	1,000	1,000	0,762	1,000	0,762	1,000	1,000	0,762
2014	≥ 150	1,113	1,217	1,057	1,053	1,354	1,039	1,156	0,980	1,060	1,201
	< 150	0,933	1,087	1,004	0,930	1,015	1,086	1,003	1,025	1,059	1,090
	A	1,000	0,858	1,000	1,000	0,858	1,000	1,052	1,000	1,000	1,052
	B	0,995	0,775	1,000	0,995	0,771	0,995	1,031	1,000	0,995	1,026
2015	≥ 150	1,067	1,060	1,033	1,032	1,131	0,958	0,820	0,978	0,980	0,785
	< 150	0,895	1,093	1,004	0,891	0,978	0,958	0,973	1,000	0,958	0,933
	A	1,000	1,024	1,000	1,000	1,024	1,000	1,160	1,000	1,000	1,160
	B	1,000	0,917	1,000	1,000	0,917	1,005	1,182	1,000	1,005	1,187

≥ 150 : Represents the public hospitals connected to the MoH with 150 and more beds capacity.
< 150 : Represents the hospitals connected to the MoH with 150 and less beds.
A, B : Represents the university hospitals or private hospitals.

When Table 3 is considered, it is seen that there is a 16,9 % increase in the TFP change values of the hospitals with 150 and more beds capacity for 2013 year. There is a 5,3 % decrease in the hospitals under this capacity. When the reason for the increase is regarded, it can be said that is because of the respectively 7,1 % and 9,2 % increase in the Technical Efficiency Change (TEC) and Technological Change (TC) values. As for this increase in the TEC value, it is seen that, despite the 0,7 % decrease in the Scale Efficiency Change (SEC), the 7,9 % increase in the Pure Efficiency Change (PEC) is effective. This situation means that the managerial structure offers more services with the present sources. When the reason of the decrease is regarded, it is seen that although the contribution of the TEC value to the TFPC value is 10,2 %, it is because of the 14,1 % decrease in the TC. It can be said that the factor which diminishes this sharp decrease is the contribution of the technology to the efficiency. It was seen that there was an increase in 2014 compared with 2012 and 2013 years. It was observed that the TFPC value of the hospitals with 150 and more beds capacity was 35,4 %. The change value of the hospitals under this capacity is 1,5 %. When compared to the previous period, it was seen that there was a 20,1 % change for the hospitals with 150 and more beds capacity and there was a 9 % change in the institutions under this capacity. When the factors caused the increase are regarded, hospitals with 150 and more beds become TC in the first degree with 21,7 % with the positive effect of the technology factor and they became TEC with 11,3 % value. When the factors of the TEC change are scrutinized, it can be said that both managerial skills and production at a suitable scale at the rate of 5 % are effective. The reason for the increase in the efficiency of

the hospitals with capacity under 150 is the increase in the TC value (8,7 %) in spite of the decrease in TEC (6,7 %). When they were analyzed for the last period, it was observed that the TFPC value of the institutions with 150 and more beds capacity increased at a rate of 13,1 % when compared to 2012 year. It was also observed that there was a 2 % decrease in the institutions under this capacity. In spite of these values, it was seen that the change when compared to the previous period decreased 21,5 % and 6,7 % respectively. When the reasons for this change are regarded, it can be said that it is because of the 16 to 18,7 % increase seen in the university hospitals or private hospitals.

Finally, the general average values of the hospitals connected to the MoH for the 2013-15 period from on efficiency kinds were calculated (Table 4).

Table 4: General Average Values of the Hospitals Connected to the MoH for the 2013-15 Period*

Hospitals	According to 2012 Year					According to the Previous Year				
	TEC	TC	PEC	SEC	TFPC	TEC	TC	PEC	SEC	TFPC
≥ 150	1,083	1,121	1,056	1,026	1,214	1,022	1,011	1,011	1,011	1,033
< 150	0,895	1,094	0,996	0,899	0,980	0,964	1,025	1,001	0,962	0,987
Average	0,975	1,106	1,022	0,953	1,078	0,989	1,019	1,006	0,983	1,008

≥ 150 : Represents the public hospitals connected to the MoH with 150 and more beds capacity.
< 150 : Represents the hospitals connected to the MoH with 150 and less beds.
***** : Calculated with geometric average.

When Table 4 was regarded, it was determined that there was a 21,4 % increase in the TFPC values of the hospitals with 150 and more beds capacity, a 2 % decrease was determined in the institutions under this capacity compared with 2012 year. When the change according to the previous year was analyzed, it was seen that there was a 3,3 % increase in hospitals with 150 and more beds capacity and a 1,3 % decrease was seen in institutions under this capacity. When the general average was regarded, although there was a lapse from the hospitals connected to the MoH to the university or public hospitals, there was an approximately 8 % increase in the TFPC value.

4. DISCUSSION

To summarize the research findings; when the year 2012 is taken as a base, the change rate of the public hospitals with over 150 beds connected to the association of public hospitals in the TFP has increased 16,9 % in 2012. It increased 35,4 % in 2014 and 13,1 % in 2015.

As the reason for the 16,9 % increase in 2013, it was said that the managerial structure served more with the present sources. It was observed that there were the positive effects of the technology factor in the first degree, effect of both the managerial skills and production at the

suitable scale were seen as the factors caused 35,4 % increase in 2014. When this rate was analyzed for 2015, it was determined that it had an increase which decreased when compared to the previous years with 13,1%. It was understood that the university hospitals and private hospitals earned back the patients they lost before considerably. The reason of this situation may be the increase in the service quality in the hospitals. Within the scope of the research, when the reasons of this decrease were discussed with the managers of the association and hospitals, the managers commented that it was because of the uncertainty of two general election processes in 2015. It can be said that public services have a sensitivity against political uncertainty.

The TFP of the public hospitals with less than 150 beds changed -5,3% in 2013, 1,5 % in 2014 and 2,2 % in 2015. No significant changes in the efficiency values of these hospitals can be explained with the narrowness of the service field explained in the method part, limited population and no competition environment.

Beylik et al. (2015) made the activity measurement of 88 PHA in the general of Turkey after the public hospital association structuring. In the study in which the DEA technique was used, 34% according to “Constant Return to Scale” (CRS) of PHA and 45% according to “Variable Return to Scale” (VRS) were found efficient. A similar study was also carried out by Yiğit (2016). Yiğit (2016) in the survey conducted throughout Turkey, has found out that 31% of PHA’s according to CRS and 46% according to VRS were efficient and the average efficiency score was 0,90. In order to compare this situation, the studies conducted before the construction of PHA (2012) was also examined. Şahin (2008) assessed the technical efficiency of 352 general hospitals over 50 beds which were connected to the MoH for the year 2006. According to the results obtained using the DEA technique, general hospitals were found to be 12% efficient compared to the CRS model and 23% efficient on the VRS model. The mean efficiency score of the study-included hospitals was 0,83.

According to the results of the research, Şahin (2008) was found that 12% of the MoH hospitals according to CRS model and 23% of the MoH hospitals according to VRS model were efficient before the PHA structuring. After PHA structuring Yiğit (2016) has calculated that 31% of MoH hospitals according to CRS and 46% of MoH hospitals according to VRS; Beylik et al. (2015) have calculated that according to CRS 34% of the MoH hospitals and according to VRS 45% of the MoH hospitals were efficient. In addition, the average efficiency score of the MoH hospitals was calculated as 0,83 before PHA by Şahin (2008) and 0,90 after PHA by Yiğit

(2016). The findings of these studies supports our work showing that the efficiency of the MoH hospitals increased after the PHA structuring.

5. CONCLUSION

In consequence of the research made in a province in metropolis status in order to determine the contribution of the PHA structuring on the efficiency of the hospital services, it was determined that there was a significant increase in the 2012- 2015 period especially in the efficiency of large hospitals. In small hospitals, the increase in productivity could not be determined. This can be explained by the fact that these hospitals are district hospitals. Since small hospitals are the only hospitals in the region, patient mobility is limited.

Efficiency increase in large hospitals can be said to increase the efficiency of public hospitals as intended by the PHA system. The underlying cause of the sudden replacement of the PHA system is out of hospital efficiency. The reason for changing the PHA system is political or different reasons. The PHA system was a model that could be developed in the management of public hospitals. Unfortunately, the PHA system did not have this opportunity. Again the old system is returned.

ACKNOWLEDGEMENT

We would like to thank Gümüşhane University, Scientific Research Project Unit, for supporting the project on 15.01.05.02.01.

REFERENCES

Beylik, U., Kayral, İ. H., & Naldöken, Ü. (2015). Sağlik Hizmet Etkinliği Açisindan Kamu Hastane Birlikleri Performans Analizi [Public Hospital Unions Performance Analysis in Terms of Health Care Services Efficiency]. *Cumhuriyet Üniversitesi Sosyal Bilimler Dergisi*, *39(2)*, 203–224.

Büyükkayıkçı, H., & Şahin, İ. (2000). SSK Ulus Hastanesi Cerrahi Servisinde Hasta Maliyetlerinin Sağlık Bakanlığı Fiyat Tarifesi ile Karşılaştırılması (The Comparison of Patient Cost in Surgical Services with Ministry of Health Price List). *Hacettepe Sağlık İdaresi Dergisi*, *5*(3), 119–145. https://doi.org/10.1590/S1516-18462008000300012

Coelli, T. (1996). A Data Envelopment Analysis (Computer) Program (DEAP). Retrieved December 19, 2017, from http://www.uq.edu.au/economics/cepa/deap.php

DL no. 663. (2011). Retrieved December 19, 2017, from http://www.resmigazete.gov.tr/eskiler/2011/11/20111102M1-3.htm

DL no. 694. (2017). Retrieved December 19, 2017, from http://www.resmigazete.gov.tr/eskiler/2017/08/20170825-13.pdf

Färe, R., Grosskopf, S., Lindgren, B., & Roos, P. (1994). Productivity Developments in Swedish Hospitals: A Malmquist Output Index Approach. In A. Abraham, W. W. Cooper, A. Y. Lewin, & S. M. Lawrence (Eds.), *Data Envelopment Analysis: Theory, Methodology and Application* (1st ed., pp. 253–2272). Boston: Kluwer Academic Publishers. https://doi.org/10.1007/978-94-011-0637-5

Färe, R., Grosskopf, S., Lindgren, B., & Ross, P. (1992). Productivity Changes in Swedish Pharamacies 1980-1989 : A Non-Parametric Malmquist Approach, *3*, 85–101.

Ferreira, D., & Marques, R. C. (2015). Did the corporatization of Portuguese hospitals significantly change their productivity? *European Journal of Health Economics*, *16*(3), 289–303. https://doi.org/10.1007/s10198-014-0574-8

Kirigia, J. M., Emrouznejad, A., Cassoma, B., Asbu, E. Z., & Barry, S. (2008). A performance assessment method for hospitals: The case of municipal hospitals in Angola. *Journal of Medical Systems*, *32*(6), 509–519. https://doi.org/10.1007/s10916-008-9157-5

Ng, Y. C. (2011). The productive efficiency of Chinese hospitals. *China Economic Review*, *22*(3), 428–439. https://doi.org/10.1016/j.chieco.2011.06.001

Pilyavsky, A., & Staat, M. (2008). Efficiency and productivity change in Ukrainian health care. *Journal of Productivity Analysis*, *29*(2), 143–154. https://doi.org/10.1007/s11123-007-0070-6

Şahin, İ. (2008). Sağlık Bakanlığı Genel Hastaneleri ve Sağlık Bakanlığına Devredilen SSK Genel Hastanelerinin Teknik Verimliliklerinin Karşılaştırmalı Analizi. *Hacettepe Sağlık İdaresi Dergisi*, *11*(1), 1–47.

Şahin, İ. (2009). Sağlık Bakanlığı'na devredilen SSK hastanelerinin teknik etkinliği ve toplam faktör verimliliği analizi [Technical efficiency and total factor productivity measurement of Social Security Institution hospitals transferred to Ministry of Health of Turkey]. *İktisat İşletme ve Finans*, *24*(283), 9–40. https://doi.org/10.3848/iif.2009.283.4651

Yiğit, V. (2016). Hastanelerde Teknik Verimlilik Analizi: Kamu Hastane Birliklerinde Bir Uygulama. *SDÜ Sağlık Bilimleri Enstitüsü Dergisi*, *7*(2), 1–8.

Zhang, X., Tone, K., & Lu, Y. (2017). Impact of the Local Public Hospital Reform on the Efficiency of Medium-Sized Hospitals in Japan: An Improved Slacks-Based Measure Data Envelopment Analysis Approach. *Health Services Research*. https://doi.org/10.1111/1475-6773.12676

RESEARCH ARTİCLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

DETERMINING THE KNOWLEDGE LEVEL OF MIDWIVES AND NURSES WORKING IN THE HOSPITALS ABOUT HEPATITIS A AND B, AND THE PRECAUTIONS THEY TAKE

Hüseyin ERİŞ[1]
Feray KABALCIOĞLU BUCAK[2]

ABSTRACT

Healthcare professionals working with hepatitis-B virus (HBV) and hepatitis-A virus (HAV), which are both still important infectious diseases throughout the world and in Turkey, are at risk in terms of many infectious diseases, in which they become infected from patients and their physical work environment. HBV and HAV infections and their outcomes are among the important public health issues. This study was conducted to determine the knowledge level of nurses and midwives working in the institutions with beds in the city center of Şanlıurfa, about HBV and HAV infections, and the precautions they take. This descriptive study included nurses and midwives working at the Harran University Research and Application Hospital (285 nurses/midwives) in the city center of Şanlıurfa and in 4 hospitals (823 Nurses/midwives) affiliated with Şanlıurfa's Public Hospitals Institution. The population of the study consisted of 1,108 midwives/nurses/health officers working on duty in these hospitals, while the sample consisted of 550 people who could be reached and volunteered to fill out the questionnaire. A questionnaire was prepared by reviewing relevant literature and receiving expert opinions. The questionnaire form was assembled in its final form after the preliminary study was performed. In this form, there are 36 questions, including the socio-demographic characteristics of the nurses and the precautions taken by the institutions as well as the nurses in order to be protected from HBV and HAV. Before starting the study, the required permissions from the institutions and consents from the participants were obtained. The questionnaire was given by the researchers to the participants via face-to-face interviews between January 2 and May 31, 2016. The statistical evaluation of the data obtained in the study was performed by using SPSS (22) as well as number, percentage, mean, and standard deviation values.

Key Words: Health Institutions, Healthcare Professionals, Occupational Health

ARTICLE INFO

[1] Health Services Vocational School, Harran University, Turkey
erisharran@hotmail.com
Orcid Number: https://orcid.org/0000-0002-1685-9819

[2]Faculty of Health Sciences, Harran University, Turkey
feraykabalcioglu@hotmail.com
Orcid Number: https://orcid.org/0000-0002-2453-8310

Recieved: 08.02.2019 Accepted: 15.04.2019

Cite This Paper: Eriş, H., Kabalcıoğlu Bucak, F. (2019). Determining the Knowledge Level of Midwives and Nurses Working in The Hospitals about Hepatitis A and B, and The Precautions They Take. Journal of International Health Sciences and Management, 5(8): 37-47

1. INTRODUCTION

Blood-borne infectious diseases is an important health problem all over the world. The risk of being exposed to hepatitis B (HBV) and hepatitis C (HCV) by healthcare professionals is an important and preventable problem worldwide (Yoldaş, Bulut, et. al, 2014).

HBV and HCV infections have a high rate of morbidity and mortality worldwide (Smyth, Manning, Byrne et. al., 2002; Sagmeister, Renner, Mullhaupt et. al., 2002).

One of the most widespread blood-based viral diseases is Hepatitis B. Hepatitis is defined as life-threatening liver inflammation, caused by viral infection, which in turn adversely affects one's health, and causes chronic diseases (Lai, Ratziu, Yuen and Poynard, 2003; Sharma, Saini and Chwla, 2005; Lavanchy, 2004; Şahin, Bilgiç, Esen, Çetinkaya and Tozoğlu, 2009).

Midwives and nurses are at risk of being exposed to many infectious diseases via their patients, the materials they use on the patients, and their physical daily work environment.

Those that especially infect people through blood and blood-based products have a particular importance due to their frequency and the negative effects they cause (Uçan, Ovayolu and Torun, 2006).

The contaminated tools are the sources of infection both for the patients and the healthcare professionals alike. When healthcare professionals are exposed to these infected materials, this is known as an occupational disease (Göçgeldi, İstanbulluoğlu, Türker, Güleç, Ceylan, Koçak and Komutanlığı, 2011).

Personnel working in the emergency department, operating room, intensive care unit, and labs come into contact with the blood and bodily fluids, which in turn increases the infection risk. The most frequently encountered forms of exposure include contaminated needles, contaminated sharp medical equipment, and contract with blood and bodily fluids to the mucosa. As many of sharp objects are now disposable, the risk for the patients has reduced, however infection contamination nevertheless continues due to occupational exposure (Sarı, Fincancı, Soysal, Demirkıran, Koyuncu and Özgün, 2014).

This study gives information about literature information about the matter as well as population, sample, limitations, data collection tool, and reliability of the study. In the results section of the study, the data obtained from the study were presented in tables. In the discussion section of the study, comparisons were made with similar studies in the literature and similarities and differences between the present study and these studies were determined. In the conclusion section of the study, the conclusion was presented along with the related recommendations. The aim of this study was to determine the knowledge level of the nurses and midwives, working in the institutions with beds across Şanlıurfa, on HBV and HAV, alongside precautions they take.

2. MATERIAL AND METHOD

2.1. The aim of the study: The aim of this study is to determine to determine the knowledge levels of nurses and midwives, working at public hospitals in the city center of Şanlıurfa, about protection from HBV and HAV.

2.2. Population and Sample of the Study: The population of the study was composed of nurses and midwives working at the Harran University Research and Application Hospital (285 nurses/midwives) in the city of Şanlıurfa and in 4 hospitals (823 nurses/midwives) affiliated with

Şanlıurfa's Public Hospitals Institution. The population of the study involved a total of 1.108 midwives/nurses/ health officers actively working in these hospitals; on the other hand, the sample consisted of 550 people who were reached and were eager to fill in the questionnaire. Once necessary permissions were obtained from the institutions and the participants before conducting the study, the questionnaire was completed by the researchers by using the face-to-face interview technique between 2 January and 31 May 2016.

2.3. The limitations of the study: The study was not conducted throughout Turkey; therefore, the study reflects the opinions of nurses and midwives, working at public hospitals only in the city center of Şanlıurfa, where the study was conducted, about protection from HBV and HAV. Moreover, public states and private hospitals operating in Şanlıurfa were not included in the study. Additionally, it is assumed that the results obtained from this study would provide information to future studies in general. It was accepted that nurses and midwives participating in the study understood the statements in the study correctly and gave correct answers.

2.4. Data Collection Tool: The study is a descriptive field study based on survey. A questionnaire was prepared based on expert opinion and upon literature review and was finalized after preliminary test. This questionnaire includes 36 questions about socio-demographic characteristics of the participants as well as nurses and the institutions' precautions concerning protection from HBV and HAV. Each item in the questionnaire was prepared based on 5-point Likert scale including "Strongly disagree(1)", "Disagree (2)", "Neutral (3)", "Agree (4)" and "Strongly Agree (5)".
Before conducting the study, necessary permissions from the hospitals and the participants were taken and the questionnaire was administered by the researchers by using the face-to-face interview technique between 2 January and 31 May 2016.

2.5. Validity and reliability of the study: Cronbach's Alpha (α) coefficient of the questionnaire used in the study was 0.82, which shows that this questionnaire is reliable.

2.6. Material and Method

In this descriptive and cross-sectional study, 550 midwives and nurses working in five hospitals including one university hospital and four public hospitals in the city of Şanlıurfa were reached. No sample selection was performed; only those who were on duty during the study were included in the study.

The study was conducted upon obtaining the written permission from institutions, where the study was conducted, as well as verbal consent from the participants. The questionnaire, prepared by the researchers upon literature review, was applied through the face-to-face interview technique. The statistical evaluation of the data obtained in the study was performed using SPSS (22) as well as number, percentage, mean, and standard deviation values.

3. RESULTS

This section includes the various study results. Table 1 shows the socio-demographic characteristics of the midwives and nurses participating in the study.

Table 1. The socio-demographic characteristics of the midwives and nurses

Age groups	**N**	**%**
24 years and younger	181	32.9
25-27 years	128	23.3
28-31 years	112	20.4
32 years and over	129	23.5
Gender		
Female	409	74.4
Male	141	25.6
Educational status		
Health High School	97	17.6
Associate's Degree	70	12.7
Bachelor's Degree	364	66.2
Master's Degree	19	3.5
Working duration		
2 years and less	193	35.1
3-4 years	102	18.5
5-8 years	140	25.5
9 years and more	115	20.9
The hospital where they work		
Harran University Research Hospital	109	19.8
Balıklıgöl Public Hospital	59	10.7
M. Akif İnan Training and Research Hospital	178	32.4
Şanlıurfa Gynecology and Maternity Hospital	80	14.5
Children's Hospital	124	22.5
Clinical Unit		
Emergency Department	57	10.4
Operating room	39	7.1
Service	259	47.1
Outpatient clinic	10	1.8
Other	185	33.6
Position In The Unit		
Ward Nurse	332	60.4
Chief Nurse	50	9.1
Intensive Care Nurse	129	23.5
Other	39	7.1
Manner of Work		
Always day-shift	173	31.5
Shift	377	68.5
Total	**550**	**100.0**

When Table 1 was examined, it was determined that 56.5% of the participants were aged 27 years and younger, 74.4% were female, 66.2% held a Bachelor's degree, 53.6% worked for 0-4 years, 80.2% worked in a public hospital, 47.1% worked in the services, 60.4% were ward nurses, and 68.5% worked in shifts.

Table 2. Contact with patients with hepatitis B and A, and the data on the procedures taken after contact

		N	%
Have you been in contact with blood and bodily fluids?	Yes	490	89.1
	No	60	10.9
	Total	550	100.0
Did you take precautions when contacting with blood and bodily fluids?	Yes	408	83.3
	No	40	8.2
	I do not remember	42	8.6
	Total	490	100.0
What kind of precautions did you take?	I wear gloves	350	71.4
	I wear a double pair of gloves	121	24.7
	I wear a gown	100	20.4
	I wear a mask	101	20.6
	I wear goggles	39	8.0
	All	34	6.9
	I do not remember	33	6.7
	Total	490	100.0
The procedure taken in case of the contact with blood and bodily fluids	I had my hepatitis marker results examined.	262	53.5
	I checked whether or not the patient had an infectious disease.	359	73.3
	I made the injured/contact region bleed.	62	12.7
	I washed the injured/contact region with cold water	260	53.1
	I washed the injured/contact region with alcohol	78	15.9
	I washed the injured/contact region with batticon	255	52.0
	I did nothing	18	3.7
	Total	490	100.0
Did the patients exhibit infectious symptoms of Hepatitis B?	Yes	228	41.5
	No	191	34.7
	I do not remember	131	23.8
	Total	550	100.0
Did the patients exhibit infectious symptoms of Hepatitis A?	Yes	161	29.3
	No	235	42.7
	I do not remember	154	28.0
	Total	550	100.0
Preventive measures taken during procedures applied to the patients	Do you wash your hands before and after the intervention performed on the patients?	507	92.2
	Do you wash your hands every time you provide care?	383	69.6
	Do you know the warning signs for patients with hepatitis infection?	458	83.3
	Do you know whether or not the contaminated materials are properly disposed of?	390	70.9
	Do you know whether or not the contaminated materials are properly disinfected?	356	64.7
	Total	550	100.0
Types of injuries	Needle-based injury in hands	363	66.0
	Injury when closing the injector tip	286	52.0
	Splashes of blood and bodily fluids into the eyes and mucosa	205	37.3
	During medical waste disposal	98	17.8
	Sharp object injury with scalpel, suture needle etc.	160	29.1
	Total	550	100.0

When Table 2 was examined, it was determined that 89.1% of the midwives and nurses participating in the study stated that "they were in contact with blood and bodily fluids"; on the

other hand, 83.3% of them stated that they took precautions. For the question "What kind of precautions did you take?", 71.4% of them stated that they wore gloves, 24.7% stated that they wore a double pair of gloves, and approximately 20% stated that they wore a gown or mask. For the question "what kind of procedures did you take when coming into contact with blood and body fluids?", 73.3% of midwives and nurses stated that "they investigated whether or not the patient had an infectious disease", 53.5% stated that "they had his/her hepatitis marker results examined", 53.1% stated that "they washed the injured/contact region with cold water" and 52% stated that "they washed the injured/contact region with batticon". For the question "Did the patients exhibit infectious symptoms of Hepatitis B?" 41.5% of midwives and nurses answered "yes" and for the question "did they exhibit infectious symptoms of Hepatitis A?", 42.7% answered "no". When the injury types of midwives and nurses were examined, 66% stated that they had needle-based injury in their hands, 52% stated that they were injured while closing the injector tip, and 37.3% stated that they were injured by the splashes of blood and bodily fluids to eyes and mucosa.

Table 3. Immunization of the participants

		N	%
Do you work by taking precautions as if every patient has hepatitis infection?	Yes	403	73.3
	No	147	26.7
	Total	550	100.0
Did you have an examination to determine whether or not you had Hepatitis B?	Yes	498	90.5
	No	52	9.5
	Total	550	100.0
Finding after the examination	HbsAg(+),anti-Hbs(-)	37	7.4
	HbsAg(-),anti-Hbs(+)	271	54.4
	HbsAg(-),anti-Hbs(-)	68	13.7
	I'm ill	3	.6
	I do not know	119	23.9
	Total	498	100.0
Have you got a hepatitis B vaccine?	Yes	477	86.7
	No	73	13.3
	Total	550	100.0
The number of Hepatitis B vaccination	1	44	9.2
	2	63	13.2
	3	270	56.6
	Booster	100	21.0
	Total	477	100.0
Did you have the antibody examined after vaccination?	Yes	367	76.9
	No	110	23.1
	Total	477	100.0
The reasons of not getting the hepatitis B vaccine	I couldn't find any opportunity	11	15.1
	I am not at risk	18	24.7
	I don't trust the protectiveness of the vaccine	1	1.4
	I am afraid of the side effects of the vaccine	3	4.1
	I had had Hepatitis B	11	15.1
	I think that I protect myself properly.	8	11.0
	I paid no attention	21	28.8
	Total	73	100.0

When Table 3 was examined, it was determined that 73.3% of the midwives and nurses answered "yes" to the question " Do you work by taking precautions as if every patient has hepatitis infection?" Also, 90.5% of the midwives and nurses answered "yes" to the question

"Did you have an examination to determine whether or not you had hepatitis B virus?". The rate of the nurses who got the Hepatitis B vaccine was 86.7%. When the number of Hepatitis B vaccinations was examined, 56.6% of the nurses stated that they got this vaccine 3 times, 13.2% state that they got it twice, and 9.2% stated once.

It was determined that 76.9% of the midwives and nurses answered "yes" to the question "Did you have the antibody examined after vaccination?" As for the reasons for not getting a Hepatitis B vaccination, 28.8% of the midwives and nurses were not vaccinated as they paid no attention, 24.7% stated they were not at risk, 15.1% indicated they did not find any opportunity or they had had hepatitis B and, 11% indicated that they thought they protected themselves properly.

Table 4. Knowledge of the participants about the hepatitis

		N	%
Had you been examined to determine whether or not you were infected with hepatitis A virus?	Yes	332	60.4
	No	218	39.6
	Total	550	100.0
Was hepatitis A detected?	Yes	13	3.9
	No	319	96.1
	Total	332	100.0
When was the last time you have a serology examination?	1-3 months	99	18.0
	3-6 months	94	17.1
	6-12 months	130	23.6
	More than 1 year	173	31.5
	I did not	54	9.8
	Total	550	100.0
Is there a hospital infection control committee in your institution?	Yes	535	97.3
	No	15	2.7
	Total	550	100.0
Did you receive the training on hepatitis B and A?	Yes	426	77.5
	No	124	22.5
	Total	550	100.0
Type of training on hepatitis B and A	In-service training	325	76.3
	Continuing training	26	6.1
	Certificate program	6	1.4
	From books, magazines and brochures	52	12.2
	Other	17	4.0
	Total	426	100.0
The information activities on Hepatitis B and A	Did you attend courses, seminars or congresses about hepatitis b and a?	110	20.0
	Do you follow publications about hepatitis b and a?	132	24.0
	Do you think the methods of the hospital for protection against hepatitis b and c are adequate?	162	29.5
	Total	550	100.0
Do you want to receive the training on hepatitis B and A?	Yes	434	78.9
	No	116	21.1
	Total	550	100.0

When Table 4 was examined, it was determined that 60.4% of the midwives and nurses answered "yes" to the question "Had you been examined to determine whether or not you were infected with hepatitis A virus?" and 96.1% answered "no" to the question "Was hepatitis A detected?" 31.5% of the midwives and nurses, answered the question "When was the last time

you have a serology examination?" answered as "I have not had the serology examination for more than 1 year" and 9.8% answered as "I have never had a serology examination". 97.3% of them answered "yes" to the question "Is there a hospital infection control committee in your institution?". 77.5% of the midwives and nurses responded as "yes" to the question "Did you receive the training on hepatitis B and A?" and 76.3% said "In-service training" to the question "Type of training". 78.9% of midwives and nurses answered "yes" to the question "Do you want to have training on Hepatitis B and A" and 21.1% answered "no" to this question.

4. DISCUSSION

Given that hepatitis is an infectious disease, it continues to be a preventable public health issue in Turkey (Tosun, 2013). It is said that about two billion people are infected with HBV worldwife. Every year, approximately 600,000 people lose their lives due to the acute or chronic events associated with HBV. Midwives and nurses, who are directly responsible for patient care, are at risk when providing care to these kinds of patients. In the present study, 89.1% of the midwives and nurses stated that "they were in contact with blood and bodily fluids"; whereas, 83.3% stated that they took precautions. In the study, 90.5% stated that they had been examined for Hepatitis B, and 60.4% stated that they were examined for Hepatitis A. In a study conducted by sending letters to the physicians, gynecologists, nurses, and midwives providing primary care health service abroad, it was stated that HBV test was requested at the rate of 98%, and this test was requested at the rate of 93% in another study (Keane, Neale, Phillips, Heard, Jones, Guttridge and Bendall, 2002;Weisbord, Koumans, Toomey and Grayson, 2001).

Performing these tests routinely is important in order to diagnose the disease in its early stages and thus to start the treatment process. In the study, it was determined that 53.5% of the midwives and nurses had the "Hepatitis marker results" examined. Similarly, in a study conducted with the nurses and technicians working at Pamukkale University Hospital in 2014, 67.6% stated that they were examined for hepatitis markers. It may be thought that this finding was high as the nurses and technicians evaluated the examination of the markers in the Hepatitis B vaccination program within the scope of the health screening (Erkan, 2014).

When the injury types of the midwives and nurses were examined in the study, 66% of them stated that they had needle-based injury in their hands, 52% stated that they were injured while closing the injector tip, and 37.3% stated that they were injured by the splashes of blood and bodily fluids to eyes and mucosa. In a study including healthcare professionals working in a university hospital, two state hospitals, and 54 health centers in Mersin, it was determined that 79.1% of the healthcare professionals were injured with a sharp object at least once during their working life, 60.9% of the injuries happened due to a tool contaminated with blood—mostly through needles (89.2%) (Altıok, Kuyurtar, Karaçorlu, Ersöz and Erdoğan, 2009).

Likewise, Kuruüzüm et al., stated in a study conducted at Dokuz Eylül University Medical Faculty Hospital that 97% of injuries were percutaneous injuries caused by the sharp objects (Kuruüzüm, Elmalı, Günay, Gündüz and Yapan, 2008). Upon the literature review, similar studies regarding nurses were found. In the present study, 77.5% of the midwives and nurses stated that they received the in-service training on the diseases with an infectious risk (hepatitis B and C), and 79% stated that they wanted to receive the training again. In their study Uçan et al., (2006) obtained similar results. It was determined that 52.8% of the nurses received the in-service training on the protection from HBV and HCV; however, 85.2% of them wanted to receive their in-service training again.

It was determined that 41.5% of midwives and nurses, participating in the study, answered the question "Did the patients have infectious symptoms for Hepatitis B and A?" as "They had Hepatitis B" and 29.3% as "They had Hepatitis A". Similar results were obtained in a study (Uçan et al., 2006).

A great majority of the midwives and nurses answered "yes" to the question "Did you take precautions when contacting with blood and bodily fluids?" and they answered that they wore gloves, a double pair of gloves, a gown, and mask for the question "What kind of precautions did you take". Similar results were obtained in some studies (Çalışkan and Akdur, 2001; Uçan et al., 2006).

It was found that 90.5% of the midwives and nurses answered "yes" to the question "Did you have an examination to determine whether or not you had hepatitis?" Also, a great majority of the participants stated that they got the hepatitis vaccine in 3 doses as well as a got a booster vaccine. Also, similar results were obtained in the study by Uçan et al., (2006) and 83.1% of the nurses stated that they had a routine blood examination, and that most of them stated that they were vaccinated with 3 doses and alongside with a booster vaccine.

4.1. Conclusion and Recommendations

As a result of the study, a great majority of the participants stated that they took the required precautions upon coming into contact with blood and bodily fluids. Among those precautions, they stated that they wore gloves, a double pair of gloves, gowns or masks, respectively. The majority of the midwives and nurses stated that they took precautions such as controlling whether or not the patient had an infectious disease, controlling the hepatitis marker results, washing the injured/contact region with cold water, and washing the injured/contact region with batticon when there was a contact with blood and bodily fluids.

Most of the participants stated that they took precautions as if every patient had the hepatitis infection when they worked. 90.5% of the midwives and nurses had an examination to determine whether or not they had the hepatitis B. The rate of nurses who were vaccinated with hepatitis B vaccine was 86.7%. When the number of hepatitis B vaccination was examined, 56.6% of the midwives and nurses stated that they were vaccinated 3 times, 13.2% stated that they were vaccinated twice, and 9.2% stated that they were vaccinated once.

Most of the midwives and nurses had the antibody examined after vaccination. Concerning the reasons for not getting Hepatitis B vaccine, it was found that 28.8% of the midwives and nurses stated that they did not get the vaccine as they did not care, 24.7% as they were not at risk, 15.1% as they did not find any opportunity or they got hepatitis B vaccine, and 11% stated that they thought that they protected themselves properly.

Most of the participants stated that they were examined for hepatitis A, whereupon it was found as a result of the test that 96.1% did not have hepatitis A. For the question "When did you have a serology examination?", 31.5% of the midwives and nurses answered that "I have not had a serology examination for more than 1 year" and 98% answered as "I have never had a serology examination".

Although most of the midwives and nurses stated that they received the in-service training on Hepatitis B and A in their hospitals, they stated that they wanted to receive the training again.

REFERENCES

Altıok, M., Kuyurtar, F., Karaçorlu, S., Ersöz, G. ve Erdoğan, S. (2009). Sağlık çalışanlarının delici kesici aletlerle yaralanma deneyimleri ve yaralanmaya yönelik alınan önlemler. Maltepe Üniversitesi Hemşirelik Bilim ve Sanatı Dergisi, 2(3), 70-9.

Çalışkan, D. & Akdur, R. (2001). Ankara Üniversitesi Tıp Fakültesi Hastanesinde çalışan hemşirelerin kendi bildirimleri ile karşilaştiklari mesleki riskler. Ankara Üniversitesi Tıp Fakültesi Mecmuası, 54(2).

Erkan, S. (2014). Pamukkale Üniversite Hastanesi'nde çalışan hemşire ve teknisyenlerin mesleki risk algisinin belirlenmesi. Yüksek Lisans Tezi, Pamukkale Üniversitesi Sağlık Bilimleri Enstitüsü, Denizli.

Göçgeldi, E., İstanbulluoğlu, H., Türker, T., Güleç, M., Ceylan, S., Koçak, N. & Komutanlığı, T.S. (2011). Tıp fakültesi öğrencilerinin mesleki maruziyetten kaynaklanan sağlık riskleri konusundaki bilgi düzeylerinin karşılaştırılması. Gülhane Tıp Dergisi, 53(3), 195-204.

Keane, F.E., Neale, J., Phillips, T., Heard, L., Jones, R., Guttridge, B. & Bendall, R. (2002). Offering routine antenatal testing for HIV and hepatitis B in the rural setting of Cornwall. Sex Transm Infect, 78(2), 133.

Kuruüzüm, Z., Elmalı, Z., Günay, S., Gündüz, Ş. & Yapan, Z. (2008). Sağlık çalışanlarında kan ve beden sıvılarıyla oluşan mesleksel yaralanmalar: Bir anket çalışması. Mikrobiyoloji Bülteni, 42(1), 61-9.

Lai, C.L., Ratziu, V., Yuen, M.F. & Poynard, T. (2003). Viral hepatitis B. Lancet, 362, 2089-2094.

Lavanchy, D. (2004). Hepatitis B virus epidemiology, disease burden, treatment, and current and emerging prevention and control measure. Journal of Viral Hepatitis, 11(2), 97-107.

Sagmeister, M., Renner, E.L., Mullhaupt, B. et. al. (2002). Simulation of hepatitis C and based on mandatory reporting system. European Journal of Gastroenterelogy & Hepatology, 14, 25-34.

Şahin, N.H., Bilgiç, D., Esen, Ü., Çetinkaya, R. & Tozoğlu, Z. (2009). Bayan kuaförü çalişanlarinin hepatit B'ye ilişkin bilgi ve uygulamalarinin belirlenmesi. TAF Preventive Medicine Bulletin, 8(2).

Sarı, N.D., Fincancı, M., Soysal, H.F., Demirkıran, N., Koyuncu, S. & Özgün, Ö. (2014). Delici kesici alet yaralanmalarinin bildirim sikliği neyin göstergesi. Haseki Tıp Bülteni, 52, 98-102.

Sharma, S.K., Saini, N. & Chwla, Y. (2005). Hepatitis B Virus: Inactive carriers. Virol Journal, (82), 1-5.

Smyth, C.M., Manning, D.S., Byrn,e M.F. et. al. (2002). Hepatitis C infection in plasmapheresis donors: An overlooked risk factor for transmission? European Journal of Gastroenterelogy & Hepatology 14, 891-892.

Tosun, S. (2013). Viral hepatitlerin ülkemizdeki değişen epidemiyolojisi. ANKEM Dergisi, 27(2), 128-134.

Uçan, Ö., Ovayolu, N. & Torun, S. (2006). Hemşirelerin hepatit B ve C virüslerinden korunmak için aldıkları önlemlerin belirlenmesi. Journal of Anatolia Nursing and Health Sciences, 9(2), 11-20.

Weisbord, J.S., Koumans, E.H., Toomey, K.E., Grayson, C., Markowitz, L.E. (2001). Sexually transmitted diseases during pregnancy: Screening, diagnostic, and treatment practices among prenatal care providers in Georgia. South Medicine Journal, 94(1), 47-53.

Yoldaş, Ö., Bulut, A., Ertürk, E., Çelik, D., Karakaşoğlu, Ü. & Altındiş, M. (2014). Sağlık çalışanlarında enfekte kan ve vücut sivilarina maruziyet riskinin belirlenmesi. Kocatepe Tıp Dergisi, 15(3).

RESEARCH ARTİCLE

JOURNAL OF INTERNATIONAL HEALTH SCIENCES AND MANAGEMENT

TOXİC LEADERSHİP IN A PUBLİC UNİVERSİTY HOSPİTAL

Cemil ÖRGEV[1]
Halil DEMİR[2]

ABSTRACT

Some leadership styles have negative and toxic features such as destructive leadership, authoritarian leadership, narcissistic leadership and brute-bullying leadership. Toxic leadership is defined as the sum of the negative aspects of leadership which might include charisma, personalized use of power, narcissism, negative life themes, and an ideology of hate.

This study aims at contributing to the theoretical gap in Turkish literature about destructive leadership. In this regard, first of all, the definitions of destructive leadership made by several authors are presented in the literature. Later, the levels of perception by 200 health workers in a university hospital are investigated using the "Toxic Leadership Scale" and the results of the research are analyzed. Finally, the findings are discussed and evaluations are made for research and application.

In this study, the relationship between gender, age, marital status, education status, duty in hospital, income, occupational status, unit variables of health workers, and toxic leadership levels were examined in terms of both the general average of toxic leadership scale and subscales of scale. The Cronbach-Alpha coefficient in the study was found to be 0.98. The general average of the health workers obtained from the Toxic Leadership Scale (2.91 ± 1.03) was moderate; there were statistically significant differences due to age and income situation; the toxic leadership perceptions of administrative staff (3.40 ± 0.98) were higher than the average of other health workers.

Key Words: Leadership, Toxic Leadership, Health Staff, University Hospital

ARTICLE INFO

[1]Assoc. Prof. Sakarya Upplied Sciences University/ Adapazarı Vocational Heigh School/ Turkey
corgev@subu.edu.tr
Orcid Number: https://orcid.org/0000-0002-9027-0965

[2]Lecturer, İstanbul Rumeli University/Medical Documentation Secretary/Turkey
hll_dmr@windowslive.com
Orcid Number: https://orcid.org/0000-0001-9374-9739

Recieved: 13.03.2019 Accepted: 28.03.2019

Cite This Paper: Örgev, C., Demir, H. (2019). Toxic Leadership In A Public University Hospital. Journal of International Health Sciences and Management, 5(8): 48-63

1. INTRODUCTION

From the earliest times of history the concept of leadership has loaded many different meanings in every organization and field in which it has a management function, and this concept has maintained its existence and importance in every period (Titizoğlu & Eren, 2014: 276). According to Hughes, Ginnett, and Curphy, one of the most important reasons why so many different definitions come to the concept of leadership is that leadership is a complex phenomenon that includes leaders, followers, and conditions (Ibicioglu, 2009: 3). The word leader is derived from the Latin word ”lode star”. It means the person leading, managing and inspiring (Van de Vliert, Matthiesen, Gangsoy, Landro and Einarsen, 2010). Koçel (2010) defines the concept of leadership as “under certain conditions, the process of influencing and directing the activities of others in order to realize individual or group objectives."

Leaders are seen as mysterious and impressive individuals who lead organizations to success (McShane and Von Glinow, 2009). Being a leader in this regard can be considered by many to have superior qualities and virtues that others do not have. In many studies to date (Burns, 1978; Bass, 1985; Bass and Steidlmeier, 1999; Bass ve Avolio, 2000; Trevino, Brown, ve Hartman, 2003; Avolio, Luthans ve Walumba, 2004; Brown, Trevino ve Harrison, 2005), the personality traits of the successful leaders and their distinctive aspects that make them different from others have been researched and various leadership theories have been developed (Basar, Sigri & Basim, 2016: 65).

Gündüz and Dedekorkut (2014) stated that there should be some skills and competencies for the power of influence and motivation of the leader; the leaders, who lack these skills and competences state that they are inadequate in terms of influence and become ineffective leaders. In the same study, it is stated that leadership is a whole of learnable behaviors and talents have (Gündüz and Dedekorkut, 2014: 95).

Although there are not many studies on toxic leadership, it has been determined by academicians that some of the leadership styles have toxic properties. Some of these leadership styles are leadership structures that have negative and toxic characteristics such as destructive leadership, authoritarian leadership, narcissistic leadership, vulgar-bullying leadership. These types of leadership are briefly explained below to better understand the conceptual framework of toxic leadership. The types are:

a) Destructive leadership: There must be systematic and recurrent aspects of defining a behavior as destructive. Apart from behaviors aiming at damageing destructive behaviors, it is thought that it should also include employees who do not want to harm by exhibiting disruptive characteristics such as showing symptoms of disability and the characteristics of the organization (Einarsen, Aasland and Skogstad, 2007).

b) Authoritarian Leadership: Cheng et al. (2004) define authoritarian leadership as being a constant supervisor and with a tendency to create obedient employees. Toxic leadership has also been defined as the next stage of authoritarian leadership to exhibit negative attitudes towards both employees and the organization (Deal and Petersen, 1999).

c) Narcissistic Leadership: Especially personal mismatches, selfishness, egocentric approach, highlighting their interests and needs are some of these important features. Rosenhtal and Pittinsky (2006) define a narcissistic leader as one who shows himself/herself more than he/she has got, admiring himself and waiting to be admired by others.

d) Bully-Rough Leadership: in his research, Tepper (2000) stated that rough management (without physical contact, verbal-nonverbal) is close to toxic leadership because it exhibits a hostile attitude.

Definitions such as being coarse and hard and crushing are close to toxic leadership. Because the non-verbal and intentionally inadequate, unethical, ineffective behavior of the manager

who is rude and disruptive, such manager is identified as having the destructive aspect of toxic leadership (Firestone and Jatlett, 2009: 302).
However, in many studies on leadership from past to present, more positive, constructive and positive aspects of leadership have been investigated, and it has been aimed at understanding the good and effective aspects of leaders and identifying behaviors exhibited by good leaders (Reed and Olsen, 2010: 59; Shaw et al., 2011: 576). Although leaders such as Abraham Lincoln and Anne Theresa are known as very good leaders, these leaders have shown unethical behavior in some cases and have made wrong or bad decisions (Lipman and Blumen, 2004). These leaders are rarely misdiagnosed as toxic leaders. Because, in order for a leader to be classified as a destructive or a bad leader, he must exhibit persistent and repetitive cracking and negative behaviors. The destructive leader must have negative and destructive effects on business and group performance (Thoroughgood et al. 2012: 898 899).
Many studies have examined the negative aspects of leadership as destructive leadership (Einarsaen ve diğerleri, 2007; Shaw ve diğerleri, 2011; Woestman ve Wasonga,2015), misbehaving leadership (Paunonen ve diğerleri, 2006), bullying leadership (Ferris ve diğerleri, 2007; Harvey ve diğerleri, 2007), and toxic leadership (Wilson–Starks, 2003; Williams, 2005; Lipman ve Blumen, 2004; Pelletier, 2010; Dobs, 2014). These terms are often referred to by different authors to describe the negative behavior of the leaders towards their subordinates, their inadequacies in interpersonal relations and their harming status (Dobs, 2014: 14).
Toxic leaders take a decision by elevating themselves and humiliating others, aiming to keep their subordinates under constant control, tending to deny their own crimes and mistakes, and liking splendor. Such leaders are ultimately doomed to failure in history as a result of the dismemberment of their responsible business (Lipman and Blumen, 2004). Wilson-Starks (2003) also emphasizes that toxic leaders do not want people who are questioning and criticizing and that they are trying to prevent them from moving to upper positions with an emphasis on the ability of toxic leadership to seek obedience. Lipman-Blumen (2005b) describes the leader as a toxic leader who does not accept constructive criticism, who teaches and approves the prosecution and behavior of the leader rather than questioning them and consequently causing serious harm with these negativities. Flynn (1999) stated that the leader was rude and tyrannical because he increased the tone of voice against his employees and showed offensive and repulsive behaviors. In addition, personal use of power, negative personality and ideological hostility have been mentioned as other toxic characteristics (Padilla, Hogan and Kaiser, 2007).
In the studies conducted, it is found that the rude managers negatively affect the organizational culture and the organizational climate (Zellars, Tepper ve Duffy, 2002). Low levels of job satisfaction (Tepper, Hoobler, Duffy ve Ensley, 2004), participation in the work and reluctance in interest and lack of interest (Aryee, Sun, Chen ve Debrah, 2007) were found in these organizations. Toxic leadership can be summarized as the toxic triangle by the characteristics of leaders, followers, and environmental contexts associated with destructive leadership (Padilla, Hogan, & Kaiser, 2007: 176). To hold only the leader for the toxic leadership process means not to see the whole picture (Thoroughgood et al., 2012). The three aspects of the toxic triangle and their characteristics are:

1.Toxic Leaders: Charisma, personal use of power, narcissism, negative life experiences and hate ideology are the most prominent characteristics of toxic leaders. The personality traits of the toxic leaders are defined as follows: deceitful, sarcastic, false, immoral, hypocritical, unreliable, insatiable, manipulative, arrogant and coward (Lipman-Blumen, 2005: 19-22).
2.Responsive followers (supporters): The characteristics of the followers define as spouses and beliefs, low maturity, negative self-assessments, unmet basic needs and ambition (Padilla

et al., 2007: 183). The responses of the followers to the dark leadership behaviors are to seek social support, to leave the organization, to challenge the leader (Webster, Brough and Daly, 2016), to try to look nice, to try to communicate, to avoid contact and to resist (Yagil, Ben-Zur and Tamir, 2011).
3. Conductive (convenient) environments: Environmental factors such as instability, perceived threat, cultural values, control and balances, and lack of institutionalization are important for destructive leadership (Padilla et al., 2007: 185).

Nowadays, health institutions are among labor-intensive enterprises with advanced medical technology and specialized health workers in many different fields. It is very important to ensure the high level of cooperation and harmony between the units and the unit employees in order to provide efficient and productive service for the healthcare employees. There is interdependence between different units, and the output of a unit can be the input of the other unit. Thus, the success of the institution is directly proportional to the harmonious functioning of all units. In this context, leadership is of great importance in order to ensure that human resources in health institutions can be used effectively and efficiently in the interests of the institution.
In our study, firstly, the theoretical framework of the research was formed by examining the related literature in order to define the dark side of leadership. And then, "toxic leadership questionnaire" applied to the employees of a public university hospital was made. Then the results were analyzed and the findings of the study were discussed and the evaluations were made based on the research and application.

2. MATERIALS AND METHODS

This study investigates whether Toxic Leadership differs according to socio-demographic variables of health workers or not. The study was carried out by applying the Toxic Leadership scale to 185 health workers working in different units of a university hospital in Ankara.

2.1. Research Method and Measurement Tools

Within the scope of the research, a comprehensive literature review was conducted to determine the negative effects of "Toxic Leadership" and "Toxic Leadership on health workers". "Toxic Leadership Questionnaire" was used as a measurement tool. "Research methodology" in this study was descriptive.
Before using the "Toxic Leadership Scale" required permissions were obtained from Nurhayat Çelebi, who developed the scale, on July 28, 2018.
The questionnaire, which is applied by the random sampling method, consists of two parts together with the demographic information and the part of the scale items. In the first part of the questionnaire, the socio-demographic variables of the health workers working in different departments including gender, marital status, age range, income level, education status, occupational status, and occupational department were examined, and the second part has investigated the perceptions of Toxic Leadership level of health workers.
Çelebi et al. stated that they greatly benefited from Schmidt (2008) in developing the scale (Çelebi et al., 2015: 253). The scale consists of 30 items and 4 sub-dimensions. The scale is 5-point Likert type (1) strongly agree, (2) agree, (3) undecided, (4) disagree, and (5) strongly disagree. In the study of Çelebi et al. (2015) the Cronbach-Alpha coefficient was found to be 0.96, while in this study Cronbach-Alpha coefficient was 0.98.

Table 1. Toxic Leadership Scale Reliability Coefficients

Toxic Leadership Scale	Çelebi et al. (2015) Cronbach Alpha-Values	Obtained from this study Cronbach-Alpha Values
Self-Seeking	0,95	0,96
Not to appreciate	0,93	0,97
Negative Mood	0,87	0,94
Selfishness	0,91	0,93
All of the Scale	0,96	**0,98**

2.2. Universe and Sampling

The population of this study consists of the employees of a public university hospital operating in Ankara. The number of health professionals working in the hospital is based on the current activity report of the hospital and is based on the year 2018. A total of 1836 people, 1423 females, and 413 males, work in health services. A total of 1821 employees, 1044 females and 777 males, are employed in administrative services. In the study, it was determined that 351 health workers were required to participate in the study in order to reflect the universe in the sample, p = 0.05 significance and 95% confidence level [15]. Due to the fact that it is difficult to reach to the health workers due to the holiday period, 200 questionnaires were distributed to the sample. The analyses were carried out through questionnaires from 185 health professionals.

2.3 The Hypothesis of the Research

H1: The toxic leadership averages of health workers differ statistically according to their gender.
H2: The toxic leadership averages of health workers differ statistically according to their marital status.
H3: The toxic leadership averages of health workers differ statistically according to their age.
H4: The toxic leadership averages of health workers differ statistically according to their income status.
H5: The toxic leadership averages of health workers differ statistically according to their educational status.
H6: The toxic leadership averages of health workers differ statistically according to their professional status.
H7: The toxic leadership averages of health workers are differ statistically according to the unit they work in.
H8: The toxic leadership averages of health workers differ statistically according to the tasks of the participants in the hospital.
H9: The sub-dimensions of toxic leadership of health workers differ statistically according to their; a) gender b) marital status c) age, d) income e) education f) professional status g) the unit in which they work, h) their duties in the hospital.

2.4. Analysis of the Research Data

All statistical analyses in the study were performed using SPSS (Statistical Package for the Social Sciences) 23.0. First of all, frequency and percentages were used to reveal the descriptive findings related to the individual characteristics of the health workers participating

in the study. In order to determine the level of Toxic Leadership, descriptive statistical methods such as minimum and maximum values, mean and standard deviation were used.
In order to determine whether or not the Toxic Leadership levels of the health workers differ statistically according to the individual characteristics, the significance test (Standard t-test) and the one-way analysis of variance (F test-ANOVA) were used. Tukey HSD test, which is one of the Post-hoc tests, was used in order to find out which group was meaningful in case of significant differences between the groups.

2.5. Limitations of the Research

This study was carried out with the health workers of a university hospital operating in Ankara. Therefore, research findings cannot be generalized to all health professionals.

3. RESULTS

The results obtained from the analyses made for the purposes of the research are discussed in this section.

3.1. Descriptive Findings

Table 2. Mean, Standard Deviation (SD), Maximum and Minimum Values of Toxic Leadership Scale and Sub-dimensions

Toxic Leadership Scale Sub-Dimensions	Min	Max.	Mean	SD.
Self-Seeking	1	5	2,95	1,11
Not to appreciate	1	5	3	1,1
Negative Mood	1	5	2,72	1,08
Selfishness	1	5	2,83	1,04
All of the Scale	1	5	**2,91**	1,03

When Table 2 is examined, it was determined that the general average (2.91 ± 1.03) obtained from the Toxic Leadership Scale of the health workers participating in the study was moderate.
Table 3 presents the correlation values between the sub-dimensions of the Toxic Leadership Scale. Cohen (1988; 79-81) pointed out that if the correlation coefficient is between 0.50-1.00, it indicates that there is a high level of correlation. A high correlation was found between our variables.

Table 3. Correlation Values of Toxic Leadership Scale Sub-Dimensions

Sub-Dimensions	*Not to appreciate*	*Self-Seeking*	*Selfishness*	*Negative Mood*
Not to appreciate	1			
Self-Seeking	0,925**	1		
Selfishness	0,822**	0,844**	1	
Negative Mood	0,806**	0,816**	0,850**	1
**p<0,01 (two tailed)				

The descriptive findings of the health workers participating in the study are given in Table 4.

Table 4. Descriptive Findings of Health Workers Participating in the Research

Variables		Frequency	Percent (%)
Gender	Female	126	68,1
	Male	59	31,9
Age	20-29	90	48,6
	30-39	63	34,1
	40 and above	32	17,3
Marital Status	Married	75	40,5
	Single	105	56,8
	Other	5	2,7
Education Status	Pre-graduate	9	4,9
	Graduate	157	84,9
	Post-Graduate	19	10,3
Duty in the hospital	Physician	59	31,9
	Nurse	45	24,3
	Secretary	41	22,2
	Administrative Staff	29	15,7
	Technician	11	5,9
Income	1499TL or less	25	13,5
	1500-2499TL	49	26,5
	2500TL and above	111	60
Professional Status	Health personnel	132	71,4
	Administrative Staff	43	23,2
	Other	10	5,4
Participants Unit	Surgical Medical Sciences	50	27
	Medical Sciences	69	37,3
	Basic Medical Sciences	3	1,6
	Purchasing Unit	19	10,3
	Support Services	3	1,6
	Invoice / Income Accrual	24	13
	Revolving Funds	17	9,2
Total		185	100

When Table 4 is examined, it is seen that most of the health care workers (67.1%) are women. In terms of age, 48.6% of the employees are in the age range of 20-29, 34.1% are in the 30-39 age group, and 17.3% are in the age of 40 years and older. Most of the health workers (59.8%) stated that they were single. When the educational status of the participants is examined, 4.9% of them have pre-graduate (primary and secondary education, high school, associate degree), 84.9% graduate degree and 10.3% of them have post-graduate degrees. The majority of the health workers participated in the study consisted of physicians (31.9%). 24.3% of them were nurses, 22.2% were secretaries, 15.7% were administrative staff and

5.9% were technicians. 60.0% of the health care workers stated their income as 2500 TL or more. When examined in terms of professional status, the highest number of health personnel participated in the study with 71.4%. Participants work with the most internal medical science units with 37.3%.

3.2. Findings Related to the Hypotheses

Table 5. The t-test results of health workers of toxic leadership according to their gender

	Female		Male		T	P
	Mean	SD	Mean	SD		
Toxic Leadership Scale	3,00	1,06	2,73	0,97	-1,647	0,101

Table 5 shows the t-test results of the health workers who have participated in the study compared to the gender obtained from the Toxic Leadership Scale. As a result of the analysis, no statistically significant difference was found between female health workers (3.00 ± 1.06) and male health workers (2.73 ± 0.97) toxicity levels. Therefore, the H1 hypothesis was rejected.

Table 6. ANOVA test results comparing Toxic Leadership Levels of Health Workers

Marital Status	**Married**		**Single**		**Others**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
	3,46	1,06	2,84	1,01	2,55	1,01	1,174	0,311
Age	**20-29 age**		**30-39 age**		**40 and above**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
	2,72	1,03	2,93	1,03	3,41	0,9	5,45	**0,005***
Income	**1500 TL or less**		**1500-2499TL**		**2500TL and above**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
	2,95	1,1	2,45	0,83	3,11	1,04	7,441	**0,001***
Education Status	**Pre- Graduate**		**Graduate**		**Post-Graduate**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
	3,27	0,87	2,9	1,04	2,92	1,03	0,569	0,567
Professional Status	**Health personnel**		**Administrative Staff**		**Others**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
	2,8	1,03	3,21	1,08	3,08	0,66	2,683	0,071

* P<0,05

Table 6 shows the ANOVA test of the socio-demographic variables of the health workers participating in the study. According to the results of the analysis, the mean and standard deviation values of the health care workers were found to be similar. Hence, the hypotheses H2, H5 and H6 were rejected. According to age and income status of health workers, there is statistically significant difference between scores obtained from Toxic Leadership Scale ($p < 0.05$).

Tukey HSD test was used to determine which group was significant. The averages obtained from the Toxic Leadership Scale by health workers aged 40 and over (3,41±0,90), are more than 20-29 (2,72±1,03) years and 30-39 (2,93±1,03) age groups. Toxic leadership perceptions of this age group are higher. In terms of income; those who declare their income as 2500TL and above are higher than the other income groups (3.17 ± 1.04) obtained from the Toxic Leadership Scale. Therefore, H3 and H4 hypotheses are accepted for income and age variables.

The results of ANOVA test comparing the average of the health care workers in the hospital compared to the units they work in the hospital did not show a statistically significant difference since the averages of the employees were close to the hospital units ($p < 0.05$). In this case, H7 hypothesis was rejected since there was no statistically significant difference in Toxic Leadership levels compared to the units in which health workers work in the hospital.

Table 7. ANOVA Test Results According to the Duties of Health Workers in the Hospital

Duties of Health Workers											
Physician		**Nurse**		**Secretary**		**Technician**		**Adm. Per.**		**F**	**P**
Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**		
2,95	1,01	2,71	1,06	2,91	1,04	2,26	0,7	3,4	0,98	3,281	**0,013***

* P<0,05

Table 7, as a result of the analysis; The mean values of administrative personnel obtained from Toxic Leadership Scale (3.40 ± 0.98), physician (2.95 ± 1.01), nurse (2.71 ± 1.06), secretary (2.91 ± 1.04) and technicians (2,26 ± 0,70) were found to be higher than the average of health workers and statistically significant. Tukey HSD test was used to determine the group in which the differences were caused by Post-hoc tests. H8 hypothesis, which was established due to the differentiation of Toxic Leadership levels of administrative staff from other groups, was accepted.

According to the t test results comparing the averages of the health workers related to the sub-dimensions of toxic leadership according to their gender, the averages obtained from the sub-dimensions of the toxic employees of the health workers do not differ statistically. Thus, H9a hypothesis was rejected.

ANOVA test results comparing the mean values of health care workers related to toxic leadership sub-dimensions according to their marital status shows that the averages obtained from toxic leadership sub-dimensions of health workers according to their marital status do not differ statistically. Accordingly, H9b hypothesis established in this case was rejected.

Table 8. Scores of Toxic Leadership Sub-Dimensions According to Age of Health Workers

Age								
Toxic Leadership Sub-Dimensions	**20-29**		**30-39**		**40+**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
Self-Seeking	2,78	1,17	2,95	1,04	3,44	0,94	4,336	**0,014***
Not to appreciate	2,81	1,11	3,01	1,1	3,52	0,93	4,969	**0,008***
Negative Mood	2,53	1	2,72	1,16	3,26	0,96	5,752	**0,004***
Selfishness	2,62	1,02	2,9	1,06	3,26	0,94	4,983	**0,008***

* P<0,05

Table 8 presents the results of ANOVA test comparing the averages of the health care workers' sub-dimensions of toxic leadership according to their age. The averages obtained from the sub-dimensions of toxic leadership of health workers according to their age statically differ significantly. In this case, H9c hypothesis was accepted. Tukey HSD test was used to determine the difference between the groups.
There is a significant difference between health workers who are over 40 years of age and health workers of 20-29 age group. It is understood that health workers over 40 years of age exhibit more toxic leadership characteristics.

Table 9. Scores of Toxic Leadership Sub-Dimensions According to Health Employees' Income Status

Income								
Toxic Leadership Sub-Dimensions	**1500TL or Under**		**1500-2499TL**		**2500TL or Above**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
Self-Seeking	3,04	1,31	2,48	0,85	3,14	1,11	6,464	**0,002***
Not to appreciate	3,04	1,17	2,51	0,93	3,21	1,1	7,207	**0,001***
Negative Mood	2,78	1,08	2,3	0,88	2,89	1,12	5,277	**0,006***
Selfishness	2,74	1,11	2,38	0,82	3,04	1,06	7,368	**0,001***

* P<0,05

Table 9 shows the results of the ANOVA test, which compares the averages of the health workers income status according to the sub-dimensions of toxic leadership. According to their income, the averages obtained from the sub-dimensions of toxic leadership of health workers statistically differ significantly. H9d hypothesis was accepted in this case. Tukey HSD test was used to determine the difference between the groups. Health workers who declare their income as 2500 TL and above in the values of self-seeking, not to appreciate, negative mood and selfishness have more toxic leadership characteristics.

The ANOVA test results comparing the averages of healthcare workers' sub-dimensions of toxic leadership according to their educational status do not differ statistically. In this case established H9e hypothesis was rejected.

Table 10. Toxic Leadership Sub-Dimensions Scores According to Professional Status of Health Workers

Professional Status								
Toxic Leadership Sub-Dimensions	**Health Per.**		**Adm. Per.**		**Others**		**F**	**P**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**		
Self-Seeking	2,84	1,11	3,26	1,12	3,14	0,77	2,508	0,084
Not to appreciate	2,87	1,11	3,35	1,07	3,25	0,73	3,409	**0,035***
Negative Mood	2,65	1,05	2,9	1,23	2,94	0,72	1,017	0,364
Selfishness	2,74	1	3,12	1,2	2,74	0,66	2,25	0,108

* P<0,05

Table 10 shows the ANOVA test results comparing the averages of the health care workers' sub-dimensions of toxic leadership according to their professional status. According to their professional status, the averages obtained from the sub-dimensions of toxic leadership of health workers do not differ statistically only in one sub-dimension. The H9f hypothesis

established in this case was accepted for only one sub-dimension and was rejected for other sub-dimensions. The differences between the post hoc tests and the Tukey HSD results were found to be among the administrative staff and health personnel.

H9g hypothesis was rejected because the averages obtained from toxic leadership sub-dimensions did not differ statistically according to the unit of health workers.

Table 11. Scores of Health Workers from Toxic Leadership Sub-Dimensions According to Their Duties in Hospital

Sub- Dimensions	Working Unit	Mean	SD	F	P
Not to appreciate	Physician	3,08	1,12	4,449	**0,002***
	Nurse	2,73	1,12		
	Secretary	2,99	1,06		
	Technician	2,23	0,73		
	Administrative Staff	3,6	0,96		
Self-Seeking	Physician	3,03	1,13	3,426	**0,010***
	Nurse	2,74	1,15		
	Secretary	2,87	1,05		
	Technician	2,3	0,68		
	Administrative Staff	3,5	1,02		
Selfishness	Physician	2,82	1,01	1,661	0,161
	Nurse	2,71	0,99		
	Secretary	2,86	1,07		
	Technician	2,3	0,77		
	Administrative Staff	3,17	1,18		
Negative Mood	Physician	2,68	1,01	1,273	0,282
	Nurse	2,6	1,09		
	Secretary	2,83	1,17		
	Technician	2,25	0,78		
	Administrative Staff	3	1,14		

* P<0,05

In Table 11, it is seen that the averages of health workers' toxic leadership sub-dimensions did not differ statistically according to their duties in the hospital. However, the established H9h hypothesis was accepted for **not to appreciate** and **self-seeking** sub-dimensions. Therefore, we can say that this hypothesis has been partially accepted. Tukey HSD test from Post-hoc tests was used to determine the difference between groups. As a result of the tests conducted, it was revealed that there is a significant difference between the nurses and administrative personnel, technicians and administrative personnel in the not to appreciate sub-dimension. In addition, it was found out that there was a difference between nurses and administrative staff, technicians and administrative staff in the sub-dimension of self-seeking.

4. DISCUSSION AND CONCLUSION

Toxic leadership has been defined as the kind of leadership exhibiting destructive and dysfunctional behaviors. Toxic leadership has largely not been discussed. Therefore, it is important to demonstrate whether that this type of leadership differs in terms of socio-

demographic variables or not. Thus, discussing the consequences of toxic leadership is very important, especially in the scientific platform, health, and education sectors.

This study tried to reveal the relation among the socio-demographic variables such as gender, age, marital status, education status, hospital duty, income, occupational status, working unit, and toxic leadership levels. The survey was conducted on the basis of the general average and the sub-dimensions of the scale obtained by the employees on the toxic leadership scale. The Cronbach-Alpha coefficient was found to be high 0.98. The scale used in the study is reliable.

When the findings obtained at the end of the study were examined, it has understood that the perception of toxic leadership behaviors perceived by the hospital staff varies according to demographic characteristics. The toxic leadership averages of health workers differ statistically according to their gender, indicating that the toxic leadership averages of men were higher than the toxic leadership averages of women.

While the toxic leadership averages of health workers do not differ according to their marital status, educational status and professional status, their avareges differ in terms of age and income. Health workers who are 40 years of age and over and those who gain 2500 TL and above salary have higher toxic leadership avarege or tendency than the other groups. In addition, when it is evaluated on the basis of sub-dimensions, it has been determined that there are differences in the avareges of self-seeking, not to appreciate, self-interest, negative mood. This situation can be explained by the fact that health workers who have a higher age are in higher positions and have more experience when compared to young health workers.

Likewise, health workers who have high incomes also tend to have more toxic leadership tendencies than health workers who have lower incomes. Generally speaking, higher income is relates to higher positions and occupation. Health workers with this income group may have a repressive and destructive behavior in performing their social roles.

According to the occupational status of the health care workers, the averages obtained from the Toxic Leadership Scale do not differ, while there is a difference in the sub-dimensions of the scale. This difference is seen in “the not to appreciate” sub-dimension of scale. It was determined that this difference occurred between administrative staff and health personnel. The average obtained by the administrative staff is higher than health workers in the "not to appreciate" sub-dimention. This indicates that the perception of administrative staff is higher for this sub-dimension.

The toxic leadership levels of health workers do not differ according to the unit they work in the hospital but their levels differ according to their duties in the hospital. However, this situation is seen between the administrative staff and nurses in the not to appreciate sub-dimension. The average of administrative staff obtained from this sub-dimention is higher than that of nurses. The tendency of administrative staff to exhibit more toxic leadership may be due to the fact that administrative staff feel more senior management pressure.

In our study, the toxic leadership averages of health workers differ statistically according to their gender, indicating that the toxic leadership averages of men were higher than the toxic leadership averages of women. However, the averages of healthcare workers' sub-dimensions of toxic leadership according to their educational status do not differ statistically. Like Singh and hisfriends’ study (2017) perceived toxicity in leader by subordinate shows negative relationship with gender and positive with education level (Singh, Dev and Sengupta, 2017:120).

In a study conducted in 2016 by İzgüden et al., it was determined that there was a significant difference among the groups according to occupation, age, gender, income and marital status. They also found that the higher the level of education, the higher the perceptions of health personnel in respect to toxic leadership behavior (İzgüden, Eroymak and Erdem, 2016: 274).

Çetinkaya and Ordu (2018) stated that there was no significant difference in the perceptions of teachers regarding all aspects of toxic leadership in terms of professional seniority and

branch variables; Kasalak (2015) showed that employees' perceptions of organizational toxicity did not differ significantly from managerial task variables; Demirel (2015) determined that according to the teachers' perceptions of the leadership of toxic leadership in terms of professional seniority and branch variables do not differ; Demirel (2015) also stated that toxic leadership differed significantly according to marital status; found that the married people perceived their managers as more toxic than singles.

As a result of this study, we can make the following recommendations to health managers: Health managers should identify the factors that cause older age workers (40 years and older) to exhibit toxic leadership tendencies and take measures to eliminate these factors.

Health managers should try to close the income gap between health workers and support the career development of their employees by in-service training. In addition, the impact of income should be investigated by different studies.

Nowadays, health services have become unmanageable with classical management styles due to the developments in communication technology and medical technology in terms of health workers and patients. For this reason, institutions should determine which leaders tend to be destructive and environments that will facilitate destructive behavior should be identified and measures should be taken to eliminate these threats. Inaddition, administrative pressures on managerial staff should be mitigated.

When knowledge of Toxic Leadership is acquired, it will be possible to create an ethical organization climate that will prevent toxic leadership behaviors, improve toxic leaders and make toxic leadership behaviors impractical. Therefore, studies on this subject should be followed and intensified.

In conclusion, toxic leadership levels of health workers differ according to socio-demographic variables. Studies on toxic leadership are very limited in the health sector, so it is advisable to carry out studies in the future to establish the relationship between toxic leadership and other variables such as (job termination intention, job stress, job dissatisfaction, organizational commitment, etc.).

REFERENCES

Aryee, S., Chen, Z. X., Sun, L. Y., ve Debrah, Y. A., (2007). Antecedents and outcomes of abusive supervision: test of a trickle-down model. Journal of Applied Psychology, 92(1): 191-201.

Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., ve May, D. R., (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. The leadership quarterly, 15(6): 801-823.

Başar, U., Sığrı, Ü., ve Basım, N., (2016). İş yerinde karanlık liderlik. İş ve İnsan Dergisi, 3(2): 65-76.

Bass B. M (1985). Leadership and performance beyond expectations. Collier Macmillan.

Bass B. M, Avolio B. J (2000). Manual for multifactor leadership questionnaire: Sampler set . Redwood City. CA: Mind Garden.

Bass, B. M., ve Steidlmeier, P., (1999). Ethics, character, and authentic transformational leadership behavior. The Leadership Quarterly, 10(2): 181-217.

Brown, M. E., Treviño, L. K., ve Harrison, D. A., (2005). Ethical leadership: A social learning perspective for construct development and testing. Organizational behavior and human decision processes, 97(2): 117-134.

Burns J. M (1978). Leadership New York. NY: Harper and Row Publishers.

Çelebi, N., GÜNER, A. G. H., ve Yildiz, V., (2015). Toksik liderlik ölçeğinin geliştirilmesi. Bartın Üniversitesi Eğitim Fakültesi Dergisi, 4(1): 249-268.

Cheng, B. S., Chou, L. F., Wu, T. Y., Huang, M. P., ve Farh, J. L., (2004). Paternalistic leadership and subordinate responses: Establishing a leadership model in Chinese organizations. Asian Journal of Social Psychology, 7(1): 89-117.

Deal, T. E., ve Peterson, K. D. (1999). Shaping school culture: The heart of leadership. Adolescence, 34(136): 802.

Demirel, N. (2015). Öğretmen Algılarına Göre Okul Müdürlerinin Toksik Liderlik Davranışları ile Öğretmenlerin Örgütsel Sinizm Tutumları Arasındaki İlişki (Gaziantep Şehitkâmil İlçesi Örneği). (Yayımlanmamış Yüksek Lisans Tezi). Kahramanmaraş Sütçü İmam Üniversitesi, Gaziantep.

Dobbs J. M (2014). The relationship between perceived toxic leadership styles, leader effectiveness and organizational cynicism. University of San Diego: Doctoral dissertation.

Einarsen, S., Aasland, M. S., ve Skogstad, A., (2007). Destructive leadership behaviour: A definition and conceptual model. The Leadership Quarterly, 18(3): 207-216.

Ferris, G. R., Zinko, R., Brouer, R. L., Buckley, M. R., ve Harvey, M. G., (2007). Strategic bullying as a supplementary, balanced perspective on destructive leadership. The Leadership Quarterly, 18(3): 195-206.

Firestone J, Jatlett, R (2009). The Ethics of interpersonal relationships. London: Karnac Books.

Flynn, G. (1999). Stop toxic managers before they stop you!. Workforce, 78(8): 40-44.

Gündüz, Y., & Dedekorkut, S. E. (2014). Yıkıcı liderlik. Mersin Üniversitesi Eğitim Fakültesi Dergisi, 10(1): 95-104.

İbicioğlu, H., (2009). Liderlik davranışı ve toplumsal norm ilişkisi: Ampirik bir çalışma. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi. 14(2): 3-4.

İzgüden, D., Eroymak, S. ve Erdem, R. (2016). "Sağlık Kurumlarında Görülen Toksik Liderlik Davranışları: Bir Üniversite Hastanesi Örneği", **Balkan Sosyal Bilimler Dergisi,** 262-276.

Kasalak, G. (2015). Yükseköğretimde Örgütsel Toksisite: Kaynakları, Etkileri ve Başa Çıkma Stratejileri. (Yayımlanmamış Doktora Tezi). Akdeniz Üniversitesi, Antalya.

Koçel, T (2010). İşletme Yöneticiliği. İstanbul: Beta Basım Yayım Dağıtım.

Lipman-Blumen J (2004). The allure of toxic leadership: Why we follow destructive bosses and corrupt politicians and how we can survive them. New York: Oxford University Press.

Lipman-Blumen, J., (2005). Toxic leadership: When grand illusions masquerade as noble visions. Leader to Leader, 36: 19-36.

Lipman-Blumen, J., (2005b). The allure of toxic leaders: Why followers rarely escape their Clutches. Ivey Business Journal, 69(3): 1-40.

McShane S. L,Von Glinow M. A (2009). Organizational behavior. Boston: McGraw-Hill.

Padilla, A., Hogan, R. ve Kaiser, R. B., (2007). The toxic triangle: Destructive leaders, susceptible followers, and conducive environments. The Leadership Quarterly, 18: 176-194.

Paunonen SV, Linnqvist JE, Verkasalo M, et al. (2006). Narcissism and emergent leadership in military cadets. Leadership Quarterly, 17(5): 475 86.

Pelletier, K. L., (2010). Leader toxicity: An empirical investigation of toxic behavior and rhetoric. Leadership, 6(4): 373-389.

Reed, G. E., ve Olsen, R. A., (2010). Toxic leadership: Part deux. Army Combined Arms Center Fort Leavenworth Ks Military Review.November-December: 58-64.

Rosenthal, S. A. Ve Pittinsky, T. L., (2006). Narcissistic leadership. The Leadership Quarterly. 17: 617-633.

Shaw, J. B., Erickson, A.ve Harvey, M. (2011).A method for measuring destructive leadership and identifying types of destructive leaders in organizations. The Leadership Quarterly, 22(4): 575-590.

Schmidt, A. A., (2008). Development and validation of the toxic leadership scale (Doctoral dissertation).

Singh, N., Dev, S., Sengupta, S. (2107), Perceived toxicity in leaders: Through the demographic lens of subordinates, Procedia Computer Science 122, Information Technology and Quantitative Management, Published by Elsevier B.V. 114-121.

Tepper, B. J., (2000). Consequences of abusive supervision. Academy Of Management Journal, 43(2): 178-190.

Thoroughgood, C. N., Padilla, A., Hunter, S. T., ve Tate, B. W., (2012). The susceptible circle: A taxonomy of followers associated with destructive leadership. The Leadership Quarterly, 23(5): 897-917.

Titizoğlu, Ö. Ç. ve Eren, M. Ş., (2014). Dönüşümcü ve etkileşimci liderlik tarzlarının örgütsel özdeşleşme ve iş tatmini üzerindeki etkileri. Sosyal Ekonomik Araştırmalar Dergisi, 14(27): 275-303.

Trevino, L. K., Brown, M. ve Hartman, L. P., (2003). A qualitative investigation of perceived executive ethical leadership: Perceptions From İnside and Outside The Executive Suite. Human Relations, 56(1): 5–37.

Van de Vliert, E., Matthiesen, S. B., Gangsøy, R., Landro, A. B., ve Einarsen, S. (2010). Winters, summers and destructive leadership cultures in rich regions. SAGE Journals, (11): 315-340.

Webster, V., Brough, P. ve Daly, K., (2016). Fight, flight or freeze: common responses for follower coping with toxic leadership. Stress and Health, 32(4): 346-354.

Williams D. F (2005). Toxic leadership in the US Army. Army War Coll Carlısle Barracks Pa.

Wilson-Starks K. Y (2003). Toxic leadership. Transleadership.

Woestman, S. D. ve Wasonga, A. T., (2015). Destructive Leadership Behaviors and Workplace Attitudes in Schools. NASSP Bulletin, 99 (2): 147-163.

Yagil, D., Ben-Zur, H. ve Tamir, I., (2011). Do employees cope effectively with abusive supervision at work? An exploratory study. International Journal of Stress Management, 18 (1): 5–23.

Zellars, K. L., Tepper, B. J., ve Duffy, M. K., (2002). Abusive supervision and subordinates' organizational citizenship behavior. Journal of Applied Psychology, 87 (6): 1068-10.