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ORIGINAL ARTICLE

Prevalence, Characterization and Predictors of Physical Workplace Violence among Doctors and Nurses in Public Hospitals of Akwa Ibom State, Nigeria

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Keywords

Workplace,

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ABSTRACT

Background: Workplace violence (WPV) is currently a global phenomenon that is gradually becoming a public health concern in most work environments. This study aimed to assess and compare the prevalence, characterization and predictors of physical workplace violence among doctors and nurses in public hospitals of Akwa Ibom State, Nigeria.

Methodology: A comparative cross-sectional study was conducted from September to December 2021 involving the use of a self-administered questionnaire. Multi-stage sampling technique was used to select 230 doctors and 230 nurses from 10 public hospitals in the State. Data were analysed using descriptive and inferential statistics. The significance level was set at $p<0.05$ and the confidence interval at 95%.

Results: The prevalence of physical violence was significantly higher in nurses (24.8%) compared to doctors (10.4%) $p<0.001$. The main perpetrators of physical violence were patient relatives. Respondents from both professional groups reported the use of weapons by perpetrators to commit the act of violence (nurses-80.7% vs doctors-79.2%). Predictors of physical workplace violence among the doctors included being male (OR=3.34, 95%CI=1.09-10.25) and working in the psychiatry unit (OR=11.62, 95%CI=2.65-50.94), while among the nurses, it included working in the psychiatry (OR=25.48, 95%CI=6.89-94.35) and emergency units (OR=5.44, 95%CI=2.11-14.06).

Conclusion: Safety at the workplace is an important prerequisite in guaranteeing quality service delivery and the best possible performance of the workforce. The high prevalence of physical violence in this study underscores the need for hospital management to develop and implement zero-tolerance policies to prevent violence in healthcare settings.

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INTRODUCTION

Workplace violence (WPV) is currently a global phenomenon that is on the increase and gradually becoming a public health concern in most work environments.[1] According to the World Health Organization, more than 1.6 million people die per year around the world due to violence, and also many more become injured and suffer from physical and non-physical health problems.[2] In the healthcare sector, workplace violence remains a prominent, under-reported global occupational hazard.[3] The World Health Organization (WHO) reports that healthcare workers (HCWs), especially those involved in patient care, are at high risk of violence all over the world and between 8% to 38% of health workers suffer physical violence at some point in their careers. Most of the violence is perpetrated by patients and visitors.[4]

The rising incidence of workplace violence is a serious problem in both developing and developed countries, with more workers at risk in developing countries, especially in Africa, due to poorly developed health systems.[5] Nurses and doctors are affected mostly because they are in constant direct contact with patients.[6] In 2019, a systematic review estimated a pooled annual global prevalence of WPV to be 61.9% among healthcare workers across the continent.[7] In a study conducted among doctors and nurses in Macau, the prevalence of physical violence was higher for nurses when compared to doctors (18.1% nurses, 3.1% doctors).[8] In Nigeria, a study revealed that the highest prevalence of physical violence was among nurses, 15.3%, when compared to doctors (5.4%).[9]

The effects of workplace violence cannot be overemphasized as it affects not only the victim but also the patient, quality of service and the organization at large. It has serious repercussions not just on the well-being of harassed victims but also on the monetary expenditure of the organization.[10] The effect of WPV on doctors and nurses negatively impacts their physical and psychological well-being and ultimately limits their work performance and job satisfaction.[5] Some studies have reported morale, such as fear, anger, irritation, anxiety, depression, humiliation, guilt, feelings of helplessness, and disappointment among victims of WPV.[11] The impact of violent events on the health organization has been reported to include increased lawsuits against the organization by the healthcare worker victim.[12] The quantification of economic costs of workplace violence showed that almost two million workdays and millions of dollars are lost annually because of non-fatal assaults suffered at the workplace.[13] Despite the menace posed by WPV, there is a paucity of research that compares prevalence estimates for WPV for different medically related professionals. It is against this backdrop that this study was designed to assess and compare the prevalence, characterization and predictors of physical workplace violence among doctors and nurses in public hospitals of Akwa Ibom State, Nigeria.

Table 1: Sociodemographic and Work-related Characteristics of Respondents by Professional Group

Variables	Doctors	Nurses	Total	
	N =230, frequency (%)	N =230, frequency (%)	N=460, frequency (%)	**Test; statistics**
Age (Years)				
21-30	17 (7.4)	52 (22.6)	69 (15.0)	
31-40	125 (54.3)	104 (45.2)	229 (49.8)	χ^2=21.058
41-50	69 (30.0)	56 (24.4)	125 (27.2)	P <**0.001***
51-60	19 (8.3)	18 (7.8)	37 (8.0)	t-test= 2.465
Mean (±SD)	**39.6 ±6.8**	**37.9 ±8.0**	**38.8 ±7.5**	P <**0.001***
Sex				
Male	134 (58.3)	25 (10.9)	159 (34.6)	χ^2=114.195
Female	96 (41.7)	205 (89.1)	301 (65.4)	P<**0.001***
Marital Status				
Single	50 (21.7)	54 (23.5)	104 (22.6)	χ^2=6.877
Married	178 (77.4)	165 (71.7)	343 (74.6)	P =**0.032***
Previously married	2 (0.9)	11 (4.8)	13 (2.8)	
Professional rank				
Senior cadre	119 (51.7)	91 (39.6)	210 (45.7)	χ^2=6.869
Junior cadre	111 (48.3)	139 (60.4)	250 (54.3)	P =**0.009***
Place of work				
Secondary health facility	66 (28.7)	71 (30.9)	137 (29.8)	χ^2=1.000
Tertiary health facility	164 (71.3)	159 (69.1)	323 (70.2)	P =0.610
Years of experience				
1-5	34 (14.8)	69 (30.0)	103 (22.4)	
6-10	74 (32.2)	62 (27.0)	136 (29.6)	
11-15	76 (33.0)	48 (20.9)	124 (27.0)	χ^2=19.713
16-20	29 (12.6)	30 (13.0)	59 (12.8)	P <**0.001***
21 and above	17 (7.4)	21 (9.1**)**	38 (8.2)	
Work in shifts				
Yes	38 (16.5)	194 (84.3)	232 (50.4)	
No	192 (83.5)	36 (16.7)	228 (49.6)	χ^2=211.633
Where most of the working hours are spent				**P <0.001***
Medical specialties	94 (40.9)	77 (33.5)	171 (37.2)	
Surgeries/surgical specialties	59 (25.7)	69 (30.0)	128 (27.8)	χ^2 = 0.461
Psychiatric	15 (6.5)	18 (7.8)	33 (7.2)	P =0.311
Emergency	38 (16.5)	36 (15.7)	74 (16.1)	
Intensive care	10 (4.4)	19 (8.3)	29 (6.3)	
General specialties	14 (6.1)	11 (4.8)	25 (5.4)	

*=statistically significant (p<0.05) Previously married; separated/divorced/widowed

METHODS

The study was carried out from September to December 2021 in Akwa Ibom State, situated in the South-South geopolitical zone of Nigeria. With the annual growth rate of the population projected at 3.4%, the 2021 projected population of Akwa Ibom was estimated to be 6.44 million using the baseline population of 3,902,051 from the 2006 federal census. The University of Uyo Teaching Hospital (UUTH) is the only public tertiary hospital in the State. At the time of the study, Akwa Ibom State had 42 public secondary health facilities located within three senatorial districts. Akwa Ibom South, Northeast and Northwest senatorial districts had 16, 13 and 13 public secondary health facilities respectively.

The secondary health facilities also serve as referral centres for primary health care providers both private and public within the State.

This was a descriptive comparative cross-sectional study among doctors and nurses in public hospitals. The inclusion criteria were those who had worked full-time at public hospitals (secondary and tertiary health facilities) for a minimum of one year.

Table 2: Prevalence of Physical Violence among doctors and nurses

	Doctors	**Nurses**	**Total**	**Tests; statistics**
	N =230, frequency (%)	N =230, frequency (%)	N=460, frequency (%)	
Experienced physical violence in the past 12 months				
Yes	24 (10.4)	57 (24.8)	81 (17.6)	χ^2 = 16.318
No	206 (89.6)	173 (75.2)	379 (82.4)	P <**0.001***
Respondents witness of incidents of physical violence				
Yes	82 (35.7)	111 (48.3)	193 (42.0)	χ^2 =7.507
No	148 (64.3)	119 (51.7)	267 (58.0)	P =**0.006***
Frequency of occurrence in the last 12 months				
Once	15 (6.5)	31 (13.5)	46 (10.0)	
2-4 times	53 (23.0)	45 (19.6)	98 (21.3)	χ^2 =18.087
5-10 times	6 (2.6)	8 (3.5)	14 (3.1)	P <**0.001***
>10 times	8 (3.6)	27 (11.7)	35 (7.6)	
Not applicable	148 (64.3)	119 (51.7)	267 (58.0)	
Reported an incident of physical violence in the last 12 months				
Yes	28 (12.2)	44 (19.1)	72 (15.7)	χ^2 =4.215
No	202 (87.8)	186 (80.9)	388 (84.3)	P =**0.040***

*=significant p value

$$\mathbf{n = (u + v)^2 \times \frac{[P_1(100 - P_1) + P_2(100 - P_2)]}{(P_1 - P_2)^2}}$$

Where:

n = minimum sample in each comparison group

u = one-sided percentage point of the normal distribution, if power is 90%, u = 1.28

v = one-sided percentage point of the normal distribution, at a significance level of 5% v = 1.96

$\mathbf{P_1}$ = Estimated prevalence of physical violence among nurses (15.3%)[9]

$\mathbf{P_2}$ = Estimated prevalence of physical violence among doctors (5.4%)[9]

The calculated minimum sample size for each group was 184, a 20% non-response rate was factored in, and this increased the sample size to 230 per group, giving a total of 460 respondents in both groups.

A multistage sampling method was used to recruit participants for this study.

In Stage 1, public health facilities were selected using a stratified sampling method and the hospitals were categorized into secondary and tertiary healthcare facilities. Since there is only one tertiary healthcare facility in Akwa Ibom State, it was used. To select the secondary health facilities from the three (3) senatorial districts, an equal allocation of three (3) public secondary health facilities was selected from each senatorial

district by simple random sampling technique using the computer-generated random numbers giving a total of 9 public secondary health facilities.

Stage 2 involved the selection of study participants at the facility level, and the nominal rolls of doctors and nurses were obtained from the Human Resources department of the respective hospitals, these served as the sampling frame. Using the nominal rolls, doctors and nurses were stratified into two categories by their professional ranks: junior and senior cadres. To select the required numbers of doctors (230) and nurses (230) from the ten (1 tertiary and 9 secondary health facilities) selected public health facilities, probability proportional to size (PPS) technique was employed. The sample size from each professional group ($\mathbf{N_2}$) was derived from the formula below:

$$\mathbf{N_2 = \frac{a \times N_1}{n}}$$

$\mathbf{N_2}$ = Sample size from each professional group

a - number of doctors or nurses in each hospital

$\mathbf{N_1}$ - sample size (230 per arm)

n - Total number of doctors or nurses in the selected hospitals (10 hospitals from stage 1)

A simple random sampling technique was subsequently used to select the desired number of nurses and doctors from each stratum to be interviewed in each hospital using computer-generated random numbers.

Ethical approval for the study was obtained from the Institutional Health Research and Ethics Committee (UUTH/AD/S/96/VOL.XXI/545) of the University of Uyo Teaching Hospital. Administrative permission to conduct the study was obtained from the Medical Superintendents of the chosen public hospitals in Akwa Ibom State. All the participants were briefed on the study objectives, assured about the anonymity of the questionnaire and the voluntary nature of participation in the study, and also signed a written informed consent.

Data were collected using a self-administered semi-structured questionnaire on "workplace violence in the health sector", adapted from the International Labour Organization, International Council of Nurses, World Health Organization, and Public Services International (ILO/WHO/PSI).[15] Data processing was done using Statistical Package for Social Sciences (SPSS) version 23 software. Proportions for categorical variables of interest were compared between doctors and nurses, and appropriate tables and figures were generated. Inferential statistics were conducted using Chi-square test/Fisher's exact test to determine the association between the dependent/outcome variable (physical violence) and other categorical independent variables of interest (socio-demographic characteristics and work-related characteristics), while the student t-test was used to compare quantitative variables. Multivariate logistic regression analysis for predictors of physical violence was analysed using socio-demographic and work-related characteristics. Predictors were determined at less than 5% level of significance.

Table 3: Characterization of Physical Violence

Variables	Doctors N =24, frequency (%)	Nurses N =57, frequency (%)	Total N=81, frequency (%)	Tests; statistics
Description of the last incident of physical violence experienced				
Physical violence with weapon	19 (79.2)	46 (80.7)	65 (80.2)	$\chi^2 = 0.025$
Physical violence without weapon	5 (20.8)	11 (19.3)	16 (19.8)	P =0.874
Typical incident in workplace				
Yes	20 (83.3)	49 (86.0)	69 (85.2)	$\chi^2 = 0.092$
No	4 (16.7)	8 (14.0)	12 (14.8)	P =0.761
Injured as a result of the violence				
Yes	6 (25.0)	9 (15.8)	15 (18.5)	$\chi^2 = 3.525$
No	18 (75.0)	48 (84.2)	66 (81.5)	P =0.172
Perpetrators of physical violence				
Patients/Clients	5 (20.8)	15 (26.3)	20 (24.7)	
Relatives of patient/client	12 (50.0)	29 (50.9)	41 (50.6)	Fisher's exact
Staff	2 (8.3)	6 (10.5)	8 (9.9)	P = 0.763
Management/supervisor	1 (4.2)	0 (0.0)	1 (1.2)	
External colleague	2 (8.3)	3 (5.3)	5 (6.2)	
General public	2 (8.3)	4 (7.0)	6 (7.4)	
Location where the incident took place				
Inside the health institution	19 (79.2)	51 (89.5)	70 (86.4)	$\chi^2 =1.523$
Outside the health institution	5 (20.8)	6 (10.5)	11 (13.6)	P =0.216
Took time off from work after being attacked				
Yes	7 (29.2)	9 (15.8)	6 (19.8)	$\chi^2 =1.907$
No	17 (70.8)	48 (84.2)	65 (80.2)	P =0.167

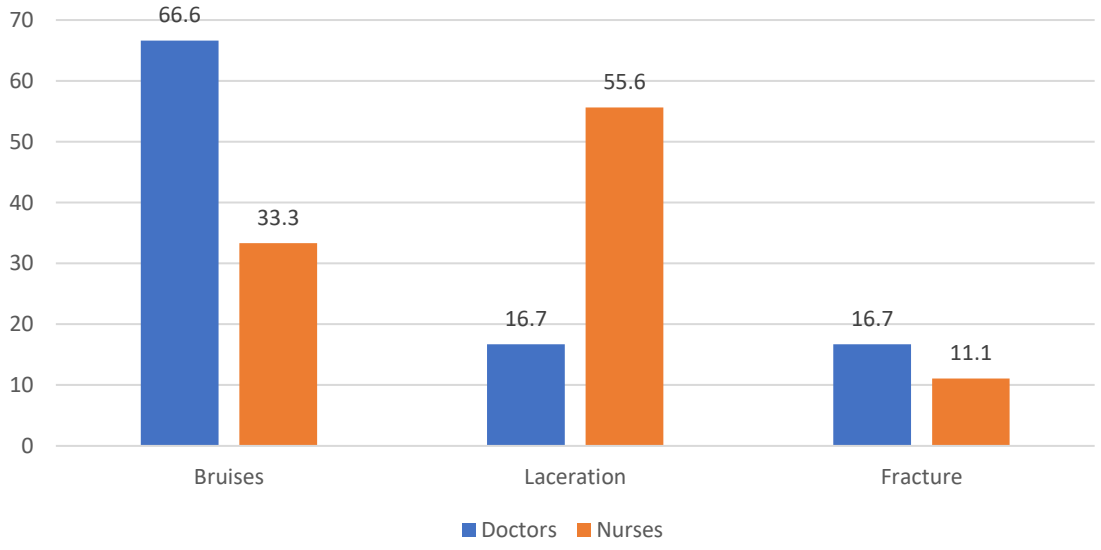

Fig. 1: Type of injury sustained by the people who were injured following physical assault among the respondents

RESULTS

Table 1 shows the socio-demographic and work-related characteristics of respondents. The mean age of doctors (39.6 ± 6.8 years) was significantly higher than the mean age of nurses (37.9 ± 8.0 years) (p<0.001). A higher proportion (58.3%) of the doctors were males, while 10.9% of nurses were male (p<0.001). Most of the respondents were married, with the proportion being higher among doctors (77.4%) compared to nurses (71.7%) (p=0.032). A higher proportion of doctors were of the senior cadre (57.1%) compared to nurses (39.6%) (p=0.009). About one-third of doctors had working experience of 11-15 years (33%), while the highest proportion of nurses (30%) had 1-5 years of experience (p<0.001).

In **Table 2**, the prevalence of physical violence was significantly higher in nurses (24.8%) compared to doctors (10.4%) p<0.001. A higher proportion of nurses (48.3%) compared to doctors (35.7%) have witnessed physical violence within their workplace in the last 12 months preceding the study (p=0.006). Moreover, more nurses (11.7%) than doctors (3.6%) reported that they had witnessed physical violence >10 times in the last 12 months (p<0.001).

Table 3 presents the characterization of physical violence. Both professional groups reported that the main perpetrators of physical violence were the patients'/clients' relatives (doctors;50% vs nurses; 50.9%) followed by patients/clients (20.8% vs 26.3%). Most of the violence incidents were reported to have occurred inside the hospital premises (doctors-79.2% vs nurses-89.5%) and a higher proportion of nurses than doctors reported that the perpetrator used a weapon to commit the act of violence (nurses-80.7% vs doctors-79.2%) Furthermore, respondents from both professional groups exposed to physical violence indicated that they were injured during the incident (doctors;25.0% vs nurses 15.8%) and the most common type of injury were bruises (doctors-66.6% vs nurses-33.3%) and lacerations (nurses-55.6% vs doctors-16.7%) (**Fig.1).** Consequently, 29.2% of doctors compared to 15.8% of nurses took some days off work after an assault, the median number of days taken off work was 7 (range; minimum 5, maximum 65 -not tabulated).

Table 4 depicts the socio-demographic and work-related factors associated with physical violence among doctors and nurses. Doctors aged 31-40 years had the highest proportion of those who experienced physical violence. Additionally, a higher proportion of male doctors who had less than 10 years of work experience and had worked in psychiatry or the emergency department were more exposed to physical violence. A higher proportion of nurses who were previously married (54.6%) or single (33.3%) reported more physical violence than the married ones (20.0%). Regarding the work setting, a higher proportion of nurses working in psychiatry (72.2%) experienced physical violence, followed by those working at emergency/intensive care units (36.4%) and surgery/surgical specialties (24.6%).

Table 5 illustrates the predictors of physical violence among doctors and nurses. Male doctors were 3 times more likely to experience physical violence when compared to females (p=0.035). Married nurses had 64% lower odds of experiencing physical violence compared to single ones (p=0.011). Furthermore, regarding the work setting, doctors who spend most of their time working in psychiatry had a 12 times higher likelihood of experiencing physical violence compared with those in medical specialties (p=0.001). Similarly, nurses who worked in psychiatry had 25 times higher odds of experiencing physical violence (p<0.001), while working in emergency units increases the odds by 5 (p<0.001).

Table 4: Socio-demographic and work-related factors associated with physical violence among doctors and nurses

	Experienced physical violence (Doctors)			**Experienced physical violence (Nurses)**		
Variables	**Yes (n=24) n (%)**	**No(n=206) n (%)**	**Tests/ Statistics**	**Yes (n=57) n (%)**	**No(n=173) n (%)**	**Tests/ Statistics**
Age (years)						
21-30	0 (0.0)	17 (100.0)		14 (26.9)	38 (73.1)	
31-40	20 (16.0)	105 (84.0)	Fishers exact	27 (26.0)	77 (74.0)	$\chi^2 = 2.352$
41-50	4 (5.8)	65 (94.2)	P=**0.025***	10 (17.9)	46 (82.1)	P=0.503
51-60	0 (0.0)	19 (100.0)		6 (33.3)	12 (66.7)	
Sex						
Female	5 (5.2)	91 (94.8)	$\chi^2 = 4.816$	48 (23.4)	157 (76.6)	$\chi^2 = 1.893$
Male	19 (14.2)	115 (85.8)	P=**0.028***	9 (36.0)	16 (64.0)	P=0.169
Marital status						
Single	6 (12.0)	44 (88.0)	Fishers exact	18 (33.3)	36 (66.7)	$\chi^2 = 9.370$
Married	18 (10.1)	160 (89.9)	P=0.835	33 (20.0)	132 (80.0)	P=**0.009***
Previously married	0 (0.0)	2 (100.0)		6 (54.6)	5 (45.4)	
Professional rank						
Senior	8 (6.7)	111 (93.3)	$\chi^2 = 3.636$	17 (18.5)	75 (81.5)	$\chi^2 = 1.893$
Junior	16 (14.4)	95 (85.6)	P =0.057	40 (29.0)	98 (71.0)	P=0.169
Place of work						
Secondary facility	7 (10.6)	59 (89.4)	$\chi^2 = 0.003$	19 (26.8)	52 (73.2)	$\chi^2 = 0.216$
Tertiary facility	17 (10.4)	147 (89.6)	P=0.957	38 (23.9)	121 (76.1)	P =0.642
Years of experience						
1-10	17 (15.7)	91 (84.3)		37 (28.2)	94 (71.8)	$\chi^2 = 2.958$
11-20	7 (6.7)	98 (93.3)	Fishers exact	14 (18.0)	64 (82.0)	P=0.228
Above 20	0 (0.0)	17 (100.0)	P=**0.040***	6 (28.6)	15 (71.4)	
Work in shifts						
Yes	6 (15.8)	32 (84.2)	$\chi^2 = 1.397$	52 (26.8)	142 (73.2)	$\chi^2 = 2.717$
No	18 (9.4)	174 (90.6)	P=0.237	5 (13.9)	31 (86.1)	P =0.099
Work setting						
Medicine/medical specialty	5 (5.3)	89 (94.7)		10 (13.0)	67 (87.0)	
Surgery/surgical specialty	6 (10.2)	53 (89.8)	Fishers exact	14 (24.6)	55 (79.4)	
Psychiatry	6 (40.0)	9 (60.0)	P =**0.003***	13 (72.2)	5 (27.8)	Fisher's exact
Emergency/intensive	6 (12.5)	42 (87.5)		20 (36.4)	35 (63.6)	P<**0.001***
General practice	1 (7.1)	13 (92.9)		0 (0.0)	7 (100.0)	

*=Statistically significant

DISCUSSION

The finding from this study showed that almost a quarter of nurses (24.8%) and about one-tenth of doctors (10.4%) experienced physical violence in the last twelve months. The disparity in the doctor-nurse prevalence of physical violence observed in this study is consistent with a previous study in Enugu, Nigeria, where nurses reported a higher prevalence of physical violence than doctors (15.3% vs 5.4%).[9] This could be because nurses usually spend more time with the patients than doctors and are readily accessible to the patients and visitors. Hence, they are more likely to be the first victims of physical violence whenever the patients or relatives are dissatisfied with health services.

This present study also revealed that both doctors and nurses reported that the main perpetrators of physical violence were the patients'/clients' relatives followed by patients/clients. This finding is consistent with previous studies.[9,16] A possible reason may be that the patients' sickness places both financial and emotional burdens on the relatives. Also, the frustration that patients and their relatives may have to go through at public hospitals before they are attended to due to long waiting times and shortage of staff, as well as a deterioration or death of the patient, could make them more inclined to attack nurses and doctors physically. Both doctors and nurses (nurses-80.7% vs doctors-79.2%) reported that the perpetrator of physical violence used weapons to commit the act of violence. This is rather worrisome as this attack led to injury, with the most common type of injury being bruises, lacerations and fractures, resulting in the victims going on sick leave after an assault. This finding is comparable with a study in Enugu, Nigeria, where 86.5% of victims reported physical violence with weapons.[9] It, however, differed from the findings of an Iranian study among nurses, which reported that all physical violence incidents in their study were without weapons. The disparity may be related to the Iranian judiciary system's strict prosecution of incidents of physical violence with weapons,[17] whereas in this current study setting, as a culture, most ethnic groups in Akwa Ibom State use weapons especially matchet for protection. Our study did not however investigate the types of weapons used.

This study indicated that doctors and nurses who were younger had a higher risk for PV and the risk steadily declined with advancement in age. Multivariate logistic regression indicated that doctors who were more than 50 years old had lower odds of experiencing at least one form of workplace violence compared to those between 21-30 years. This means that younger doctors were more vulnerable to PV exposure than their older colleagues. The plausible explanation may be that older workers may have gained more experience over the years in recognizing and dealing with violent episodes and developed skills in communicating with patients and other staff. This implies the need for educational programmes for junior personnel on preventing and dealing with violence. In this resource-poor

environment, working as a doctor or nurse in public hospitals with an overwhelming number of patients is demanding and stressful, and the lack of skills in dealing with workplace violence definitely will worsen the consequent effects. Another reason could be due to the fact that the younger doctors were the first on call and had more contact with the patients and relatives than the older doctors, who were mostly in the senior cadre and were 2nd or 3rd on call, thereby having less contact with patients/relatives. Previous literature in Nigeria[18] and Egypt[19] agreed with this finding that younger HCWs were more likely to experience WPV.

Table 5: Multivariate logistic regression of factors associated with physical violence

	Doctors				Nurses			
	Adjusted odds ratio	95% CI			Adjusted odds ratio	95% CI		
Independent Variable		Lower	Upper	p value		Lower	Upper	p value
Age (years)								
21-40	Ref							
41 and above	0.43	0.10	1.81	0.248	NA	NA	NA	NA
Sex								
Female	Ref							
Male	3.34	1.09	10.25	**0.035***	NA	NA	NA	NA
Marital status								
Single	NA	NA	NA	NA	Ref			
Married					0.36	0.16	0.79	**0.011***
Previously married					3.72	0.87	15.87	0.076
Professional rank								
Senior	Ref							
Junior	1.71	0.57	5.08	0.337	NA	NA	NA	NA
Work setting								
Medicine/specialty	Ref				Ref			
Surgery/surgical specialty	1.45	0.42	4.91	0.553	2.22	0.86-	5.75	0.816
Psychiatry	11.62	2.65	50.94	**0.001***	25.48	6.89	94.35	**<0.001***
Emergency/intensive	2.05	0.20	20.99	0.547	5.44	2.11	14.06	**<0.001***
General practice	1				1			
Years of experience								
1-10	Ref							
11-20	0.43	0.12	1.51	0.189	NA	NA	NA	NA
Above 20	1							

*Significant p value, R^2= 0.182, R^2=0.175; NA: Not Applicable as does not meet criterion for inclusion

Furthermore, this present study showed that marital status significantly accounted for exposure to physical violence among nurses. After controlling for other variables, marital status remained a predictor, as married nurses had a reduced likelihood of experiencing physical violence compared to single nurses. The possible reason for this may be that single nurses mostly belong to the younger age group with fewer years of work experience; thus, they have yet to gain enough skills in WPV prevention. It may also be because society tends to show more respect to married people compared to single ones. This is consistent with findings from a systematic review

of 253 studies in 2019, which reported that healthcare workers who were single/unmarried were more likely to encounter physical violence.[7] A study conducted in China among physicians and nurses reported that being single emerged as a significant correlate of physical abuse.[8]

This study indicated that years of experience was a significant factor associated with physical violence, as a higher proportion of doctors who had less than 10 years of work experience were more exposed to physical violence. The study also indicated that doctors and nurses who were of junior cadre with less than 10 years of working experience were more likely to have suffered workplace violence. This was in agreement with the findings from previous studies.[20,21] The possible reason may be that these junior cadre doctors and nurses with few years of work experience lack the skills to manage violent conditions, which can be acquired through experience and training. Another plausible explanation for such could be a lack of training as all doctors (100%) and 98.7% of nurses indicated not receiving any training on violence recognition, prevention and management. Previous studies had reported that health workers who received training on prevention of WPV had reduced risk of exposure to WPV.[22,23]

Additionally, the study also agrees with previous studies that the risk of PV was not the same in different departments. This study indicated that working in psychiatry and emergency/intensive care units was significantly associated with experiencing physical violence among doctors and nurses. This factor remained a significant predictor of workplace violence even after controlling for other study variables; doctors working in the psychiatry department had a 12 times increased likelihood of experiencing physical violence compared to those who worked in other medical specialties. Similarly, nurses who worked in psychiatry and emergency units were 25 times and 5 times, respectively, more likely to experience physical violence. Psychiatry and Emergency/intensive care units have been repeatedly linked to workplace violence across studies.[19,24] This finding is similar to what was reported in Osun State.[5] This increased risk may be because most psychiatric patients come in altered psychological states which could account for the high rate of violence. Emergency and intensive care units deal with patients with severe health conditions in situations requiring urgent attention. In a resource-constrained country, overcrowded emergency units and understaffing may lead to delays in instituting care. The effect of WPV on doctors and nurses cannot be overemphasized, as it negatively impacts their physical and psychological well-being and ultimately limits their work performance and job satisfaction.

Limitations of the study

The self-reporting nature of this study may be compromised by recall bias. This was minimized by limiting the experience of the workplace violence to the previous 12 months. This study concentrated on doctors and nurses in public hospitals and thus excluded those in private

hospitals. This means that the findings of this study may not be generalizable to the doctors and nurses' population in private hospitals, but the exploration of risk factors might be valuable for control of workplace violence in these hospitals.

CONCLUSION

The findings of the present study indicated that there was a high prevalence of physical violence among nurses and doctors in the 12 months before the study, which was significantly higher among nurses when compared to doctors. Therefore, there is a need for the development of guidelines and a zero-tolerance policy on WPV by the government, which must be implemented in all public health facilities. Furthermore, hospital managers should institute a mandatory check for possession of any dangerous tools among patients on admission and their visitors. Regular training and re-training of health workers on early recognition of escalating behaviour, good communication skills, and prompt response in violent situations are also recommended.

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