Original Article

Access this article online
Quick Response Code:

Website: www.jfcmonline.com
DOI: 10.4103/jfcm.jfcm_136_23

Violence against healthcare workers in the emergency departments of Al-Madinah hospitals, Saudi Arabia

Khaled M. Al-Sayaghi[1,2]

Abstract:

BACKGROUND: Workplace violence (WPV) directed against healthcare workers (HCWs) in healthcare facilities has always been neglected. These occupational hazards have been investigated in recent times and received greater attention from decision-makers. This study aimed to assess the WPV committed against HCWs in the emergency departments (EDs).

MATERIALS AND METHODS: All the emergency department (ED) healthcare workers (HCW) in the hospitals of Al-Madinah Province, Saudi Arabia, were invited to participate in this cross-sectional study by completing an online questionnaire during May 15 to August 15, 2020. Information sought included characteristics of the participant and workplace, violence, the participants' responses and emotions, the consequences of the WPV incident, and the level of satisfaction with the management of the WPV incident. Data was analyzed using SPSS; Chi-square test was used to assess the association between WPV and various participant and workplace characteristics. Binary logistic regression analysis performed to identify independent predictors of work place violence.

RESULTS: A total of 250 HCW filled the questionnaire. One-third of the participants were victims of at least one violent event, mostly nonphysical. The perpetrators were primarily the patient's companions, and a heavy workload/understaffing or an overcrowded environment was the main cause of the violence. The most frequent reaction was to call the hospital security. The emotions the participants experienced were disappointment, low self-esteem, and sadness. Most victims did not report the WPV incident because they believed that reporting was useless, insignificant, or they were fearful of adverse consequences.

CONCLUSION: The rate of violence in EDs in Al-Madinah hospitals was lower than expected, and only 33.3% of HCWs had experienced a violent incident in the last year. However, there is a substantial margin for interventions to improve the situation and protect the HCWs in the EDs.

Keywords:

Al-Madinah, emergency departments, healthcare workers, Saudi Arabia, workplace violence

[1]*Department of Medical Surgical Nursing, College of Nursing, Taibah University, Al-Madinah Al-Munawwarah, Saudi Arabia,* [2]*Nursing Division, Faculty of Medicine and Health Sciences, Sana'a University, Sana'a, Yemen*

Address for correspondence:
Dr. Khaled M. Al-Sayaghi, Department of Medical Surgical Nursing, College of Nursing, Taibah University, P.O. Box 344, Al-Madinah Al-Munawwarah 41411, Saudi Arabia.
E-mail: kalsayaghi@yahoo.com

Received: 29-05-2023
Revised: 30-08-2023
Accepted: 09-09-2023
Published: 13-10-2023

Introduction

Workplace violence (WPV) is an important global phenomenon, and healthcare is one of the most violent services.[1,2] It is defined as "incidents where staff are abused, threatened, or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being, or health." It includes physical assault, aggression, sexual harassment, bullying, and verbal abuse or threats.[3] WPV is a growing concern and represents a significant threat to healthcare workers (HCWs),[4,5] who have a 16-fold higher risk of experiencing WPV than any other nonhealthcare service workers.[1,2,6] WPV has serious adverse effects on the HCWs, work productivity, patient safety, and the quality of healthcare provided.[7,8] WPV can cause HCWs to make medication

How to cite this article: Al-Sayaghi KM. Violence against healthcare workers in the emergency departments of Al-Madinah hospitals, Saudi Arabia. J Fam Community Med 2023;30:307-16.

and other care-delivery errors that are likely to contribute to negative patient outcomes.[8] Associated with WPV are lower staff morale and confidence, employee dissatisfaction, sick leave, absenteeism, intention to quit, and a high turnover of staff.[6,8,9] It affects the HCWs' mental and psychological health[4,10] and increases the risk of psychoactive substance abuse and suicide.[6,8]

WPV can be experienced anywhere in a hospital. Nonetheless, the emergency department (ED) is a particularly violent environment.[11,12] ED is the door to a hospital that functions 24 h a day, 7 days a week, and ED HCWs form the frontline to all types of visitors.[8,13] The extremely stressful environment of the ED, acute nature of the patient's illness, suffering, pain and discomfort, long waiting times, overcrowding, lack of privacy, intense interpersonal interactions, unexpected patient outcomes, like death, and the resulting frustration of patients and their relatives could incite violent acts against the HCWs.[13-15]

The reported rates of WPV against HCWs in ED vary widely. In Italy, 91.5% of the ED nurses experienced violence.[16] In the United States (US), 78% of ED physicians reported at least one violent event in the last 12 months.[13] In Indonesia, 10% of ED nurses experienced physical WPV, and 54.6% experienced nonphysical WPV.[17] A multicenter Taiwanese study found that about 93% of ED nurses had been exposed to WPV in the previous 2 years.[18] In Turkey, 74%–85.2% of all the HCWs in EDs experienced at least one kind of WPV,[19,20] and in Jordan, 75%–91.4% of ED nurses were exposed to WPV.[21,22] In Palestine, 76.1% of all HCWs in ED had encountered one type of WPV in the past year.[23] Some studies conducted in EDs in Saudi Arabia have reported that 45%–89.3% of HCWs in EDs have faced at least one type of WPV.[9,24,25]

Although recent studies in Saudi Arabia have examined WPV, the vast majority of these studies tended to focus on WPV in healthcare settings outside the EDs and/or only one group of HCWs (e.g., nurses). Moreover, no study has explored WPV toward HCWs in healthcare settings in general or in the EDs in Al-Madinah Al-Munawwarah Province. This study's aim was to get a comprehensive view of the WPV experienced by HCWs in the EDs in Al-Madinah Province hospitals, Saudi Arabia.

Materials and Methods

This was a cross-sectional study using a self-administered survey that investigated the WPV against HCWs in the year preceding the study. This study was conducted at the EDs of the public/governmental and military/national guard hospitals in Al-Madinah Province, Saudi Arabia. A convenience sample of HCWs was obtained using nonprobability sampling method. The Raosoft sample size calculator was used to calculate the sample size with a power level of 95% and a margin error of 5%.[26] The required sample was 317 HCWs for an estimated 1800 HCWs in the EDs of Al-Madinah hospitals. All the healthcare staff working in EDs at the targeted hospitals were invited to complete the questionnaire. The HCWs who reported <1 year of experience in the ED in Saudi Arabia and staff other than HCWs, including administrative and operational staff, were excluded. The study was conducted between May 15 and August 15, 2020. Ethical approval was obtained from the Institutional Review Board vide Letter No. 425 dated 25/03/2020, and informed written consent was taken from all participants in the study.

Data were collected using a questionnaire derived from the WPV questionnaire developed by the International Labor Office, International Council of Nurses, World Health Organization, and Public Services International.[27] The questionnaire was modified based on a review of previous studies that used and modified the same questionnaire.[10,22,28-31] Each type of WPV was clearly defined at the beginning of the questionnaire. Sexual harassment was removed from the questionnaire due to the conservative nature of Saudi society.[32] The questionnaire contained 40 items in three sections. The first section included 18 items related to the participants' and workplace's characteristics participants' perceptions of safety, and WPV incidents reporting procedures. The second section consisted of 10 closed-ended (yes/no) questions to assess the exposure to WPV in the past year and the characteristics of the violence (type, frequency, time, location, perpetrator, and causes), the participants' responses to the violent events, and the emotions experienced after the WPV incident. The third section was 11 closed-ended (yes/no) questions on the consequences of the WPV incidents and the HCWs' satisfaction with how the WPV incident was managed. One open-ended question explored the participants' recommendations to control and prevent WPV in the EDs.

The questionnaire was revised and assessed in terms of its compatibility with the Saudi culture and context by two nursing faculty members, two ED nurses, and one community medicine faculty member. It was translated into Arabic by two translators (one was the author) and then back-translated into English by a third translator. The readability, clarity, and applicability of the revised questionnaire were assessed with a pilot study of 10 HCWs in the ED and some modifications made in the final version. An online electronic survey was designed, and the link was sent through social media (WhatsApp) to the nursing, medical, and other HCWs groups in EDs. Reminders were sent every several days to all the groups.

A total of 250 online responses were recorded and retrieved with a response rate of 78.9%. The Statistical Package for the Social Sciences (IBM SPSS Statistics for Windows, Version 25.0, IBM Corp., Armonk, NY, USA) was used for data analysis. Frequency and percentage were applied to present the participants' characteristics, those of the workplace, and the WPV features and consequences. A Pearson's Chi-square was performed to assess the effects of the different participant and workplace characteristics on the exposure to WPV in general (yes/no). For characteristics that appeared to significantly affect exposure to WPV in Pearson's Chi-square test, a binary logistic regression analysis was done to identify independent predictors of exposure to violence. The level of $P < 0.05$ was set as statistically significant.

Results

In total, 234 out of 250 responses were analyzed, and 16 were excluded because their experience in the ED was <1 year. According to Table 1, most of the participants were Saudi (74.4%), aged ≤40 years (86.3%), male (54.4%), married (68%), nurses (79.5%), with a bachelor's degree or higher (73.1%), had ≤10 years of experience in healthcare (57.3%), <5 years of experience in ED (55.1%), and worked in public/governmental hospitals (82.1%). Most of the participants reported they had no formal training in dealing with violence (88.5%), and they would like to get some training (85.0%).

The majority of participants (85.5%) reported that they were worried about being assaulted at work and thought security precautions in their ED were inadequate (77.4%). Most of the participants (62.8%) assented that their EDs had a procedure for reporting WPV incidents, 80.3% knew how to implement the procedure, and 78.2% knew who to report to. More than half (55.6%) said that there was no motivation for reporting the WPV incidents in their ED [Table 2].

A third of the sample (33.3%) reported that they had been exposed to WPV incidents [Table 3]. WPV was significantly more prevalent with female HCWs than males ($P = 0.009$), divorced/widowed HCWs than the single and married HCWs ($P < 0.004$), the group who were concerned about being assaulted compared to the "not-concerned" group ($P = 0.036$), the group who thought that the security precautions in the ED were inadequate compared to the group who thought they were ($P = 0.011$), and the group who had no motivation to report the WPV events compared to the group with motivation ($P = 0.003$).

Table 4 indicates that only three factors (characteristics) independently predicted the WPV, and they are gender, marital status, and the motivation to report the WPV.

Table 1: Characteristics of emergency department healthcare workers in Al-Madinah Province, Saudi Arabia 2020 (*n*=234)

Characteristics	*N* (%)
Nationality	
Saudi	174 (74.4)
Non-Saudi	60 (25.6)
Gender	
Male	127 (54.3)
Female	107 (45.7)
Age (years)	
≤30	84 (35.9)
>30–40	118 (50.4)
>40	32 (13.7)
Marital status	
Single	67 (28.6)
Married	159 (68.0)
Other (divorced/widowed)	8 (3.4)
Job category	
Nurse	186 (79.5)
Other HCWs*	48 (20.5)
Qualification	
Board or fellowship	12 (5.1)
Masters	14 (6.0)
Bachelor's	145 (62.0)
Diploma	63 (26.9)
Total professional experience (years)	
1–10	134 (57.3)
>10–20	80 (34.2)
>20	20 (8.5)
ED experience (years)	
1–5	129 (55.1)
>5–10	65 (27.8)
>10	27 (11.5)
Missed data	13 (5.6)
Category of your employment sector	
Public/governmental	192 (82.1)
Military/National Guard	42 (17.9)
Have you received any training on the handling of violence?	
Yes	27 (11.5)
No	207 (88.5)
Would you like to have training in dealing with violence?	
Yes	199 (85.0)
No	35 (15.0)

*Other HCWs: Physicians, respiratory therapists, paramedics, radiology technicians, laboratory technicians, and pharmacists. ED=Emergency department, HCWs=Healthcare workers

The male HCWs had a lower risk for exposure to WPV compared with the females (odds ratio [OR] = 0.483, confidence interval [CI] 95% = 0.262–0.890). Single and married HCWs had a lower risk of exposure to WPV than the divorced/widowed HCWs (OR = 0.61, CI 95% = 0.333-0.874; OR = 0.66, CI 95% = 0.245–0.791, respectively). HCWs who had no motivation to report WPV incidents had a higher risk of exposure to WPV (OR = 1.948, CI 95% = 1.038–3.653).

Table 2: Emergency department healthcare workers' perception of safety and workplace violence incident reporting procedure, Al Madinah Province, Saudi Arabia 2020 (*n*=234)

Workplace safety characteristics	*N* (%)
Do you worry about being assaulted while at work?	
Yes	200 (85.5)
No	34 (14.5)
Do you think that your department has adequate security precautions?	
Yes	53 (22.6)
No	181 (77.4)
Does your department have a procedure for reporting violence?	
Yes	147 (62.8)
No	87 (37.2)
If yes, do you know how to use these procedures? (*n*=147)	
Yes	118 (80.3)
No	29 (19.7)
If yes, do you know who to report to? (*n*=147)	
Yes	115 (78.2)
No	32 (21.8)
Is there any motivation for reporting the violence in your department?	
Yes	104 (44.4)
No	130 (55.6)

Table 5 indicates that 97.4% of participants who were exposed to WPV reported exposure to nonphysical WPV, and only 9% were exposed to physical WPV (some participants experienced >1 form of WPV). Most victims (84.6%) experienced >1 WPV incidents (from 2 to >5 incidents), most WPV events occurred in the evening shift (65.4%), and the triage area was the most frequent location for the WPV (59%). The perpetrators (attackers) were mainly patient's companions (91%), and the main reported cause of the violent incidents was a heavy workload/understaffing/overcrowded environment (60.3%). Most of the participants who had experienced WPV (60.3%) believed that the violent incident could have been prevented.

Table 6 reveals that the most frequent response to the violent incident was to call the hospital security (61.5%) and tell the perpetrator to stop (52.6%). After the violent incident, the most frequent emotions experienced were disappointment (51.3%), anger (50%), and low self-esteem (46.2%). The majority (55.1%) never reported the WPV incident to their administration. Of this group, 74.4% felt that reporting was useless, 25.6% said that it was insignificant, and 16.3% said that they were afraid of adverse consequences. Only 26.9% reported that WPV incidents had been investigated. The consequences for the aggressors were nothing (55.1%) or a verbal warning (23.1%). Only 25.6% had support from the administration, which gave 80% the opportunity to speak about the event, and some counseling for the rest. Less than half (46.2%) were satisfied or very satisfied with the way the violent incidents were managed.

The measures recommended by participants to prevent and control the WPV in the EDs were: to provide adequate trained security staff around the clock, increase staff numbers, reorganize the ED, control access to the ED, implement a strict policy on the number of persons accompanying a patient, train the staff, and enact punitive laws against the aggressor.

Discussion

The current study is the first of its type in Al-Madinah Province to provide a more comprehensive description of the WPV, to add to the body of knowledge related to WPV against HCWs in the EDs. The most important result of this study was the relatively low rate of WPV against the HCWs in the EDs in Al-Madinah hospitals. Only 33.3% of the participants reported that they had been victims of WPV in the last 12 months, 3% experienced physical and 32.5% nonphysical WPV incidents. The rate of WPV in the present study is much lower than what was found locally for HCWs (45%–47.8%)[25,33] and nurses (73.7%–89.3%)[8,24] in EDs. The rate of WPV in EDs in this study is even lower than the rates reported in other less violent healthcare settings in Saudi Arabia (45.6%–69.01%).[28,32,34-39] Regionally, the rate of WPV in the EDs was 74.0%–91.4% for nurses in Turkey,[14,19,20] 75%–91.4% in Jordan,[21,22] and 59.7%–85.9% in Egypt.[31,40] Globally, the reported rates of WPV in EDs were 10%–42.7% for physical WPV[17,41-43] and 54.6%–91.5% for nonphysical WPV.[19,44,45]

There is more than one contributing factor to the low rate of WPV found in this study. In July 2018, the Saudi Ministry of Health issued and implemented legislation that includes penalties and fines to control and prevent WPV.[46-48] Another explanation is the conservative nature and Islamic culture of Saudi society that discourages violence against anyone. Living in the city of the Prophet Muhammad makes people more compliant with the rules of Islam, which demands that individuals respect others and not harm them. However, there should be no feeling of elation that the rate of WPV is lower than those in the regional and international studies. The rate is still high, as one in every three HCWs has experienced at least one incident of WPV in the last year.

As reported in other studies conducted in EDs in Saudi Arabia,[8,25] in other Arab countries,[22,23,31] and in foreign countries,[14,41,45] this study demonstrates that WPV primarily comes from patients' companions (91%). In Saudi Arabia, the relationships and interdependence

Table 3: Exposure to workplace violence by various characteristics of healthcare workers in emergency departments, Al-Madinah Province, Saudi Arabia 2020

Characteristics	Exposure to WPV		*P*-value
	Yes *N* (%)	No *N* (%)	
Total sample	78 (33.3)	156 (66.7)	
Nationality			
Saudi	62 (35.6)	112 (64.4)	0.204
Non-Saudi	16 (26.7)	44 (73.3)	
Gender			
Male	33 (26.0)	94 (74.0)	0.009*
Female	45 (42.1)	62 (57.9)	
Age (years)			
≤30	27 (32.1)	57 (67.9)	0.895
>30–40	41 (34.7)	77 (65.3)	
>40	10 (31.2)	22 (68.8)	
Marital status			
Single	21 (31.3)	46 (68.7)	0.004*
Married	50 (31.4)	109 (68.6)	
Other (divorced/widowed)	7 (87.5)	1 (12.5)	
Job title (category)			
Nurse	61 (32.8)	125 (67.2)	0.731
Other HCWs	17 (35.4)	31 (64.6)	
Qualification (educational level)			
Board or fellowship	4 (33.3)	8 (66.7)	0.531
Master	3 (21.4)	11 (78.6)	
Bachelor	46 (31.7)	99 (68.3)	
Diploma	25 (39.7)	38 (60.3)	
Total professional experience (years)			
1–10	49 (36.6)	85 (63.4)	0.437
11–20	24 (30.0)	56 (70.0)	
>20	5 (25.0)	15 (75.0)	
ED experience (years)**			
1–5	39 (30.2)	90 (69.8)	0.510
6–10	23 (35.4)	42 (64.6)	
>10	11 (40.7)	16 (59.3)	
Category of your employment sector			
Public/governmental	69 (35.9)	123 (64.1)	0.071
Military/National Guard	9 (21.4)	33 (78.6)	
Have you received any training in dealing with violence?			
Yes	9 (33.3)	18 (66.7)	1.000
No	69 (33.3)	138 (66.7)	
Would you like to have training to deal with violence?			
Yes	71 (35.7)	128 (64.3)	0.070
No	7 (20.0)	28 (80.0)	
Do you worry about being assaulted while at work?			
Yes	72 (36.0)	128 (64.0)	0.036*
No	6 (17.6)	28 (82.4)	
Do you think that your department has adequate security precautions?			
Yes	10 (18.9)	43 (81.1)	0.011*
No	68 (37.6)	113 (62.4)	
Does your department have a procedure for reporting violence?			
Yes	49 (33.3)	98 (66.7)	1.000
No	29 (33.3)	58 (66.7)	
Is there any motivation for reporting the violence in your department?			
Yes	24 (23.1)	80 (76.9)	0.003*
No	54 (41.5)	76 (58.5)	

**P* value indicates a significant difference between the subgroups, **Missed data=13. WPV=Workplace violence, ED=Emergency department, HCWs=Healthcare workers

Table 4: Logistic regression analysis: Correlates of workplace violence among healthcare workers in emergency departments, Al-Madinah Province, Saudi Arabia 2020

	AOR (95% CI for OR)	*P*-value
Gender		
Male	0.483 (0.262–0.890)	0.020*
Female	Reference	
Marital status		
Single	0.61 (0.333–0.874)	0.019*
Married	0.66 (0.245–0.791)	0.029*
Other (divorced/widowed)	Reference	
Worry about being assaulted while at work		
No	0.567 (0.203–1.585)	0.279
Yes	Reference	
ED has adequate security precautions		
No	2.171 (0.942–5.004)	0.069
Yes	Reference	
Motivation for reporting		
No	1.948 (1.038–3.653)	0.038*
Yes	Reference	

**P* value indicates a significant result. OR=Odds ratio, CI=Confidence interval, ED=Emergency department, AOR=Adjusted OR

of family members are very strong, and all the family members usually accompany their loved ones to an ED. The family members are usually worried, severely stressed, and willing to do anything when a loved one's health is in jeopardy. The resulting overcrowding, anxiety, stress, the inability to fully appreciate the situation, and anger degenerate into aggressive behavior against HCWs.[33,38]

The incidents of WPV were higher in the triage area than in other areas in the ED. HCWs in the triage area are the frontline service personnel that patients and their relatives directly encounter and communicate with. A similar finding was reported in previous studies in Saudi Arabia,[24,33] Jordan,[22] and Taiwan.[44] Supported by Alsharari *et al*.,[8] and Darawad *et al*.,[22] our current study indicates the most cited contributing factor as the heavy workload/understaffing/overcrowded environment. Contrary to the current results, Alyaemni and Alhudaithi[24] found that misunderstanding was the major cause, and understaffing was the second cause of violence in EDs. Most participants in that study were expatriate nurses from various Asian countries (non-Arabic speakers), and the language barrier resulted in the misunderstanding.[25,37]

In the present study, female HCWs were significantly more at risk of suffering WPV than male HCWs. The companions and patients tend to use nonphysical violence on female HCWs rather than physically harm them.[14] Some studies have reported that females were more likely to be victims of verbal WPV,[24,25] and male HCWs were more commonly exposed to physical WPV.[6,24,49] This study shows that divorced and widowed HCWs were more likely to be victims of WPV than the married or single HCWs. A similar result was reported by Harthi *et al*.,[33] and Tang *et al*.[44] Social problems endured by divorced and widowed make them more sensitive to violence and more inclined to report WPV. In accord with Harthi *et al*.,[33] the present study highlighted that the rate of WPV was statistically higher for HCWs who lacked motivation to report the violence than the group who felt motivated to report it. However, the association between the lack of motivation and the incidence of WPV needs further investigation.

The responses reported by most of the participants were: to summon the hospital security or tell the perpetrator to stop. This finding is in accord with a local study that indicates that the majority of the HCWs in EDs requested assistance from hospital security.[25] In Jordan, the most frequent response to violence was "tried to defend myself physically."[30,50] In contrast to the Jordanian studies, the participants in this study were from the urban society and so showed their commitment to the legal system. In the current study, disappointment, anger, low self-esteem, and sadness were the most frequent emotions felt by participants on being at the receiving end of the WPV event. Previous studies have reported similar findings.[14,44,51]

The low WPV reporting rate found in the current study is in agreement with the local,[24,33,52] regional (20%–42.7%),[19,20,23] and international WPV reporting rates (7.9%–35%).[15,17,53] Similar to the literature, the participants' reluctance to report WPV was based on their belief that reporting was useless,[8,24,33] reporting was not important,[20,23,49] and the fear of negative consequences of reporting.[5,15,23] The belief that reporting was useless might indicate that the HCWs feel unsupported by the administration. The belief that reporting is not important occurs when HCWs are exposed to WPV repeatedly, when violence becomes a normal occurrence and viewed as part of their job, and no longer perceived as violence[17,52,53] until there is physical harm.[15,24,28] The fear of negative consequences can be attributed to the fear of being subjected to revenge later from the offender and the fear that the reporting will not be dealt with confidentially by the administration.[15,52]

In line with the literature, only 26.9% of the participants who had been exposed to WPV reported that the WPV incident had been investigated,[26] and only 25.6% had received support from the administration.[17,20] The explanation for the low support from the administration

Table 5: Workplace violence type, frequency, perpetrators, and cause of workplace violence against the healthcare workers in the emergency departments, Al-Madinah Province, Saudi Arabia 2020 (*n*=78)

Characteristics	*N* (%)
What kind of violence have you experienced in the last 12 months?[a]	
Nonphysical violence	76 (97.4)
Physical violence	7 (9.0)
How often have you been involved in violent incidents in the last 12 months?	
Once	12 (15.4)
Twice	24 (30.8)
Three times	17 (21.8)
Four times	7 (9.0)
Five times	13 (16.6)
>5 times	5 (6.4)
When did violence happen?[a]	
Day shift (7:00 am–3:00 pm)	44 (56.4)
Evening shift (3:00 pm–11:00 am)	51 (65.4)
Night shift (11:00–7:00 am)	31 (39.7)
Where did the violence happen?[a]	
Triage area	46 (59.0)
Waiting area	20 (25.6)
Examination room	22 (28.2)
Resuscitation area	13 (16.7)
Critical and trauma area	20 (25.6)
Treatment and observation area	39 (50.0)
Who attacked you (perpetrator)?[a]	
Patient	33 (42.3)
Patient's companions (relatives)	71 (91.0)
Physician	7 (9.0)
Another member of healthcare team	4 (5.1)
Medical administration/supervision	2 (2.6)
Nursing administration/supervision	4 (5.1)
Security officers	2 (2.6)
A member of the public	7 (9.0)
Reasons for the violence from HCWs' perspective[a]	
Heavy workload/understaffing/overcrowded environment	47 (60.3)
Lack of violence prevention measures	28 (35.9)
Lack of staff training	4 (5.1)
Communication skills/language barriers	6 (6.4)
Misunderstanding	25 (32.1)
Lack of patient/relatives' understanding of the triage process	38 (48.7)
Long waiting time	35 (44.9)
Overcrowded, discomfortable, and lack of privacy in the waiting area	6 (7.7)
Anger related to the patient's condition and situation	13 (16.7)
Care of psychiatric patients	7 (9.0)
Patients/relatives under the influence of alcohol or drugs	11 (14.1)
Preconceived expectations and misconceptions that staff is uncaring	38 (48.7)
Do you think the violent incident might have been prevented?	
Yes	47 (60.3)
No	31 (39.7)

[a]>1 response has been provided; therefore, the total percentage was >100%. HCWs=Healthcare workers

is that the majority of those exposed to WPV did not report the violence against them to the administration. It is worth mentioning that no punitive measures were taken against 55.1% of the attackers, and 23.1% were only warned verbally. This finding is consistent with results from local,[24,28,33] regional,[40,49] and international studies.[41]

The results from the present study show that most of the participants (88.5%) reported that they were not trained to deal with WPV. Similar results were reported by nurses and HCWs in EDs in Saudi Arabia (82.6%),[24] in Turkey (82.3%,[20] and in Indonesia (89.9%).[17] Concern of becoming a victim of WPV is a part of the staff workload in EDs, as reported by 85.5% of the participants, and

Table 6: Consequences of workplace violence incidents among healthcare workers in emergency departments, Al-Madinah Province, Saudi Arabia 2020 (*n*=78)

	N (%)
Response (coping methods) of the HCWs against the violent attack?[a]	
Taking no action	10 (12.8)
Trying to pretend nothing happened	27 (34.6)
Telling the perpetrator to stop	41 (52.6)
Trying to protect myself physically	7 (9.0)
Calling hospital security	48 (61.5)
Completing accident form	11 (14.1)
Telling a colleague	15 (19.2)
Telling family/friends	10 (12.8)
Reporting to a senior staff	13 (16.7)
Requesting for vacation/transfer to another position	3 (3.8)
Pursuing prosecution	3 (3.8)
Emotions experienced after violence[a]	
Disappointment	40 (51.3)
Sadness	30 (38.5)
Powerlessness/helplessness	13 (16.7)
Low self-esteem	36 (46.2)
Anger	39 (50.0)
Fear and anxiety	23 (29.5)
Shock/astonishment	19 (24.4)
Guilt or shame	10 (12.8)
Did you report the incident to the administration?	
Yes	35 (44.9)
No	43 (55.1)
If not, what were the reasons for not reporting the incident?[a]	
It was insignificant	11 (25.6)
Felt ashamed	1 (2.3)
Felt guilty	1 (2.3)
Afraid of adverse consequences	7 (16.3)
Useless (nothing would be done)	32 (74.4)
Did not know who to report to	6 (14.0)
Was the incident investigated?	
Yes	21 (26.9)
No	57 (73.1)
If yes, it is investigated by whom	
Management/employer	7 (33.3)
Supervisor	2 (9.5)
Police/security office	12 (57.2)
What was the consequence for the attacker?	
None	43 (55.1)
Verbal warning issued	18 (23.1)
Reported to police	4 (5.1)
Aggressor prosecuted	1 (1.3)
Don't know	12 (15.4)
Did you receive any support from the administration?	
Yes	20 (25.6)
No	58 (74.4)
If yes, what is the type of support received?	
Counseling	4 (20.0)
Opportunity to speak about or report it	16 (80.0)
Rate your satisfaction with the way in which the violent events were managed	
Very dissatisfied	0
Dissatisfied	24 (30.7)
Neutral	18 (23.1)
Satisfied	7 (9.0)
Very satisfied	29 (37.2)

[a]>1 response has been provided. HCWs=Healthcare workers

77.4% of the participants indicated that the security measures in their EDs were inadequate. The same findings were reported by emergency nurses and HCWs in Egypt,[31] Turkey,[19,20] and Taiwan.[44]

Concerning the measures recommended by participants to prevent and control the WPV in the EDs, the most frequently reported were the provision of enough trained security staff around the clock, increasing staff numbers, and organizing of ED and flow. Zahra and Feng[17] got the same suggestions from their participants. El-Gilany *et al*.,[10] and Gates *et al*.,[53] found that the availability of security personnel and liaison with police were the most frequently suggested measures.

There is a substantial gap for interventions to improve the situation and protect the HCWs in the EDs. Hospital administrations must take adequate violence prevention measures/strategies, introduce training programs, enforce ED-specific violence zero-tolerance policies, strengthen the WPV incidence reporting system/procedures, follow-up on reported assaults, take action against offenders, provide feedback and postincident support to the victims, and protect the victims against any repercussions for reporting. Administrations should endeavor to reduce patient waiting time, increase staff numbers, provide a comfortable waiting environment, and employ social workers to communicate with, counsel, and support patients and relatives.

The limitation of the study is the use of a retrospective self-reporting method for data collection. The method relies on the participants' ability to recall information about the WPV events that occurred 12 months before the study, which might have potential recall bias. Further nationwide research is recommended, with special attention to the subtypes of violence, the occurrence of WPV by gender, age, nationality, and work of the perpetrators, and the usefulness of different preventive measures.

Conclusion

One-third of the participants had experienced at least one episode of WPV in the preceding 12 months. Nonphysical violence was more frequent than physical violence, the perpetrators were mainly the patient's companions, and the main causes of WPV incidents were the heavy workload/understaffing/overcrowded environment. There is a substantial gap for interventions that may improve the situation and protect the HCWs in the EDs. Administrations must take adequate violence prevention measures/strategies to improve the quality of care provided in the ED.

Acknowledgment

I would like to thank the nursing graduates for their assistance in data collection and the HCWs in the EDs in Al-Madinah Al-Munawwarah for their participation in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Kingma M. Workplace violence in the health sector: A problem of epidemic proportion. Int Nurs Rev 2001;48:129-30.
2. Alyousef SM, Alhamidi SA. Exploring experiences of workplace violence and attempts to address violence among mental health nurses in the Kingdom of Saudi Arabia. SAGE Open Nurs 2022;8:23779608221142716.
3. ILO/ICN/WHO/PSI Joint Programme on Workplace Violence in the Health Sector. Framework Guidelines for Addressing Workplace Violence in the Health Sector/Joint Programme on Workplace Violence in the Health Sector, WHO, Geneva, Switzerland; 2002. Available from: https://www.who.int/iris/handle/10665/42617. [Last accessed on 2020 May 05].
4. Varghese A, Joseph J, Vijay VR, Khakha DC, Dhandapani M, Gigini G, *et al*. Prevalence and determinants of workplace violence among nurses in the South-East Asian and Western Pacific regions: A systematic review and meta-analysis. J Clin Nurs 2022;31:798-819.
5. Salvador JT, Alqahtani FM, Al-Madani MM, Jarrar MK, Dorgham SR, Victoria Reyes LD, *et al*. Workplace violence among registered nurses in Saudi Arabia: A qualitative study. Nurs Open 2021;8:766-75.
6. Wei CY, Chiou ST, Chien LY, Huang N. Workplace violence against nurses – Prevalence and association with hospital organizational characteristics and health-promotion efforts: Cross-sectional study. Int J Nurs Stud 2016;56:63-70.
7. Kowalenko T, Gates D, Gillespie GL, Succop P, Mentzel TK. Prospective study of violence against ED workers. Am J Emerg Med 2013;31:197-205.
8. Alsharari AF, Abu-Snieneh HM, Abuadas FH, Elsabagh NE, Althobaity A, Alshammari FF, *et al*. Workplace violence towards emergency nurses: A cross-sectional multicenter study. Australas Emerg Care 2022;25:48-54.
9. Albalwei HS, Ahmed NF, Albalawi NM, Albalawi SS, Al-Enazi NH. Violence against health care workers of pediatric departments in Saudi Arabia: Systematic review. Arch Pharm Pract 2021;12:79-84.
10. El-Gilany AH, El-Wehady A, Amr M. Violence against primary health care workers in Al-Hassa, Saudi Arabia. J Interpers Violence 2010;25:716-34.
11. Tadros A, Kiefer C. Violence in the emergency department: A global problem. Psychiatr Clin North Am 2017;40:575-84.
12. Chakraborty S, Mashreky SR, Dalal K. Violence against physicians and nurses: A systematic literature review. Z Gesundh Wiss 2022;30:1837-55.
13. Behnam M, Tillotson RD, Davis SM, Hobbs GR. Violence in the emergency department: A national survey of emergency medicine residents and attending physicians. J Emerg Med 2011;40:565-79.
14. Talas MS, Kocaöz S, Akgüç S. A survey of violence against staff working in the emergency department in Ankara, Turkey. Asian Nurs Res (Korean Soc Nurs Sci) 2011;5:197-203.

15. Stene J, Larson E, Levy M, Dohlman M. Workplace violence in the emergency department: Giving staff the tools and support to report. Perm J 2015;19:e113-7.
16. Ramacciati N, Gili A, Mezzetti A, Ceccagnoli A, Addey B, Rasero L. Violence towards emergency nurses: The 2016 Italian national survey-a cross-sectional study. J Nurs Manag 2019;27:792-805.
17. Zahra AN, Feng JY. Workplace violence against nurses in Indonesian emergency departments. Enfermería Clínica 2018;28 Suppl 1:184-90.
18. Lee HL, Han CY, Redley B, Lin CC, Lee MY, Chang W. Workplace violence against emergency nurses in Taiwan: A cross-sectional study. J Emerg Nurs 2020;46:66-71.e4.
19. Çıkrıklar HÍ, Yürümez Y, Güngör B, Aşkın R, Yücel M, Baydemir C. Violence against emergency department employees and the attitude of employees towards violence. Hong Kong Med J 2016;22:464-71.
20. Pinar R, Ucmak F. Verbal and physical violence in emergency departments: A survey of nurses in Istanbul, Turkey. J Clin Nurs 2011;20:510-7.
21. ALBashtawy M, Aljezawi M. Emergency nurses' perspective of workplace violence in Jordanian hospitals: A national survey. Int Emerg Nurs 2016;24:61-5.
22. Darawad MW, Al-Hussami M, Saleh AM, Mustafa WM, Odeh H. Violence against nurses in emergency departments in Jordan: Nurses' perspective. Workplace Health Saf 2015;63:9-17.
23. Hamdan M, Abu Hamra A. Workplace violence towards workers in the emergency departments of Palestinian hospitals: A cross-sectional study. Hum Resour Health 2015;13:28.
24. Alyaemni A, Alhudaithi H. Workplace violence against nurses in the emergency departments of three hospitals in Riyadh, Saudi Arabia: A cross-sectional survey. NursingPlus Open 2016;2:35-41.
25. Alhusain F, Aloqalaa M, Alrusayyis D, Alshehri K, Wazzan S, Alwelyee N, *et al*. Workplace violence against healthcare providers in emergency departments in Saudi Arabia. Saudi J Emerg Med 2020;1:5-14.
26. Raosoft Sample Size Calculator. Available from: https://www.raosoft.com/samplesize.html. [Last accessed on 2020 May 01].
27. ILO/ICN/WHO/PSI Joint Programme on Workplace Violence in the Health Sector: Workplace Violence in the Health Sector – Country Case Study Research Instruments –Survey Questionnaire (English). WHO, Geneva, Switzerland; 2003. Available from: https://www.who.int/publications/m/item/workplace-violence-in-the-health-sector---country-case-study-research-instruments---survey-questionnaire?utm_medium=email&utm_source=transaction. [Last accessed on 2020 May 05].
28. Sayed F, Alrasheeday AM, Alshammari B, Alonazi A, Alharbi A, Almotairi NA, *et al.* Verbal and physical abuse against nurses working in hospitals and health centers in Buraidah, Saudi Arabia. Cureus 2022;14:e31792.
29. Al-Shamlan NA, Jayaseeli N, Al-Shawi MM, Al-Joudi AS. Are nurses verbally abused? A cross-sectional study of nurses at a university hospital, Eastern Province, Saudi Arabia. J Family Community Med 2017;24:173-80.
30. AbuAlRub RF, Al Khawaldeh AT. Workplace physical violence among hospital nurses and physicians in underserved areas in Jordan. J Clin Nurs 2014;23:1937-47.
31. Abou-ElWafa HS, El-Gilany AH, Abd-El-Raouf SE, Abd-Elmouty SM, El-Sayed RE. Workplace violence against emergency versus non-emergency nurses in Mansoura university hospitals, Egypt. J Interpers Violence 2015;30:857-72.
32. Alsaleem SA, Alsabaani A, Alamri RS, Hadi RA, Alkhayri MH, Badawi KK, *et al.* Violence towards healthcare workers: A study conducted in Abha city, Saudi Arabia. J Family Community Med 2018;25:188-93.
33. Harthi M, Olayan M, Abugad H, Abdel Wahab M. Workplace violence among health-care workers in emergency departments of public hospitals in Dammam, Saudi Arabia. East Mediterr Health J 2020;26:1473-81.
34. Al-Turki N, Afify AA, AlAteeq M. Violence against health workers in family medicine centers. J Multidiscip Healthc 2016;9:257-66.
35. Alsmael MM, Gorab AH, AlQahtani AM. Violence against healthcare workers at primary care centers in Dammam and Al Khobar, Eastern province, Saudi Arabia, 2019. Int J Gen Med 2020;13:667-76.
36. Al Anazi RB, AlQahtani SM, Mohamad AE, Hammad SM, Khleif H. Violence against health-care workers in governmental health facilities in Arar city, Saudi Arabia. Scientific World Journal 2020;2020:6380281.
37. Alkorashy HA, Al Moalad FB. Workplace violence against nursing staff in a Saudi university hospital. Int Nurs Rev 2016;63:226-32.
38. Algwaiz WM, Alghanim SA. Violence exposure among health care professionals in Saudi public hospitals. A preliminary investigation. Saudi Med J 2012;33:76-82.
39. Al-Shaban ZR, Al-Otaibi ST, Alqahtani HA. Occupational violence and staff safety in health-care: A cross-sectional study in a large public hospital. Risk Manag Healthc Policy 2021;14:1649-57.
40. Abdellah RF, Salama KM. Prevalence and risk factors of workplace violence against health care workers in emergency department in Ismailia, Egypt. Pan Afr Med J 2017;26:21.
41. Zafar W, Siddiqui E, Ejaz K, Shehzad MU, Khan UR, Jamali S, *et al.* Health care personnel and workplace violence in the emergency departments of a volatile metropolis: Results from Karachi, Pakistan. J Emerg Med 2013;45:761-72.
42. Morphet J, Griffiths D, Plummer V, Innes K, Fairhall R, Beattie J. At the crossroads of violence and aggression in the emergency department: Perspectives of Australian emergency nurses. Aust Health Rev 2014;38:194-201.
43. Partridge B, Affleck J. Verbal abuse and physical assault in the emergency department: Rates of violence, perceptions of safety, and attitudes towards security. Australas Emerg Nurs J 2017;20:139-45.
44. Tang JS, Chen CL, Zhang ZR, Wang L. Incidence and related factors of violence in emergency departments – A study of nurses in Southern Taiwan. J Formos Med Assoc 2007;106:748-58.
45. Chen X, Lv M, Wang M, Wang X, Liu J, Zheng N, *et al.* Incidence and risk factors of workplace violence against nurses in a Chinese top-level teaching hospital: A cross-sectional study. Appl Nurs Res 2018;40:122-8.
46. Ministry of Health (MOH). MOH News – Sentencing Offenders against Health Practitioners; 2020. Available from: https://www.moh.gov.sa/en/Ministry/MediaCenter/News/Pages/News-2018-07-30-003.aspx. [Last accessed on 2023 Feb 25].
47. Saudi Gazette Report. Violence against Health Workers on the Rise; 2018. Available from: https://saudigazette.com.sa/article/539258. [Last accessed on 2023 Feb 25].
48. Towhari AA, Bugis BA. The awareness of violence reporting system among healthcare providers and the impact of new ministry of health violence penalties in Saudi Arabia. Risk Manag Healthc Policy 2020;13:2057-65.
49. Esmaeilpour M, Salsali M, Ahmadi F. Workplace violence against Iranian nurses working in emergency departments. Int Nurs Rev 2011;58:130-7.
50. Abualrub RF, Al-Asmar AH. Physical violence in the workplace among Jordanian hospital nurses. J Transcult Nurs 2011;22:157-65.
51. Kitaneh M, Hamdan M. Workplace violence against physicians and nurses in Palestinian public hospitals: A cross-sectional study. BMC Health Serv Res 2012;12:469.
52. Alharbi FF, Alzneidi NA, Aljbli GH, Morad SA, Alsubaie EG, Mahmoud MA, *et al.* Workplace violence among healthcare workers in a tertiary medical city in Riyadh: A cross-sectional study. Cureus 2021;13:e14836.
53. Gates DM, Ross CS, McQueen L. Violence against emergency department workers. J Emerg Med 2006;31:331-7.