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A Survey of Violence against Patients and Staff Working in the Emergency Department in Ahvaz, Iran

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ABSTRACT

Workplace violence means incidents or circumstances under which people are threatened verbally or physically due to the conditions relating their jobs. The aim of this study was to investigate the reasons and consequences of acts of violence by physicians on patients and medical staff in the emergency department. This cross-sectional (descriptive-analytical) study collected information of all violent incidents involving the emergency room physicians in Imam Khomeini Hospital, Ahvaz, Iran over a period of 6 months using a questionnaire and face to face interview. The physicians engaged in the act of violence were aged between 24 and 46 years old with mean age of 33.4±0.55 years old. Physicians younger than 30 years old performed significantly more violent acts ($p = 0.012$). The most common reason and result of the acts of violence were inappropriate behavior by the patient and their companions (50.6%) and improved behavior by the patients and their companions (21.2%), respectively. There was no meaningful relationship between gender and the reason behind the violence ($p = 0.725$). Nor was there a meaningful relationship between the rank of the doctor and the reason of the violence ($p = 0.096$) as well as between the shift on which it happened ($p = 0.425$). Recognizing and eliminating the violence triggers plus training physicians and medical staff to practice anger management could reduce occupational tensions and improve the performance of physicians.

Key words: Physicians, medical staff, patients, emergency service, hospital, workplace violence

INTRODUCTION

Violence is a concern for everyone and in any working environment (Cezar and Marziale, 2006). Workplace violence means incidents or circumstances under which people are threatened verbally or physically due to the conditions relating their jobs (Jones and Lyneham, 2000). Previous studies indicate that violence in hospitals and their Emergency Departments (ED) is on the rise (Whittington and Wykes, 1996). Some researchers believe that the rising trend of violence in hospitals result from rampant violence in society (Rippon, 2000). Acts of violence take place in different ways and have numerous implications that get medical staff and even managers of healthcare centers involved. Besides, it inflicts too much cost on healthcare systems throughout the world (Adib *et al*., 2002). For example, in Britain, violence against medical staff incurs 30 million pounds each year due to absence from work and other reasons (Whittington and Wykes, 1996).

Due to the nature of the work, the ED of a hospital is a tense environment, where, any confrontation can easily lead to violent behaviors. Violence in the department causes the medical

staff to be always concerned about their security, most particularly in the evening and night shifts (Marco and Kowalenko, 2012; Marx *et al*., 2013; Tintinalli and Stapczynski, 2011). Various factors lead to verbal or physical clashes in the ED, including; limited access to physicians and other staff, medical staff's negligence and prolonged waiting time as a result of overcrowded ED. In addition, patients with high expectations and drug abusers seeking for pain killers are among other origins of violence incidents. The implications of violence for the medical staff result in reduced working spirit and self-confidence. Moreover, it could lead to increased stress, anger, incompetence, absence from work and even changing jobs (Baydin and Erenler, 2014; Ferns, 2005; Presley and Robinson, 2002). The real dimensions of violence on the part of physicians at medical and health care centers are still unknown and recent studies show that, what we know about the matter is just the tip of the iceberg. Therefore, collecting data about the severity and nature of workplace violence should be considered as a key task for the purpose of preventing the problem (Edward *et al*., 2014). Although most of existing surveys have discussed the act of violence toward physicians and medical staff by patients, few comprehensive studies have been conducted across the world on violent acts by physicians in the ED and the motives behind violent activities and their implications as well as ways of preventing them. Hence, The present study aimed to investigate the reasons behind physicians' resorting to violence against patients and medical staff in the ED and the consequences of these acts.

MATERIALS AND METHODS

Study design and population: This cross-sectional (descriptive - analytical) study was conducted prospectively in the ED of Imam Khomeini Hospital, Ahvaz, Iran from June to November, 2012. The mentioned ED is an urban, adult center, which evaluated approximately 100000 emergency patients per year according to hospital records.

Inclusion criteria: Because of the nature of the study as being cross-sectional, we included all the doctors on ED shifts during the 6 months' time span. After the study was approved by medical ethics committee of Ahvaz Jundishapur University of Medical Sciences.

Data collection: A questionnaire was designed and a trained research assistant, who participated in this study was in charge of completing it at the time of violent incidents by a physician. The mentioned research assistant would visit the ED twice a day, once in the beginning of each shift and once near the end of the shift and would ask about the incidence of violence on that day from doctors, nurses and other staff and would interview the physician (s) involved in the acts of violence on that day or night. All violent incidents were collected for 6 months. During the study period, the number of male and female physicians were equal and on each shift (every 12 h) there were six physicians (four residents, one faculty member and one intern) in the ED. Physicians' shifts were divided into two 12 h shift. One from 8 am-8 pm and the other one from 8 pm-8 am, whereas, nurses' shift were divided into 3 shifts of morning (8 am-2 pm), afternoon (2 pm-8 pm) and night (8 pm-8 am). We put our data according to nurses' shifts. The variables under study were age, gender, rank of the physician, the shift on which violent incident took place, the reason and the result of violence and general circumstance in the ED after the violence. All the information was gathered daily and recorded after interviewing the physician involved. We considered 5 different underlying reasons for acts of violence in the questionnaire including; physician's exhaustion, inappropriate behavior of the patient and their companions, overcrowded ED, patient's request for

unnecessary treatment or admission and the physician's dissatisfaction with the ED's service providing. Seven kinds of results were recorded after violence incidents. Some of them were associated with patients i.e., discharge Against Medical Advice (AMA), acceptance of the proper treatment plan, improvement in the behavior of the patient and their companions, others were associated with physicians (i.e., Violence against other patients and colleagues, delay in treatment of the patients and occurrence of complications during the treatment). The general circumstance of the ED was categorized as, more tense, more peaceful and unchanged. These factors were recorded on the questionnaire too.

Statistical analysis: Qualitative variables were expressed as percentage value. Chi-square test was used to determine, whether or not, there is a relation between age, gender, rank of the physician, the shift on which violence erupted and the reason behind the violence. Furthermore, the relationship between the reason behind the incident and its result was investigated by chi-squared. The analysis was carried out with SPSS version 17 software program (IBM Co., USA). Significance level (p-value) of 0.05 was deemed to indicate the statistically significant difference for all tests.

RESULTS

The physicians under study were aged between 24 and 46 years old with a mean age of 33.4±0.55 years old. The mean age of female doctors engaged in violence in the ED was 30.7 and that of male doctors was 36.7 ($p = 0.056$). All the violence by the physicians was verbal and no physical incident was recorded. Most of the doctors engaged in the violence were younger than 30 years old (34.1%) and only 10.6% of them were more than 40 years old ($p = 0.012$). The number of violent incidents in the ED by male and female doctors was not different significantly ($p = 0.588$). Nearly, 88% of the acts of violence were carried out by residents. Violence by physicians took place more in the afternoon shifts (68.2%) compared to other shifts ($p<0.001$) (Table 1).

The most common reason of violence was inappropriate behavior by the patients and their companions (50.6%) while the physician's dissatisfaction with the service provided by the medical staff was the least common one (8.2%). The main result of the physician's violence was improved

Table 1: Frequency and frequency percentage and p-value of violence by physicians

Variables	No.	%	p-value
Age			
Under 30	29	34.1	0.012
30-35	26	30.6	
35-40	21	24.7	
Over 40	9	10.6	
Gender			
Female	40	47.1	0.588
Male	45	52.9	
Rank			
Faculty member	21	24.7	
Resident	58	68.2	
Intern	6	7.0	
Shift			
Morning	7	8.2	<0.001
Afternoon	58	68.2	
Night	20	23.5	
Data lost	5	5.9	

*Significant at p = 0.05

Table 2: Reason and results of violent acts by physicians in the emergency department

Reasons	No.	%	Results	No.	%
Exhaustion of physician	12	14.1	No results	3	3.5
Inappropriate behavior of patients and companions	43	50.6	Leaving hospital with consent	12	14.1
Overcrowded emergency department	10	11.08	Violence against patients and colleagues	16	18.8
Patients request for unnecessary treatment or admission	13	15.3	Improved behavior of patient or companions	18	21.2
Physician's dissatisfaction with ER' services	7	8.2	Recovery and acceptance of treatment by patient	9	10.6
			Delay in treatment	17	20.0
			Complications during treatment	10	11.8

Table 3: Relationship between reason behind violence and different variable

Groups	Exhaustion of physician	Inappropriate behavior of patients and companions	Overcrowded ED	Patient's request for unnecessary treatment of admission	Patients' dissatisfaction with service provision in ED	Chi-Square test	p-value
Gender						2.05	0.725
Female	6	19	6	7	2		
Male	6	24	4	6	5		
Rank						13.5	0.096
Faculty member	2	12	3	1	3		
Resident	7	30	6	12	3		
Shift						13.1	0.425
Intern	3	1	1	0	1		
Morning	1	2	0	3	1		
Afternoon	8	32	8	7	3		
Night	3	9	2	3	3		
Result of violence						46.4	0.004
No result	1	0	1	0	1		
Discharge against medical advice	4	2	2	4	0		
Violence against patients, colleagues	2	5	2	3	4		
Improved patient's Behavior	1	16	1	0	0		
Acceptance of treatment by patient	0	6	1	2	0		
Delay in treatment	0	10	2	4	1		
Treatment complications	4	4	1	0	1		
General circumstances Of ED after violence						7.64	0.469
More tense	4	4	1	0	1		
Calm	7	17	6	5	5		
No Change	2	8	1	5	1		

*Significant at p = 0.05

behavior by the patients and their companions (21.2%) and delay in the treatment of the patients (20%). Other reasons and results of physicians' violence are shown in Table 2.

The general circumstance of the ED turned tenser, calmer, or remained unchanged in 47.1%, 28 and 20%, respectively after incidence of violence. Table 3 shows there was no meaningful relationship between gender and the reason behind the violence ($p = 0.725$). Nor was there a meaningful relationship between the rank of the doctor and the reason of the violence ($p = 0.096$) as well as between the shift on which it happened ($p = 0.425$).

Given the value of ($p = 0.004$), a meaningful relationship was observed between the reason behind the violence and its result. When violence erupted due to inappropriate behavior by the patient or their companions, the result was improved behavior on the patient side or the result was a delay in the treatment of the patient or other patients. If the violence was because of the doctor's exhaustion, the main result was the treatment complications increase or AMA (Table 3). Statistically, there was a meaningful relationship between the rank of the physician and the result of the violence ($p<0.001$). When the physician was a member of the faculty, the violent behavior resulted in an improvement in the behavior of the patient or their companion. There was no relationship between the result of the violence and the shift on which the violence occurred ($p = 0.960$) (Table 4).

Table 4: Relationship between different results of violence and physicians rank or shift

Rank and shift	No results	Discharged against medical advice	Violence against patients, colleagues	Improved patient's behavior	Acceptance of treatment by patient	Delay in treatment	Treatment complications	p-value
Rank								
Faculty member	1	2	5	9	0	2	2	<0.001
Resident	0	9	11	8	9	15	6	
Intern	2	1	0	1	0	0	2	
Shift								
Morning	1	1	1	1	1	1	1	0.96
Afternoon	2	8	10	13	6	13	6	
Night	0	3	5	4	2	3	3	

*Significant at p = 0.05

DISCUSSION

Committing the act of violence is growing in the community, irrespective of whom, the committer or victim could be, it has huge economic and socially harmful consequences. Since, many forms of violence are preventable, recognizing modifiable factors and underlying causes, along with designing strategies to eliminate or at least decrease them could pose an incredible merit.

Workplace violence is considerably higher in the health care setting compared with other occupations and the ED has the highest rate among health care settings (Chapman and Styles, 2006; Gerberich *et al*., 2005; Hoskins, 2006; May and Grubbs, 2002). The higher rate of violence in the ED results from its unique characteristics. The nature of visiting patients in the ED is unplanned and immediate. Furthermore, the outcome of the patient is unpredictable. These factors in company with overwhelming stress levels of patients and their companions turn the ED into a tense place (Esmaeilpour *et al*., 2011).

Although, in the present study, we provided information about committing violence by emergency physicians, its causes and consequences but the main debate is how we can reduce the violence occurrences in the ED. The act of violence in the ED has two sides; the individuals and the environment.

In the present study the most common underlying reason of violence by physicians was inappropriate behavior of patients and their companions (50.6%) and the second highest one was patients request for unnecessary treatment or admission (14.1%). For eliminating these triggers, providing enough information about the ED environment and treatment process for visitors could be useful. In addition, controlling access of visitors to the patient care space is crucial. In this way not only the number of unwanted visitors would decrease but also the remaining companions wouldn't have unnecessary and inappropriate requests. To achieve this aim, assignment of security officers and hospital security staff permanently in the ED plus using a technician as an inspector to give information and answer the questions of visitors could decrease the ED tension. This individual should identify the workplace triggers, which lead to disruptive behavior. Moreover, all medical staff working in the ED should be trained in recognizing the signs of potential violence and early appropriate response to the aggression. Besides, the aggressor should be moved to a separate quiet area to avoid diffuse situations (Kowalenko *et al*., 2012).

The third common reason of violence by physicians in our survey was the physician exhaustion. To deal with this problem, the emergency physicians should have enough time to rest plus a suitable resting place. Therefore, a practical method of controlling violence in the ED is training individuals. All physicians and medical staff should be trained in anger management, healthy communication, interaction and cooperation. Every act of violence should be recorded and reviewed for investigation of the trigger and finding a policy to avoid it (Laposa *et al*., 2003).

The present study has some limitations. Firstly, the findings of the study are based on the reports from the participants in the research. Secondly, most of the respondents declined to speak

about violent incidents in the workplace. Our resources were limited and no funding was specified, hence, this study was only conducted in one hospital and the period was only six months. A study with more hospitals participating over a longer period is needed to achieve more generalized results. The interviewees might not have exactly told the truth but we had no other means as to verify their statements and relied solely on their self-report.

CONCLUSION

Physicians working in the ED are considered a key asset of any society due to the nature of the services expected of them, which is saving the lives of people, who are on the brink of death. Hence, there is no doubt that a reduction in occupational tensions will result in an improvement in the performance of physicians and the quality of health care services provided in the ED.

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