



RESEARCH ARTICLE

Investigation of the Emergency Physicians' Exposure to Violence and Forensic Events

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Abstract:

Objective: The aim of this study is to determine the exposure of the emergency department physicians to violence and forensic events and related factors.

Materials and Methods: The population of this cross-sectional study was 248 emergency service physicians working at 31 different health institutions in Adana city center. Between 01 July and 31 December 2016, 202 emergency department physicians were interviewed face-to-face. Data collection tools were; the sociodemographic knowledge of the doctors, the history of violence and their approach to forensic events.

Results: The mean age of the participants was 38.3±9.6 years and mean working time in emergency departments was 8.9±7.7 years and 75.7% of the emergency physicians in our study were male. The rate of exposure to violence during working life was 88.1%. The most common types of violence were verbal violence with 88.1% and physical violence with 30.7%. It was determined that physicians were mostly violated by patients and their relatives, also it was determined that half of the physicians went to court at least once during their professional life due to medical practices. Statistically, significant relationship was found between physicians being violent and being plaintiff ($p<0.05$). It was stated that 20.8% of the doctors had a forensic investigation and 85.6% were concerned about the malpractice.

Conclusion: Emergency physicians, who are faced with violence and forensic events very often and undertake great medical and legal responsibilities, can feel anxious and lonely. Legal sanctions on violence against health workers need to be increased.

Keywords: Health Workers, Workplace Violence, Forensic Medicine

Öz:

Amaç: Acil servis hekimlerinin şiddet ve adli olaylara maruziyet durumlarını ve ilişkili olabilecek faktörleri belirlemektir.

Gereç ve Yöntem: Kesitsel tipte olan çalışmanın evrenini Adana il merkezinde 31 farklı sağlık kurumunda çalışan 248 acil servis hekimi oluşturmaktadır. 01 Temmuz-31 Aralık 2016 tarihleri arasında 202 acil servis hekimine yüz yüze tekniği ile anket yapıldı. Veri değerlendirmesinde frekans analizi ve Ki Kare testi uygulandı.

Bulgular: Araştırmaya katılanların yaş ortalaması 38.3±9.6, acil servislerde çalışma süresi ortalaması 8.9±7.7 yıl olup acil hekimlerinin %75.7'si erkekti. Çalışma yaşamı boyunca şiddete uğrama oranı %88.1'di. En fazla maruz kalınan şiddet türleri %88.1 ile sözel şiddet ve %30.7 ile fiziksel şiddet idi. Hekimlere şiddetin en fazla hasta ve hasta yakınları tarafından yapıldığı çalışmamızda hekimlerin yarısının meslek hayatı boyunca tıbbi uygulamalar nedeniyle en az bir kez mahkemede bulunduğu saptandı. Hekimlerin şiddete uğrama durumları ile davacı olmaları arasında istatistiksel olarak anlamlı ilişki görüldü ($p<0.05$). Hekimlerin %20.8'i adli soruşturma geçirdiğini, %85.6'sı malpraktis kaygısı yaşadığını belirtti.

Sonuç: Şiddet ve adli olaylar ile çok sık karşılaşan, tıbbi ve hukuki yönden büyük sorumluluklar yüklenen acil servis hekimleri kendilerini tedirgin ve yalnız hissedebilmektedir. Sağlık çalışanlarına şiddet ile ilgili hukuki yaptırımların artırılması gerekmektedir.

Anahtar Kelimeler: Sağlık Çalışanları, İş Yeri Şiddeti, Adli Tıp

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Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article.

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Ethical Declaration

* Ethical approval was obtained from Çukurova University Clinical Research Ethical Committee with date 04.12.2015, and Helsinki Declaration rules were followed to conduct this study.

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1. Introduction

Violence is defined as “Coercion, using of threat or physical force to oneself, another, group or community in a way that it can lead to or cause death, injury, mental injury, a developmental disorder.” (1). Violence in Health Institution is a verbal or behavioral threat, physical or sexual assault from a patient, relatives of the patient or another individual who pose a risk to the health care worker (2).

Violence negatively affects the quality of service offered by employees. It can cause problems by negatively affecting both the physical and psychological health of the employees and cause them to be unable to work, decrease in trust in management and employees, even their death. Violence against physicians and health workers in the health environment has been showing an increase in recent years. Hospitals are becoming more and more dangerous for health workers. Violent acts, which are widespread in society, affect health institutions seriously and cause burnout and inefficiency in employees (3-6).

The health care sector has about 10 times more risk of attack within other professions. Especially, emergency services are under the greatest risk for these incidents. Emergency department personnel are victims of violence, often from visitors and patients (7). Violence in the field of Health is significantly more common and less recorded than violence in other workplaces. Although there are many reasons for this, the common belief is that legal arrangements are not sufficient to defend the rights of employees, especially in our country (4).

Violence against health workers is now accepted as a common situation in Turkey. Subsequently, as a result of the Ministry of Health Communication Center (SABIM) violence and executive attitudes, physicians disinclose from their professions (8). In emergency treatment, the physician is expected to do many things in a short period of time, well-disciplined, also being very knowledgeable and also to act in a way that will save life first. At the same time, the physician is asked not to compromise his/her legal responsibilities and to fully comply with the rules of law (9). Violence and forensic incidents applied to emergency physicians lead to the formation of defensive medicine in the provision of treatment services and lead to anxiety (10). Writing of forensic report, forensic examinations and expertness pose problems for physicians (11).

The aim of the study; investigation of the emergency physicians' exposure to violence and forensic events and their factors that may be related.

2. Materials and Methods

248 physicians working in the emergency departments of 31 health institutions in Adana city center formed the universe of our study. In our cross-sectional study, we aimed to reach the entire universe by not selecting samples for the physicians working in the emergency department. July 01 December 31, 2016, 216 physicians were reached by all emergency departments and 202 physicians were surveyed by the researcher using a face-to-face interview technique, while 14 physicians did not want to participate in the study.

In addition to their demographics, physicians were asked about their status of violence during their professional lives, their attitudes about judicial events, their concerns about judicial events, their presence in court due to their professions and practices. Cases of complaints reached to physicians by calling the phone line 184 of the Ministry of Health Contact Center (SABIM) or via the Prime Ministry Contact Center (BIMER) were also questioned.

The data were evaluated using the SPSS version 19 program. Descriptive statistics were used in the analysis of the data and Chi-square testing was used in the comparison of variables. $P < 0.05$ was considered as an indicator of significant difference.

Ethical Declaration

The study was conducted by the decision of the non-interventional clinical research ethics committee of Çukurova University Faculty of Medicine dated 04.12.2015 and the necessary permits were obtained from public and private institutions.

3. Results

153 (75.7%) of the emergency physicians in our study were men and 49 (24.3%) were women. 168 (83.2%) of physicians work at their own request in emergency departments. In our study, the mean age of the physicians was 38.3 ± 9.6 years and the mean duration of work in the emergency department was 8.9 ± 7.7 years.

Table 1. Types of violence applied to physicians and distribution of people who practice violence

	n*	%
Kinds of Violence		
Verbal	178	88.1
Psychical	62	30.7
Psychological	45	22.3
Sexual	1	0.5
Violent Person		
Patient Relative	179	88.6
Patient	146	72.3
Physician	6	3.0
Other Medical Personnel	6	3.0

*More than one answer has been given.

In our research, when emergency physicians are questioned about the situation of violence during their professional life; 178 (88.1%) of physicians were found to have suffered at least one type of violence. 178 (88.1%) of physicians were exposed to verbal violence and 62 (30.7%) to physical violence. The people who are most frequently violent to their emergency physicians are the patient and the patient's relatives. 179 (88.6%) of our physicians reported violence by their relatives, 146

(72.3%) by their patients, 6 physicians (3%) and 6 (3%) by other medical staff (Table 1). When the relationship between physical and verbal violence in physicians and gender and the demand to work in the emergency department is analyzed; while there was no statistically significant association between gender and violence. It was statistically significant that physicians who want to work in the emergency room at their own request, suffered more verbal violence ($p = 0.021$) (Table 2).

Table 2. Gender and the relationship between violence and the demand to work in the emergency department

Variance	Physical Violence			Verbal Violence		
	n:62	%*	p	n:178	%*	p
Gender						
Male (n:153)	48	31.4	0,711	135	88.2	0,928
female (n:49)	14	28.6		43	87.8	
Request to work in the emergency department						
Own request (n:168)	51	30.4	0,818	152	90.5	0,021
Off-demand assignment (n:34)	11	32.4		26	76.5	

* Row percentage

Emergency physicians have been questioned about some cases related to forensic events in their professional lives. 101 of the physicians (50.0%) stated that they had been in court at least once in any way due to medical practices. 109 of the physicians (54.0%) received

complaints about themselves at least once during their working life through the SABIM-BIMER channel, while 42 (20.8%) received criminal investigations. 173 (85.6%) of emergency physicians experienced malpractice anxiety (Table 3).

Table 3. Distribution of the status of physicians related to forensic events

	n:202	%
Present in court due to medical practices		
Yes	101	50.0
No	101	50.0
Having complaints about BIMER -SABIM		
Yes	109	54.0
No	93	46.0
About forensic investigation		
Yes	42	20.8
No	160	79.2
Experiencing malpractice anxiety		
Yes	173	85.6
No	39	14.4

In our research, when the way physicians were present in court regarding the practice of medicine in their professional life was questioned; 55 (27.2%) of physicians were

present in court as plaintiffs, 37 (18.3%) as defendants, 9 (4.4%) as witnesses, and 32 (15.8%) as experts. The distribution of the present in court is shown in Table 4.

Table 4. Distribution of the way physicians are present in court

	n	%
Present in Court as:	55	27,2
Complainant	37	18,3
Defendant	9	4,4
Witness	32	15,8
Expert		
*Multiple responses have been given.		

102 (50.5%) of emergency physicians stated that they had problems moving their complaints about the aggressor to the judicial office. When physicians are questioned about their attitudes and behavior regarding forensic events; in forensic cases, the number of physicians who say they do not submit their clothes and belongings to safety with a report is 50 (24.8%). On the other hand, the number of physicians who say they do not pay attention to keeping blood and urine samples in the refrigerator is 82 (40.6%).

When the relationship between the violence suffered by physicians working in emergency departments and

their presence in court is analyzed; There was no statistically significant relationship between verbal, physical violence or exposure to any type of violence at least once and being a plaintiff. On the other hand, there was no statistically significant relationship between being a defendant. Furthermore, the meaningful relationship between physicians who are subjected to verbal violence and being present in court has been shown in the analyses ($p < 0.05$) (Table 5). In our study, there was no statistically significant relationship between malpractice anxiety and being in court as a defendant ($p > 0.05$).

Table 5. Comparison of cases in court by type of violence suffered by physicians

Kinds of Violence	Complainant			Defendant			Presence in court		
	n:55	%*	p	n:37	%*	p	n:101	%*	p
Verbal									
Yes (n:178)	54	30.3	0.007	36	20.2	0.056	94	52.8	0.030
No (n:24)	1	4.2		1	4.2		7	29.2	
Physical									
Yes (n:62)	27	43.5	0.001	12	19.4	0.800	36	58.1	0.127
No (n:140)	28	20.0		25	17.9		65	46.4	
Exposed to violence (at least once)									
Yes (n:178)	54	30.3	0.007	35	19.7	0.178	93	52.2	0.082
No (n:24)	1	4.2		2	8.3		8	33.3	

* Row percentage

4. Discussion

In our research, when emergency physicians were questioned about violence during their professional life, 88.1% of physicians suffered violence at least once in any way. 88.1% of physicians were subjected to verbal violence, 30.7% to physical violence, and 22.3% to psychological violence.

Many studies on violence and violence to health workers have been found in national and international literature. In some of these studies, violence suffered during a certain period of time was questioned, while in some studies, as in our study, violence suffered during professional life was investigated.

In Turkmenoglu and et al study in Sivas (6), 49.8% of health workers are exposed to at least one type of violence in the last year and 96.2% at any time during their time working in the health sector. It stated that the most frequently exposed type of violence was verbal violence with 73.7%. Gökçe and Dündar (12) stated that in their study in Samsun, 59.4% of physicians and nurses were subjected to verbal and 26,5% to physical violence within a one-year period. According to the study of İlhan and et al (13) in Ankara, 60.9 % of physicians faced with violence at work during their working life. Sucu et al's (5) survey of health workers in Antalya showed that 94,5% of hospital emergency services and 112 emergency ambulance workers were exposed to verbal, 62,3% were exposed to physical violence, and only 23.4% of those exposed to violence which were reported. Baykan et al's (14) survey of 597 doctors found that 86,4% of doctors have experienced at least one type of violence during their career, 27.5% have experienced physical and 68.6% have experienced verbal violence in the last year. Bayram et al's (15) Study of 713 Emergency Physicians found that 65.9% of

physicians, including more than one, and 78,1% had been subjected to violence within one year. In Cheung et al's (16) study of doctors and nurses, these rates were 53.4% for verbal violence and 16.1% for physical violence. In the study of Winstanley and Whittington (17) in England, the rate of physical assaults on physicians in the last year was 13.8%.

In this study, physicians firstly were described as verbal, physical and psychological violence in order not to perceive violence as physical violence, and then asked face-to-face about detailed history of violence. We believe that the high rates of violence in our research compared to other studies can be explained by this attentive inquiry and regional differences.

In the study by Güllalp et al (18), male sex and being an emergency physician were indicated to be risk factors for physical assault. In our study, a significant relationship between gender and violence was not found in the study of Hamdan and Hamra (19). In our study, 88.6% of physicians reported violence by their relatives while 72.3% reported violence by their patients and 3% reported violence by their physician friends. The UK study showed that 23% of health workers in a General Hospital were abused by patients and 15,5% by their relatives (17). In Özdemir et al's (20) study, the most violent group of health workers was the relatives of patients with 40.8%, Baykan et al. (14) in the study, it was stated that the physical violence was performed by the relatives of the patients with 63%. In our study, we found that the most violent people were the relatives of the patients and the patients. In our study, there was no proportional comparison to emergency room physicians because violence was inflicted many times and by more than one person.

It was found that the rates of verbal violence were high in the physicians who worked in emergency depart-

ments at their own request. It was thought that this may have been due to the concern of physicians to make specialized expertise, to accept the task more and to explain themselves to the patients better.

Emergency physicians were also investigated for exposure to violence, as well as for cases of prosecution, complaint, investigation, prosecution, malpractice concerns and presence in court. In our study, 54% of physicians received complaints via BIMER-SABIM, 20.8% had a judicial investigation, and 50% had been in court at least once for medical reasons. 27.2% of physicians were in court as plaintiffs and 18.3% as defendants. Furthermore, 85.6% of physicians experience malpractice anxiety.

There was a significant relationship between the state of physicians being engaged in verbal, physical or any kind of violence and the state of being a plaintiff. There are studies that emergency room physicians do not adequately report the violence inflicted on them and report it to their institution to a very small extent (14,19,21). However, in some studies in which the violence in the last year and the cases of suing after the violence were questioned; Aydin et al. (21) 522 physicians stated that 5.7% of physicians who suffered verbal violence and 14.8% of physicians who suffered physical violence defended themselves by going to court. Carmi Iluz et al's (22) study of 177 physicians sued for violence was 9.4%, while Sheikhzadi et al's (23) study of 118 physicians sued for violence was 5.9%. In our study, the claimant rate was 27.2%, which was proportionally higher only because it was not asked in relation to violence and because it covered the duration of the professional life. A study has not been found to be associated with physicians being plaintiffs during their professional life or being in court for medical reasons.

In addition to violence, emergency physicians also face complaints, lawsuits, criminal investigations and malpractice problems. In our study, 54% of physicians received complaints via BIMER-SABIM and 20.8% received judicial inquiries. In a study that examined the complaints received by the SABIM line (24), it was shown that the most frequently complained institution was the hospital (34.2%), the most frequently complained professional group was the physician (24.9%) and the specialist physician (29.8%), and the most frequent cause of complaint was malpractice (43.5%). In Zengin et al's (25) study of emergency department complaints, emergency physicians (38.9%) identified the most frequent complaints and medical care (29.7%) identified the most frequent complaints. Regarding the forensic investigation of physicians, in the study of Yıldırım et al (26), 16% of the physicians who participated in the study stated that there was a forensic investigation. This ratio is similar to

the proportion of physicians undergoing forensic investigations in our study.

Our literature review examined studies involving defendant physicians related to malpractice. In the United States (27), 5% of malpractice cases were related to emergency room physicians, with the highest proportion of emergency medicine physicians facing malpractice cases. Jena et al. (28) to 7.4% of all physicians in the study each year, Carlson et al. (29) study found that malpractice lawsuits were filed against 9% of emergency physicians in 4.5 years period. In the (30) study of Juo et al, about 27.5% of surgical physicians had previously been sued, while 70.0% stated that they were worried about malpractice. In our study, the proportion of physicians who reported having malpractice anxiety was 85.6%. In Tunç and Kutanis (31) study, malpractice anxiety was found in 57.8% of assistant physicians, while in Summerton (32) study, 30.3% of physicians stated that they were concerned about being sued or complained.

Weaknesses and strengths of the study: it is a weakness of our study that physicians have difficulty remembering events as they investigate the violence and forensic events they have been exposed to throughout their lives. However, the strong side of the study is that we carry out multi-center work in a large province that hosts many different health institutions such as Adana.

5. Conclusion

The emergency physician, who are the most often faced with violence and judicial incidents within the healthcare personnel, have great responsibilities in terms of medical and legal aspects, may feel anxious and alone. Law enforcement on violence against healthcare workers needs to be enacted or increased. At the same time, emergency physicians should be given adequate training on legal responsibilities and legislation, and physicians should be supported legally in these matters.

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