



Original Article

Prevalence and factors associated with workplace violence in a tertiary healthcare facility in Nigeria.

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Abstract

Background: Healthcare workers globally are at an increased risk of workplace violence. Adverse effects such as physical injury, reduced quality of care to patients and lower productivity with associated costs to employers occur. Non-reporting hinders the implementation of effective prevention. This study aimed to assess the prevalence, reasons for non-reporting of workplace violence, and knowledge of prevention prior to designing intervention strategies in the study location where there is a paucity of research on this issue.

Methodology: This cross-sectional study was conducted at a Teaching Hospital in Abakaliki, Ebonyi State, for 4 weeks in 2020 among 205 employees. The hospital was stratified into Clinical, Nursing Services, Pharmacy, Laboratory, and administrative divisions; proportionate allocation and random sampling were used to select the allocated samples. A structured questionnaire was used to collect data. Descriptive statistics determined the measures of central tendencies and dispersion, while bivariate analysis of the variables was done using Pearson's Chi-Square test. Statistical significance was set at $p \leq 0.05$ with a confidence level of 95%.

Results: The mean age of the participants was 39.1 ± 7.8 years. The prevalence of workplace violence was 70%. The most common reason for non-reporting was complexities and time-consuming reporting procedures (26.5%) followed by fear of reprisal on career (22.4%). The proportion of respondents with good knowledge of workplace violence prevention strategies was high (69.8%). Gender ($p = 0.03$), work setting ($p = 0.006$), previous workplace violence training ($p = 0.005$) and knowledge of workplace violence preventive strategies ($p = 0.04$) had statistically significant associations with experience of workplace violence.

Conclusion: The high prevalence of workplace violence suggests a need for a workplace violence prevention program which should include a simple process of reporting and training. The improved awareness from previous training may account for the significant association with workplace violence.

Keywords: Workplace Violence; Prevalence; Non-Reporting; Prevention; Teaching Hospital; Nigeria.

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Introduction

Workplace violence (WPV) refers to “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, wellbeing, and health”¹. Although it can occur in any group of workers, it is believed that healthcare workers are at an increased risk of workplace violence² which may be physical, psychological, or sexual.³ The increasing reports of workplace violence against healthcare workers have continued to attract concern worldwide.⁴

The adverse impact of workplace violence in the healthcare setting goes beyond the victim’s health to a reduction in quality of care to patients^{5,6,7,8}, besides other concerns of the potentially high costs to employers associated with absenteeism and lower productivity.⁹ The effects on the victims include physical injury, higher stress levels, burnout, reduced quality of life, loss of job satisfaction, distress reactions such as anger, irritability, anxiety, poor sleep, psychiatric disorders, negative impact on personal, family, and social relationships, and death.^{10,11,12,7}

Factors that increase the risk of workplace violence against healthcare workers could be categorized into workplace and policy issues, patient factors, physician factors, doctor-patient relationships, and sociocultural issues.^{7,13}

A prevalence of 61.9% has been estimated globally among healthcare workers, with significant heterogeneity across studies.^{14,15} Africa has a diverse prevalence of WPV ranging from 9% to 100% with the highest in South Africa (54%–100%) and Egypt (59.7%–86.1%)¹⁴

Recently published reports of the prevalence of workplace violence in tertiary healthcare settings in Nigeria are 64.4% in Kaduna state in the North west¹⁵; 31.9% in a combined survey across Oyo state, Lagos state and Osun state in the Southwest and Edo state in the South-south¹⁶; 39.9% in Osun state in the Southwest¹⁷; 66.9% in Ekiti state in the Southwest¹⁸; 28.4% in Rivers state in the South-south (in a PHC)¹⁹; 62.1% in Edo state in Southwest.²⁰ 49.7% (psychological violence) in Enugu state in the Southeast.²¹ Underreporting or non-reporting is a significant obstacle to the planning and implementation of adequate preventive measures because the true incidence of all the assaults that occurred cannot be determined.

Furthermore, the usefulness of the preventive measures, when implemented needs to be assessed accurately.^{22,23} Few studies in Nigeria have reported reasons for the underreporting of cases of workplace violence in the healthcare setting. Reasons that were identified are: it was not serious enough, the perpetrator apologized, fear of repercussions, and did not know where to report.¹⁵

In a workplace violence prevention programme in a health care setting, interventions target organizational and individual risk factors of violence. Such interventions include policies, education on violence prevention, adequate security measures and safety standards in clinical settings, correct attention to high-risk patients, and timely response after incident reporting.⁷ There is very limited research on violence in healthcare settings against health workers in Ebonyi State at the time of this study. This study aimed to assess the prevalence, associated factors of the experience of workplace violence, knowledge of preventive measures, and reasons for non-reporting of workplace violence in a tertiary healthcare facility in Ebonyi State. These key elements are needed prior to designing intervention strategies for a workplace violence prevention program being embarked upon in the study location.

Materials and Methods

Study area

The study was conducted at Alex Ekwueme Federal University Teaching Hospital Abakaliki (AEFUTHA), Ebonyi State. The state has 13 local Government areas, with the state capital at Abakaliki. The hospital is a teaching hospital (one of the two teaching hospitals in the state and one of the three tertiary health facilities in the state) that provides comprehensive health services in different specialties including Obstetrics and Gynecology, Paediatrics, Surgery, Family Medicine, Community Medicine, Psychiatry, among others. AEFUTHA, at the heart of the state capital Abakaliki, is a referral center that offers services from primary to tertiary levels of care and has 2 sites in 2 LGAs (Abakaliki and Ebonyi). Whereas AEFUTHA 1 is in Ebonyi LGA, AEFUTHA 2 is in Abakaliki LGA.; both are in the state capital, Abakaliki town. Among the clinical departments, Paediatrics, Obstetrics & Gynaecology, and Family Medicine are in AEFUTHA 1 while Surgery, Internal Medicine, Community Medicine, Psychiatry, Dentistry, and Pathology are in AEFUTHA 2. The Pharmacy, Laboratory, and Nursing Services Division (NSD) are in both AEFUTHA 1&2, the Administration Department is in AEFUTHA 1, and the Medical Social Works and Nutrition & Dietetics are in AEFUTHA 2.

Study design and population.

The study was a cross-sectional study and included all employees of the teaching hospital and those on special assignment or training in the hospital, whereas the exclusion criteria were staff who were not present during the study and students.

Sampling size and sampling Technique

The sample size used for the survey was calculated using the Cochran formula for a single proportion. A WPV prevalence of 31.9% as reported in a previous study [Violence at work (3rd Eds.)] was applied in the sample size estimation. Precision and non-response rates of 5% and 10% were set respectively. The estimated sample size after allowing for a 10% non-response rate was 205.

The hospital was stratified into five divisions which were Clinical, Nursing Services (NSD), Administration (ADMIN), Laboratory, and Pharmacy Departments. Altogether, the institution has a total of 4249 members of staff distributed among the divisions as follows:

Division	Staff strength	Number selected
ADMIN	1796	87
NSD	1730	83
PHARMACY	80	4
LABORATORY	154	7
CLINICAL	489	24
TOTAL	4249	205

Using the numerical strength of the respective departments and an estimated sample size of 205, study samples were proportionately allocated to the divisions. A proportional allocation of the sample size to the size of the target population was used to select the number from each division. With the assistance of the heads of divisions or the representative, a simple random sampling technique was used to select the

allocated samples: Clinical 24; Pharmacy 4; NSD 83; Laboratory 7 and Admin 87 making a total of 205 participants.

Data Tools and Collection

Data was collected using a structured questionnaire adapted from previous studies^{15,24,22}. These comprised structured Questionnaires with sections lettered A – C. Section A elicits information on the socio-demographic characteristics of the respondents; Section B evaluates the workplace violence experience and reasons for non-reporting; Section C covers the knowledge of workplace violence, its prevention, and the respondents' perception concerning reasons for workplace violence in the hospital setting.

Data was collected over a period of four weeks from January 2020 to February 2020.

Ethical Consideration

Ethical approval was obtained from the Research and Ethical Committee (REC) of Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Ebonyi State (FETHA/REC/VOL.2/2019/249). Permission was also sought from the various heads of the divisions and the departments in the Clinical division.

Measurement of variables and Data Analysis/Calculations

Measurement of variables: The Independent variables include socio-demographic characteristics such as age, marital status, duration in position, work setting, and previous workplace violence training. The Dependent variables were the experience of workplace violence and workplace violence knowledge scores for preventive measures.

Data Analysis/Calculations: A composite variable; Knowledge of WPV preventive measures was determined using 4 questions. Correct response to each question was allotted one (1) point. Based on the scores, Knowledge of WPV preventive measures was categorized into Poor (0 – 4) and Good (5 – 8), knowledge. Data cleaning for completeness and consistency of information supplied by the respondent was done by scrupulously going through the study material. The data was entered into the International Business Machine – Statistical Product and Service Solution (IBM – SPSS), version 26.0 software, the same software was also used for the analysis. Data cleaning was further consolidated by a preliminary analysis in which a frequency distribution of all the variables using the same statistical software was used. Descriptive statistics were carried out to determine the measures of central tendencies and dispersion while bivariate analysis of the variables was done using Pearson's Chi Square test.

Statistical significance (p value) was set at ≤ 0.05 with confidence level at 95%.

Results

Participants

A total of 205 questionnaires were received and analyzed, giving a response rate of 100%. The mean age of the participants was 39.1 ± 7.8 years. Most of the participants were female (59%) and married (Table 1)

Table 1: Socio-demographic characteristics and work setting of the respondents.

Variable	Frequency	Proportion
Gender		
Male	84	41
Female	121	59.0
Marital status		
Married	160	78.0
Single	41	20.0
Separated/Widowed	4	2.0
Work setting		
Administrator	87	42.4
Nursing services	83	40.5
Clinical staff	24	11.7
Laboratory services	7	3.4
Pharmaceutical services	4	2.0

Mean age (SD): 39.1 ± 7.8 years, **Minimum:** 21.0 years, **Maximum:** 65 years.

Table 2: workplace violence experience

Variable	Frequency	Percentage (%)
Have had training on workplace violence		
Yes	21	10.0
No	184	89.8
Concern about workplace violence		
Not worried	38	18.5
Neutral	52	25.4
Worried	115	56.1
Have experienced workplace violence before		
Yes	145	70.7
No	60	29.3
Workplace violence experienced		
Verbal abuse	110	71.9
Intimidations	49	32.0
Threats	46	30.1
Physical abuse	31	20.3
Bullying/mobbing	10	6.5
Sexual harassment	7	4.6
Number of times workplace violence has been experienced		
Once	33	22.9
Twice	31	21.5
Three times	22	15.3
More than 3 times	144	100.0
Last experience of workplace violence		
Within the last 12 months	77	53.5
13 – 24 months ago	36	25.0
25 – 36 months ago	8	5.6
More than 36 months ago	23	16.0

The majority of respondents had experienced workplace violence (70%), verbal abuse was the most common form (71.9%) and the most recent option for the last experience of workplace violence (within the last 12 months) was recorded by the majority (53.5%).

Table 3: Reasons for not reporting workplace violence.

Variables	Frequency (%)	
	Disagree (%)	Agree (%)
WPV is part of my job	141 (88.7)	18 (11.3)
Poor or non-existence of institutional policies and procedures concerning WPV	135 (86.0)	22 (14.0)
Complexities and time-consuming reporting procedures	114 (73.5)	41 (26.5)
There is no reason for it to be reported	133 (83.7)	26 (16.3)
No response will be given	124 (78.5)	34 (21.5)
It may reflect adversely on my career.	121 (77.6)	35 (22.4)
Reporting will place me at greater risk	130 (82.6)	28 (17.7)
The perpetrators may not be held accountable	134 (85.0)	24 (15.0)

The most common reason for not reporting workplace violence was complexities and time-consuming reporting procedures (26.5%) followed by a fear of adverse effects on career (22.4%).

Table 4: Respondents' perception concerning reasons for workplace violence in the hospital setting.

Variable	Frequency	Percentage
Unsecured furniture	22	10.7
The lack of security systems, alarms, or devices	59	28.8
Disturbing noise levels	23	11.3
Unmonitored entries or stairs, insufficient lighting	45	22
Difficulty parking or accessing a building	30	14.6
Inadequate security procedures and protocols	65	31.7
Lack of staff training and preparedness	74	36.1
Low staffing levels, extended shifts, overtime requirements	69	33.8
Lack of staff training and preparedness	73	35.6
Careless Management and Staff attitudes toward workplace violence prevention	80	39.0
Non-existent policies for reporting and managing crises	33	17.7
Cumbersome policies for reporting and managing crises	67	32.7
People under the influence of drugs or alcohol	70	34.1

People with certain psychiatric diagnoses and/or medical diagnoses	82	40.0
Are angry about clinical relationships	57	27.8
People who have a history of violence	66	32.2

People with certain psychiatric diagnoses and/or medical diagnoses were the most perceived reason for workplace violence in the hospital (40%) followed by careless management and staff attitudes toward workplace violence prevention (39%).

Table 5 Knowledge of workplace violence prevention strategies

Variable	Frequency	Percentage
Knowledge of workplace violence prevention strategies		
Poor knowledge	62	30.2
Good knowledge	143	69.8

The proportion of respondents with good knowledge of workplace violence was extremely low (9.3%) while the proportion with good knowledge of workplace violence prevention strategies was high (69.8%).

Table 6a: Factors associated with workplace violence.

Variable	Mean Age (SD)	Mean age difference (CI)	t-test (p-value)
Age of respondent (years)			
Experienced workplace violence	40.43 (8.63)	1.806 (0.53 – 4.15)	0.16 (0.13)
Never experienced workplace violence	38.63 (7.35)		
Duration in position at workplace (years)			
Experienced workplace violence	4.24 (4.03)	0.490 (0.79 – 1.75)	0.77 (0.44)
Never experienced workplace violence	4.73 (4.40)		

Table 6b: Factors associated with workplace violence.

Variables	Experienced workplace violence		Total (100%)	χ^2 (p-value)
	Yes (%)	No (%)		
Gender				4.22 (0.03)
Male	66 (78.6)	18 (21.4)	84	
Female	79 (65.3)	42 (34.7)	121	
Marital status				1.33 (0.17)
Never Married	26 (63.4)	15 (36.6)	41	
Ever Married	119 (72.6)	45 (27.4)	164	
Work setting				14.20 (0.006)
Administrator	50 (59.5)	34 (40.5)	84	
Clinical	29 (93.5)	2 (6.5)	31	
Nursing services	53 (73.6)	19 (26.4)	72	
Laboratory services	7 (63.6)	4 (36.4)	11	
Pharmaceutical services	6(85.7)	1(14.3)	7	
Previous workplace violence training				6.80 (0.005)
Yes	20 (95.2)	1 (4.8)	21	
No	125 (67.9)	59 (32.1)	184	
Concern about workplace violence				4.43 (0.11)
Not worried about workplace violence	25 (65.8)	13 (34.2)	38	
Neutral about workplace violence	32 (61.5)	20 (38.5)	52	
Worried about workplace violence	88 (76.5)	27 (23.5)	115	
Knowledge of workplace violence preventive strategies				3.8 (0.04)
Poor knowledge	38 (61.3)	24 (38.7)	62	
Good knowledge	107 (74.8)	36 (25.2)	143	

Table 6 shows that 4 variables had a statistically significant association with experience of WPV among the respondents. These include Gender ($p = 0.03$), Work setting ($p = 0.006$), Previous workplace violence training ($p = 0.005$), and Knowledge of WPV preventive strategies ($p = 0.04$). The table revealed that males (78.6%), reported having experienced WPV more than their female counterparts (65.3%). Concerning their work setting, the proportion of those who experienced WPV was greatest among staff in the Clinical group (93.5%). Staff that had been previously trained on WPV reported having had such experience (95.2%), more than their counterparts who never received such training (67.9%). Similarly, respondents who were more knowledgeable about the preventive strategies for WPV also reported having experienced violence in their workplaces (74.8%) compared to those who had poor knowledge (61.3%). Other variables such as marital status, concern about WPV, and knowledge of WPV were not statistically significant.

Discussion

This current study found that the prevalence of workplace violence among the respondents was 70.7%, and the majority (53.5%) had the last incident within the last twelve months. Gender, work setting, having had previous workplace violence training, and a good knowledge of workplace violence preventive strategies were significantly associated with the experience of workplace violence. Complexities and time-consuming reporting procedures followed by a fear of adverse effects on career were the commonest cited reasons for non-reporting.

Prevalence estimates of workplace physical violence against healthcare professionals by patients and visitors in a global systematic review of 2020, varied across the WHO regions with the African region having the third highest (20.71%) although authors acknowledged that prevalence studies were sparse in the Southeast Asia (5.62%) and African regions.²⁵ Sample size, type of health care setting, and quality score accounted for the heterogeneity as observed by the authors. A higher global prevalence figure of 61.9% was reported in 2019 in another systematic review.²⁶ The differences in prevalence estimates across regions in that study were postulated to be due perhaps to broader social (work setting, work environment, and healthcare system) and individual factors (age, gender, education level, marital status, professional level and work tenure)²⁶The high prevalence of workplace violence found in this study is worrisome and consistent with the results of a study in Ekiti state in Southwest Nigeria (66.9%)¹⁸, Kaduna State, Northwest Nigeria (64.4%)¹⁵, Edo State, South-south Nigeria (62.1%)²⁰ but higher than a study in Enugu state on psychological violence (49.7%).²¹ In other studies in Osun State, Southwest and Rivers State, South-south Nigeria however, our prevalence is far above their findings of 39.9%¹⁷ and 28.4%¹⁹ respectively. The marked variations in prevalence observed between our study and others in Nigeria may be attributed to differences in sample size, type of healthcare setting (the Osun state study had almost double our sample size, the Rivers state study was in a PHC setting), and parameters measured. Pooled estimates are needed to give a clearer pattern of differences across the geographic regions of Nigeria.

Verbal abuse was the most prevalent form of workplace violence experienced in accordance with many previous studies within and outside the country.^{24,27-31}

Our finding of a significant association of gender with experience of workplace violence reflects those of Oluwole et.al. in Ekiti State, Southwest Nigeria¹⁸, Seun-Fadipe et.al. in Southwest Nigeria¹⁷, Usman et.al. in Kaduna State, and Northwest Nigeria¹⁵. In this study, a significantly greater proportion of males experienced workplace violence than their female counterparts. A possible explanation may be the culture of female nurses in literature accepting workplace violence as part of their job and not reporting it. In our study location, a greater majority of nurses are female. Oluwole et. al.¹⁸ however found females to be more affected and proffered biological and psychological vulnerability as a possible cause. The other study in Southwest Nigeria¹⁷ and in Northwest Nigeria¹⁵, found females to be more likely to experience workplace violence than males, and in the latter study; inequality and social and gender-based discrimination especially prevalent in patriarchal societies were cited as possible explanations.

Another important finding in this study is the significant association of workplace violence with work settings. The proportion of those who experienced WPV was greatest among staff in the Clinical group. This group comprises physicians in the clinical departments of the hospital: Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Community Medicine, Family Medicine, Psychiatry, Dentistry, and Pathology. This is in agreement with the results of a systematic review on the prevalence of workplace violence among healthcare workers where physicians and nurses were more likely to experience physical workplace violence compared with other healthcare professionals' studies.²⁶ Although our study's findings on work setting seem consistent with that of a study in Southwest Nigeria mentioned earlier¹⁷; in that study, health workers in the psychiatry unit (which was measured separately from other clinical departments), were found to experience more workplace violence than other units. Perhaps sampling size characteristics may account for the greater proportion of physicians in our study

experiencing workplace violence than other groups. Our finding of physicians being those that experienced workplace violence the most are in contrast to those of Usman et.al. in Kaduna State, Northwest Nigeria¹⁵ and a systematic review of the prevalence of workplace violence in Africa; both of which found nurses more commonly victims of workplace violence (compared to doctors, pharmacists, lab scientists/ technicians in the former). Possible reasons given were being mostly female, most available for long periods of time, and first point of contact.

Like the findings of Seun-Fadipe et.al. in Osun State, Southwest Nigeria¹⁷, we found that respondents who had previously undergone workplace violence training experienced more violence compared with those who had not. Their explanation was a possibility that the workers seek out training following the workplace violence. In our study, only 10% of the respondents had been trained in workplace violence as is to be expected as the hospital was in the initial stages of planning a workplace violence prevention program at the time of this study. A larger sample size and eliciting the time training was sought (before or after the experience of workplace violence) may be needed for us to make a similar inference. Our finding may also partly be explained by the reasonable assumption that a background of workplace violence training in a worker would create a greater awareness of it and the need to report it. This may also account for the surprising finding in this study of a significant association between a good knowledge of workplace violence prevention strategies and the experience of workplace violence.

In our study location, a workplace violence prevention program with clearly laid out rules for reporting incidents is still in its planning stage. Complexities and time-consuming reporting procedures were the commonest cited reasons for non-reporting in our study (26.5% of respondents). This finding reflects that of Douglas and Enikanoselu in Osun State, Southwest Nigeria where time constraints and no response were the commonest cited reasons (37% each) followed by a process too complicated (18.5%).²⁷ In our study location, a workplace violence prevention program with clearly laid out rules for reporting incidents is still in its planning stage. However, the commonest cited reason for non-reporting in the study in Kaduna state, Northwest Nigeria was that it was not serious enough (91.3%). An underestimation of the magnitude of the problem that under-reporting poses may cause inadequate design in the scope of prevention measures²³

Limitations

Recall bias due to self-reporting is a limitation in this study. The responses for the occurrence of workplace violence were not limited to the past twelve months to minimize this since a comprehensive picture of how current the issue was, was desired. Although being limited to one teaching hospital makes these findings less generalizable, the study provides insights for future research.

Conclusion

The high prevalence of workplace violence in this study has shown that workplace violence is a current problem of great significance that must be addressed among healthcare workers in tertiary facilities in Ebonyi State. The findings suggest a need to establish a workplace violence prevention program. Gender, work setting, having had previous workplace violence training, and a good knowledge of workplace violence preventive strategies were significantly associated with the experience of workplace violence. Longitudinal studies are, however, recommended to deepen our understanding of the phenomenon. One of the issues that emerges is the importance of the hospital management ensuring a laid out, efficient process of reporting incidents training of the workers, and increasing awareness among the patients.

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