Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/17205
DOI URL: http://dx.doi.org/10.21474/IJAR01/17205

RESEARCH ARTICLE

WORKPLACE VIOLENCE AGAINST HEALTHCARE WORKERS IN JEDDAH: DETERMINANTS, PERCEIVED IMPACTS AND CAUSES

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Manuscript Info

Manuscript History
Received: 05 May 2023
Final Accepted: 09 June 2023
Published: July 2023

Key words:-
Workplace Violence, Healthcare, Healthcare Providers, Healthcare Workers, Saudi Arabia

Abstract

Background: Healthcare workers are particularly vulnerable to workplace violence, impacting their mental health and performance at work. This study aims to assess the extent of workplace violence in Jeddah's healthcare facilities, and its determinants.

Methodology: This cross-sectional study was conducted on 402 healthcare workers in Jeddah, Saudi Arabia, using a questionnaire that evaluate workplace violence, the impact of violent incidents, reporting of incidents, mitigation strategies, and risk factors associated with workplace violence.

Results: Verbal violence was prevalent, with 65.4% of participants experiencing it, while physical violence was reported by 8.7% of the respondents, over a third (34.6%) never experienced verbal violence, while 13.7% encountered daily verbal violence. Females were more significantly affected by verbal violence compared to males. Physical violence was more prevalent among non-Saudi providers (p=0.015), and primary healthcare workers were more prone to physical violence than hospital workers (p=0.002). Nurses were more exposed to physical violence than physicians (p=0.015). Verbal and physical violence were significantly higher in emergency departments (p=0.003 and p=0.006, respectively). Workplace violence had various impacts on participants, including reduced motivation and efficiency, a desire to change their work, and negative effects on personal well-being and mental health. Common causes reported include overcrowding, disrespect towards healthcare workers, lack of punishment for aggressors, and long waiting times in healthcare facilities.

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Conclusions: Workplace violence is prevalent in the healthcare facilities in Jeddah, mostly in primary healthcare centers and emergency departments, and female and non-Saudi workers are the most vulnerable, with various undesired impacts.

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Introduction:-

Workplace violence can be defined as acts of violence, encompassing physical assaults and threats, directed towards individuals while working or on duty. This definition is provided by The National Institute for Occupational Safety and Health (NIOSH) (OSHA, 2004). Healthcare workers are susceptible to workplace violence from patients, their relatives, and other healthcare providers (Lipscomb & El Ghaziri, 2013). Workplace violence manifests in various forms, such as verbal abuse, physical harassment, sexual abuse, aggression, mobbing, and bullying. Among these forms, verbal violence emerges as the most prevalent (Opie et al., 2010). Verbal violence includes various behaviors, such as verbal abuse, bullying, mobbing, pushing, biting, pinching, kicking, slapping, beating, stabbing, and shooting.

Several factors contribute to the occurrence of workplace violence. Common causes include lack of education, extended waiting times, cultural and personality differences, staff shortages, overcrowding, excessive workload, inadequate security measures, drug abuse by patients' relatives, and lack of witnesses (Alsaleem et al., 2018). The impact of workplace violence on healthcare workers is far-reaching, leading to psychological stress, increased staff turnover, diminished job satisfaction, decreased productivity, and a decline in trust toward management and colleagues. Furthermore, it can adversely affect the doctor-patient relationship, compromising healthcare quality and organizational performance (Belayachi et al., 2010; Wu et al., 2014).

Various studies have reported the prevalence of workplace violence against healthcare providers in different countries. For instance, 67% of healthcare providers in Australia experienced verbal workplace violence, while physical workplace violence occurred at lower frequencies (Zafar et al., 2013). In Germany, a national study revealed that 91% of primary care physicians perceived workplace violence at least once in their careers, with 73% experiencing violence in the past year (Vorderwülbecke et al., 2015). Studies conducted in Abha and Al-Ahsaa in Saudi Arabia indicated that more than half of healthcare providers experienced workplace violence, with verbal violence being the most common form (Alsaleem et al., 2018; El-Gilany et al., 2010).

Despite several studies conducted worldwide, there is a dearth of research on workplace violence against healthcare workers in Jeddah, one of the largest cities in Saudi Arabia. Understanding workplace violence against healthcare workers in Jeddah would help foster a positive attitude among healthcare professionals to safeguard themselves against such violence and contribute to formulating policies, regulations, and interventions to prevent workplace violence (Basfr et al., 2019). Therefore, this study aims to assess the magnitude of this problem in Jeddah healthcare facilities and identify the associated risk factors.

Methods:-

Study Design and Settings

An analytical cross-sectional design was employed for this study. Data collection was performed using a pre-validated questionnaire as the data collection tool among the enrolled participants. This study was conducted in government hospitals and Primary Health Care Centers (PHCs) in Jeddah, Kingdom of Saudi Arabia (KSA).

Study Subjects

The study enrolled healthcare workers employed in governmental hospitals and PHCs during the data collection period. Inclusion criteria encompass all healthcare workers within the designated healthcare facilities, while exclusion criteria entail healthcare workers with diagnosed psychological or mental illnesses.

Sample Size

The sample size was calculated utilizing a sample size calculator with a 95% confidence interval level, a standard error of 5%, a power of 80%, and an expected prevalence of 50%. The recommended sample size was determined to be 402 healthcare workers.

Sampling Technique

A multistage cluster random sampling technique was employed to select health care workers from various specialties in these hospitals and PHCs. Firstly, Jeddah city was geographically divided into five main sectors based on the Directorate of Public Health. Two hospitals from two sectors were randomly selected. Additionally, two PHCs were selected from each sector using a random number generator in Microsoft Excel. Consequently, two hospitals and four PHCs were included in the study. Secondly, a comprehensive list of healthcare workers from different specialties was compiled for each hospital and PHC. Finally, based on the calculated sample size of 402, a systematic random technique was employed, selecting every third eligible participant until the desired sample size was reached.

Data Collection Methods, Instruments Used, Measurements

Healthcare workers completed a validated self-administered questionnaire in English comprising six sections: demographic data, forms of violence, the impact of violent incidents, reporting of incidents, mitigation strategies, and risk factors associated with workplace violence. A pilot process was conducted with a random selection of 20 physicians from different specialties, and two independent experts reviewed the questionnaire. The responses from the pilot participants were excluded from the final analysis. The average time required to complete the questionnaire was calculated during the piloting phase, and necessary linguistic and stylistic adjustments were made accordingly. Reliability was assessed by Cronbach's alpha ($\alpha = 0.718$), indicating good reliability.

Before the questionnaire distribution, the researcher explained the study's purpose and nature, providing instructions on completing the survey. Informed consent forms were obtained during this stage.

Data Management and Analysis Plan

Data were analyzed using the SPSS computer program (version 20, USA). A thorough review of the questionnaire content and data completeness was performed, and double data entry checks were implemented. Frequency analysis and chi-square tests were used where applicable for categorical data. The Likert scale was employed for questions with varying scales (e.g., strongly agree to strongly disagree). Backward logistic regression analysis was conducted for significant variables. Odds ratios (OR) and confidence intervals (95%CI) were calculated. A p-value of 0.05 was considered statistically significant.

Results:-

Demographics

A total of 402 healthcare providers responded to the questionnaire. Their mean age was 35.4 ± 7.9 years. About 61.7 % of them were females. Most were Saudi, married, and working at a hospital (87.3%, 61.9%, and 68.9%, respectively). Most responders were physicians 56%, followed by nurses (26.6%). Family medicine was the most frequent specialty of the responders (24.7%), followed by Internal medicine, then Surgery (13.2% and 10.7%, respectively). The experience of the healthcare providers ranged between 1 and 39 years, with a mean of 9.8 ± 7.9 years (Table 1).

Table 1:- Demographic characteristics of the respondent.

Variables	**Number**	**Proportion**	
N = 402	**n**	**%**	
Age in years			
less than 30	87	21.6	
30-39	220	54.7	
40-49	67	16.7	
50-59	25	6.2	
60 and more	3	0.7	
Mean ± SD	35.4 ± 7.9		
Gender			
Female	248	61.7	
Male	154	38.3	
Nationality			
Saudi	351	87.3	
Non-Saudi	51	12.7	

Marital status			
Single	128	31.8	
Married	249	61.9	
Divorced / widow	25	6.2	
Area of workplace			
Primary health care	125	31.1	
Hospital	277	68.9	
Current job title			
Physician	225	56.0	
Nurse	107	26.6	
Others (pharmacist, laboratory, and other paramedics)	70	17.4	
Department of residency/specialization/Working			
Medicine	53	13.2	
Surgery	43	10.7	
OB/GYN	21	5.2	
Emergency	32	8.0	
Family / GP	99	24.7	
Preventive	12	3.0	
Pediatric	28	7.0	
ICU	11	2.7	
Dental	22	5.5	
Administration	10	2.5	
Pharmacist	32	8.0	
Laboratory	26	6.5	
Other physiotherapists, infection control, radiologist, anesthesiologist, and palliative physicians)	13	3.2	
Experience in years			
less than 10	215	53.5	
10-19	139	34.6	
20-29	35	8.7	
30 and more	13	3.2	
Mean ± SD	9.8 ± 7.9		

Prevalence of verbal and physical violence

Most participants experienced verbal violence in their workplace (65.4%). On the other hand, physical violence against healthcare providers was 8.7% (Table 2).

Table 2:- Prevalence of verbal and physical violence at the workplace.

	Number	**Proportion**
N = 402	**n**	**%**
Prevalence of verbal violence at the workplace		
Yes	263	65.4
No	139	34.6
Prevalence of physical violence in the workplace		
Yes	35	8.7
No	367	91.3

In addition, most responders never experienced verbal and physical violence (65.4% and 91.3%, respectively). About 13.7% of them had daily verbal violence. The rest of them had less frequent verbal violence. Physical violence was generally less frequent than verbal violence (Figure 1 and 2).

Figure 1: Frequencies of verbal violence at the workplace.

Figure 2: Frequencies of physical violence at the workplace.

Reporting of workplace violence incidence

Most participants agree and strongly agree to report violent events (36.3% and 37.1%, respectively). The most frequent cause of not reporting was fear or avoiding problems, followed by thoughts of inadequate action after complaining. The third cause is a long or complicated process (Table 3).

Table 3:- Reporting of workplace violence incidence.

Items	Number	Proportion
N = 402	**n**	**%**
I would be comfortable reporting the episode of violence at my workplace to competent authorities.		
strongly disagree	29	7.2
disagree	18	4.5
neutral	60	14.9
agree	146	36.3
strongly agree	149	37.1
Why do you not report the incidences of violence to the authorities?		
I do not know	44	10.9
no actions after complaining	60	14.9
fear / to avoid problems	67	16.7
Long/complicated process	49	12.2
unaware about process	25	6.2
others	51	12.7

Impact of violent incidents

Violence had a lot of impact on the participants. The most common impacts were reduced motivation/efficiency at work and the desire to change their work (Figure 3), Personal well-being and self-care, as well as mental and psychological well-being, were affected by workplace violence more than families of the healthcare workers (Figure 4). Workplace violence has many causes; however, the most common causes were overcrowding, disrespect of authority of healthcare workers, lack of the provision of harsh punishment for aggressors/offenders, and long waiting time in healthcare facilities (Figure 5).

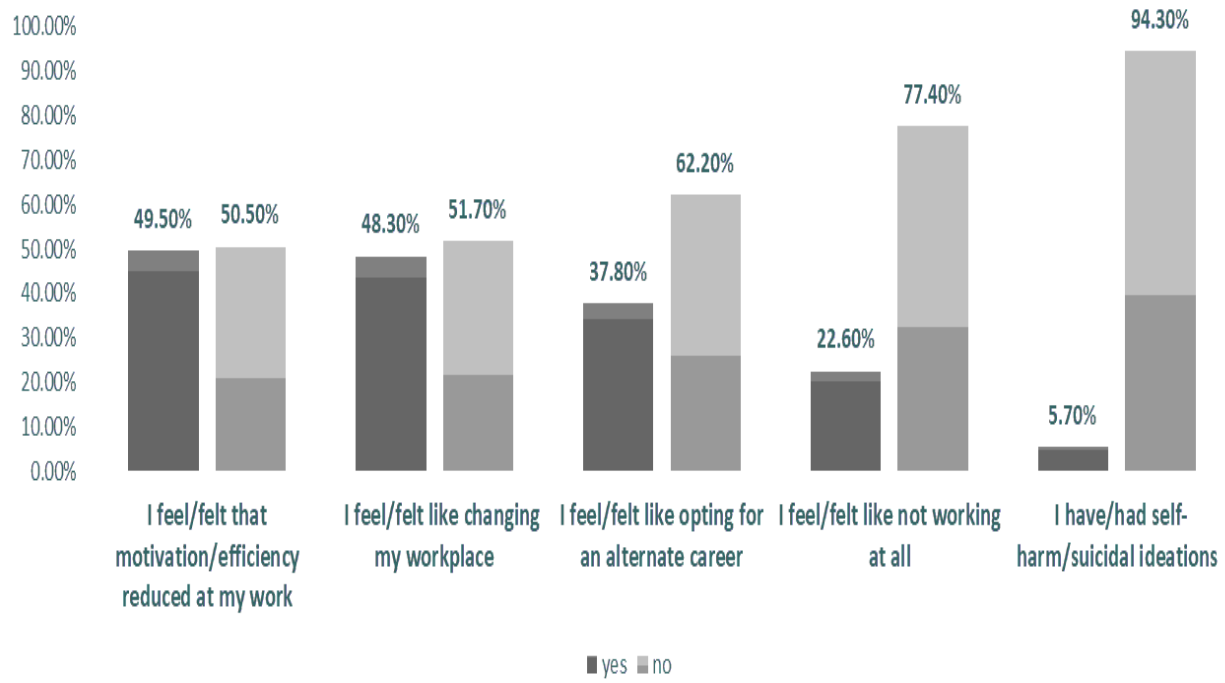

Figure 3:- Impact of incidences of violence.

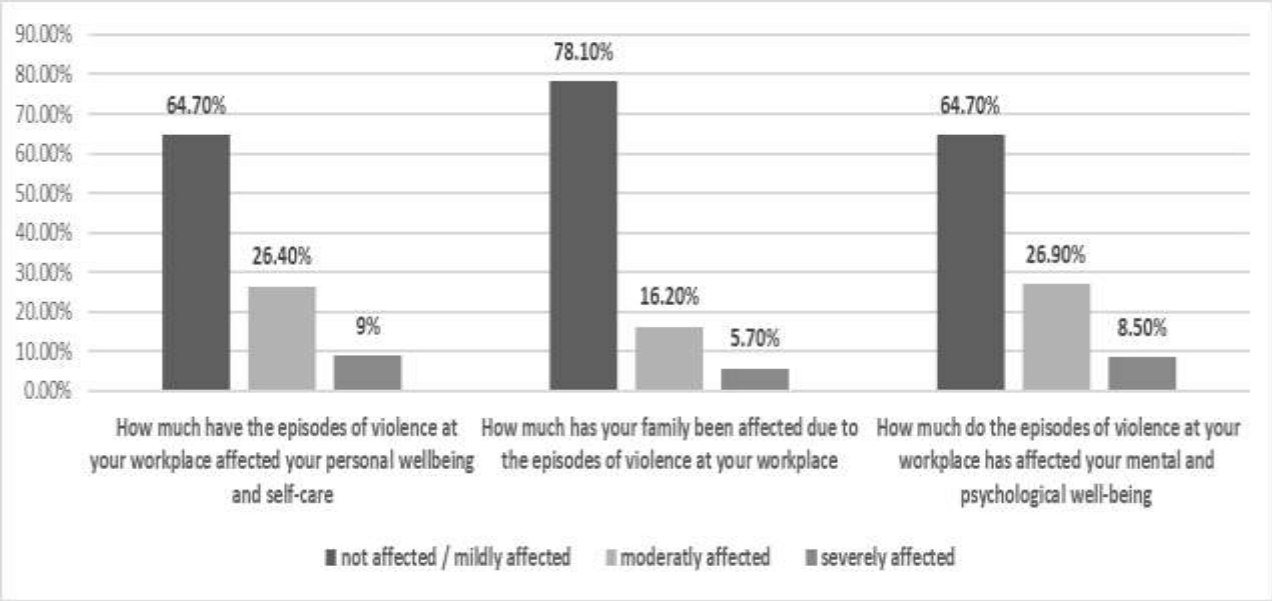

Figure 4:- The effect of the episodes of violence on different aspects of life.

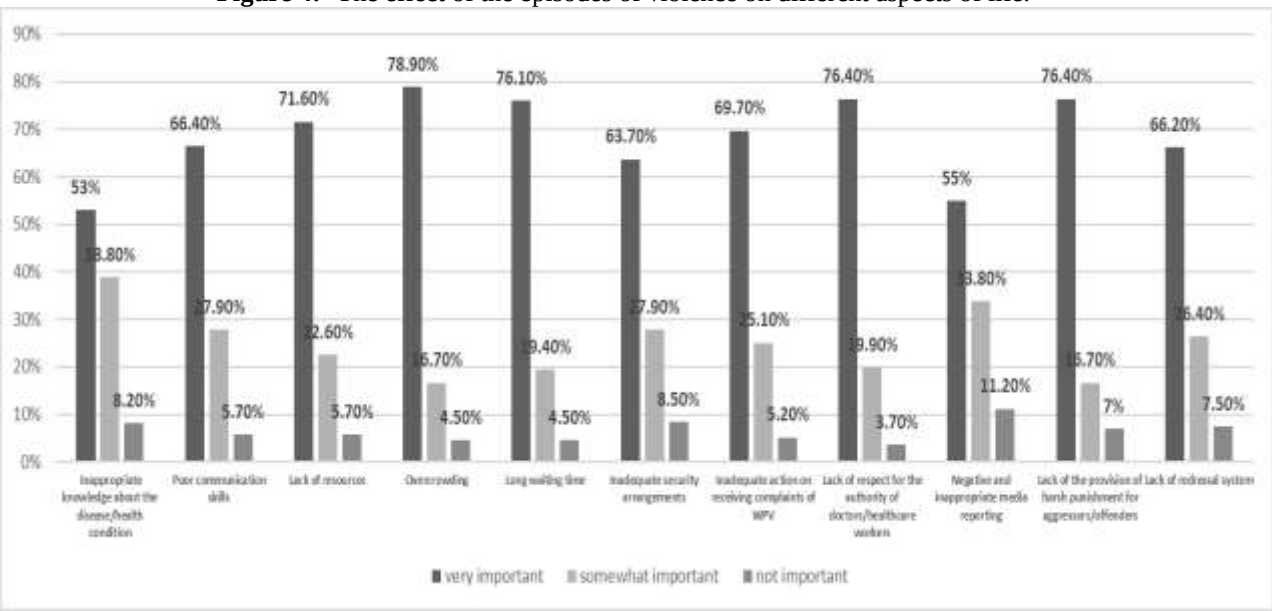

Figure 5:- Causes of workplace violence.

Risk factors associated with workplace violence

Table 4 describes the factors associated with verbal and physical violence in the healthcare workplace. Verbal violence was affected by gender, with females being the most likely to be affected (P = 0.035). Physical violence was significantly different between Saudi and non-Saudi providers, with non-Saudis being the most likely to be physically abused (7.4% vs 17.6%) (p = 0.015). Working in primary healthcare tends to be a significant factor of physical violence compared to working in hospitals (15.2% of primary healthcare workers experienced physical violence vs 5.8% of hospital workers (p = 0.015). Departments with the highest verbal violence were the Intensive care unit (ICU), emergency, and administration (p =0.003).

On the other hand, preventive medicine had the lowest verbal violence. Departments with the highest physical violence were emergency and obstetrics, and gynecology. Preventive medicine also had the lowest physical violence with pediatric and dental departments (p = 0.006).

Table 4:- Factors associated with verbal and physical violence in healthcare settings.

aVariables		**Occurrence of violence at the workplace**			
		Verbal		**Physical**	
		yes	no	yes	no
Age	less than 30	60 (69.0%)	27 (31.0%)	6(6.9%)	81(93.1%)
	30-39	148(67.3%)	72(32.7%)	24(10.9%)	196(89.1%)
	40-49	42(62.7%)	25(37.3%)	4(6.0%)	63(94.0%)
	50 and more	13(46.4%)	15(53.6%)	1(3.6%)	27(96.4%)
	P-value	0.138		0.353	
Gender	Female	172(69.4%)	76(30.6%)	19(7.7%)	229(92.3%)
	Male	91(59.1%)	63(40.9%)	16(10.4%)	138(89.6%)
	P-value	0.035*		0.346	
Nationality	Saudi	231(65.8%)	120(34.2%)	26(7.4%)	325(92.6%)
	Non-Saudi	32(62.7%)	19(37.3%)	9(17.6%)	42(82.4%)
	P-value	0.667		0.015*	
Marital status	Single	90(70.3%)	38(29.7%)	13(10.2%)	115(89.8%)
	Married	154(61.8%)	95(38.2%)	21(8.4%)	228(91.6%)
	divorced/widow	19(76.0%)	6(24.0%)	1(4.0%)	24(96.0%)
	P-value	0.136		0.589	
Workplace	Primary health care	82(65.6%)	43(34.4%)	19(15.2%)	106(84.8%)
	hospital	181(65.3%)	96(34.7%)	16(5.8%)	261(94.2%)
	P-value	.960		.002*	
Current job title	Physician	139(61.8%)	86(38.2%)	12(5.3%)	213(94.7%)
	Nurse	80(74.8%)	27(25.2%)	12(11.2%)	95(88.8%)
	Others	44(62.9%)	26(37.1%)	11(15.7%)	59(84.3%)
	P-value	0.059		0.015*	
Department of residency/specialization/ Working	Medicine	33(62.3%)	20(37.7%)	5(9.4%)	48(90.6%)
	Surgery	32(74.4%)	11(25.6%)	2(4.7%)	41(95.3%)
	OB/GYN	16(76.2%)	5(23.8%)	3(14.3%)	18(85.7%)
	Emergency	29(90.6%)	3(9.4%)	7(21.9%)	25(78.1%)
	Family	62(62.6%)	37(37.4%)	7(7.1%)	92(92.9%)
	Preventive	10(40.0%)	15(60.0%)	0(0.0%)	25(100.0%)
	Pediatric	18(64.3%)	10(35.7%)	0(0.0%)	28(100.0%)
	ICU	10(90.9%)	1(9.1%)	1(9.1%)	10(90.9%)
	Dental	11(50.0%)	11(50.0%)	0(0.0%)	22(100.0%)
	Administration	8(80.0%)	2(20.0%)	1(10.0%)	9(90.0%)
	Pharmacist	20(62.5%)	12(37.5%)	3(9.4%)	29(90.6%)
	Laboratory	14(53.8%)	12(46.2%)	1(3.8%)	25(96.2%)
	P-value	0.003*		0.006*	
Years of experience	Less than 10	144(67.0%)	71(33.0%)	19(8.8%)	196(91.2%)
	10-	94(67.6%)	45(32.4%)	14(10.1%)	125(89.9%)
	20 -30	25(52.1%)	23(47.9%)	2(4.2%)	46(95.8%)
	P-value	0.116		0.455	

*Significant with $p < 0.05$

Finally, the logistic regression analysis investigated the association between verbal and physical violence and health care setting (Table 5).

Model 1 focused on verbal violence and revealed that emergency departments were significantly associated with increased odds (OR=7.8 [95% CI: 1.9 – 32.7], p = 0.004) of verbal violence after adjusting for other variables. On the other hand, Model 2 examined physical violence and demonstrated that the healthcare workplace was significantly associated with physical violence (OR= 6.6 [95% CI: 2.2 – 19.9, p = 0.001), and there was a significant association between emergency departments and emergency departments OR=7.6 [95% CI: 1.6 – 96.6], p = 0.016).

Table 5:- Results of logistic regression analysis of verbal and physical violence in healthcare settings.

	B	Wald	p-value	Adjusted Odds ratio	95% CI	
					LL	**UL**
Model 1: Verbal violence						
Emergency department	2.06	8.1	0.004*	7.8	1.9	32.7
Model 2: Physical violence						
Healthcare workplace	1.88	11.1	0.001*	6.6	2.2	19.9
Emergency	2.03	1.9	0.016*	7.6	1.6	96.6

LL: Lower limit. UL: Upper limit. Significant with $p < 0.05$

Discussion:-

Interpersonal violence in the workplace is a widespread problem in the healthcare industry and includes cruel, rude, vindictive, humiliating, and offensive language used in the context of bullying and aggression (Salvador et al., 2021). Violence in the healthcare workplace is a real concern for those who work there (Kaur et al., 2020; Mohamad et al., 2021). This study examined the prevalence and characteristics of workplace violence experienced by healthcare workers in Jeddah, Saudi Arabia. The study seeks to understand the impact of violence on the quality of care provided by healthcare workers who have experienced workplace violence. It also provides valuable insights into the challenges faced by healthcare professionals and the need for workplace violence interventions in the healthcare industry.

The findings of this study revealed a significant prevalence of verbal workplace violence among healthcare workers in Jeddah, Saudi Arabia. Most (65.4%) participants encountered verbal violence in their workplace. These findings align with previous studies conducted in different regions of Saudi Arabia, which also reported a high incidence of workplace violence against healthcare workers. For example, Alnofaiey et al. recently showed a high incidence of workplace violence among physicians in tertiary hospitals in Taif City, Saudi Arabia. Younger physicians with less experience in emergency medicine were the most susceptible to verbal and physical violence (Alnofaiey et al., 2022).

Additionally, Alkorashy and Al Moalad established that almost half of the nursing professionals in a university hospital in Riyadh, Saudi Arabia, had experienced violence in the professional setting during the 12 months before the study. The majority perceived workplace violence as verbal abuse, and all nursing professionals identified patients as the leading cause (Alkorashy & Al Moalad, 2016). Likewise, Al-Sagheir et al. showed that the overall prevalence of workplace violence was 67.7%. The prevalence rates of verbal aggression, workplace aggression (non-physical), and workplace violence (physical) among home healthcare workers in KSA were 61.6%, 41.6%, and 31.1%, respectively. Sexual harassment and sexual aggression were experienced by 3.6% and 5.7% of the respondents, respectively (Al-Sagheir et al., 2022). However, Alsmael et al. showed that the prevalence of workplace violence among all healthcare workers at primary care centers in Dammam and Al Khobar, in the Eastern Province of Saudi Arabia, was 46.9%, with approximately 90% of these workers reporting verbal violence, 34.3% have been subject to intimidation, and 3% reporting physical violence (Alsmael et al., 2020).

In addition, the present study identified two types of workplace violence experienced by healthcare workers in Jeddah, Saudi Arabia. These included physical and verbal abuse. Similar types of violence have been reported in studies conducted in Saudi Arabia (Alsmael et al., 2020; Harthi et al., 2020). The prevalence of different types of violence highlights the multifaceted nature of the problem and the need for comprehensive strategies to address each form of violence. Furthermore, Workplace violence has severe consequences for healthcare workers and organizations. The current study findings indicated that healthcare workers who experienced violence reported physical and psychological distress, reduced job satisfaction, and decreased productivity. Moreover, workplace violence also affects the quality of patient care and compromises the overall functioning of healthcare organizations.

These findings align with previous studies emphasizing the negative impact of workplace violence on healthcare workers and the healthcare system (Harthi et al., 2020; Salvador et al., 2021).

The current study's findings highlight the increased risk of verbal and physical violence faced by healthcare professionals in specific contexts, focusing on the emergency department and the larger healthcare workplace. These findings are consistent with previous research, which identified healthcare settings where violence against professionals is common (Lim et al., 2022). Significantly, the emergency department has been identified as a high-risk area for verbal and physical violence. Emergency rooms are notorious for being fast-paced and high-stress environments, with high tensions among patients, their families, and healthcare professionals, long wait times, overcrowding, and limited resources, all of which contribute to individuals' frustration, aggression, and violence in these settings (Doehring et al., 2023). A previous study by Basfr et al. found a strong link between workplace violence in psychiatric units and the time of violence, the source of violence, a patient's dissatisfaction with medical care, and a lack of organizational support for nurses (Basfr et al., 2019). These reports, together with our study's findings, underscore the urgent need for targeted interventions and preventive measures to address violence in healthcare settings, particularly in the emergency department and other identified high-risk areas. Effective measures are critical to ensure that healthcare workers are safe and healthy. Violence against healthcare workers negatively affects their physical and mental health and can affect how well patients are cared for (OSHA, 2004; Rija et al., 2022). Also, violence against healthcare workers can lead to less job satisfaction, more burnout, and lower morale, affecting the quality of care they give their patients (Chowdhury et al., 2022). Protecting healthcare workers from violence is important for keeping a safe and supportive work environment and ensuring patients get the best care possible.

In conclusion, this study shows how common and different types of violence are in the workplaces of healthcare workers, with a focus on the emergency department and the wider healthcare workplace. The results show that healthcare workers are more likely to be verbally and physically hurt in these situations. Violence at work, especially verbal violence, is common among healthcare workers in Jeddah, Saudi Arabia. Violence at work is especially likely to happen to those working in PHCs. This study also highlights the urgent need for collaborative efforts to address workplace violence in the healthcare industry. By implementing targeted interventions and preventive measures, the healthcare professionals' safety and well-being would be enhanced while ensuring high-quality care to patients.

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