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Assessing Frequency of Workplace Violence against Emergency Medical Services Personnel

Peiman Bakhshi[1], Davood Sourimajd[2], Sara Fakhri[2*], Parastou Kordestani Moghadam[3], Sodabeh Zare[4]

[1] Department of Emergency Medicine & Operation Room, Faculty of Paramedicine, Lorestan University of Medical Sciences, Khorramabad, Iran
[2] Department of Emergency, School of Medicine, Lorestan University of Medical Sciences, Khorramabad, Iran
[3] Critical Care and Emergency Nursing, Faculty of Nursing & Midwifery, Lorestan University of Medical Sciences, Khorramabad, Iran
[4] Department of Biostatistics and Epidemiology, School of Health and Nutrition, Lorestan University of Medical Sciences, Khorramabad, Iran

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ABSTRACT

Workplace violence represents a global challenge with an increasing prevalence. This study aimed to assess the incidence of violence against emergency medical services (EMS) personnel at Shohada-ye Ashayer Hospital in Khorramabad, Iran, during the winter of 2023. To achieve this, standardized questionnaires were distributed to EMS personnel. All participants reported experiencing violence at least once. The types of violence encountered included physical violence (26%), verbal abuse (37%), and cultural aggression (36%), with no recorded instances of sexual violence. Additionally, 66 personnel (57%) reported experiencing 2-5 violent incidents in the preceding year. The analysis identified patient companions as the primary perpetrators (60%), with males constituting 57% of the assailants. In conclusion, the emergency department at Shohada-ye-Ashayer Hospital exhibited significantly higher rates of violence compared to other Iranian medical centers, with all participants reporting at least one violent incident in the preceding year.

Keywords: Violence; Workplace; Medical Staff; Emergency Department

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Introduction

The type of occupation and working conditions serve as significant triggers for human tension, with workplace violence representing an inherent occupational risk [1]. Violence is regarded as a behavioral pattern involving intimidation, threat, or harmful actions to exert power and control over others [2], jeopardizing individuals' health and well-being through abuse, mistreatment, or aggression in professional settings [3]. Violence occurs when the balance between impulses and internal control collapses. Any condition exacerbating aggressive impulses while reducing control mechanisms may lead to violence. The World Health Organization (WHO)

* Corresponding author: Sara Fakhri. Department of Emergency, School of Medicine, Lorestan University of Medical Sciences, Khorramabad, Iran. email: saraafakhri@gmail.com

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categorizes violence into four types: physical, verbal, racial, and sexual [4, 5]. Today, violence is recognized as a serious occupational health and safety concern [6]. According to the International Labor Organization (ILO), violence has demonstrated escalating prevalence during the recent decade. Healthcare workers, as the most vulnerable professional group, endure 16-fold higher workplace violence risks compared to other service sectors [7].

Several studies confirm the high prevalence of workplace violence against healthcare personnel and caregivers [8], detrimentally influencing their physical, psychological, cognitive, and emotional health, which leads to chronic fatigue, irritability, impatience, anger, diminished empathy, mental or physical withdrawal, compromised care quality, increased job stress, reduced work days, decreased efficiency, quitting work, transfer to another job, need for medical treatment, or even death. Primary perpetrators include patients, relatives/friends, and colleagues [9-11].

Today, healthcare workers endure unprecedented levels of verbal and physical violence globally, prompting the World Medical Association (WMA) to identify violence against medical personnel as an international emergency, which undermines healthcare systems and compromises patient care severely. Some studies indicated a high prevalence of workplace violence against nurses and physicians, identifying occupational aggression as a pervasive phenomenon in healthcare settings. Based on a study, 66.9% of healthcare workers experienced workplace violence, including 42.5% exposed to non-physical violence and 24.4% to physical violence. Prevalence rates of violence against healthcare workers have been reported to be high in psychiatric and emergency departments and among nurses and physicians, especially in Asian countries and North America [12].

Violence against healthcare workers yields severe consequences, including death or life-threatening injuries, occupational disengagement, job dissatisfaction, increased absenteeism, functional impairment, depression, post-traumatic stress disorder (PTSD), and deterioration of ethical principles, resulting in triggering defensive practices among nurses and physicians. Workplace violence directly correlates with burnout, compromised patient safety, and more adverse events. Emergency departments, psychiatric units, substance abuse clinics, and ambulance services encounter disproportionate risks [13]. Workplace violence is recognized as a pervasive global challenge with steadily increasing prevalence [14].

In Iran, over 50% of healthcare workers report experiencing some form of occupational violence [15], inflicting detrimental physical and psychological consequences, including distress, frustration, fear, depression, insecurity, reduced work motivation, and even physical injuries [16, 17]. Additionally, violent incidents adversely influence the quality of patient care, leading to the neglect of critical medical interventions [18]. Although all healthcare workers encounter workplace violence risks, emergency medical services (EMS) personnel, emergency department nurses, and physicians endure significantly higher exposure due to the nature of their jobs [19].

No study has been conducted on the high prevalence rate of workplace violence against EMS personnel in Khorramabad as a region with its unique cultural characteristics. The present study seeks to examine the frequency of violence against EMS personnel at Shohada-ye-Ashayer Hospital during winter 2023 to provide evidence-based guidance for relevant officials to implement necessary measures.

Materials and Methods

This study aimed to investigate the frequency of violence against EMS personnel at Shohada-ye-Ashayer Hospital during the winter of 2023. The inclusion criteria required ≥1 year of emergency department experience, while the exclusion criteria involved incomplete questionnaires. After obtaining ethics approval from Lorestan University of Medical Sciences, data were collected using a two-part questionnaire involving demographic characteristics (age, sex, and work experience) and a workplace violence questionnaire (9-item) developed by Yadollahi et al. This tool addresses preceding-year workplace violence exposure, type, frequency, perpetrator, perpetrator gender, incident location, preventability, response strategies, and non-reporting reasons. The subjects could present multiple responses for past-year violence type, incident location, response strategies, and non-reporting reasons. Yadollahi et al. confirmed the questionnaire's reliability and validity (Cronbach's α=0.84) [20].

The researcher attended the emergency department of Shohada-ye-Ashayer Hospital daily during four shifts (morning, afternoon, night, and overnight) to distribute the questionnaire among the EMS personnel. Data were collected and analyzed utilizing SPSS software. Appropriate central tendency and dispersion measures were calculated, and created intended figures. The analytical procedures involved Fisher's exact and chi-square tests, as well as analysis of variance (ANOVA).

Results

The population included 114 EMS personnel at Shohada-ye-Ashayer Hospital and the questionnaires were equally distributed among them (57 females, 57 males) to ensure gender balance.

The subjects exhibited a mean age of 41.7±6.78 years (range: 27-58) and a mean work experience of 14.63±4.13 years (range: 5-25).

All of the personnel endured violence at least once, which included physical (26%, N=30), verbal (37%, N=43), and cultural (36%, N=41), with no sexual violence reported. In addition, 57% (N=66) reported experiencing violence between two to five times during the preceding year. Patient companions accounted for 60% of perpetrators, while 57% of aggressors were male.

Based on the analysis, 51% (N=59) of violent incidents occurred within the hospital, 28% (N=32) in ambulances or during patient transfer, and 20% (N=23) outside the workplace. The subjects identified 57% (N=66) of the incidents as preventable. Regarding the response to violence, 25% (N=29) took no action, 34% (N=39) pretended nothing occurred, 17% (N=20) requested the perpetrator to stop, 9% (N=11) engaged in physical self-defense, 7% (N=9) informed their colleagues, and 5% (N=6) reported the incident to supervisors. Regarding non-reporting, 43% (N=49) considered the incident to be insignificant, 36% (N=41) perceived reporting to be futile, and 14% (N=17) failed to know to whom they should report the incident (Table 1).

The ANOVA test indicated no significant association between violence dimensions and age/work experience among medical personnel (Table 2).

The chi-square test represented a significant association between gender and responses to violence. Male medical personnel most frequently reported, "I pretended to note occurred, "I requested the perpetrator to stop," "I showed no response," and "I engaged in physical self-defense," while female ones claimed, "I showed no response," "I pretended nothing occurred," and "I requested the perpetrator to stop", respectively (Table 3).

Chi-square tests revealed no significant association between the dimensions and frequency of violence (Table 4).

Table 1. Demographic and contextual characteristics of subjects

Variable	Scale	Frequency	%
Gender	Female	57	50.0
	Male	57	50.0
Violence experience	Experienced	114	100.0
Violence type	Physical	30	26.3
	Verbal	43	37.7
	Cultural	41	36.0
Frequency of violence	Low	20	17.5
	Moderate	66	57.9
	High	28	24.6
Perpetrator	Patient	27	23.7
	Patient's companion	69	60.5
	Colleagues	18	15.8
Perpetrator gender	Female	49	43.0
	Male	65	57.0
Incident location	Hospital	59	51.8
	Ambulance/During patient transfer	32	28.1
	Outside the workplace	23	20.2
Preventability	No	66	57.9
	Yes	48	42.1
Response strategy	I showed no response	29	25.4
	I pretended nothing occurred	39	34.2
	I requested that the perpetrator to stop	20	17.5
	I engaged in physical self-defense	11	9.6
	I informed my colleagues	9	7.9
	I reported the incident to the supervisor	6	5.3
Non-reporting reasons	The incident held minimal significance	49	43.0
	I felt embarrassed	1	0.9
	I perceived reporting to be futile	41	36.0
	I failed to know to whom I should report the incident	17	14.9
	I reported the incident	6	5.3

Table 2. Association between violence dimensions and age/work experience

Violence	Scale	Age	Work experience
Violence type	Physical	41.10(7.083)	14.50(4.562)
	Verbal	42.07(7.056)	14.88(4.261)
	Cultural	41.76(6.391)	14.46(3.749)
	Sig	*0.835*	*0.881*
Frequency of violence	Low	41.60(7.408)	14.85(4.998)
	Moderate	42.55(6.666)	14.47(4.236)
	High	39.79(6.425)	14.86(3.263)
	Sig	*0.197*	*0.889*
Perpetrator	Patient	41.07(6.944)	13.81(3.711)
	Patient' companion	41.55(6.679)	14.77(4.369)
	Colleagues	43.22(7.092)	15.33(3.819)
	Sig	*0.561*	*0.443*
Perpetrator gender	Female	41.92(7.237)	14.69(3.318)
	Male	41.54(6.469)	14.58(4.683)
	Sig	0.769	0.89
Incident location	Hospital	42.29(6.893)	14.31(4.527)
	In an ambulance or during patient transfer	40.47(5.847)	14.41(3.241)
	Outside the workplace	41.91(7.716)	15.78(4.156)
	Sig	*0.471(6.566)*	*0.328*
Preventability	No	41.45	14.17(3.956)
	Yes	42.04(7.122)	15.27(4.331)
	Sig	*0.65*	*0.16*
Response strategy	I showed no response	43.17(6.650)	14.76(4.172)
	I pretended nothing occurred	40.95(7.225)	14.51(4.141)
	I requested that the perpetrator to stop	40.50(6.370)	13.50(4.310)
	I engaged in physical self-defense	41.36(8.429)	16.00(5.099)
	I informed my colleagues	45.33(3.500)	15.89(3.444)
	I reported the incident to the supervisor	38.67(4.590)	14.17(2.137)
	Sig	*0.281*	*0.606*
Non-reporting reasons	The incident held minimal significance	42.96(6.898)	15.06(4.432)
	I felt embarrassed	39.00(0.01)	11.00(0.002)
	I perceived reporting to be futile	41.46(6.805)	14.59(4.123)
	I failed to tell whom I should report the incident	39.88(6.873)	13.88(3.982)
	I reported the incident	38.67(4.590)	14.17(2.137)
	Sig	*0.368*	*0.753*

Table 3. Association between violence dimensions and medical personnel gender

Variable	Scale	Male: n(%)	Female: n(%)	*Sig*
Frequency of violence	Low	10(17.5)	10(17.5)	0.965
	Moderate	34(59.6)	32(56.1%)	
	High	13(22.8)	15(26.3%)	
Perpetrator	Patient	10(17.5%)	17(29.8%)	0.198
	Patient' companion	39(68.4%)	30(52.6%)	
	Colleagues	8(14.0)	10(17.5)	
Perpetrator gender	Female	26(45.6)	23(40.4)	0.705
	Male	31(54.4)	34(59.6)	
Incident location	Hospital	30(52.6)	29(50.9)	0.999
	In an ambulance or during patient transfer	16(28.1)	16(28.1)	
	Outside the workplace	11(19.3)	12(21.1)	
Preventability	No	29(50.9)	37(64.9)	0.184
	Yes	28(49.1)	20(35.1)	
Response strategy	I showed no response	10(17.5)	19(33.3)	0.31
	I pretended nothing occurred	23(40.4)	16(28.1)	
	I requested that the perpetrator to stop	11(19.3)	9(15.8)	
	I engaged in physical self-defense	9(15.8)	2(3.5)	
	I informed my colleagues	2(3.5)	7(12.3)	
	I reported the incident to the supervisor	2(3.5)	4(7.0)	
Non-reporting reasons	The incident held minimal significance	26(45.6)	23(40.4)	0.671
	I felt embarrassed	0(0.0)	1(1.8)	
	I perceived reporting to be futile	22(38.6)	19(33.3)	
	I failed to know whom to report to	7(12.3)	10(17.5)	
	I reported the incident	2(3.5)	4(7.0)	

Table 4. Association between the dimensions and frequency of violence

Violence dimension	Scale	Frequency of violence			*Sig*
		Low: n(%)	Moderate: n(%)	High: n(%)	
Perpetrator	Patient	7(35.0)	13(19.7)	7(25.0)	0.512
	Patient's companion	9(45.0)	42(63.6)	18(64.3)	
	Colleagues	4(20.0)	11(16.7)	3(10.7)	
Perpetrator gender	Female	7(35.0)	29(43.9)	13(46.4)	0.729
	Male	13(65.0)	37(56.1)	15(53.6)	
Incident location	Hospital	6(30.0)	37(56.1)	16(57.1)	0.154
	In ambulance or during patient transfer	7(35.0)	16(24.2)	9(32.1)	
	Outside the workplace	7(35.0)	13(19.7)	3(10.7)	
Response strategy	I showed no response	8(40.0)	15(22.7)	6(21.4)	0.156
	I pretended nothing occurred	4(20.0)	27(40.9)	8(28.6)	
	I requested that the perpetrator to stop	5(25.0)	11(16.7)	4(14.3)	
	I engaged in physical self-defense	2(10.0)	6(9.1)	3(10.7)	
	I informed my colleagues	1(5.0)	2(3.0)	6(21.4)	
	I reported the incident to the supervisor	0(0.0)	5(7.6)	1(3.6)	
Non-reporting response	The incident held minimal significance	8(40.0)	27(40.9)	14(50.0)	0.944
	I felt embarrassed	0(0.0)	1(1.5)	0(0.0)	
	I perceived reporting to be futile	8(40.0)	24(36.4)	9(32.1)	
	I failed to know whom to report to	4(20.0)	9(13.6)	4(14.3)	
	I reported the incident	0(0.0)	5(7.6)	1(3.6)	

Discussion

All of the subjects experienced workplace violence during the preceding year, which is incongruent with the results presented by others regarding the incidents reported by Swedish and UK emergency nurses, with a prevalence rate of <90% [21, 22]. Additionally, Cypriot emergency nurses and Iranian EMS personnel reported 85% [23] and 83% [24] of workplace violence during the preceding year, respectively.

EMS personnel, as the first responders in critical situations, face heightened exposure to violence from patients and their companions due to the high-stress nature of their jobs. Therefore, high-stress emergencies may contribute to violent incidents for patients and their families. Based on the results, 37% of EMS personnel experienced physical violence. In comparison, 26% reported verbal violence, which is inconsistent with the results presented by Bigham et al., with verbal violence predominance (67% verbal vs. 26% physical), indicating a higher level of physical violence in Lorestan [24].

The U.S. studies represented that 61% of EMS personnel face verbal violence annually, with 25% enduring physical violence. Several reports exist regarding the workplace violence prevalence in healthcare organizations in Iran. According to Rahmani et al., 74% of EMS personnel in East Azerbaijan reported workplace violence, predominantly verbal violence [25]. The actual prevalence of violence appears to be substantially higher than reported due to the lack of standardized definitions for non-physical aggression and systemic underreporting of violent incidents. The above-mentioned study identified patient companions as the primary perpetrators of workplace violence, with male aggressors significantly outnumbering females.

In addition, Gormley et al. identified patient companions as the predominant perpetrators of workplace violence, which is in line with the aforementioned results [26]. Further, Maghami et al. argued that family members and bystanders account for most violent incidents [27]. The family of patients with emergency conditions transferred by EMS personnel to the hospital frequently experiences severe stress, escalating into violence against healthcare workers in some cases. The results represented that the majority of EMS personnel respond to workplace violence either by seeking to calm patients/companions or exhibiting no reaction. In another study, Sheikj-Bardsiri et al. claimed that EMS personnel predominantly indicated passive responses, including non-reaction, respecting patient/family rights, and de-escalation behaviors [28], consistent with the aforementioned results. The present study revealed a high prevalence of violence, especially physically and verbally, against EMS personnel in Chaharmahal and Bakhtiari Province, significantly compromising care quality and exacerbating occupational stress.

Conclusion

This study indicated high violence prevalence at the Shohada-ye-Ashayer Hospital emergency department,

exceeding national and international benchmarks, with all of the subjects reporting at least one violence incident during the preceding year. In addition, sexual violence was documented at 0%, potentially attributable to the disclosure anxiety among personnel, creating substantial risks.

Recommendations

To prevent violence, public security agencies should implement preventive policies (including financial penalties, insurance exclusions, etc.), personnel training, and internal reporting systems.

Authorship contribution statement

All authors have reviewed and approved the final version of the manuscript. F GH conceived and designed the study. HG conducted the study and collected the data; RM performed the data analysis and interpretation; and FV, MH guided the study design.

Ethical Consideration

The research obtained approval from the Ethics Committee of Lorestan University of Medical Sciences (ethics code: IR.LUMS.REC.1401.005).

Declaration of Competing Interest

The authors have no conflict of interests related to this article

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Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Declaration of Generative AI

The authors declare that they have not used any type of generative artificial intelligence for the writing of this manuscript, nor for the creation of tables, or their corresponding captions.

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