

## Evaluation of Violence Against Emergency Physicians in Turkey

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**Cite this article as:** Oztok B, Icme F, Kavakli HS, Pamukcu Gunaydin G, Sener A, Kurtoglu Celik G. Evaluation of Violence Against Emergency Physicians in Turkey. *Eurasian J Emerg Med.* 2018; 17 (4): 182-6.

### Abstract

**Aim:** Violence against healthcare workers is most commonly experienced in emergency rooms. The present study aimed to assess the extent of increasing violence toward emergency physicians in Turkey and to define their opinions about reasons of violence.

**Materials and Methods:** This descriptive cross-sectional study was carried out in 2013 in Ankara, Turkey. Emergency physicians attended a questionnaire that included 25 multiple-choice questions. Emergency physicians working in training and research, university, and state hospitals were included in the study.

**Results:** A total of 502 emergency physicians were included in the study. Overall, 338 (67.3%) participants were male. The number of participants who stated that they witnessed violence against physicians or other healthcare workers at least once during their career was 494 (98.4%). In total, 414 (82.5%) participants stated that they faced violence at least once. Exposure to violence negatively affected the social life of 251 (60.6%) participants and resulted in decreased job satisfaction or interest toward their profession in 227 (54.8%) participants. The number of participants who believed that healthcare policies affected the increase of violence against healthcare workers was 490 (97.0%).

**Conclusion:** Our results indicate that violence against emergency physicians has reached very high levels and affects job satisfaction of physicians working under such circumstances.

**Keywords:** Violence, emergency medicine, physician

### Introduction

Violence has several available definitions in literature. Michaud defined violence in a broad sense as "harmful behaviors of a party toward bodily integrity, moral integrity or property, or symbolic and cultural values of others in a reciprocal relationship" (1).

Studies on violence in a workplace indicate that the number of cases of violence in the healthcare sector is much higher than that in other sectors. Violence in the healthcare sector is most

frequently seen in emergency services followed by psychiatry clinics (2). Studies also revealed that only assaults that resulted in injury are considered to be cases of violence and are reported to authorities, whereas other forms of violence are usually not reported. The actual incidence of violence is unknown owing to underreporting (2-4).

The present study aimed to assess the extent of increasing violence toward emergency physicians in Turkey and to define the reasons of this violence through their opinions.

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**Received:** 09.08.2017 • **Accepted:** 06.03.2018

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DOI: 10.5152/eajem.2018.20982

## Materials and Methods

This descriptive and cross-sectional study included 502 emergency physicians working at university hospitals, education and research hospitals, state hospitals, and private hospitals in various provinces in Turkey. A questionnaire was used to collect data. The study was conducted between April 15 and July 15, 2013 in Ankara, Turkey. The local ethics committee of Yildirim Beyazit University School of Medicine approved the study protocol. The questionnaire comprised of 25 multiple-choice questions. The number of emergency physicians in Turkey was approximately 1600 at the time of the study. Written information about the study was provided and informed consent was obtained before participants filled out the questionnaires.

The questionnaire was filled out face to face with 253 physicians working in hospitals in Ankara. Emergency physicians working

outside Ankara were contacted via e-mail. E-mail addresses were obtained from two emergency medicine associations in Turkey. A total of 1309 e-mail addresses were obtained, and 121 of them were incorrect. The survey was sent to the rest of the e-mail addresses. At the end of the fourth week, 134 answers were received, and in the fifth week, the questionnaire was re-sent to the physicians who did not respond. A total of 249 responses were received in the 10th week. The e-mail response rate was 20.9%.

### Statistical analysis

Normally distributed variables for age and working period in the health sector were assessed using the Shapiro-Wilk test. Descriptive statistics for variables that were not normally distributed were presented by median and interquartile ranges (IQR). Demographic characteristics such as gender, job title, the number of patients seen during a shift in the emergency room, and the distribution of responses given to questions were presented as numbers (n) and percentages (%). Chi-square test was used to analyze the relationship between exposure to violence and variables including gender, job title, and the institutions of occupation. Similarly, comparisons between the stated questions were analyzed using the chi-square test. The relationship between the frequency of exposure to violence and the duration of profession was evaluated using the Kruskal-Wallis test. Pairwise comparisons were performed using Bonferroni correction to determine the group causing the difference according to the Kruskal-Wallis results. IBM Statistical Package for the Social Science for Windows, v.21.0. (IBM Corp., Armonk, NY, USA) and MS Excel 2007 were used for statistical analysis and calculations.  $p < 0.05$  was considered to be statistically significant.

## Results

A total of 502 emergency physicians were included in the study, of which 338 (67.3%) were males and 164 (32.7%) were females. The median age was 31.0 years (IQR=7.0). Table 1 presents the participants characteristics.

Security guards were present in 95% of the emergency rooms where the participants worked, whereas security was insufficient as thought by 89% of the participants. Security cameras were available in 93.4% of the institutions; however, they were insufficient as thought by 76.5% of the participants. Security officers were easily accessible in 66.5% of the institutions; 97% of the security officers did not have a metal detector.

A total of 494 (98.4%) individuals stated that they witnessed violence against doctors or health professionals at least once during their careers. The number of individuals who stated that they were a victim of violence during their profession was 414 (82.5%).

No statistically significant relationship was observed between sex and exposure to violence ( $\chi^2=0.01$ ;  $p=0.973$ ). There was a statistically significant difference between exposure to violence and job title ( $\chi^2=11.941$ ;  $p=0.018$ ). Emergency medicine physicians had been exposed to violence more than the other groups. Exposure to violence was significantly higher in the training and research hospitals than in other institutions ( $\chi^2=22.236$ ;  $p=0.000$ ).

**Table 1.** Demographic characteristics of the physicians

Variables	n	(%)
<b>Job title</b>		
Emergency medical assistant	319	63.5
Specialist	144	28.7
Assistant professor	39	7.8
<b>Institution</b>		
State hospital	62	12.4
Training and research hospital	270	54.1
University hospital	164	32.9
Private hospital	3	0.6

**Table 2.** Effects of violence on physicians

Variables	n	(%)
I am injured	24	5.8
I needed treatment	69	16.7
I could not go to work	6	1.4
I thought of quitting my job	92	22.2
Loss of motivation	224	54.1
Loss of job satisfaction	227	54.8
Decrease in working quality	221	53.4
Acute stress disorder	124	30.0
Traumatic stress disorder	192	46.4
Fear/panic/restlessness	198	47.8
Sleep disorder	181	43.7
Headache	55	13.3
Abdominal pain	136	32.9
Negative effects on social life	251	60.6
Decline of trust to the administration	167	40.3
Property damage	37	8.9
Carrying a knife/tear gas	88	21.3

**Table 3.** Demographic characteristics of the aggressors

Variables	n	(%)
<b>Gender</b>		
Male	336	81.6
Female	76	18.4
<b>Age</b>		
15-25 years	92	22.3
25-40 years	232	56.3
40-55 years	84	20.4
>55 years	4	1.0
<b>Socio-economic level</b>		
Higher	170	41.3
Lower	240	58.7
<b>Education</b>		
Primary school	69	16.7
High school	54	13.1
University	52	12.7
Unknown	237	57.5
<b>Additional features of aggressors</b>		
History of psychiatric/metabolic disease	80	20.0
Disorientation	27	6.5
Confusion	20	4.8
Intoxication	17	4.1
<b>Neurological diseases</b>		
(Alzheimer's disease/dementia)	84	20.3
Drug/alcohol/substance abuse	209	50.5
Pain/anxiety	79	19.1
History of violence	90	21.8

**Table 4.** Causes of increased violence against healthcare workers according to physicians

Variables	n	(%)
Health policies	490	97.0
Publications that undermine the dignity of physicians	472	93.5
Increase in society's expectations	328	65.0
Ignorance or misinterpretation of patient rights	373	63.9
Economic problems	220	43.6
Problems related to education and culture	406	80.4
Devolution of beliefs and values	265	52.5
Intolerance	423	83.8
Lack of authority and legal gaps	407	80.6

Four hundred and fourteen individuals who stated that they were exposed to violence (100%, n=414) were exposed to verbal violence; 74.4% (n=308) were exposed to physical violence, and 28.3% (n=117) were exposed to sexual violence. Exposure to physical violence was significantly higher in men ( $\chi^2=3.940$ ;  $p=0.047$ ). No significant difference was observed between genders in other types of violence ( $p>0.05$ ).

During their entire career, 216 (52.2%) participants faced violence 1-5 times, 113 (27.3%) faced violence 5-10 times, and 151 (36.5%) faced violence >10 times. The median working periods of the participants were significantly different with regard to how many times they have faced violence ( $\chi^2=40.142$ ;  $p<0.001$ ). The duration of profession of participants who faced violence >10 times throughout their career was observed to be longer than those who faced violence 1-5 and 5-10 times ( $p<0.001$  and  $p<0.001$ , respectively).

In total, 85 (20.5%) individuals stated that they were exposed to violence during working hours between 8:00 and 17:00, whereas 329 (79.5%) individuals stated that they were exposed to violence during afterhours between 17:00 and 8:00 (night shifts).

With regard to how many patients were examined by the participants during a shift (24 h) in the emergency department, we found that 17.6% (n=88) of the physicians examined <50 patients, 31.5% (n=157) examined 50-100, 22.8% (n=114) examined 100-200, and 28.1% (n=140) examined >200 patients during a shift. No relationship was observed between the number of patients examined during a shift and the exposure to violence ( $\chi^2=5.263$ ;  $p=0.511$ ).

With regard to the negative effects of facing violence, 60.6% (n=251) of the participants stated that their social life was negatively affected, 54.8% (n=227) reported a decrease in job satisfaction or interest toward their profession, and 53.4% (n=221) stated a decline in work quality (Table 2). No significant differences between sex and the specified individual effects of violence were observed ( $p>0.05$ ).

With regard to attackers, 336 (81.6%) were male, and most of them were aged between 25 and 40 years (Table 3). When we compared the types of violence and the gender of the attackers, we found that only exposure to sexual violence was associated with the gender of the attacker. Among the victims of sexual violence, 75.0% (n=87) stated that the aggressor was male ( $\chi^2=4.609$ ;  $p=0.032$ ). No significant relationship was observed between the type of violence and the other characteristics of the aggressors ( $p>0.05$ ).

The number of participants who believe that health policies in Turkey triggered the increase of violence against healthcare workers in the society was 490 (97.0%). Two hundred and twenty (43.6%) participants attributed this increase primarily to the economic problems in the society (Table 4).

## Discussion

The rate of exposure to violence among healthcare workers was high in several studies. Gokce et al. (5) reported the frequency of physicians' exposure to violence as 71.4%, whereas Behnam et al. (6) reported this rate as 78%. According to the Violence against

Physicians Workshop report of the Istanbul Chamber of Physicians in 2009, the ratio of healthcare workers who witnessed violence throughout their career was reported as 96%, and 64% of them faced violence at least once during their career (7). In our study, the ratio of those who witnessed violence against healthcare workers was 98.4%, and the ratio of those who were exposed to violence throughout their career was 82.5%. These results reveal that violence against healthcare workers has been increasing since 2006.

A majority of studies show that verbal violence is experienced more often than other forms of violence. According to the report of the Violence against Physicians Workshop of the Istanbul Chamber of Physicians, the rate of healthcare workers who experienced verbal violence was reported to be 100%, and the rate of those who experienced physical violence was 88% (7). Similarly, in a study conducted by Behnam et al. (6), the rate of exposure to verbal violence was higher than that of physical violence. In a study by Crilly et al. (8), the ratio of verbal violence (53%) was also significantly higher. The results of our study were in accordance with literature, indicating that physicians' rate of exposure to verbal violence was higher than other kinds of violence.

A statistically significant relationship was obtained between exposure to violence and job title. In 2006, Ayranci et al. (9) reported that general practitioners, followed by resident doctors, are exposed to violence most frequently. In our study, 53.4% of the individuals who were victims of violence were resident physicians. In our opinion, the reasons why resident doctors are more exposed to violence may be: 1) they are not experienced enough to intuit and manage violence, 2) they have longer working hours, 3) they see greater numbers of patients, and 4) they spend more time with patients and their relatives.

Exposure to violence in the workplace leads to decreased motivation, performance, self-esteem, and dignity, and increased depressive symptoms, anxiety, and stress. May and Grubbs (10) reported that violence against healthcare workers leads to problems such as physical damage, abrasion, muscle pain, bone fractures, permanent disability, and emotional stress. In 2005, Kowalenko et al. (11) reported that 16% of the physicians consider changing hospitals; 1% of them changed their hospital, and 19% stated that they want to leave the emergency department because of the violence they experienced during their career. The workshop report on the Violence against Physicians of the Istanbul Chamber of Physicians indicated that burnout, adjustment disorder, anxiety, acute stress disorder, and posttraumatic stress disorder are observed in physicians because of exposure to violence (7). Gates reported that healthcare workers experience problems in concentrating and in controlling emotions after violence (3). In our study, we found that healthcare workers experienced problems such as loss of morale and motivation, decreased job satisfaction, decreased job quality, traumatic stress disorder, anxiety, panic, and adverse effects on social life because of exposure to violence in their workplace.

Individuals with a tendency to aggressive behavior usually have lower socio-economic status, problems with authority, and have experienced legal issues previously. A majority of these individuals are alcoholics or drug addicts. In addition, individuals with metabolic, neurological (e.g., Alzheimer's disease, epilepsy, and dementia), and

psychiatric disorders have a higher tendency to violence (12). In our study, 58.6% of the attackers had low socio-economic status. In addition, 50.5% (n=209) of the physicians who were exposed to violence stated that the attackers used drugs, alcohol, or other substances, 21.8% (n=90) stated that the attackers had a history of violence, 20.3% (n=84) stated that the attackers had neurological disorders (Alzheimer's disease and dementia), and 20% (n=83) stated that the attackers had psychiatric disorders. No statistically significant difference was detected between these conditions and the occurrence of violence.

Several studies have shown that social reasons were effective in the increase of violence against healthcare workers. In the Report on Violence in the Healthcare Sector published by the Gaziantep-Kilis Chamber of Physicians in 2008, factors such as ethnic and religious tension, economic problems, cultural level of the society, and devolutions experienced in the beliefs and values in the society have been blamed for the increase of tendency to violence in Turkey (13). In the Report on Violence against Healthcare Workers and Perception of Violence published by Isparta, Burdur Chamber of Physicians in 2008, economic, social, and cultural problems are reported to cause the spread of violence in the society, and misleading of media and individuals' distrustfulness to the legal system are stated to increase the susceptibility to violence (14). In our study, 97% of the participants blamed health policies for the increase of violence in the society, 93% blamed publications that erode the physicians' reputation, 80% referred to educational and cultural issues, and 83% referred to lack of tolerance.

The results of our study reveal that violence toward healthcare workers has been increasing in recent years, and a majority of healthcare workers either witness or experience violence at least once in their career. Physicians attribute this increasing tendency to the health policies that discredit the hard work of the physicians.

#### Study limitations

The e-mail response rate was 20.9% in our study, limiting the generalisability of our results to all emergency physicians in Turkey.

#### Conclusion

Violence against physicians and other healthcare professionals has become a global problem that affects public health. Therefore, precautions should be taken against violence as soon as possible, and a more secure and peaceful working environment should be provided for healthcare professionals.

We believe that the present study will help future studies to resolve problems related to this issue and enhance efforts to maintain a more secure work environment.

**Ethics Committee Approval:** Ethics committee approval was received for this study from the Ethics Committee of Yildirim Beyazit University School of Medicine (Date: 29.4.2013- Number:56).

**Informed Consent:** Written informed consent was obtained from doctors who participated in this study.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Design - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Supervision - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Resources - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Materials - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Data Collection and/or Processing - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Analysis and/or Interpretation - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Literature Search - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Writing Manuscript - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Critical Review - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.; Other - B.O., F.I., H.S.K., G.P.G., A.S., G.K.C.

**Conflict of Interest:** The authors have no conflict of interest to declare.

**Financial Disclosure:** The authors declared that this study has received no financial support.

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