



## Evaluation of the Concept of Violence in Healthcare from the Perspective of Patients and Companions in a Medical Faculty Hospital

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### Abstract

**Objective:** This study aimed to measure the knowledge of the concept of violence and evaluate the perspectives on violence and violence in healthcare among people who applied to a medical faculty hospital as patients/companions.

**Methods:** The minimum sample size for this cross-sectional study was calculated to be 150, and the data of 206 people were evaluated. A form with 36 questions was used to collect the data. Independent samples t-test, one-way analysis of variance, chi-squared test, and effect sizes were used to investigate the relationships between variables. Statistically,  $p < 0.05$  was considered significant.

**Results:** The mean age of the participants was  $43.95 \pm 12.30$  years and 53.9% were female. According to 61.7% of the participants stated that physicians were the group most exposed to violence. According to patients/companions, the two most common reasons for violence in healthcare were long waiting times and indifference of healthcare professionals (HCPs). 83.5% of the participants stated that violence in healthcare could be prevented. 11.7% of the participants thought that HCPs deserved violence. 58.7% of the participants stated that they had been exposed to any type of violence, 42.7% reported that they had previously used violence, and 5.8% stated that they had previously used violence against HCPs. The percentage of participants who correctly identified all types of violence was 23.3%.

**Conclusion:** Similar and qualitative studies are needed to determine the causes of violence in healthcare and to struggle with violence in healthcare.

**Keywords:** Healthcare Professional, Violence, Community, Patient, Companion

### 1. Introduction

Although more than twenty years have passed since the International Labour Office, the International Council of Nurses and the World Health Organization published the document entitled 'Framework Guidelines for Addressing Workplace Violence in the Health Sector', violence against healthcare professionals (HCPs) persists as an important problem (1). HCPs are a group with a high risk of exposure to violence worldwide. The frequency of HCPs being subjected to physical violence at some point in their career is estimated to be 8-38%. In addition, HCPs are exposed to threats and verbal aggression of unknown frequency. Patients and patient relatives are the most common perpetrators of violence against HCPs (2).

In studies conducted in Türkiye, the frequency of HCPs being subjected to physical violence at least once during their professional life is up to 30%, and verbal violence is up to 60% (3-5). According to a statement of the Ministry of Health of the Republic of Türkiye in 2018, the most common places where violence in health care was observed during the period 2013-2017 were outpatient clinics and emergency departments. During the same period, physicians were found to be the group most frequently exposed to violence (6). While some studies have reported that physicians are more likely to be exposed to violence, there are also studies reporting that nurses are more likely to be exposed to

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violence (4,5,7). No effective and lasting solution to violence in healthcare has been found, and HCPs continue to be exposed to violence in Türkiye (8). In recent years, Turkish HCPs have tended to pursue their careers abroad to escape violence and find better working conditions (9,10).

There are many studies and reports in the literature that examine the situations in which HCPs are exposed to violence, the factors involved, and the possible consequences of violence. However, studies that address the phenomenon of violence in healthcare from the perspective of patients/companions are limited. This study aimed to measure the knowledge of the concept of violence and evaluate the perspectives on violence and violence in healthcare among people who applied to a medical faculty hospital as patients/companions.

## **2. Methods**

Türkiye has landed in Asia and Europe, is located in the European Region of the World Health Organization, and belongs to the upper middle economic class. The study was conducted in the capital city, A province.

This cross-sectional study was conducted between 01/11/2021 and 15/06/2022. The data were collected at the A University Faculty of Medicine Ibn-i Sina Hospital during working hours on weekdays between 01/03/2022 and 15/04/2022. To minimize the risk of bias, data were collected every day of the week using the same method.

The target population of the study consisted of male and female patients/companions aged 18-65 years who applied to tertiary healthcare institutions in the A province. The sample of the study consisted of patients/companions who applied to the outpatient clinics and emergency department of A University Faculty of Medicine Ibn-i Sina Hospital. The minimum sample size was calculated as 150 people to determine the effect size of 0.33 (Cohen-w) with 0.05 type 1 error and 80% power (11).

The study included 206 patients/companions aged 18-65 years, male and female, who applied to the outpatient clinics and the emergency department of the hospital where the study was conducted between the study dates, who could understand and answer the verbal questions, and who agreed to participate in the study.

A data collection form (DCF) consisting of 36 questions was prepared by the researchers through a brainstorming process. Among the questions in the DCF, 13 ask for sociodemographic characteristics and 23 for characteristics related to violence. Among the 23 questions about characteristics related to violence, 8 of them consisted of statements aimed at measuring the participants knowledge about the types of violence. For these 8 statements, a score was calculated as 1 point for knowing the type of violence correctly and 0 points for not knowing the type of violence correctly.

The DCF was applied to participants who agreed to participate in the study and gave verbal consent through the face-to-face interview method. Each form took approximately 20 minutes to complete.

Ethical approval was obtained from the A University Faculty of Medicine (date: 03/03/2022 number: E-72189195-050.03.04-434681), and institutional permission was obtained from the A University Faculty of Medicine Chief Physician of Hospitals.

### **2.1. Statistical analysis**

Data were analyzed using SPSS (SPSS for Windows, version 16.0. Chicago, SPSS Inc.) and G\*Power version 3.1.9.7. Mean±standard deviation, median (min-max), number, and percentage were used to summarize the data. In addition to the independent samples t-test, one-way analysis of variance, and chi-squared test which yielded results based on the p-value, effect sizes were calculated. Statistically,  $p < 0.05$  was considered significant for analyzes yielding results based on the p-value. Pearson's correlation coefficient (r), Cohen's d, and Cramer's V were presented as effect sizes. Pooled standard

deviation values were calculated from '[https://www.psychometrica.de/effect\\_size.html](https://www.psychometrica.de/effect_size.html)' and entered into the program. Pearson's correlation coefficient was 0.00-0.25 with no association/limited association, 0.26-0.50 with weak association, 0.51-0.75 with moderate association, and 0.76-1.00 with strong association. Coefficients with a positive (+) sign indicate that the variables increase or decrease together, whereas coefficients with a negative (-) sign indicate that one of the variables increases when the other decreases or vice versa. For Cohen's d, an effect size of 0.20 small, 0.50 medium, and 0.80 large was accepted in the t-test family; 0.10 small, 0.25 medium, and 0.40 large in the F-test family. Cramer's V, which can take values between 0 and 1, was interpreted as 0.1 or less as a weak association, 0.1 to 0.3 as a moderate association, and 0.3 or more as a strong association.

### 3. Results

#### 3.1. Sociodemographic characteristics of participants

The sociodemographic characteristics of the participants are presented in Table 1. The mean age was  $43.95 \pm 12.30$  years (19-65), 53.9% were female, 52.9% had university and higher education, 57.8% had a healthcare professional relative, and 58.7% were companions on the day of enrollment.

**Table 1.** Sociodemographic Characteristics of Participants

Characteristics		n	%
Gender	Female	111	53.9
	Male	95	46.1
Educational level	High school and lower	97	47.1
	University and higher	109	52.9
Marital status	Single	68	33.0
	Married	126	61.2
	Divorced/Widowed	12	5.8
Work status	Working	125	60.7
	Not working	81	39.3
Perceived income level	Income is less than expenses	84	40.8
	Income is equal to expenses	82	39.8
	Income is greater than expenses	40	19.4
Health insurance presence	Yes	185	89.8
	No	21	10.2
Smoking status during any period of life	Yes	141	68.4
	No	65	31.6
Alcohol use during any period of life	Yes	100	48.5
	No	106	51.5
Chronic illness	No	90	43.7
	Yes	116	56.3
A healthcare professional relative presence	Yes	119	57.8
	No	87	42.2
Status of being in the hospital on the day of enrollment in the study	Companion	121	58.7
	Patient	85	41.3

#### 3.2. Perceptions of participants about violence in healthcare

The perceptions of participants about violence in healthcare are shown in Table 2. According to 81.6% of the participants, the emergency department was the place where violence in healthcare occurred most frequently, 56.3% stated that female gender and 61.7% physicians were the group most exposed to violence, 76.7% thought that HCPs are exposed to violence more than other professions. Long waiting times and indifference of HCPs were common reasons why they were exposed to violence. 85.4% thought that penalties for violence in healthcare were insufficient. 11.7% stated that HCPs deserve violence. 83.5% believed that violence in healthcare is preventable.

**Table 2.** Perceptions of Participants about Violence in Healthcare

	Perceptions	n	%
Department most exposed to violence in healthcare	Emergency department	168	81.6
	Outpatient clinics	11	5.3
	Other	27	13.1
Gender most exposed to violence in healthcare	Female	116	56.3
	Male	48	23.3
	Both	42	20.4
Profession most exposed to violence in healthcare	Physician	127	61.7
	Nurse	43	20.9
	Other	36	17.4
Thinking that HCPs are exposed to violence more than other professions	Yes	158	76.7
	No	48	23.3
According to the participants, the reasons why HCPs are exposed to violence	Long waiting times	50	24.3
	Indifference of HCPs	38	18.4
	Expectations of patients/companions	28	13.6
	Communication problems	27	13.1
	Negative behavior of patients/companions	24	11.7
	Fear of losing a loved one	20	9.7
	Lack of education	8	3.9
	Other	11	5.3
Thinking that penalties for violence in healthcare are sufficient	Yes	17	8.3
	No	176	85.4
	Do not know	13	6.3
Thinking that media coverage of violence in healthcare increases violence in healthcare	Yes	107	51.9
	No	99	48.1
Thinking that HCPs deserve violence	Yes	24	11.7
	No	182	88.3
Thinking that violence in healthcare is preventable	Yes	172	83.5
	No	34	16.5
Suggestions for preventing violence from the participants who said that violence in healthcare can be prevented (n=172)	Legal regulation/dissuasive penalties	68	39.1
	Community education/awareness activities	44	25.3
	Improving attitudes of HCPs	15	8.6
	Improving communication skills	14	8.0
	Increasing safety measures	11	6.3
	Other	22	12.6

### 3.3. Experiences of participants about violence, recognition of types of violence, and knowledge scores

Experiences of the participants about violence are presented in Table 3. 58.7% of the participants stated that they had been exposed to any type of violence, 42.7% reported that they had previously used violence, and 5.8% stated that they had previously used violence against HCPs.

**Table 3.** Experiences of Participants about Violence

	Experiences	n	%
Previous exposure to any type of violence	Yes	121	58.7
	No	85	41.3
Previous use of any type of violence	Yes	88	42.7
	No	118	57.3
Using violence when necessary even against a loved one	Yes	43	20.9
	No	163	79.1
Witnessing violence against HCPs	Yes	67	32.5
	No	139	67.5
Ever used violence against HCPs	Yes	12	5.8
	No	194	94.2

Table 4 shows the recognition of types of violence by the participants. The most common type of violence that the participants correctly identified was physical violence with 98.1%, while the least common type was economic violence with 51.5%. The percentage of participants who correctly identified all types of violence was 23.3%.

**Table 4.** Recognition of Types of Violence by Participants

Types of Violence		n	%
Punching the downstairs neighbor who has parked his car in your parking space (physical violence)	It is not violence	4	1.9
	It is violence	202	98.1
Swearing at a pedestrian for not waiting at a red light (verbal violence)	It is not violence	26	12.6
	It is violence	180	87.4
Forcing your spouse, who does not want to visit your mother, to visit her (psychological violence)	It is not violence	69	33.5
	It is violence	137	66.5
Scolding your child for not doing their homework (verbal and psychological violence)	It is not violence	54	26.2
	It is violence	152	73.8
Starving stray animals (physical violence and neglect)	It is not violence	12	5.8
	It is violence	194	94.2
Not buying the flour needed at home (economic violence)	It is not violence	100	48.5
	It is violence	106	51.5
Not taking time to play with your child (neglect)	It is not violence	87	42.2
	It is violence	119	57.8
Gossiping about your colleague at work (verbal violence/ mobbing)	It is not violence	82	39.8
	It is violence	124	60.2
Recognizing all of the above items as violence	Yes	48	23.3
	No	158	76.7

The mean knowledge score calculated from the recognition of the types of violence by participants was  $5.89 \pm 1.69$ , and the median was 6 (0-8).

### 3.4. Variables associated with the knowledge score for recognition of types of violence

In the hypothesis tests conducted to determine the variables that may be associated with the knowledge score for recognition of the types of violence, only the variable thinking that penalties for violence in healthcare are sufficient was found to be associated with the knowledge score, and the mean knowledge score was highest among those who thought that penalties were insufficient.

There was no significant correlation between age and knowledge score ( $r=-0.031$ ). Significant effect sizes were calculated between educational level (small effect size), work status (small effect size), thinking that penalties for violence in healthcare are sufficient (medium effect size), thinking that HCPs deserve violence (medium effect size), thinking that violence in healthcare is preventable (small effect size), using violence when necessary even against a loved one (small effect size), witnessing violence against HCPs (small effect size), and previous use of violence against HCPs (small effect size). Details of the analyzes are presented in Table 5.

**Table 5.** Variables Associated with the Knowledge Score for Recognition of Types of Violence

		Score		p	Test family Effect size
		Mean	Standard Deviation		
Gender	Female	5.92	1.59	0.814	t-test family 0.035
	Male	5.86	1.81		
Educational level	High school and lower	5.78	1.58	0.381	t-test family 0.124**
	University and higher	5.99	1.78		
Marital status	Single	5.94	1.73	0.874	F-test family 0.035
	Married	5.89	1.68		
	Divorced/Widowed	5.67	1.67		
Work status	Working	6.05	1.68	0.103	t-test family 0.238**
	Not working	5.65	1.68		
Perceived income level	Income is less than expenses	5.94	1.73	0.911	F-test family 0.030
	Income is equal to expenses	5.89	1.63		
	Income is more than expenses	5.80	1.76		
Status of being in the hospital on the day of enrollment in the study	Companion	5.92	1.64	0.807	t-test family 0.035
	Patient	5.86	1.77		
Thinking that penalties for violence in healthcare are sufficient	Yes	5.65	1.73	0.007*	F-test family 0.221**
	No	6.02	1.62		
	Do not know	4.54	2.03		
Thinking that HCPs deserve violence	Yes	5.29	1.81	0.063	t-test family 0.405**
	No	5.97	1.66		
Thinking that violence in healthcare is preventable	Yes	5.94	1.74	0.354	t-test family 0.172**
	No	5.65	1.39		
Previous exposure to any type of violence	Yes	5.93	1.75	0.681	t-test family 0.053
	No	5.84	1.60		
Previous use of any type of violence	Yes	5.91	1.69	0.908	t-test family 0.018
	No	5.88	1.70		
Using violence when necessary even against a loved one	Yes	5.77	1.74	0.585	t-test family 0.095**
	No	5.93	1.68		
Witnessing violence against HCPs	Yes	6.03	1.62	0.422	t-test family 0.118**
	No	5.83	1.72		
Ever used violence against HCPs	Yes	5.42	1.44	0.315	t-test family 0.296**
	No	5.92	1.70		

\*Indicates significant p values.; \*\*Indicates remarkable effect sizes.

### 3.5. Variables associated with the thinking that HCPs deserve violence

The details of the analyzes are shown in Table 6. A statistically significant difference was found in chi-squared test between the variables of thinking that HCPs deserve violence and marital status, using violence when necessary even against a loved one, and ever using violence against HCPs ( $p < 0.05$ ).

Significant effect sizes were calculated between educational level, marital status, perceived income level, chronic illness, status of being in the hospital on the day of enrollment in the study, using violence when necessary even against a loved one, witnessing violence against HCPs, and ever using violence against HCPs. All calculated effect sizes were moderate.



**Table 6.** Variables Associated with the Thinking that HCPs Deserve Violence

		Thinking that HCPs deserve violence				p	Cramer's V
		Yes		No			
		n	%	n	%		
Gender	Female	11	9.9	100	90.1	0.400	0.059
	Male	13	13.7	82	86.3		
Educational level	High school and lower	15	15.5	82	84.5	0.108	0.112**
	University and higher	9	8.3	100	91.7		
Marital status	Single	3	4.4	65	95.6	0.041*	0.176**
	Married	18	14.3	108	85.7		
	Divorced/Widowed	3	25.0	9	75.0		
Work status	Working	13	10.4	112	89.6	0.487	0.048
	Not working	11	13.6	70	86.4		
Perceived income level	Income is less than expenses	15	17.9	69	82.1	0.060	0.165**
	Income is equal to expenses	7	8.5	75	91.5		
	Income is greater than expenses	2	5.0	38	95.0		
Chronic illness	Yes	6	15.5	98	84.5	0.050	0.137**
	No	18	6.7	84	93.3		
Status of being in the hospital on the day of enrollment in the study	Companion	18	14.9	103	85.1	0.085	0.120**
	Patient	6	7.1	79	92.9		
A healthcare professional relative presence	Yes	13	10.9	106	89.1	0.704	0.026
	No	11	12.6	76	87.4		
Identifying all types of violence correctly	Yes	3	6.2	45	93.8	0.183	0.093
	No	21	13.3	137	86.7		
Previous exposure to any type of violence	Yes	13	10.7	108	89.3	0.628	0.034
	No	11	12.9	74	87.1		
Previous use of any type of violence	Yes	11	12.5	77	87.5	0.743	0.023
	No	13	11.0	105	89.0		
Using violence when necessary even against a loved one	Yes	10	23.3	33	76.7	0.008*	0.186**
	No	14	8.6	149	91.4		
Witnessing violence against HCPs	Yes	12	17.9	55	82.1	0.052	0.135**
	No	12	8.6	127	91.4		
Ever used violence against HCPs	Yes	5	41.7	7	58.3	0.001*	0.233**
	No	19	9.8	175	90.2		

\*Indicates significant p values; \*\*Indicates remarkable effect sizes.

#### 4. Discussion

In this study, most participants stated that the incidents of violence in healthcare occurred in emergency departments and were most often directed at physicians. Two studies conducted in the Konya and Ankara provinces in Türkiye found that patients/companions had similar perceptions (12,13). The statement of the Ministry of Health of the Republic of Türkiye is consistent with these findings (6). The fact that emergency departments are units with high patient density and intervention for sudden and unexpected health problems and that physicians are seen as the person primarily responsible for the patient's health may be the reasons for these findings.

According to the participants, the most common reasons for HCPs to be subjected to violence are long waiting times and indifference. Similar studies have identified physician indifference, patient death, crowded healthcare facilities, impatience of patients/companions, unhelpfulness of HCPs, inadequate information to patients/companions, and mistreatment as the most common reasons for violence (12-20). In a study conducted with companions in Israel, most participants did not consider similar reasons as justifiable reasons for violence (21). In this study and similar studies conducted in Türkiye, similar patterns and repetitive statements about the reasons for violence against HCPs are noteworthy. This situation may be related to the fact that the ratio of HCPs per thousand population in Türkiye is lower

than that in OECD countries, or it may be related to the high number of demands on healthcare facilities (22,23). Another reason for this may be the excessive expectations of patients/companions in this busy and crowded workplace. However, in the study conducted in Israel, the situation is different from that in the present study. In addition to the above-mentioned reasons, another reason for this situation may be cultural.

In this study, about half of the participants thought that the reflection of violence in healthcare in the media increases violence in healthcare. Several studies have concluded that news of violence against HCPs and violent incidents shown in news and broadcasts may increase violence (15,24-26). In a study of patients from 5 provincial and 12 public hospitals in China, 9.7% stated they wanted to report the incident to the media when they had a medical dispute (27). It was reported that it is not appropriate to present media content that inappropriately details the incident of violence in healthcare and does not present the perspectives of HCPs and healthcare institution administrators to the community. Otherwise, the community may be negatively affected by the violence, and the phenomenon of violence may be repeated (28,29). The media-violence relationship continues to be an issue that requires many specialists from different disciplines to come together and shed light on it.

Most participants thought that violence in healthcare is preventable. Legal regulations/deterrent penalties and community education/awareness activities were the two most frequently suggested topics for preventing violence. Similar studies have shown that violence in healthcare is preventable, and the frequencies found in these studies are similar to our study (12,13,15-17,25). This situation supports the idea that violence in healthcare can be struggled. Similar to our study, studies in the literature have suggested methods such as increasing legal penalties, increasing safety measures, increasing the number of HCPs, and providing public education to prevent violence in healthcare (12,13,26). The fact that similar prevention methods were suggested in both our study and other studies suggests that the solution should be structured in parallel with community expectations.

In this study, approximately a quarter of the participants correctly identified all types of violence. The most common type of violence that participants correctly identified was physical violence, whereas the least common type was economic violence. Educational level, work status, thinking that penalties for violence in healthcare are sufficient, thinking that HCPs deserve violence, thinking that violence in healthcare is preventable, using violence when necessary even against a loved one, witnessing violence against HCPs, and previous use of violence against HCPs were the variables found to affect recognition of the types of violence. In a similar study in Konya, it was found that 7.6% of the participants recognized the types of violence completely and correctly. In the study in Konya, the most and least recognized types of violence were the same. Previous exposure to violence and the presence of a vulnerable person at home were associated with the recognition of all types of violence (12). The researchers could not find any other studies on a similar topic in which the situation of recognition of the types of violence was questioned. The difference between the rates may be due to the specific characteristics and dynamics of the study group. The fact that the studies were carried out at different points in time may also be a factor. In addition, one study was conducted in a smaller, closed city, the other in a more cosmopolitan city due to its capital location. Although the rate found in this study is higher than that found in the study in Konya, it was low. The reason for this low rate can be explained by the fact that the participants were not aware of the importance of the issue and took violence for granted. However, the recognition of the types of violence and related factors is essential for fighting violence.

In our study, 11.7% of the participants thought that HCPs deserve/may deserve violence, and a statistically significant relationship was found between the variables of thinking that HCPs deserve violence and educational level, marital status, perceived income level, chronic illness, status of being in the hospital on the day of enrollment in the study, using violence when necessary even against a loved one, witnessing violence against HCPs, ever used violence against HCPs. In various studies conducted in



Türkiye, different rates ranging from 3.7% to 52.3% were found to think that HCPs deserve violence (12-17,25). In a study conducted in China, 1.5% of participants stated that their first reaction in case of a medical dispute would be violence (27). The finding of different rates in different studies may be related to the individual characteristics, previous life experiences of the participants, and features related to the location of the study. The fact that the rates found were quite high, especially in some studies suggests that violence is perceived as a problem-solving method and may be an important intervention area. In similar studies in Türkiye, age, educational status, family type, occupation, smoking, alcohol use, and regular medication use were found to be variables associated with thinking that HCPs deserve violence (12,13,15). In a study in Israel, justification of violence and support of violent behavior were found to be associated with the variable of thinking that HCPs deserve violence for different medical conditions (21). A study in China found a relationship between reporting that one would react violently to a medical dispute and being male, having high income, and lower life satisfaction variables (27). The findings that different variables are related in different studies may be associated with the characteristics of the research groups. In addition, the existence of the cycle of experiencing violence and perpetrating violence in the place of residence and in the culture to which one belongs may be considered as another possible reason.

## **5. Conclusion and Recommendations**

According to the participants, the most common reasons why HCPs are subjected to violence are long waiting times and indifference of HCPs. More than four-fifths of the participants think that violence in healthcare is preventable and can be prevented by legal regulations and raising community awareness. More than one-tenth of the participants stated that HCPs deserve violence. It was determined that approximately one-fourth of the participants knew the types of violence correctly. In addition, variables associated with the knowledge score for recognition of types of violence and thinking that HCPs deserve violence were determined.

These findings indicate that interventions are necessary both for violence in general and violence in healthcare in particular. Increasing public awareness about violence and teaching correct communication and anger control strategies to the community can be the first steps in this regard. In order to distinguish violence from normal behavior patterns, it may be important for the community to know the types of violence and determine attitudes toward violence. Similar research is required to clarify the underlying causes of violence in healthcare and to effectively struggle with violence in healthcare. In addition, it may be useful to conduct qualitative studies that include both perpetrators and victims of violence.

## **Limitations**

This study examines a current and important issue. The number of studies on this topic in the literature is limited. In addition to classical hypothesis testing, the effect size was also calculated in the analyzes. These three situations are the superior aspects of this study. The fact that the study was conducted in a single center is a limitation of the study.

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