

The Extent, Nature and Contributing Factors of Violence Against Iranian Emergency Medical Technicians

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Abstract

Background: Workplace Violence (WPV) is one of the most complex and dangerous occupational hazards faced by pre-hospital emergency medical technicians (EMTs).

Objectives: This study aimed to assess the extent, nature and contributing factors of WPV against EMTs in Urmia, Iran.

Materials and Methods: A cross-sectional study was conducted on 120 EMTs from April to October 2014. A questionnaire was used for collecting the data. Descriptive statistics were applied to the data.

Results: Most of the participants (79%) experienced WPV during the past six months. Accident scene was the most important place of violence and the patients' companions were the main perpetrators of violence. Overall, 76% of violence victims reported "lack of awareness of the EMTs' duties" as the most important contributing factor for WPV.

Conclusions: This study highlighted the high frequency of WPV against EMTs. Evidently, the health care systems' officials would benefit from taking proper actions in this area, particularly by "staff and public education".

Keywords: Workplace Violence, Physical Violence, Verbal Violence, Emergency Medical Technicians

1. Background

Workplace violence (WPV) is recognized as a major public health issue (1). Workplace violence is defined as any violent acts including physical assaults and threats directed toward staff members at work or on duty (2). Violence in the healthcare system represents almost a quarter of all WPV and may affect more than 50% of healthcare workers (3). Emergency Medical Technicians (EMTs) encounter their patients in the accident scenes. People present at the accident scene are emotionally upset and this may predispose EMTs to more violence (4, 5).

A study in Sweden showed that 67% of ambulance personnel had been subjected to physical violence and 80.3% were verbally abused, over a year (6). In the United States (US), 61% of pre-hospital emergency care providers were exposed to verbal violence and 25% experienced physical violence (7). A study from Iran also reported that healthcare staffs are exposed to a large number of various types of WPV (8). Another study among Iranian healthcare professionals reported that 74.7% were subjected to psychological violence (9). Although EMTs are at higher risk of WPV, the issue is largely ignored in Iran. Most studies on WPV

against EMTs are performed in developed countries, and only a few studies on this issue are available from Iran (5, 10), which have recommended further investigations due to the effect of local factors and cultural issues. Therefore, due to the importance of the issue and its adverse and devastating effects on performance of pre-hospital EMTs, it is necessary to conduct studies about the frequency, severity and nature of violence against EMTs.

2. Objectives

This study aimed to determine the extent, nature and contributing factors of violence against EMTs in Urmia, Iran.

3. Materials and Methods

3.1. Study Design and Participants

This cross-sectional study was conducted on 120 EMTs that worked in ten urban and eight suburban emergency medical services (EMS) stations under the governance of Urmia University of Medical Sciences from April to October

2014. The study population included all full-time EMTs in Urmia. The inclusion criteria were: working in the EMS for at least six months, not working in other hospital settings and not having a known psychological disorder. A participant's decision to leave the study was considered as the exclusion criterion. Census sampling was used and a total of 120 questionnaires were distributed amongst all urban and suburban EMS stations in Urmia.

3.2. Data Collection

A two-part questionnaire that was developed through a literature review and validated by the researcher was used. The first part consisted of nine items that addressed demographic data including age, marital status, field of study, total experience in hospital settings, total experience in pre-hospital settings, type of employment and number of missions in a week. The second part included 12 multiple choice questions about WPV (physical and verbal); specific nature, place and sources of violence, reaction to violence, reporting violence, main contributing factors of violence and need for training on violence management.

Content and face validity of the instrument were confirmed by a panel of experts that consisted of five EMTs, five assistant professors in Nursing and three assistant professors in forensic medicine at the Urmia University of Medical sciences. The instrument was piloted on 10 staff members, who had previously worked in EMS. Cronbach alpha was calculated as 0.79. Data from the pilot study were not included in this study.

Three research assistants were trained on how to fill out the questionnaires. They distributed the questionnaire among the participants, instructed them to respond to the questionnaire in a private environment and return it back in their next visit. Next, the research assistants gathered all the questionnaires and posted them to the main researcher. All participants were notified that they could choose more than one item in the questions.

3.3. Ethical Considerations

The study was approved by the ethics committee of Urmia University of Medical Sciences (ethics code: IR.UMSU.REC.1393.167). Moreover, permissions were obtained from the university officials and EMS managers. The objectives of the study were explained to the respondents and all of them signed an informed consent before receiving the questionnaires. The questionnaires were anonymous and respondents were assured of the confidentiality of their responses. Also, measures were taken to counsel the participants if required.

3.4. Data Analysis

Data were summarized using descriptive statistics including frequency, percentages, mean, and standard deviation. Data analysis was performed using the IBM SPSS software (version 13; SPSS, Chicago, IL).

4. Results

A total of 100 out of 120 distributed questionnaires were completed and returned (response rate = 83.33%). The majority of the respondents (85%) were married (Table 1). Their mean age was 31.6 ± 7.08 years and their experience in hospital settings and in current pre-hospital settings were 2.16 ± 4.20 and 7.75 ± 5.85 years, respectively. The mean number of missions was 25.63 ± 12.17 times in a week.

Table 1. Demographic Characteristics of the Respondents

Variable	No. (%)
Marital Status	
Single	15 (15)
Married	85 (85)
Field of study	
Bachelor of nursing	29 (29)
Emergency medical technician	60 (60)
Anesthesia technician	7 (7)
Operating room technician	4 (4)
Type of employment	
Permanent	26 (26)
By contract	74 (74)

In total, 79% of the respondents were exposed to WPV during the previous six months. Verbal and physical violence were experienced by 79% and 24% of the participants, respectively. Most cases of violence had occurred at the accident scene (62%) and during evening shifts (60%). Patients' companions (60%) were the main source of violence (Table 2). Factors, related to the extent and nature of violence against EMTs, are presented in Table 2.

Most of the participants (76%) believed that "lack of awareness of the EMTs' duties by the patients and their relatives/friends" was the main contributing factor for violence committed against them (Table 3).

The majority of respondents (81%) declared that they had not received any kind of training on how to deal with workplace violence. Also, 70% of them felt a need to be trained on workplace violence management.

Table 2. Extent and Nature of Workplace Violence Against Emergency Medical Technicians

Variable	N (%)
Workplace violence	
No	21 (21)
Yes	79 (79)
Physical	
Physical	24 (24)
Verbal	79 (79)
Place of violence	
Scene of accident	62 (62)
Patients' home	43 (43)
In the ambulance	17 (17)
In the hospital	9 (9)
Other places	9 (9)
Source of violence	
Patients	14 (14)
Patients' companions (relatives or friends)	60 (60)
People at the accident scene	50 (50)
Emergency department personnel in hospital settings	9 (9)
Colleagues	4 (4)
Response to violence	
Do nothing and keep silent	34 (34)
Pretend not to have seen the violence	20 (20)
Invite the perpetrators to calm down	61 (61)
Reporting violence to a family member/manager	6 (6)
Reporting to the police	11 (11)
Showing similar behaviour	7 (7)
Leaving the scene	19 (19)
Shift (violence experienced in)	
Morning	38 (38)
Evening	60 (60)
Night	49 (49)
Reporting the violence to the officials	
Yes	45 (45)
No	34 (34)
Satisfaction with the measures done after violence report	
Yes	2 (2)
No	43 (43)
The reasons for not reporting the violence by the staff	
The problem was not serious	9 (9)
Embarrassed by reporting the violence	2 (2)
Fear of reporting	11 (11)
Self-blame	3 (3)
The uselessness of reporting the violence	26 (26)

5. Discussion

More than two-thirds of the participants in this study experienced WPV, especially verbal violence. This finding is consistent with a study conducted in East Azerbaijan province that showed 71% of EMTs reported verbal violence and 38% experienced physical violence (5). An earlier study also reported that 66% of the Swedish EMS staff experi-

enced threats or violence during their work (11). The high frequency of violence against EMTs alarms the need for appropriate actions not only by the legal, managerial and governmental authorities, but also by the mass media, to bring physical and psychological safety in the pre-hospital settings.

Most of the EMTs in the present study reacted to the violence by inviting the perpetrators to calm down, or did

Table 3. Type and Frequency of Factors Contributing to Workplace Violence Against Emergency Medical Technicians

Contributing factors	N (%)
Lack of awareness of the EMTs' duties	76 (76)
Lack of necessary legitimate support	49 (49)
Inadequate police forces in the scene	39 (39)
Overcrowding at the scene of the accident	37 (37)
Death of patients	33 (33)
Delay in arrival of the ambulance to the scene	32 (32)
Drug abuse by patients/relatives	23 (23)
Lack of training on violence management	18 (18)
Shortage of security facilities within the ambulance	18 (18)
Shortage of ambulance crews	17 (17)

nothing. This finding was consistent with an earlier study in Turkey (3). It seems that EMTs prefer not to take legal actions against WPV, but they believe such incidents are inherent in their job.

Patients' companions and people at the accident scene were responsible for most of the violence in this study. These findings are consistent with previous studies (3, 5, 10, 12). A number of factors such as overcrowding of the accident scene, long waiting times, low communication skills, misconceptions of staff behaviors, holding/boarding patients, a shortage of staff, and cultural differences might have contributed to this problem. It is essential to train the public on EMTs' rights, health care systems' regulations and the consequences of violence and misbehavior against clinicians. Emergency Medical Technicians should also be trained on communication skills, violence management, cultural aspects of caring and management of challenging conditions.

"Lack of awareness of the EMTs' duties" was the most common contributing factor for violent acts in this study. Koohestani et al. reported "delay in reaching the scene" as the most important cause of violence against EMT students in Arak, Iran (10). Two western studies also reported that the shortage of ambulance personnel (12), disagreement with treatment and long waiting time were the most common causes of violence against EMTs (13). The diversity might be attributed not only to cultural factors but also to the performance of the EMSs in different regions. Furthermore, along with a need for a rapid acting EMS, the need for correcting the public attitude and misconception about the EMTs should be addressed.

This study had several limitations: First, the personnel in the dispatch room were not assessed; thus, it would be beneficial to evaluate WPV (especially verbal violence) in

this group. Second, there may have been a non-response bias due to the 15% dropout. Third, we only studied the clinician's viewpoint. Hence, other studies are needed to investigate the perception of patients and their companions about violence against EMTs.

Our conclusion is that the high frequency of violence against EMTs is an alarm for relevant officials. To reduce this problem, effective steps such as training EMTs on aggression and violence management, using a mandatory violence incident report system should be taken. Moreover, an educational course on aggression and violence management should be included in the curriculum of the EMT students.

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Footnotes

Authors' Contribution: Amin Soheili and Aram Feizi: study design and conceptualization; Alireza Rahmani, Naser Parizad and Javad Sheykh-kanlou: data collection; Amin Soheili, Aram Feizi, Alireza Rahmani and Javad Sheykh-kanlou: data analysis and interpretation; Amin Soheili and Naser Parizad: manuscript writing; Amin Soheili and Aram Feizi: study supervision.

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Conflict of Interests: There was no conflict of interest in this study.

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