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**Prevalence & Predicting Factors of Workplace
Violence Against Emergency Department
Healthcare Workers in Public Hospitals in Addis
Ababa: A cross-sectional study**

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Prevalence & Predicting Factors of Workplace Violence Against Emergency Department Healthcare Workers in Public Hospitals in Addis Ababa: A cross-sectional study

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Declaration

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List of Abbreviations & Acronyms

AaBET	Addis Ababa Burn, Emergency and Trauma Hospital
ALERT	All African Leprosy and Tuberculosis Rehabilitation and Training Hospital
AAU	Addis Ababa University
CHS	College of Health Sciences
ED	Emergency Department
EMCC	Emergency and Critical Care
ESEP	Ethiopian Society of Emergency Professionals
FMOH	Federal Ministry of Health
GP	General Practitioner
HCW	Healthcare worker
ILO	International Labor Office
OSHA	Occupational Safety and Health Administration
PI	Principal Investigator
SPMMC	St. Paul Millennium Medical College
TASH	Tikur Anbessa Specialized Hospital
WHO	World Health Organization
WPV	Workplace Violence

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ABSTRACT

Background

Workplace violence is a pervasive problem among the healthcare sector worldwide and the Emergency department is one of the highest affected settings. Workplace violence (WPV) not only affects the performance of healthcare providers, but also leads to acute and chronic physical and psychological consequences which could lead to burnout, decreased work satisfaction, and the decision to leave the profession. There are few studies published that were done in different settings in Ethiopia that explored the prevalence of WPV but none was done in hospitals in Addis Ababa.

Objective

The objective of this study is to determine the prevalence and predicting factors of workplace violence against healthcare workers practicing at various levels of hospitals in Addis Ababa, Ethiopia.

Methods

A prospective cross-sectional study was performed at three selected public hospitals in Addis Ababa, Ethiopia. A structured self-administered questionnaire was used to collect data regarding sociodemographic information, exposure to physical, psychological violence, and sexual harassment. Data were entered using SPSS Version 26 for coding and analysis. Summary statistics, descriptive statistics, chi-square, and Fisher's Exact tests, and binary logistic regression were used to analyze independent variables' association with workplace violence among ED staff.

Results

A total of 161 participants were included in the study. The 12-month prevalence of workplace violence was 80.7%. Of the 161 participants, 45% were physically attacked, 73% were verbally attacked and 19.3% experienced sexual harassment. Being an emergency resident was found to have a statistically significant association with exposure to WPV. Regarding the specific types of WPV, sexual harassment was found to be associated with gender and working outside regular hours. Consequences to victims of workplace violence were both physical and psychological and included injuries that required formal treatment, time is taken off work, and symptoms of anxiety, alertness, and avoidance of thinking of the incident.

Conclusion

There is a significantly high prevalence of WPV among emergency healthcare workers. There is a pattern of low reporting of incidents. Efforts need to be made towards making reporting procedures available and accessible to emergency healthcare workers.

Keywords: Workplace violence, Emergency Department, Healthcare workers

1. INTRODUCTION

1.1. Background

Emergency Medicine is a fairly young specialty in the world of medicine and it is even newer in developing countries. It was established in Ethiopia in October 2010 with the collaboration of Addis Ababa University (AAU) and the University of Toronto (1). A publication by Sultan et al in 2018 exploring the status of Emergency Medicine in Ethiopia stated that there are 22 Emergency physicians, over 80 EM specialist nurses, and around 40 residents undergoing Emergency training(2). Even though there isn't a more recent publication available, this number is expected to have increased significantly as 2 new specialty training centers are being inaugurated this year on top of the 2 already established training centers at AAU and St. Paul Millennium Medical College (SPMMC).

Due to the relative novelty of the specialty, only a few hospitals in Ethiopia are currently manned by trained Emergency Physicians. The rest are staffed by either General Practitioners (GPs) or trainees from other specialties like Internal Medicine or General Surgery. The establishment of this new specialty has filled the gap in the country's health care system by availing access to emergency care for critical patients and trauma victims(2). Despite the great strides of progress achieved by initiating the practice of Emergency Medicine, it is one of the toughest places to practice medicine due to its stressful nature and high workload experienced by the practitioners(2). One such issue that further augments the problems in the practice is workplace violence(3).

Workplace violence (WPV), as defined according to International Labor Office (ILO) as "incidents where the staff is abused, threatened or assaulted in circumstances related to their work..." is rampant among the healthcare sector (3). According to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) guideline published in 2016, workplace violence in the health sector accounted for 10.2% of all workplace violence incidents(4). This trend is alarmingly increasing in the past decade and is vastly underreported which contributes to the escalation of the problem(3).

Compared to other healthcare settings, Emergency Department is one of the highest exposed areas to face increased incidence of workplace violence(5,6). Its hectic, high-volume, stressful nature increases the risk of ED staff being exposed to verbal or physical attacks either from patients or their attendants, friends, or family members. Patients and attendants not satisfied with the care being provided, the setup available, the wait time, the expenses, or any other reason may inflict attacks against ED physicians and nurses(7).

The consequences of workplace violence against ED staff range from the provision of poor quality of care to losing scarce healthcare professionals due to their decision to leave the profession altogether(8). These effects are more pronounced in developing countries like Ethiopia where there's already a gap in the provision of adequate access to healthcare(3)

Studies have found that there's significant underreporting of incidents associated with workplace violence in the ED, mainly because physicians and nurses consider it to be part of their job to handle such incidents. Some participants have also stated that lack of clear incident report policies/procedures discourage their likelihood of reporting WPV incidents they encounter(9,10). Underreporting makes it difficult to get a clear picture of the true pervasiveness of the issue and the data we already have might be an underestimation.

Even though WPV in the Emergency Department has garnered significant attention among researchers, there isn't adequate literature in the setting of developing countries to establish the current status of the problem. In Ethiopia, specifically, there are a few studies published regarding WPV. One such study done by Tiruneh et al in 2016 has substantiated that about one-third of nurses working in the northwestern part of Ethiopia have been exposed to WPV (11). Another study by Yenealem et al done in 2017 on nurses working in healthcare facilities in Gondar has found a prevalence of 58.2% while Likassa et al's study found a much higher prevalence of 82.2% in hospitals found in the Oromia Region (12,13). None of these studies have been done in the setting of a large metropolitan city like Addis Ababa and only Yenealem et al's study includes GPs as participants while the rest focus on nurses. This study will include consultants, residents, GPs, and nurses working in the emergency setting across three public hospitals in Addis Ababa. Moreover, the large discrepancies in prevalence across the country need further elucidation. Having a clear idea of the extent of the problem will help us design a practical solution that meets the specific needs of our setup.

This study aims to determine the prevalence of workplace violence being experienced by ED physicians and nurses in public hospitals in Addis Ababa, Ethiopia. The study will explore the extent of violence experienced by ED staff, identify predicting factors that influence the incidence of violence, analyze the consequences faced by ED staff as a result of experiencing workplace violence and propose possible solutions to curb this problem.

1.2 Statement of the Problem

The Emergency Department is one of the most stressful and high-risk environments for workplace violence in the healthcare system. This is most likely due to the risky nature of the Emergency setting; having open access to patients and visitors, being open 24 hours, and working with the most critical patients and stressed attendants are among the various reasons that put the ED staff at higher risk than other healthcare providers to WPV(14).

Workplace violence has been established as a significant problem among ED staff and multiple studies have been published to address the issue(7,15,16). The few studies published in the setting of Ethiopia focus on WPV against nurses and the experience of physicians regarding WPV has been eclipsed(11,13,17). Furthermore, there hasn't been a published study that addresses the issue in the setting of emergency departments in Addis Ababa.

To come up with a practical and transcendent solution to resolve the issue of WPV among ED staff, we must first have a clear understanding of the extent of the problem. Knowing the prevalence and predicting factors associated with WPV against ED physicians and nurses will guide future policies regarding measures to be taken to curb this issue. Moreover, the perspective of the participants on this issue will grant us an insight into the extent of the problem and what they consider would be a working solution.

1.3 Significance of the Study

Addis Ababa is not only one of the largest cities in the nation, its population is also comprised of different ethnic groups around the country that speak a variety of languages. Patients from all over the nation are referred to the capital to receive better or advanced treatment. Therefore, the emergency departments at the different levels of hospitals found in the city cater to a diverse group of patients. The experiences of ED physicians and nurses will offer a better understanding of the status of WPV within the nation.

This study will be the first of its kind to provide information on WPV against emergency healthcare workers in the Addis Ababa public hospital setting and will add to the already existing literature on the status of this problem in our nation's health system. This, in turn, will aid in the process of coming up with a practical and effective solution to this ubiquitous problem.

2. LITERATURE REVIEW

2.1 Sociodemographic characteristics

Several publications centered around nurses' experiences (9–11,17) while others included Emergency physicians and nurses as their study population (15,18,19). 57% of the participants in the study done by Tiruneh et al were male (11). The median age of the participants in Yenealem et al was 27 and the majority (54.4%) were in the range of 26-35 years (12).

2.2 Prevalence

Workplace violence against health workers has been determined as a worldwide issue that is challenging both developing and developed countries(20). A systematic review published in 2019 explored the prevalence of workplace violence by patients and visitors against healthcare workers (21). In this study, they systematically searched PubMed, Embase, and Web of Science from their beginning up to October 2018. They found that 61.9% (95% CI 56.1% -67.6%) of participants reported exposure to any form of workplace violence; with 42.5% reported exposure to non-physical violence and 24.4% reported experiencing physical violence. This is consistent with other studies done around the world where non-physical violence was found to be more prominent than physical violence. (7,15,22) The systematic review also found that among health care providers, EDs reported a 79% prevalence of exposure to WPV – which was the 2nd highest among healthcare settings to be subjected to workplace violence only preceded by prehospital settings (21).

The study also found that WPV was more prevalent in Asian and North American countries compared to their European counterparts. European physicians may underreport the WPV experienced or it is much more rampant in Asian countries where wait time is longer and healthcare facilities are much more overcrowded(21). Despite this report, a more recent Chinese study published in 2020 which was done using a WeChat-based survey reported a lower WPV prevalence of 56.4% compared to the Asian studies included in the systematic review (23).

Evidence shows a comparable prevalence of WPV reported by different studies across nations. A Saudi Arabian study published in 2020 reported 45% of ED physicians and nurses that participated reported to have been exposed to at least 1 incident of WPV in the 12 months preceding the study(15). This study found that physicians faced a higher proportion of WPV compared to nurses (47% and 41% respectively). This finding is unique compared to other publications which have reported nurses to face a higher incidence of WPV compared to physicians (16). Publications from Palestine by Hamdan

& Kitaneh have reported a significantly higher prevalence of WPV against nurses (65.8%) compared to physicians (34.2%) (22). Al-Husain et al, the conductors of the Saudi Arabian study, have attributed these differences to culture and ethnicity-related factors as well as unmeasured biological, social, and environmental factors that could play a role in WPV prevalence (15).

Tiruneh et al did a cross-sectional study in the Amhara National Regional State in Ethiopia and found that nearly a third of the nurses working in referral hospitals in the area experienced WPV (26.7%); the commonest type being physical violence (60.2%) followed by psychological violence (39.4%)(11). This is comparable to the study by Fute et al in 2015 in Hawassa City Administration located in Southern Ethiopia (20.9%) (17). However, the latter study reported that verbal abuse was the most common type (89.6%) followed by physical abuse (18.8%) and sexual harassment (13%). These discrepancies could be due to the cultural differences between the two study populations. These reports are significantly lower than the reports found in other parts of the world. Underreporting of incidents might play a role in the low prevalence reported by the above studies. Yenealem et al, however, reported a significantly higher prevalence of WPV among healthcare workers working in institutions in Gondar city, Ethiopia in an institution-based cross-sectional study done in 2016 (58.2%) [95% CI: (53.7, 62.3)](12).

2.3 Predictors

Age, gender, years of experience, profession, number of staff available, and patients' waiting times are commonly found to be positively associated with the occurrence of WPV among ED physicians and nurses throughout the literature produced worldwide.

A systematic review by G. d'Ettoire et al published in 2018 in Italy reviewed 60 original papers published between 2007-2017 regarding WPV against HCWs in EDs found that several predictors have been associated with WPV. Among these were age less than 30, female gender, long waiting times for patients, high job demands, and inadequate patient-HCW relationship(24). This finding is in line with a cross-sectional study done by Oniya et al in Nigeria which also found that physical violence is significantly higher among female staff and nurses compared to doctors (16). This finding is contrary to Alhusain et al's cross-sectional study done in Saudi Arabia, where physicians had a higher prevalence of being exposed to WPV (47%) compared to nurses (41%)(15). These discrepancies could be due to the different cultural and social backgrounds of the study settings(15).

A study done by M. Kitaneh & M. Hamdan in 2012 stated that age < 30 years old, less than 10 years work experience, and educational level less than bachelor's degree was associated with an increased incidence of WPV among Palestinian physicians and nurses (22). Y. Tian et al also included working more than 50 hours per week, shift work, and working in secondary level hospitals were also found to be associated with WPV in a nationwide study in China (25).

According to Fute et al, young, female nurses had double the risk of experiencing WPV than male nurses in southern Ethiopia. They have attributed this finding to the patriarchal nature of Ethiopian tradition and the line of thinking that men are hierarchically superior to females (17). Nurses who worked in the Emergency Department were also four times more likely to suffer WPV compared to those that work at regular Outpatient Departments. Those in the younger age group between 22 – 25 years also had four times higher odds than the 36–52-year age group [AOR = 4.2, 95%CI (2.46,7.08)](17).

The perpetrators of WPV are reported to be relatives or friends of patients' majority of the time (26). A study by Boafo et al done in Ghana regarding nurses' and midwives' experience of WPV stated that most verbal abusers were patients' relatives (45.5%). The more shocking report was the fact that 50% of perpetrators of sexual abuse in the same study were medical doctors (26). Onyia et al also reported that 71% of perpetrators of WPV among Nigerian nurses were patients' relatives while 15.4% were patients themselves (16). An Indian cross-sectional study done by Sachdeva et al in 2017 has reported that 75% of verbal abuse and 35% of physical abuse is perpetrated by patients' families. Patients themselves committed 27% of the verbal abuse and 5% of physical abuse. 19% of participants stated that they were verbally abused by ED staff and 12% by other hospital staff (27). These findings bring to light the significant problem of verbal and sexual abuse committed by colleagues of healthcare workers which needs to be explored further.

2.4 Consequences of WPV

The consequences of WPV on the victims range from experiencing distressing emotions acutely after the incident to having a long-term detrimental effect on their physical and psychological wellbeing. HCWs that participated in the Palestinian study done have stated that they experienced fear, anxiety, depression, anger after physical and psychological violence(22). Tian et al also found that HCWs in China exposed to WPV were less likely to be satisfied with their career (25).

A qualitative study was done by M. Kennedy & H. Julie in 2013 on nurses' experiences and

understanding of WPV at Emergency and Trauma centers in South Africa. It showed that nurses tended to shrug off abusive patient behavior because they consider it part of the job to handle such occurrences(9). This impression is revibrated throughout the literature as one of the main reasons why WPV frequently goes unreported. Other important reasons were not being aware of procedures to report WPV, fear of repercussions, avoidance of legal proceedings, and the perception that nothing would be done about it(7,9,19)

3. OBJECTIVES

3.1 General Objective

To determine the prevalence and predicting factors of workplace violence against healthcare workers practicing at emergency departments of public hospitals in Addis Ababa, Ethiopia.

3.2 Specific Objectives.

- To assess the prevalence of WPV against healthcare workers in Emergency Departments of public hospitals in Addis Ababa, Ethiopia
- To analyze predicting factors associated with increased occurrence of WPV among ED Staff
- To identify consequences faced by victims of workplace violence

4. CONCEPTUAL FRAMEWORK



Figure 1 Illustration of the relationship between the various independent variables with the outcome variable

5. METHODS

5.1. Study Setting & Period

Addis Ababa is the capital city of Ethiopia and one of the largest cities in the country with regard to population. A 2007 census places the population number around 3,384,569. However, the UN World Urbanization Prospects estimates this number to approximate around 5,005,524 by 2021 with an annual growth rate of 4.1%.(28). There are 12 public hospitals in the city, 5 of which are run by the Addis Ababa City Administration Health Bureau; 4 are run by Federal Ministry of Health (FMOH); 2 by the Ministry of Defense and Federal Police, and one is under Addis Ababa University (AAU) (29).

Three hospitals are specifically selected for the conduction of the study based on the high burden of ED cases they carry. These are Tikur Anbessa Specialized Hospital (TASH), St. Paul Millennium Medical Center (SPMMC), and Addis Ababa Burn, Emergency & Trauma (AaBET Hospital). All three hospitals have established emergency settings and see a large number of emergency cases daily. They also have an established Emergency Medicine and Critical Care (EMCC) specialty and Emergency and Critical Care Nursing (EMCCN) Masters training programs. The hospitals have comparable staff distribution as well. Having these comparable features was the main reason these particular centers were selected to be the setting for this study.

1.2 Study Design

The study is designed as a cross-sectional quantitative study to identify the prevalence and predicting factors of WPV against ED healthcare workers in the 12 months prior to the study in public hospitals in Addis Ababa.

1.3 Source Population

All physicians and nurses working in Emergency Departments in public hospitals of Addis Ababa are the source population

1.4 Study Population

All physicians and nurses working in Emergency Departments in the three **selected** public hospitals of Addis Ababa that fulfill the inclusion criteria are the study population.

1.5 Inclusion Criteria

- All physicians and nurses working in the ED of selected public hospitals in Addis Ababa for 1 year or more

1.6 Exclusion Criteria

- Participants with < 1-year experience
- Participants who withhold consent
- Those unavailable during the time of data collection

1.7 Sample size determination

The institutions to be included in the study were selected purposefully to incorporate institutions that have a high number of ED cases. The individual participants at these institutions were selected using **convenient sampling** and all available physicians and nurses at the time of data collection that fulfill the inclusion criteria were included in the study. The final sample size was 161.

1.8 Study Variables

Outcome Variable

- Exposure to WPV

Independent Variables

- Age
- Gender
- Level of profession
- No of staff available
- Working outside regular hours
- Years of experience
- Lack of policies to report incidents
- Inadequate security on site

1.9 Operational Definition

- **Healthcare Worker** – Physicians (including residents, and consultants) and nurses working in the Emergency Departments of public hospitals in Addis Ababa
- **Workplace Violence** - violent acts (including physical assaults and threats of assaults) directed toward persons at work or on duty(4).
- **Physical Violence** – use of physical force against another person or group, that results in physical, sexual, or psychological harm including beating, kicking, slapping, stabbing, shooting, pushing, biting, and pinching (3)
- **Psychological/Verbal Violence** – the intentional use of power, including the threat of physical force, against another person or group including verbal abuse, bullying, harassment, and threats (3).
- **Sexual Harassment** – Any unwanted, unreciprocated, and unwelcome behavior of a sexual nature that is offensive to the person involved and causes that person to feel threatened, humiliated, or embarrassed (3).
- **Working outside regular hours** – working night shifts (between 6 p.m. and 7 a.m.) and during weekend hours (Saturday, Sunday, and holidays).

1.10 Data Collection

A structured self-administered questionnaire adapted from the WHO/ILO/ICN/PSI joint program was given to all available physicians (i.e., residents, and consultants) and nurses working in the EDs during the data collection period that gave consent to participate in the study(8). The participants were briefed about the purpose of the study by the data collectors and definitions to terms were clarified to them as required.

One data collector assisted the Principal Investigator in the data collection. The data collector was an emergency nurse that was briefed about the purpose of the study and the questionnaire in detail. Questions were discussed in detail to ensure there was a clear understanding of the questionnaire by the data collectors before the initiation of data collection.

Data collection took place over 2 months. The PI reviewed the collected data and checked for completeness on a biweekly basis until the completion of data collection. The data was then cleaned and coded and entered into the analysis software.

1.11 Data Processing & Analysis

Data collected were coded and entered using SPSS Version 26 for analysis. Descriptive analysis is used to report the sociodemographic characteristics of participants and determine the prevalence of WPV.

Chi-Square and Fisher's Exact tests were used to determine if there was any statistically significant correlation between the categorical dependent and independent variables. A significance cutoff of p-value <0.05 with 95% confidence interval was used. A point-biserial correlation test was done to determine a correlation between categorical and continuous variables. A significance cutoff of p-value < 0.05 with 95% confidence interval was used.

Binary logistic regression analysis will be performed to determine the degree of associations between the different independent variables and dependent variables. A statistically significant association was considered for p-value <0.05 with 95% confidence interval.

Microsoft Excel was used for graph and table creations.

1.12 Data Quality Control

The collected data were reviewed for completeness and clarity by the PI on a biweekly basis until data collection is completed. Data quality was checked again after entry into SPSS before analysis was performed.

1.13 Ethical Considerations

Approval was obtained from the Department of Emergency and Critical Care at CHS, AAU, and the Emergency Department at AaBET Hospital & SPMMC before the initiation of the study. Each participant was briefed on the objective of the study and signed informed consent was obtained before proceeding with the study. Participation was voluntary and no incentives or coercion were used. Confidentiality was strictly respected and there was no information included in the questionnaire that could be used to identify the participant. Only those people directly involved with the study have access to the data. The data collected will only be used for this study.

1.14 Dissemination plan

The results of the study will be presented to the Department of Emergency Medicine at the College of Health Sciences, Addis Ababa University. It will also be communicated to the 3 participating hospitals, Addis Ababa Health Bureau, and the Federal Ministry of Health. The manuscript will be submitted to national and international journals for publication.

6. RESULTS

5.1 Socio-demographic data

A total of 161 responders participated in the study. 80 (49.7%) of the participants were from TASH, 58 (36%) from AaBET and 23 (14.3%) were from SPMCC. There were more male participants than females with the M: F ratio (1.47:1). The average age of participants was 29.2 (SD±3.27; R=20-44). 105(65.2%) of the participants were nurses, 51(31.7%) were Emergency residents and 5(3.1%) were Emergency consultants. 59.4% were single while 38.1% were married.

The mean year of experience was 4 years (SD±2.5) with the maximum years of experience being 13 years. 126 (78.1%) of the participants reported working in shifts and 91.3% worked during evening shifts (between 6 p.m. – 7 a.m.). The mean number of staff working in the same work setting as the participant during most of the work time was 12 people (SD±6.4)

Table 1: Summary of socio-demographic distribution of participants

Variable	n (%)
Age (Mean ± SD)	29.19±3.256
Gender	
Male	96(59.6%)
Female	65(40.3%)
Marital Status	
Single	95(59%)
Married	61 (37.8%)
Living with partner	2(1.24%)
Separated/Divorced	2(1.24%)
Professional group	
Emergency Physician	5(3.1%)
Emergency Resident	51(31.6%)
Nurse	105 (65.2%)
Institution of Practice	
TASH	80(49.7%)
AaBET	58 (36%)
St. Paul	23 (14.3%)
Years of experience (Mean ± SD)	4.4±2.5
Number of staff available during most shifts (Mean ±SD)	11.9±6.4
Working in shifts	
Yes	(126) 78.1%
No	25(21.9%)
Working outside regular hours	
Yes	147 (91.3%)
No	14(8.7%)

Participants were also asked questions regarding their perception of WPV and level of knowledge when it comes to reporting procedures. 49(29%) participants reported knowing about the presence of reporting procedures regarding WPV at their workplace. Of the 49, only 26 responded that they knew how to use these procedures. The rest knew the procedures are in place but not how to use them. Regarding encouragement by the institution to report incidents of WPV, 72% reported there was no encouragement. The majority of respondents (82%) did not believe there was adequate security present at their workplace. Among the three institutions, however, participants from AaBET had a higher response of having adequate security (26%) compared to the other 2 institutions. (See Table 2)

Table 2: Perception of WPV by participants

	Institution of practice; n (%)			
	TASH	AaBET	SPMMC	Total
Presence of procedures to report WPV				
Yes	24 (28.2%)	18(29.3%)	7(30.4%)	49(29%)
No	56(71.8%)	40(70.7%)	16(69.6%)	113(71%)
Knowledge of such procedures				
Yes	13(54%)	9(50%)	4(57%)	26(53.06%)
No	11(45.8%)	9(50%)	3(42.9%)	23(46.9%)
Encouragement to report WPV by the institution				
Yes	19(23.8%)	19(32.8%)	7(30.4%)	45(28%)
No	61(73.3%)	39(67.2%)	16(69.6%)	116(72%)
Perception of adequate security at the workplace				
Yes	9(11.3%)	16(27.6%)	3(10.7%)	28(17.3%)
No	71(88.8%)	42(72.4%)	20(87.0%)	133(82.6%)

Figure 1 shows the participants’ responses regarding their level of concern about workplace violence according to their respective institutions. Most participants reported being ‘somewhat worried’ about violence at their workplace.

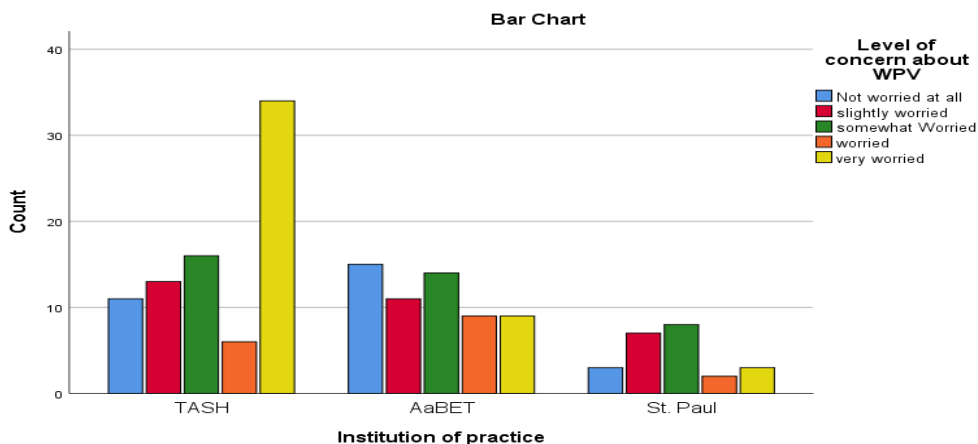


Figure 2- Level of concern of participants regarding violence at their workplace

5.2 The overall prevalence of WPV

Of the 161 participants in the study, **130 (80.7%)** participants reported having faced any type of violence in the preceding 12 months (either physical or psychological) while **31 (19.3%)** have not faced any type of violence in the stated period. Of the 130, 73 (56.1%) have been physically attacked, 118(90.7%) verbally attacked (of which 65 have been attacked both physically and verbally) and 35(24%) have reported being sexually harassed.

5.3 Physical Violence

As stated above, 73 of the participants reported being physically attacked in the preceding 12 months. 24.7% of the attacks involved the utilization of a weapon and 60.3% of the participants considered physical violence to be a common incident in their workplace. The most commonly reported perpetrators of the attack were relatives of patients (68.5%) followed by patients (17.8%). 12.3% of participants reported they were physically attacked by a staff member or colleague. The most common reason attributed to being the cause of the physical attack was “perpetrator was a relative of a critically ill patient” (27.5%) followed by the presence of a significant language barrier (16.5%).

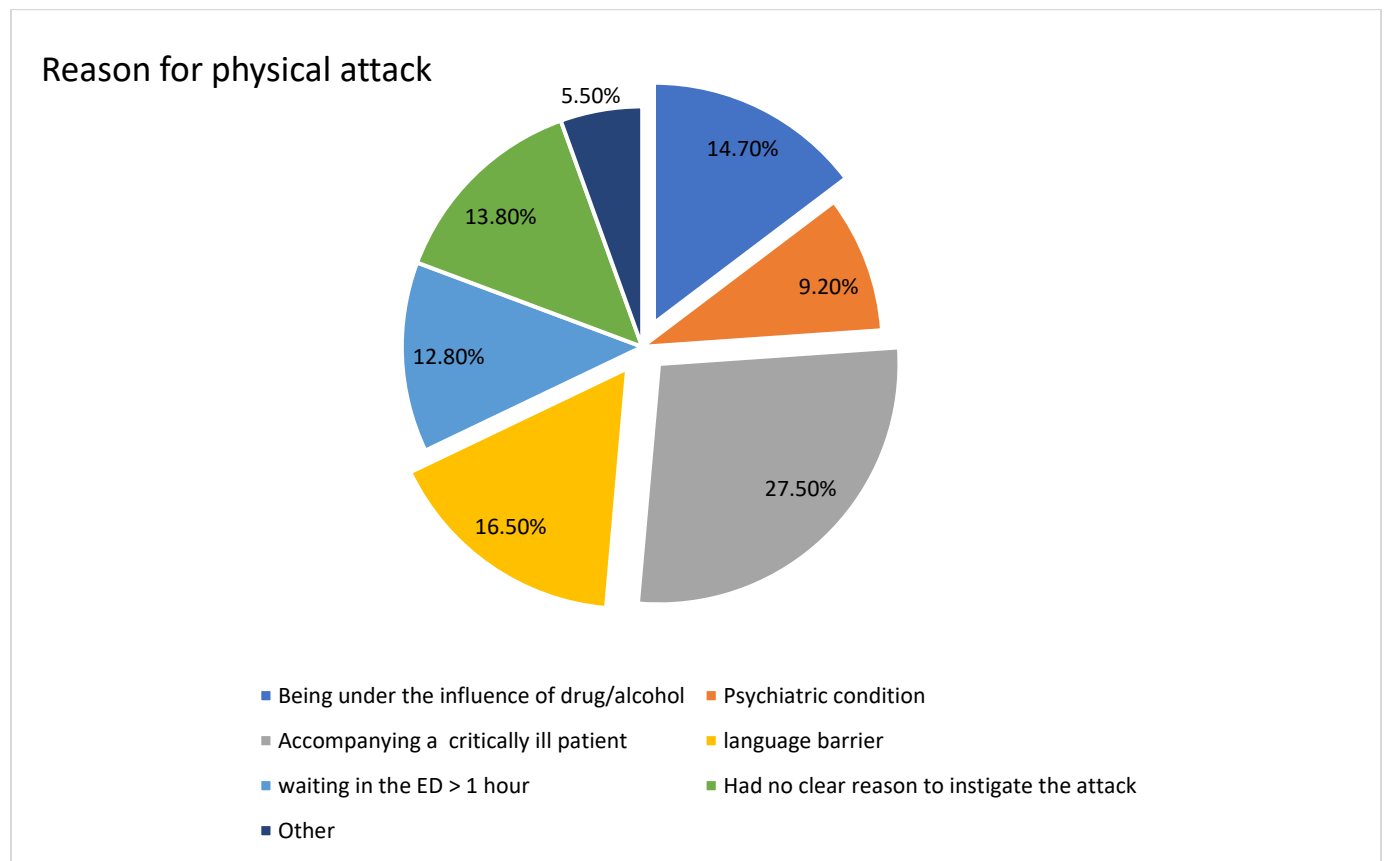


Figure 3- Reasons of perpetrators for instigating the physical attack

When asked about how they responded to the physical attacks, 22.1% of participants simply told the person to stop, 17.3% took no action, and 16.3% told their friends or families while 14.4% told a colleague. Strikingly, only 7.7% of participants reported the incident to a senior staff member and only 1.9% completed an incident report form. 71.2% of participants who underwent physical attacks felt like the incident was preventable. 30.1% of those physically attacked were injured as a result of the attack and, 60.7% required formal treatment for their injuries. (see Table 3)

5.4 Psychological attacks

In the past 12 months, 118 (73.8%) of participants have reported undergoing verbal abuse at the workplace. 48 (40.7%) of these have reported the incident to be as frequent as several times a month while 42 (35.6%) have reported 2-3 incidents in 12 months. Here again, the commonest perpetrators are reported to be relatives of patients (53.4%) followed by patients themselves (30.5%) and staff members/colleagues accounted for 16.1% of the reported cases of verbal attack.

Accompanying a critically ill patient was the commonest reason for the verbal attacks faced by 20.4% of the participants, closely followed by waiting in the ED for longer than 1 hour (19%) and language barrier (15.5%). 83.1% of respondents felt like verbal attacks were common incidents in their workplace.

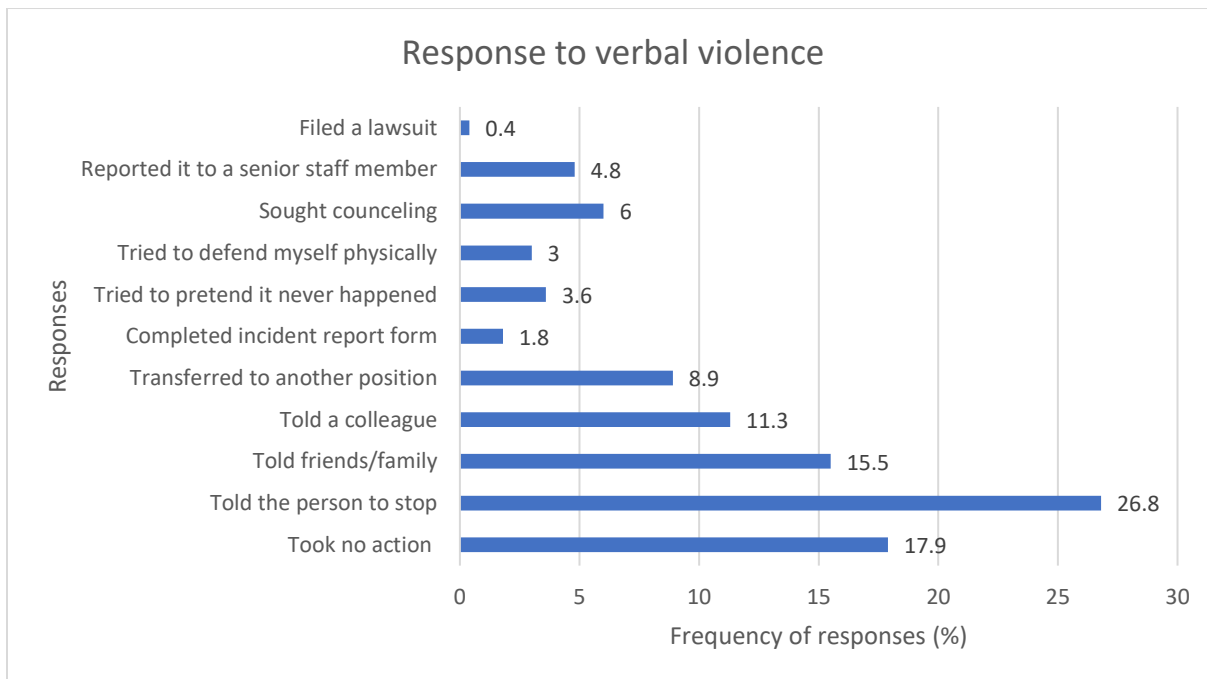


Figure 4- Responses of participants to verbal attack

5.5 Sexual harassment

Regarding sexual harassment at the workplace, 31(19.4%) participants reported being sexually harassed in the last 12 months. 50% reported it only occurred once while 30% stated an occurrence of 2-3 times. 14(46.7%) have reported being harassed by a staff member or colleague while 10 (33.3%) stated relatives of patients were the culprits of the attack. 16(53.3%) felt that it was a common incident in their workplace while 46.7% did not.

11 (35.5%) of participants took no action in response to the sexual harassment while 11 (35.5%) participants told the person to stop and 6(19.4%) told their friends/families.

Table 3: Summary of participants' experience regarding workplace violence

	Physical Violence n (%)	Verbal Violence; n (%)	Sexual harassment n (%)
Attacked at workplace in the past 12 months	73(45.3%)	118 (73.8%)	31 (19.4%)
A weapon used in the attack	18 (24.7%)	-	-
Considered a common incident in workplace	44 (60.3%)	98 (83.1%)	16 (53.3%)
Perpetrator of incident			
Patient	13 (17.8%)	36 (30.5%)	6 (20%)
Relative of patient	50 (68.5%)	63 (53.4%)	10 (33.3%)
Staff member	10 (12.3%)	19 (16.1%)	14 (46.7%)
Injury as a result of the incident	22 (30.1%)	-	-
Formal treatment required for injury	17 (60.7%)	-	-
Incident reported to supervisor	39 (53.4%)	32 (28.8%)	8 (27.6%)
Investigation of incident handled by			
Supervisor/Coordinator	25 (64.1%)	25 (78.1%)	7 (88%)
Campus Security	8 (20.5%)	4 (12.5%)	1 (6%)
Police	6 (3.7%)	3 (9.4%)	1 (6%)
Consequences to the attacker			
Nothing	5 (12.2%)	7 (21.8%)	0(0%)
Verbal warning issued	21 (51.2%)	21 (65.6%)	4 (50%)
Care discontinued	2 (4.9%)	0(0%)	0(0%)
Reported to police	4 (9.8%)	1 (3.1%)	1 (12.5%)
Aggressor prosecuted	2 (4.9%)	0(0%)	0(0%)
I don't know	7 (17.1%)	2 (6.25%)	3 (37.5%)
Level of satisfaction with the handling of the incident			
Very dissatisfied	23(35.7)	33 (30.8%)	7(24.1%)
Dissatisfied	15 (21.4)	26 (24.3%)	8 (27.6%)
Neutral	19 (27.1)	34 (31.8%)	14 (48%)
Satisfied	4 (5.7)	9 (8.4%)	0(0%)
Very satisfied	7 (10)	5 (4.7%)	0(0%)
Reasons for not reporting the incident			
It's part of the job	13 (34.2%)	34 (42.5%)	1 (4.5%)
It was not important	7 (18.4%)	7 (8.8%)	0 (0%)
Felt ashamed	1 (2.6%)	2 (2.5%)	6 (27.3%)
Felt guilty	5 (13.2%)	2 (1.2%)	1 (4.5%)
Reporting is useless	8 (21.1%)	18 (22.5%)	5 (22.7%)
Did not know whom to report to	4 (10.5%)	9 (11.3%)	3 (13.6%)
Afraid of negative consequences	0(0%)	8 (10%)	6 (27.3%)

5.6 Consequences of workplace violence

As stated above, 22(30.1%) of participants were injured as a result of a physical attack at the workplace, and 17 (60.7%) of these victims required formal treatment. Of those, 19(26%) needed to take time off to recover from the injury. 87% took 1 – 3 days off while 4.3% needed 2 – 3 weeks off to recuperate and get back to work.

Regarding the psychological toll physical attacks took on the participants, they responded according to Figure 4. Similar trends of psychological consequences are observed regarding verbal attacks and sexual harassment.

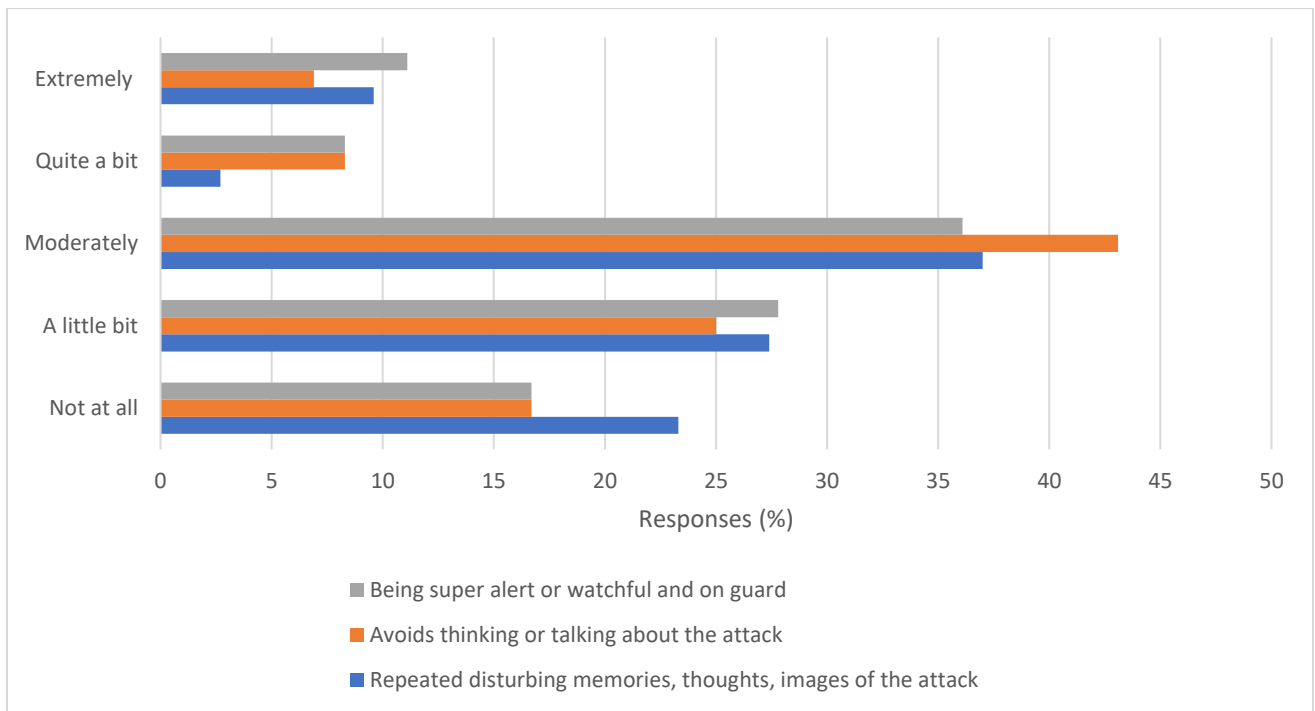


Figure 5- psychological consequences of physical violence on participants

5.7 Predicting factors of violence against HCWs

A Chi-square test was performed to identify if there was a statistically significant association between the independent and dependent categorical variables. The results are summarized in Table 4

The results show that the only statistically significant association is found between gender and sexual harassment ($\chi^2=11.72$, p-value = 0.001) and between marital status and physical attack (Fisher's exact

p-value = 0.015). There seems to be no statistically significant association with the rest of the independent variables as they relate to the dependent variables.

Table 4: Test for association using chi-square test and Fisher’s Exact test

	Physically attacked				Verbally attacked				Sexual harassment			
	Yes	No	χ^2	p-value	Yes	No	χ^2	p-value	Yes	No	χ^2	p-value
Gender												
Male	45	51	0.226	0.635	68	27	0.569	0.451	10	85	11.721	0.001
Female	28	37			50	15			21	44		
Professional group*												
Emergency physician	1	4	0.083	0.078	3	2	0.078	0.078	0	5	0.055	0.055
Emergency resident	18	33			32	18			5	45		
Nurse	54	51			83	22			26	79		
Marital Status*												
Single	36	59	0.015	0.183	66	28	0.183	0.183	16	78	0.402	0.402
Married	36	25			50	11			14	47		
Living with partner	0	2			1	1			1	1		
Separated/Divorced	1	1			1	1			0	2		
Working outside regular hours*	65	82	0.353	0.353	106	40	0.359	0.359	26	120	0.149	0.149

*Fisher's exact test used here because the Chi-square assumptions were violated (<5 counts in one or more boxes)

A point-biserial correlation test was run to see if there’s an association between the categorical dependent variables and continuous variables such as age, years of experience, and the number of staff available during most working hours (refer to Table 4).

There was a very slight negative correlation between age and being physically and sexually harassed but neither one was statistically significant. There also seems to be no significant association between years of experience and the number of staff available.

Table 5: Point-biserial correlation for an association between continuous and categorical variables

	Physically attacked		Verbally attacked		Sexual harassment	
	r_{pb}	p-value	r_{pb}	p-value	r_{pb}	p-value
Age	-0.082	0.3	0.124	0.119	-0.026	0.743
Years of experience	-0.047	0.552	0.064	0.418	-0.055	0.489
No. of staff available	-0.117	0.163	-0.015	0.857	0.001	0.988

r_{pb} - point-biserial correlation coefficient

Binary logistic regression was run for the independent variables to assess the effect of gender, age, marital status, professional group, working in shifts, working out of regular hours, the institution of

practice number of staff present during work time, and presence of procedures for reporting WPV on physical, verbal or sexual attacks. The results are summarized in Table 5.

The model found a significant association between being an emergency resident and exposure to workplace violence with an odds ratio of 2.27 (p-value=0.05; CI 95% [1.01-3.27]). The other independent variables didn't show a statistically significant predictive value to workplace violence.

Table 6: Logistic regression for the degree of association between workplace violence and various independent variables

	Exposure to Workplace Violence			
	COR (95% CI)	p-value	AOR (95% CI)	p-value
Age	1.04(0.92-1.26)	0.53	1.05(0.87-1.23)	0.63
Gender	1.09(0.49-2.43)	0.83	1.04(0.37-2.90)	0.94
Professional group				
Emergency Physician	4(0.62-25.98)	0.146	7.91(0.65-96.35)	0.108
Emergency resident	2.27(1.01-5.27)	0.05	2.65(0.57-12.23)	0.21
Nurse		0.08		0.22
Marital Status				
Single	0.28(0.02-4.73)	0.38	0(0)	1
Married	0.13(0.07-2.31)	0.165	0(0)	1
Living with partner	1(0.02-50.39)	1	3.02(0)	1
Separated/Divorced		0.18		0.48
Institution of practice				
TASH	1.06(0.27-4.18)	0.93	1.17(0.24-5.85)	0.85
AaBET	2.76(0.73-10.54)	0.14	2.67(0.64-11.21)	0.18
SPMMC		0.06		0.211
Years of experience	1.06(0.92-1.24)	0.41	1.14(0.83-1.57)	0.41
Working in shifts	0.76(0.31-1.89)	0.56	1.05(0.33-3.31)	0.94
Working outside regular hours	1.48(0.31-6.96)	0.62	1.45(0.26-8.22)	0.67
Number of staff available	0.98(0.92-1.05)	0.53	1.01(0.93-1.1)	0.84
Presence of procedures for reporting WPV	0.66(0.26-1.67)	0.38	0.52(0.15-1.74)	0.286

COR – Crude odd's ratio; AOR – Adjusted odd's ratio; CI – Confidence interval

Binary logistic regression was run with each type of violence as the dependent variable with the independent variables stated above (see Table 7). These models found a statistically significant association between the independent variable 'emergency resident' and both physical and verbal violence. This significance is however not seen when it was adjusted with the other independent variables. Another interesting finding was that there was a significant association between sexual harassment and gender [AOR (95% CI) = 5.85 (1.97-17.33); p-value = 0.001]. There was also an association between working outside regular hours and sexual harassment [AOR (95% CI) = 5.19 (1.14 – 23.64); p-value = 0.034].

	Physical violence				Verbal violence				Sexual Harassment			
	COR (95% CI)	p value	AOR (95% CI)	p value	COR (95% CI)	p value	AOR (95% CI)	p value	COR (95% CI)	p value	AOR (95% CI)	p value
Age	0.95(0.86-1.04)	0.3	0.927(0.79-1.07)	0.32	1.08(0.97-1.2)	0.12	1.08(0.9-1.29)	0.401	0.98(0.87-1.11)	0.74	0.889(0.72-1.09)	0.266
Gender	0.86(0.46-1.62)	0.635	0.723(0.33-1.59)	0.723	0.75(0.36-1.56)	0.45	1.4(0.55-3.54)	0.483	4.06(1.76-9.36)	0.001	5.85(1.97-17.33)	0.001
Professional group												
Emergency Physician	4.23(0.46-39.1)	0.2	9.17(0.61-137.24)	0.11	2.5(0.39-15.99)	0.33	4.82(0.39-58.54)	0.217	5316 (0)	0.999	18.24	0.999
Emergency resident	1.94(0.97-3.87)	0.06	2.33(0.75-7.19)	0.14	2.1(1.01-4.47)	0.048	1.97(0.49-7.86)	0.335	2.96(1.06-8.25)	0.038	2.24 (0.44-11.35)	0.329
Nurse		0.09		0.16		0.112		0.405		0.116		0.621
Marital Status												
Single	1.64(0.09-27.02)	0.73	0(0)	1	0.42(0.026-7.02)	0.55	0(0)	1	0(0)	0.99	0 (0)	1
Married	0.69(0.04-11.63)	0.8	0(0)	1	0.22(0.013-3.79)	0.297	0(0)	1	0(0)	0.99	0 (0)	1
Living with partner	1615(0)	0.99	1.98(0)	1	1(0.02-50.39)	1	3.662(0)	1	0(0)	0.99	7.11(0)	1
Separated/Divorced		0.09		0.44		0.289		0.377		0.612		0.979
Institution of practice												
TASH	0.7590.29-1.92)	0.54	1.37(0.43-4.4)	0.58	1.01(0.3-3.42)	0.99	1.004(0.24-4.19)	0.996	0.45(0.12-1.67)	0.23	0.72 (0.13-3.97)	0.705
AaBET	0.74(0.28-1.97)	0.54	0.893(0.29-2.71)	0.89	3.45(1.04-11.46)	0.053	3.54(0.98-12.77)	0.053	0.92(0.22-3.82)	0.91	1.24(0.228-6.764)	0.802
SPMMC		0.81		0.65		0.004		0.021		0.205		0.695
Years of experience	0.96(0.85-1.08)	0.55	1.17(0.91-1.5)	0.21	1.05(0.923-1.21)	0.42	1.128(0.83-1.53)	0.443	0.95(0.82-1.1)	0.49	1.212(0.885-1.66)	0.232
Working in shifts	0.64(0.29-1.38)	0.256	0.724(0.275-1.9)	0.51	0.69(0.3-1.57)	0.38	0.929(0.32-2.65)	0.891	0.35(0.1-1.24)	0.103	0.675(0.135-3.38)	0.633
Working outside regular hours	1.68(0.55-5.09)	0.36	2.386(0.63-9.03)	0.2	2.26(0.48-10.5)	0.29	2.7(0.5-14.65)	0.25	2.56(0.79-8.28)	0.116	5.185(1.14-23.64)	0.034
Number of staff available	0.96(0.915-1.01_	0.164	0.969(0.913-1.03)	0.31	0.99(0.39-1.05)	0.86	1.027(0.96-1.1)	0.462	1(0.93-1.07)	0.988	0.997(0.916-1.08)	0.954
Presence of procedures for reporting WPV	0.466(0.23-0.93)	0.32	0.39(0.176-0.907)	0.3	1.72(0.75-3.95)	0.2	0.61(0.22-1.69)	0.342	0.65(0.28-1.5)	0.31	0.851(0.28-2.58)	0.776

COR – Crude odd's ratio; AOR – Adjusted odd's ratio; CI – Confidence interval

Table 7: Binary logistic regression for the degree of association between physical violence, verbal violence, and sexual harassment and the independent variables.

7. DISCUSSION

Workplace violence is a rising problem for health professionals and this is especially pronounced for healthcare workers in the Emergency Department. The overall 1-year prevalence of 80.7% found in this study was comparable to the study done by Likassa et al in 2017 with 82.2% 12-month prevalence(13). Tiruneh, et al, however, reported a lower prevalence of 26.7% in their study done on nurses working in referral hospitals in Northwestern Ethiopia (11). The differences could be due to the different composition of the study participants and the fact that this study focused solely on ED healthcare workers who are at higher risk of facing WPV(21).

Even though the 12-month prevalence of this study is found to be higher than the 2019 systematic review by Liu et al (61.9%), the predominance of psychological violence over physical violence was similar to the findings of this study (24% vs. 42% for physical and psychological violence respectively)(21). Fute et al's study done in the Southern region of Ethiopia has found a higher proportion of psychological violence (89.6%) to physical violence (18.8%)(17). They have also reported a 13% prevalence of sexual harassment which is slightly lower than what was reported in this study (24%) (17).

Comparing the level of concern for workplace violence among the three institutions, there was a significant discrepancy in that most participants from TASH (42.5%) reported being extremely worried while participants from AaBET had a significantly lower level of concern (refer to Figure 1). This coupled with the finding that respondents from AaBET reported a higher level of availability of security indicates a potential discrepancy between the two settings. Although the rate of physical violence is comparable between the two centers, verbal violence was reported far lower at AaBET than at TASH.

The main perpetrators of both physical and psychological violence were found to be relatives of patients in this study. This is similar to a study done in Ghana by Boafo et al which found 45.5% of verbal abuse was done by patients' relatives(26). The same Ghanaian study also stated their participants reported that 50% of sexual harassment was perpetrated by medical doctors. This study found 46.7% of sexual harassment experienced by the participants was perpetrated by a colleague or staff member. This is a highly concerning fact, especially considering the low rate of reporting sexual harassment incidents (27%) by victims due to feelings of guilt, shame, and fear of negative consequences (see table 3).

Accompanying a critically ill patient was reported as the most common reason for both physical and verbal attacks in this study. A similar pattern was also observed in studies done by Onyia et al in Nigeria and Bofo et al in Ghana (16,26). This could be explained by the fact that relatives of patients who are critically ill are under a lot of stress and anxiety when they come to the ED. Therefore, they tend to lash out at healthcare professionals either verbally or physically.

Consequences to victims of workplace violence included being physically injured, requiring formal treatment, and even time off work to recover from their injuries and long-term psychological turmoil such as having recurrent disturbing thoughts and memories about the incident, being super alert, and avoidance of thinking or talking about the attack. This is consistent with findings of the Palestinian study which reported 16% of victims of physical violence requiring absence from work and non-physical violence victims experiencing a range of consequences including depression, frustration, anger, and fatigue (21). These consequences have significant long-term effects on victims of WPV and are considered to be precursors to burnout(9).

Regarding predicting factors of workplace violence, this study only found the independent variable 'Emergency resident' had a statistically significant association with exposure to any type of workplace violence. A study done in Palestine by M. Kitaneh & M. Hamdan found age <30 years old and under 10 years work experience to be associated with increased incidents of WPV on physicians and nurses (22). Fute et al's study done in northwestern Ethiopia also reported female nurses had double the risk of being exposed to WPV compared to their male counterparts (17). The fact that this study did not pick these associations could be because it had a low sample size which compromised its statistical power.

Considering sexual harassment, however, there was a statistically significant association with gender and working outside regular hours found in this study. A study done by Wandera et al in Uganda also found that 96% of respondents who experienced sexual harassment reported it occurring mainly at night or during weekend shifts (31). This could be explained by the fact that there is fewer healthcare workers available relative to the patients and attendant ratio and victims are more vulnerable during these hours.

Limitations of the study

The study is subject to recall bias because the participants had to recall incidents that happened over the past 12 months. This may affect the accuracy of the responses.

The study used non-probability sampling to be completed within the time and cost designated to the project. This could lead to the sample being not representative of the population.

There was also a low sample size and had a high non-response rate due to the participants' busy work setting making enrollment into the study more difficult than anticipated.

The study also covered tertiary hospitals with not only a high burden of emergency cases but also an increased number of critical and trauma patients. These settings may not fully represent the settings of general hospitals found in the rest of the city and its external validity might be compromised because of that.

8. CONCLUSION

This cross-sectional prospective study aimed to identify the 12-month prevalence of WPV against ED healthcare workers in three tertiary hospitals in Addis Ababa and analyze the potential predicting factors associated with the increased occurrence of WPV in the emergency setting.

Although a high prevalence of workplace violence is expected among healthcare workers of the emergency department due to its intrinsic nature of being a high-stress environment, the 12-month prevalence reported in this study is significantly higher than some of the studies previously done in various regions of the country. The fact that most healthcare workers that undergo workplace violence consider it to be part of the job and fail to report it exacerbates the problem further. The level of sexual harassment experienced by ED healthcare workers is especially concerning and needs to be addressed promptly. There was also a significant discrepancy amongst different centers and their participants' level of concern for workplace violence.

9. RECOMMENDATIONS

Based on the findings of this study, it is recommended to look into making procedures for reporting workplace violence readily available for all staff working in the ED and going the extra mile of giving briefings on how to utilize these procedures to make sure all staff has up-to-date information on how to report incidents.

The centers should also consider paying special attention to security in their emergency departments since it is an area patients and attendants have access to 24 hours a day.

Preventable causes of WPV such as long waiting hours in the ED should be looked into – as WPV is one of the many consequences of overcrowding in the ED and finding a solution for it would go a long way in managing WPV.

Implementation of a zero-tolerance policy regarding sexual harassment, especially incidents instigated by staff members – could go a long way in curbing such a rampant problem. There should also be a method of reporting put in place where victims can complete the report anonymously to decrease the shame and guilt that keeps them from coming forward.

Additional studies with larger sample size and more centers included could shed light on the depth of this problem and could make predicting factors easier to pick.

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ANNEX: QUESTIONNAIRE

Workplace Violence Against Healthcare in Emergency Departments in Public Hospitals in Addis Ababa, Ethiopia – Consent Form

Dear Participant,

My name is Dr. Kalkidan Kebede and I am a 3-year Emergency & Critical Care Medicine resident. I am currently doing my research on “Workplace Violence against Healthcare Workers in the Emergency Departments of Public Hospitals in Addis Ababa, Ethiopia” as a partial requirement for the Emergency & Critical Care Specialty Program.

The purpose of the study is to explore the level and variety of workplace violence that is being experienced by consultants, residents, general practitioners, and nurses working in Emergency Departments throughout the city.

The questionnaire is designed to collect data regarding your experience with this issue. It is strictly for academic purposes and the information collected will only be used for this study. Confidentiality will be strictly protected; no information that reveals your identity will be requested and none of your responses will affect you in any way.

Your participation is vital for the success of this study but it is purely voluntary. You may decline to participate in the study at any point if you choose to do so.

I would like to thank you in advance for your participation. If you have any questions regarding the study or need to get in touch with the researcher, please use the following contact information.

Respectfully,

Dr. Kalkidan Kebede

kkebede08@gmail.com

+251 927-432230

Code: _____

Institution: _____

Part I. Socio-demographic data

1.1 What is your age? _____

1.2 Gender

Male Female

1.3 Marital Status

Single Married Living with partner Separated/divorced Widow/widower
 Other _____

1.4 The best description of your professional group

Emergency Physician (Senior) Emergency Resident General Practitioner Nurse
 Other _____

1.5 How many years of work experience do you currently have? _____

1.6 Do you work

Full-time Part-time Temporary

1.7 Do you work between 6 PM (12:00 evening local time) and 7 AM (1:00 morning local time)?

Yes No

1.8 Please estimate the number of staff present in the same work setting with you during most (>50%) of your work time _____

Part II: Workplace Violence

2.1 How worried are you about violence in your current workplace?

(Please rate: 1 = not worried at all; 5 = very worried)

1 2 3 4 5

2.2 Are there procedures for the reporting of violence in your workplace? (If no, please proceed to 2.3)

Yes No

2.2.1 IF YES: Do you know how to use them?

Yes No

2.3 Is there encouragement to report workplace violence?

Yes No

2.4 Do you believe there is adequate security present in your workplace?

Yes No

Part III: Physical Violence

Physical violence: the use of physical force against another person or group, that results in physical, sexual, or psychological harm. It includes beating, kicking, slapping, stabbing, shooting, pushing, biting, and pinching among other things.

3.1 In the past 12 months, have you been physically attacked at your workplace?

Yes No

If YES: Please answer the following questions about the LAST time you were physically attacked at your workplace

3.1.1 Was a weapon used in the attack?

Yes No

3.1.2 Is this a common incident of violence in your workplace?

Yes No

3.1.3 Who attacked you?

Patient Relative of patient Staff member Other (Please specify) _____

3.1.4 Please choose all that apply regarding the perpetrator of the attack

The perpetrator was under the influence of a drug/alcohol

Had a psychiatric condition

Was an attendant/relative of a critically ill patient

There was a significant misunderstanding due to the language barrier

Was waiting in the ED for >1 hour

Had no clear reason to instigate the attack

Other (Please Specify _____)

3.1.5 At which time did the incident happen?

6 AM – 12 PM 1 PM – 6 PM 7 PM – 11 PM 12 AM – 5 AM

3.1.6 How did you respond to the incident? (please choose all that apply)

Took no action Tried to pretend it never happened

Told the person to stop Tried to defend myself physically

Told friends/family Sought counseling

Told a colleague Reported it to a senior staff member

Transferred to another position Filed a lawsuit

Completed incident report form Other: _____

3.1.7 Do you think the incident could have been prevented?

Yes No

3.1.8 Were you injured as a result of the incident?

Yes No

3.1.8.1 Did you require formal treatment for the injuries?

Yes No

3.1.9 Since you were attacked, how bothered have you been by the following?

3.1.9.1 Repeated disturbing memories, thoughts, or images of the attack?

- Not at all A little bit Moderately Quite a bit
 Extremely

3.1.9.2 Avoiding thinking or talking about the attack or avoiding having feelings related to it

- Not at all A little bit Moderately Quite a bit
 Extremely

3.1.9.3 Being 'super alert' or watchful and on guard

- Not at all A little bit Moderately Quite a bit
 Extremely

3.1.10 Did you take time off from work after being attacked?

- Yes No

3.1.10.1 If yes: How long?

- 1 day 2-3 days 1 week 2-3 weeks 1 month 2-6
months 7 months or more

3.1.11 Did you report the incident to a supervisor/coordinator?

- Yes No (*Please go to 3.1.13*)

3.1.12 Was any action taken to investigate the cause of the incident?

3.1.12.1 If yes: By whom?

- Management/coordinator
 Campus security
 Police
 Other: _____

3.1.12.2 What were the consequences to the attacker?

- None
 Verbal warning issued
 Care discontinued
 Reported to police
 Aggressor prosecuted
 I don't know

3.1.13 How satisfied were you with how the incident was handled?

(Please rate: 1 = very dissatisfied, 5 = very satisfied)

- 1 2 3 4 5

3.1.14 If you did NOT report the incident, why not?

- It is part of the job
 It was not important
 Felt ashamed
 Felt guilty

- Afraid of negative consequences
- Reporting is useless
- Did not know whom to report to
- Other _____

3.2 In the last 12 months, have you witnessed incidents of physical violence in your workplace?

- Yes No

3.2.1 If YES, how often has this occurred in the last 12 months?

- Once
- 2-4 times
- 5-10 times
- Several times a month
- Once a week
- Daily

3.2.2 Did you report incidents of physical violence you have witnessed?

- Yes No

Part IV: Psychological Violence

Psychological violence is defined as the intentional use of power, including the threat of physical force, against another person or group, that can result in harm to physical, mental, spiritual, moral, or social development. It includes verbal abuse, harassment, and threats.

4.1 VERBAL ABUSE

4.1.1 In the last 12 months, have you been verbally abused in your workplace?

- Yes No (*Please go to 5.1*)

4.1.1.1 How often have you been verbally abused in the last 12 months?

- Once 2-3 times Several times a month Once a week Daily

Consider the last time you were abused

4.1.1.2 Who verbally abused you?

- Patient
- Relatives of patient
- Staff member/colleague
- Other: _____

4.1.2 Please choose all that apply regarding the perpetrator of the attack

- The perpetrator was under the influence of a drug/alcohol
- Had a psychiatric condition
- Was an attendant/relative of a critically ill patient
- There was a significant misunderstanding due to the language barrier
- Was waiting in the ED for >3 hours
- Had no clear reason to instigate the attack
- Other (please specify) _____

4.1.3 Do you consider this a common incident in your workplace?

Yes No

4.1.4 How did you respond to the verbal abuse? (*Please choose all that apply*)

Took no action Tried to pretend it never happened
Told the person to stop Tried to defend myself physically
Told friends/family Sought counseling
Told a colleague Reported it to a senior staff member
Transferred to another position Filed a lawsuit
Completed incident report form Other: _____

4.1.5 Since you were verbally abused, how bothered were you by

a. Repeated, disturbing memories, thoughts, or images of the abused?

Not at all A little bit Moderately Quite a bit
Extremely

b. Avoiding thinking about or talking about the abuse or avoiding having feelings related to it

Not at all A little bit Moderately Quite a bit
Extremely

c. Being 'super alert or watchful and on guard

Not at all A little bit Moderately Quite a bit
Extremely

d. Feeling like everything you did was an effort?

Not at all A little bit Moderately Quite a bit
Extremely

4.1.6 Do you think the incident could have been prevented?

Yes No

4.1.7 Was any action taken to investigate the cause of the verbal abuse?

Yes No

4.1.7.1 If yes, by whom?

Management/Coordinator
Campus security
Police

4.1.7.2 If YES: What were the consequences?

Nothing Reported to police
 Verbal Warning issued Aggressor prosecuted
Care discontinued I don't know
Other_____

4.1.8 How satisfied were you with how the incident was handled?

(*Please rate: 1 = very dissatisfied, 5 = very satisfied*)

1 2 3 4 5

4.1.9 If you did NOT report the incident or talk about it to others, why not?

- It is part of the job
- It was not important
- Felt ashamed
- Felt guilty
- Afraid of negative consequences
- Reporting is useless
- Did not know whom to report to
- Other _____

4.2 SEXUAL HARASSMENT

Sexual Harassment is defined as any unwanted, unreciprocated, and unwelcome behavior of a sexual nature that is offensive to the person involved and causes that person to feel threatened, humiliated, or embarrassed.

4.2.1 In the last 12 months, have you been sexually harassed in your workplace?

- Yes
- No

4.2.2 How often have you been sexually harassed in the last 12 months?

- Once
- 2-3 times
- Several times a month
- Once a week
- Daily

4.2.3 Please think of the last time you were in your place of work. Who sexually harassed you?

- Patient
- Relatives of patient
- Staff member/colleague
- Other: _____

4.2.4 Do you consider this to be a common incident of sexual harassment in your workplace?

- Yes
- No

4.2.5 How did you respond to the sexual harassment? *Please choose all that apply*

- Took no action
- Tried to pretend it never happened
- Told the person to stop
- Tried to defend myself physically
- Told friends/family
- Sought counseling
- Told a colleague
- Reported it to a senior staff member
- Transferred to another position
- Filed a lawsuit
- Completed incident report form
- Other: _____

4.2.6 Since you were attacked, how bothered have you been by the following?

4.2.6.1 Repeated disturbing memories, thoughts, or images of the attack?

- Not at all
- A little bit
- Moderately
- Quite a bit
- Extremely

4.2.6.2 Avoiding thinking or talking about the attack or avoiding having feelings related to it

- Not at all
- A little bit
- Moderately
- Quite a bit
- Extremely

- 4.2.6.3 Being 'super alert' or watchful and on guard
- Not at all A little bit Moderately Quite a bit
- Extremely

4.2.7 Do you think the incident could have been prevented?

- Yes No

4.2.8 Was any action taken to investigate the causes of the sexual harassment?

- Yes No

4.2.8.1 If YES: by whom

- Management/Coordinator
Campus security
Police

4.2.8.2 If YES: What were the consequences for the person who harassed you?

- Nothing Reported to police
 Verbal Warning issued Aggressor prosecuted
Care discontinued I don't know
Other _____

4.2.9 How satisfied are you with how the incident was handled?

(Please rate: 1 = very dissatisfied, 5 = very satisfied)

- 1 2 3 4 5

4.2.10 If you did NOT report or talk about the incident to others, why not?

- It is part of the job It was not important
Felt ashamed Felt guilty
Afraid of negative consequences Reporting is useless
Did not know whom to report to
Other _____

Thank you very much for your cooperation!