ORIGINAL ARTICLE

Workplace violence in three public sector emergency departments, Gauteng, South Africa: A cross-sectional survey

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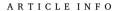*Division of Family Medicine, School of Medicine, Faculty of Health Sciences, University of Pretoria, Arcadia, South Africa*

ABSTRACT

Introduction: Workplace violence against healthcareworkers in Emergency Departments (EDs) is a global concern. The purpose of this study was to determine the prevalence and types of workplace violence in EDs.
Methods: a cross-sectional survey was conducted in three public sector hospital EDs in Gauteng, South Africa. A self-administered, standardised online questionnaire developed by the World Health organization was used to collect data between March and November 2022. A total of 65 healthcareworkers which consisted of nurses (24) and doctors (41) participated in the study.
Results: The prevalence of workplace violence was 73.8 % with verbal abuse being the most common type at 66 %. Eighty-two percent of the victims did not report the incident. Poor communication and lack of mutual respect among staff and healthcare users contributed to both physical and non-physical workplace violence.
Conclusion: Workplace violence appears to be a common occurrence in EDs in the hospitals surveyed in Gauteng. It is regarded as a typical incident by respondents, and it is underreported. It has a direct negative impact on healthcareworkers and their working environment and indirectly on patients. Urgent attention from all stakeholders is needed to minimize the prevalence of these incidents.

African relevance

- Workplace violence is a global issue with detrimental effects on healthcare systems.
- African healthcare systems face challenges due to high patient volumes and limited resources. Workplace violence exacerbates existing problems.
- Prioritizing research to quantify and address workplace violence in low and middle-income countries is crucial for improving healthcare systems.

Introduction

Workplace violence (WPV) is a global issue affecting healthcare workers (HCWs) in both public and private hospitals [1–14]. The World Health Organization (WHO) defines it as "incidents where staff is 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 both physical violence (such as beating, kicking, and stabbing) and non-physical/psychological violence (such as abuse, bullying, and harassment)" [2].

Previous studies highlight unacceptably high prevalence of WPV worldwide [7–10,15]. According to a study done in India among HCWs in 7 Emergency Departments (EDs), 90 % of participants reported personal experience of WPV [15]. Other countries such as Palestine and Jordan also reported high prevalence of WPV in EDs at 76.1 % and 75.6 % respectively [7,17]. Surprisingly, the incidence of WPV in high income countries is also quite significant [9,16,18,19]. Verbal abuse seems to be the most prevalent [6,8,9,12,13,15]. A study done in Karachi, Pakistan reported verbal abuse to be common at 72.5 % [12]. In India, 81.2 % of participants also reported verbal abuse experience [15]. Perpetrators are often patients or their associates [3,6,8,13,16,17].

HCWs in EDs face a higher risk of WPV due to factors like limited visibility of security personnel and the demanding nature of their work [1,4,18]. According to a study done in Ethiopia, the odds of violence against HCWs were nearly four times higher amongst personnel working in ED as compared to those working in outpatient departments [4].

Substance use among patients and their escorts, neuropsychiatric ill-nesses, or anxiety associated with the apparent life-threatening condi-tions the patients are presenting with, appear to be triggers of or associated with WPV [1,3,5,18].

Effects of WPV include high staff turnover, burnout, absenteeism, reduced morale, compromised patient care, and decreased job satisfac-tion [5,7,16,19].

Globally, numerous research studies have shown a concerningly high prevalence of WPV among HCWs [1-16]. Despite global research, few local studies focus on WPV prevalence. This study aimed to assess WPV severity and impact in three public sector EDs in Gauteng, South Africa, and explore potential mitigation measures.

Materials and methods

This cross-sectional survey assessed WPV among HCWs in three public sector EDs providing tertiary levels of care in Gauteng, South Africa. The study utilised the Workplace Violence in the Health Sector Country Case Study questionnaires (WPVHSCS), jointly developed by the International Labour Office (ILO), International Council of Nurses (ICN), WHO, and Public Services International (PSI) [3,5–7,11–13, 20–22]. The study population consisted of 128 HCWs including 68 nurses and 57 doctors who were working in the EDs at the time of this survey and were involved in patient care. The sample size was calculated using the Roasoft technique and required a minimum of 52 participants.

Ethics approval was obtained from the Faculty of Health Sciences Research Ethics Committee of the University of Pretoria (Ref: 346/2021). Permission for data collection was secured from hospital man-agers and ED heads. Participants were approached through managers and visits to the respective hospitals. The link to the survey (in Engish) was distributed through official communication groups, with twice weekly reminders. Participation was voluntary, confidentiality was assured and no compensation was offered. Students and non-patient care workers were excluded. An online self-administered WPVHSCS ques-tionnaire assessed demographic details, violence experiences, and opinions on contributing and mitigating factors. Participants were also asked about their likelihood of quitting due to WPV experiences.

Characteristics of participants and exposure to all types of violence were described using descriptive statistics. Associations between violence outcomes and demographics were explored using Fisher's exact test to analyze two-way frequency tables along with 95 % confidence intervals. $P < 0.05$ was considered statistically significant.

Results

Participants' characteristics

The survey was conducted over eight months (March-November 2022) and included 65 HCWs (24 nurses and 41 doctors) directly involved in patient care though total sampling was attempted (Table 1). A total of 65 responses were submitted resulting in an overall response rate of 52 %. The mean age value was 36±8.9 years with most being female (76.9 %). About 63 % of the participants were doctors while 37 % were nurses. Approximately 62 % of participants had less than ten years of work experience and 85 % worked shifts and worked between 6PM and 7AM (95.4 %). When asked about their concern regarding WPV, 94 % of respondents expressed worry.

WPV characteristics

Table 2 presents WPV characteristics.

Incidents and prevalence

All reported WPV incidents occurred within hospitals. The preva-lence of WPV was 73.8 % based on Tables 1 and 2. Sixty-three percent of victims experienced more than one incident or type of WPV in the past

Table 1
Characteristics of participants (*n* = 65).*

Variable		No	%
Age	<30	19	29
	30+	46	71
Gender	Female	50	77
	Male	15	23
Marital status	Divorced	2	3
	Living with partner	8	12
	Married	30	46
	Single	24	37
	Widow/er	1	2
Race	African	41	63
	Indian	7	11
	White	17	26
Profession	Doctor	41	63
	Nurse	24	37
Position	Manager	5	8
	Staff	60	92
Work experience(years)	<1	1	2
	1–5	22	34
	6–10	17	26
	>10	25	38
Shift work	Yes	55	85
	No	10	15
Work between 18:00–07:00	Yes	62	95
	No	3	5
Worried about WPV in your workplace?	Not worried	4	16
	Somewhat worried	39	50
	Very worried	22	34
Knowledge of reporting procedures	Yes	32	49
	No	33	51
Encouragement to report WPV	Yes	33	51
	No	32	49
Experienced WPW past 12 months	Yes	48	74
	No	17	26

* WPV - *workplace violence.*

Table 2
Characteristics of Workplace Violence (WPV).

Variable	Entire sample (*n* = 65)	Type of WPV				
		Physical	Verbal	bullying	Racial	Sexual
Exposure to WPV (*n* = 48)		21	43	16	26	3
Perpetrators (not mutually exclusive)						
Patients		19	5	0	4	3
Relatives		1	8	1	3	1
Patients and relatives		0	28	12	12	0
HCWs		0	14	11	19	1
Time of attack						
07:00–18:00		9	18	6	11	0
18:00–07:00		7	14	5	3	0
Don't remember		5	11	5	10	3
Typical incident of WPV						
Yes		21	39	16	19	3
No		0	4	0	4	0
Reported to authorities						
Yes		10*	9	3	6	0
No		55*	34	13	20	3
Could WPV have been prevented						
Yes		20	34	15	15	1
No		1	9	1	9	2
Any action taken by authorities to investigate the incident						
Yes		2	5	1	2	0
No		8	3	1	2	0
Don't know		0	1	1	2	0

* Physical WPV experienced or witnessed.

12 months.

Perpetrators and victims

Most victims listed more than one perpetrator for non-physical violence. Over 82 % of victims considered their experience typical for WPV in their workplace. Approximately 78 % of victims believed the incidents were preventable. Only 17.6 % of WPV cases were reported to authorities.

Reporting and procedures

Reasons for not reporting included considering it useless or unimportant. About 51 % of participants were unaware of WPV reporting procedures while 49 % reported a lack of encouragement to report WPV.

Physical WPV

Thirty-two percent of participants reported physical WPV. Patients were the primary perpetrators (86 %) and female doctors with less than 10 years of experience were most affected. Physical violence occurred more frequently among younger HCWs. Most incidents did not occur during the night shift (18:00–07:00).

Witnessing WPV

About 61 % of participants reported witnessing WPV incidents and 60 % witnessed physical WPV more than twice a week. Only 15 % of witnesses reported the incidents, and 17 % faced discipline for doing so.

Non-physical violence

Verbal WPV was described in the WPVHSCS as "behavior that humiliates, degrades or otherwise indicates a lack of respect for the dignity and worth of an individual" [21]. The reported prevalence of verbal WPV was 66 % among respondents. Alleged perpetrators were mostly patients and their relatives. Other HCWs were perpetrators in 33 % of the cases. Bullying was described in the WPVHSCS as "repeated and over time offensive behavior through vindictive, cruel, or malicious attempts to humiliate or undermine an individual or groups of employees" [21]. Prevalence of workplace bullying was reported at 25 %. The majority of victims listed multiple perpetrators, with HCWs involved in 69 % of cases and patients and their relatives in 75 % of cases. Prevalence of reported workplace racial harassment (WPRH) was 40 %. Frequency of WPRH was 'once' for 32 % of victims and 'all the time' for 28 % of respondents. The perpetrators of WPRH were mostly distributed between other HCWs (19 responses) and patients and their relatives (19 responses). In this category of WPRH, victims also listed multiple perpetrators responsible for single incidents of WPV. Three HCWs reported sexual harassment experience.

Contributing and mitigating factors to WPV

This study found that poor communication and lack of mutual respect and civility among staff and healthcare users contributed to both physical and non-physical WPV. Mental illness and substance use among patients and their escorts were listed as the main contributing factors to physical WPV at 24.6 % and 23 % respectively. Other contributing factors were long waiting times, overcrowding and inadequate and inefficient security among others (Table 3).

The key mitigating factors of WPV reported were improved security (35.1 %) and staffing (33.9 %) Other mitigating factors listed were development of clear protocols for prevention, reporting and management of WPV (30.8 %), improved communication, civility and mutual respect (18.5 %) among others (Table 3).

Impact of WPV

Approximately 33 % of victims of WPV sustained physical injuries. Only two (8 %) of them took time off work after the incident. Victims of WPV reported a negative impact on their mental health (Table 4). Most respondents who experienced WPV indicated that they did not report

Table 3
Contributing and mitigating factors of Emergency Department Workplace Violence (WPV).

Variable		Physical WPV (%)	Non-Physical (psychological) WPV (%)
Contributing factors	Mental illness among patients and escorts	24.6	7.7
	Substance use among patients and escorts	23.1	9.2
	Long waiting times	20	20
	Overcrowding	16.9	4.6
	Inadequate inefficient security	20	3.1
	Poor communication and lack of mutual respect	24.6	33.9
	Patients/families' dissatisfaction with the system	10.8	12.3
	Understaffing	9.2	15.1
	Stress, burnout, anxiety and fatigue among staff	0	13.9
	Limited resources	9.2	12.3
Mitigating factors	Physical and non-physical WPV (%)		
	Improve security	35.1	
	Improve staffing	33.9	
	Clear protocols for prevention, recognizing, reporting and managing WPV	30.8	
	Improve communication and mutual respect	18.5	
	Community and HCW education regarding WPV	15.4	
	Improve resources	15.4	
	Hospital management support	13.9	
	Access control and escort restriction	13.9	
	Reduce waiting times	12.3	

Table 4
Effects of Workplace Violence.

Type of effect	n (%)
Sustained injuries	8(33)
Took time off work	2(8.3)
Negative effects on HCWs' mental health	313
(anxiety, disturbing, repeated thoughts and images of the attack, avoidance, being super-alert or watchful and on guard or feeling like everything they did was an effort)	(73.8)
Consequences to perpetrators	
None	36(63)
Don't know	3(5.3)
Psychiatry patient	1(1.8)
Care discontinued	2(3.5)
Restrained	1(1.8)
Reported to police/Aggressor prosecuted	2(3.5)
Verbal warning	10(17.5)
Would you quit your job as a result of WPV?	24(37)

the incidents, and there were no consequences for the attacker. When asked if they considered quitting their jobs due to WPV experiences, 63 % responded negatively, while 37 % responded affirmatively.

Association of WPV with demographics

Table 5 demonstrates association of WPV with demographics.

Discussion

This study aimed to assess the prevalence of WPV in EDs, explore the types of violence experienced, identify sources of WPV, examine contributing factors, and propose measures to mitigate WPV. The

Table 5

Association of Workplave Violence with demographics.

Variable	Physical	P	Verbal	P	Bullying	P	Racial	P	Sexual	P
Age										
Mean age	31.1	0.002	35.1	0.26	35	0.54	35.3	0.60	30.3	0.26
Mean difference	7.15		2.63		1.60		1.19		5.92	
Gender										
Male	3	0.35	8	0.35	4	0.57	4	0.37	0	1.00
Female	18		35		12		22		3	
Marital status										
Divorced	0	0.35	2	0.35	0	1.00	0	0.12	0	0.27
Living with partner	3		6		2		4		1	
Married	13		21		8		16		0	
Single	5		14		6		6		2	
Widow/er	0		0		0		0		0	
Profession										
Doctor	18	0.01	29	0.42	12	0.25	18	0.44	3	0.29
Nurse	3		14		4		8		0	
Work experience (years)										
<1	0	0.041	0	0.48	0	0.79	0	0.90	0	0.35
1–5	10		17		6		10		2	
6–10	8		10		5		8		0	
>10	3		16		5		8		1	

findings revealed that WPV is common in EDs, with 73.8 % of respondents reporting exposure within the 12 months prior to the survey. . Our results are similar to those from other studies conducted in Palestine (76.1 %), Jordan (75.6 %), Turkey (78.1 %) and Morocco (70 %) [7,9,10,17] (Table 2).

Consistent with international studies, verbal abuse was the most common, with 66 % of participants reporting verbal WPV experience in the last 12 months [6,8,12,15].

Racial harassment was the second most common type of WPV, with 40 % of participants reporting experiencing it in the 12 months prior to the survey. These rates are higher compared to Indonesia and Iran, where racial harassment was reported by 1 % and 8.9 % of participants [11,14]. The incidence of racial WPV may conceivably be higher in South Africa which is a very diverse society compared with countries such as Iran and Indonesia where the societies are more homogenous. Bullying and sexual harassment WPV were reported by 25 % and 4.6 % of participants respectively. Prevalence of bullying was higher in Turkish EDs (39.8 %), and lower in Indonesia (18.2 %) [9,11]. A meta-analysis of observational studies done in China published in 2018 reported sexual harassment experience by 6.3 % of participants, which is comparable to our findings [24]. Moreover, 37 % of participants in another study done in China reported even higher sexual harassment experiences [27].

In our study, physical violence was experienced by 32 % of the respondents which is similar to studies that were done in Palestine and Turkey where physical WPV was reported by 35.6 % and 31.1 % of participants [7,9]. Locally, a study done by Jaffal in Gauteng EDs reported physical WPV to be 34.2 %, which is interestingly similar to our study despite differences in the study populations and levels of hospital care [13]. This study was done in two public sector EDs that offer a secondary level of care and included non-clinical staff such as clerks, porters and security personnel, which were excluded in our study [13]. The focus of our study was on clinical staff working in three public sector tertiary hospital EDs. On the contrary, lower prevalence rates were reported in Egypt (15.7 %), Morocco (8.3 %), Indonesia (10 %) and Karachi, Pakistan (16.5 %) [10,11,12]. In Iran however, the experience of physical WPV was 68.6 %, explained as upset healthcare users in stressful conditions may initially express anger as verbal violence that may escalate to physical violence [14].

Patients were responsible for 86 % of physical violence incidents which is similar to other studies [8,13,16,17]. Patients and their relatives were also responsible for majority of verbal WPV, a finding that is consistent globally [3,6,7,12,14,15,17]. In this study, HCWs were

perpetrators of bullying in 69 % of the responses (Table 2). HCWs were also involved in 33 % of reported incidents of verbal WPV and 50 % of racial harassment incidents. This finding is significantly higher as compared to studies done in Jordan, Gauteng and Riyadh where HCWs were involved in less than 20 % of cases of WPV [8,13,16]. However, these studies reported perpetrators under a broader group of non-physical WPV. These studies also included non-clinical staff such as clerks, porters and security personnel [8,13]. In Riyadh, their study population included nurses only [16]. In Ismailia, Egypt in 2016, HCWs were perpetrators in 25 % of WPV incidents [6]. It is concerning that HCWs themselves were responsible for a significant number of these cases. Education and awareness campaigns about WPV to transform attitudes and foster respect and civility among all staff and patients, with emphasis on the importance of respectful communication, are needed to create a safer work environment.

More than 82 % of victims of WPV reported their experience as a "typical incident of WPV" in their workplace. Majority of the victims thought that the violent incident was preventable, yet 82.4 % of them did not report it. According to a study done in Egypt, only 24 % of WPV cases were reported to hospital authorities [6]. Similarly, in Jordan, 76.4 % and 67.5 % of verbal and physical WPV incidents went unreported [8]. In SA, Western Cape in 2013, Kennedy and Hester [23] also reported that violent incidents were under-reported. Reasons given for not reporting in our study were that it was useless or not important. This is in coherence with the Iranian study [14]. A South African study reported that 91 % of participants did not receive any training on how to handle violent incidents [13]. In our study, some participants reported that no action was taken to investigate the incident, and in those that they investigated, participants reported that there were no consequences to the perpetrators. The knowledge and attitude towards WPV and its handling by both victims and hospital authorities is a concern. An incident management system where such incidents could be logged and investigated by the quality assurance and patient safety team at a local and national level should be set up in all public sector hospitals.

Studies done in the past comparing demographic features and the risk of WPV in ED show conflicting results. Kumar et al. [5] suggested the fact that majority of HCWs are females (approximately 80 %) contributes to the high risk of ED WPV. In our study, majority of participants were female (76.9 %), but there was no statistically significant relationship between gender and WPV exposure (Table 5). Similarly, Jaffal [13] in Gauteng and Bayram et al. [9] in Turkey did not find any significant relationship between gender and subjection to WPV. However, two other studies revealed that males were more likely to experience

violence than females [6,24]. In our study, less work experience was a risk to physical WPV. This could be attributed to the fact that experienced HCWs may recognize and therefore handle WPV better. About 86 % of participants who experienced physical WPV had ten years or less working experience. This finding corresponds with what was reported in the Global Campaign for WPV prevention [3]. In this study, younger HCWs experienced more physical violence. This is in coherence with studies done in Turkey and China where younger doctors were found to be more likely to report physical violence [9,24]. On the contrary, Jaffal [13] did not find any relationship between age and exposure to WPV. Doctors were at higher risk of physical violence as compared to nurses. Other sociodemographic features such as marital status did not influence subjection to WPV.Inthis study, poor communication, lack of mutual respect among HCWs and between HCWs and patients and their escorts as well as long waiting times have been reported as contributing factors for both physical and non-physical violence. Substance use and mental illness among patients and their escorts were reported as contributing factors to physical WPV. Overcrowding directly influences waiting times. These findings are consistent with numerous past studies [2,3, 6–8,12,24,25]. Emergency visits to ED pose a significant level of anxiety to patients and their companions since having to wait for help for longer is frustrating which may manifest in the form of aggression [1,18]. Our participants considered inadequate or inefficient security to have contributed to physical WPV. In line with other studies, understaffing and limited resources, which are common problems in South African EDs contribute to WPV [7,9,12]. This highlights the need to address the root causes of this problem, especially in an already resource-constrained setting like ours. Similar to other studies, stress, burnout, anxiety and fatigue among staff contributed to ED WPV in this study [19,26,27]. Shift work, which is typical for most EDs around the world is a risk for ED WPV, as most of the violent experiences happen outside normal working hours [3,20]. On contrary, our study reported that only 29 % of cases happened between 18:00–07:00. This could be because 35 % of the respondents did not remember the time of their incident.

In our study, 43 HCWs who experienced WPV (89.3 %) reported negative mental health effects of WPV. Some HCWs experienced more than one incident of WPV associated with multiple forms of negative mental health effects (Table 4). According to a study in Palestine, 74 % of victims of ED WPV reported adverse consequences of WPV [7]. These consequences could potentially compromise quality of care given to patients [7,23]. This could also increase the risk of burnout and decrease job satisfaction [5,7,16,19]. In our study, 63 % of perpetrators did not experience any adverse consequences according to participants' responses. This could be because of underreporting of incidents and that HCWs have accepted WPV as typical incidents and, therefore part of the job. Perpetrators should be held accountable through swift and appropriate consequences. A strong deterrent will discourage WPV and reinforce a culture of respect. Absenteeism was not increased due to WPV. About 37 % of participants considered quitting their jobs as a result. A high staff turnover may result, and this may lead to staff shortages and difficulty with skills retention. Improving security in ED through increasing visibility of security personnel, surveillance cameras, metal detectors, and access control in ED were listed as important measures in mitigating WPV. According to Kumar et al. [5] the low level of ED WPV in their study was attributed to better security measures. Increasing the number of staff for doctors and nurses would reduce WPV according to 33.9 % of participants. These, coupled with improving other resources would reduce waiting times, and therefore reduce WPV as these are common reasons for WPV reported in other studies [2,3,5,6,8,12,24,25]. Twenty participants (30.8 %) thought that presence of clear protocols for prevention, reporting and management of WPV would reduce its prevalence. Improved communication, civility and mutual respect among staff and between HCWs would mitigate WPV according to participants in our study. WPV mitigation efforts should employ a multifaceted approach that takes into account the context and complexity of the ED [26,28,29]. It is evident that education to both patients and HCWs regarding WPV, support from hospital authorities and development of clear protocols for recognizing, reporting, preventing, and managing WPV are urgently needed. These guidelines should empower HCWs to take action and ensure consistency in handling such cases. Implementing robust incident management systems that encourage reporting with timely investigations and appropriate management are essential for achieving a zero-tolerance stance against WPV. Our findings align with international studies, emphasizing the need for targeted interventions to address WPV in healthcare settings.

Limitations

This study was conducted in only three public sector EDs in South Africa. The small sample size may limit the generalisability of the findings to a broader population. Additionally, the focus on public sector hospitals excludes private EDs, potentially affecting the overall representation of HCWs. Despite nurses constituting a majority of the study population in all centres, there was limited participation from this group. This lack of representation could impact the comprehensiveness of the results, particularly regarding the experiences of nurses in EDs. Participants were asked to recall violent experiences over the past 12 months. This reliance on memory introduces the possibility of recall bias, affecting the accuracy of reported incidents. The study's results can only be generalised to the specific public sector hospitals included in the research. Extrapolating these findings to other healthcare settings should be done cautiously. The survey was available in English only. The questionnaire sent out to participants did not offer definitions of bullying and verbal abuse, therefore, it was open to different interpretations.

Conclusion

Our study highlights the critical issue of WPV in EDs, demanding immediate attention from ED HCWs, local hospital management, and health authorities. WPV is alarmingly common yet significantly underreported. To combat this, we propose a zero-tolerance approach to WPV. Key measures include developing comprehensive protocols for the prevention, reporting, and management of WPV incidents, promoting education and awareness campaigns to transform attitudes and foster respect and civility among all ED staff. Perpetrators should be held accountable through swift and appropriate consequences. Implementing robust incident management systems that encourage reporting is imperative. By collectively embracing these measures, we can create EDs where violence is unacceptable, fostering a safer and more supportive environment for everyone.

Authorship contribution

Authors contributed as follows to the conception or design of the work, the acquisition, or interpretation of data for the work, and drafting the work or revising it critically for important intellectual content: MMG 60 %, EA 20 %, RS 20 %. All authors approved the version to be published and agreed to be accountable for all aspects of the work.

Dissemination of results

Findings of this study were shared with the Department of Emergency Medicine. Results will also be presented in the hospitals' academic meetings which include all stakeholders according to scheduled dates.

Declaration of competing interest

We have no conflict of interest to declare.

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