PHYSICAL ASSAULT OF HEALTH WORKERS BY MENTALLY ILL PATIENTS IN A TERTIARY HOSPITAL IN NORTH-CENTRAL NIGERIA

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ABSTRACT

BACKGROUND
Workplace violence occurs globally and it is very common in the health sector especially among mental health workers. A good understanding of the factors associated with physical assault is essential in its prevention and control. This study aimed to assess the prevalence of physical assault and associated factors among mental health workers in the Jos University Teaching Hospital, Jos.

METHODS
This was a descriptive cross-sectional study conducted among staff of the Psychiatric Department of the Jos University Teaching Hospital, Jos. A self-administered questionnaire was used to collect quantitative data which was cleaned, processed and analysed using Epi Info version 3.5.4. Bivariate analysis was done using Chi square statistical test at 95% confidence interval with a p-value of ≤ 0.05 considered statistically significant.

RESULTS
Among the respondents, 33 (60.0%) had been attacked by a patient before with 21 (38.2%) of the attacks occurring within the last 12 months. The nurses 18 (75.0%) were the health workers mostly assaulted in the department. Respondents with longer duration of work experience were also more likely to be assaulted. Unfortunately, majority of the respondents 37 (67.3%) indicated that they were not aware of any channel available for reporting physical assault and 34 (64.8%) had no knowledge of any support system available to victims of physical assault in the department.

CONCLUSION
A high proportion of mental health workers of the Jos University Teaching Hospital, Jos had experienced physical assault at work by mentally ill patients. Efforts should be geared towards periodic training of psychiatric health workers on violence prevention and support systems should be made available to health workers when physically assaulted by ill patients.

Key works: physical assault, mental health workers, Jos

Introduction

Workplace violence is global and worrisome especially in the health sector where it is mostly endured, under-reported, or often neglected.[1,2] Health workers commonly accept it as an occupational hazard and a risk considered a consequence of health care delivery.[3,4] The International Labour Organization (ILO) in 2004 defined work-related violence in its Code of Practice on 'workplace violence in services sectors and measures to combat this phenomenon' as "any action, incident or behaviour that departs from reasonable conduct in which a person is assaulted, threatened, harmed, injured in the course of, or as a direct result of, his or her work."[5] Work-related aggression happens through the use of force or threats to a non-consenting victim in the work premises.

Most of the violence at the workplace comprises verbal threats, and assault such as stalking, physical assault, sexual harassment or rape.[3] In a hospital, these violent acts may be perpetrated by either professional colleagues, other hospital employees, patients/clients or their relatives.[6] Physical assault is said to take place when an individual or a group of individuals provokes and attacks a person physically, with or without the use of a weapon, or even threatens to hurt that person. Examples of physical assault include being hit, shaken, struck with an object, kicked, pushed, attempted strangling, bitten, stabbed with knife or spat on.[7] Prevalence of workplace violence varies with the job description of the care provider, type of training, duration of employment, type and severity of client's disorder. Nurses, doctors, and workers at the emergency and psychiatric departments are at higher risk of any form of violence than other health care staff.[3,4,8,9] Other factors such as female-dominated staff, younger age of staff, and duration of work experience in a psychiatric facility are likewise associated with the experience of violence caused by patients.[10-12]

Violence caused by mentally ill patients against mental health care providers is disturbing, and the prevalence is significantly high.[10-12] According to the World Health Organization (WHO), between 8% and 38% of health workers suffer physical violence at some point in their careers.[13] In a study carried out in Ismailia, Egypt in 2017, the prevalence of violence among health care workers was 59.7%, with verbal violence accounting for 58.2% compared to physical violence (15.7%).[14] Similarly, in a study conducted at Sbrana Psychiatric Hospital, Botswana, 69.8% of respondents had experienced physical violence at one point in their career, while 44.1% experienced the same during the previous 12 months.[15] A study conducted in a tertiary hospital in Abia State, Nigeria in 2012 among health workers reported a high prevalence of violence up to 88%.[16] Similarly, in a study carried out in Federal Neuropsychiatry Hospital, Yaba, Lagos, 49.5% of staff had been physically assaulted, 33.7% at least once over the last 12 months.[17]

Despite the massive burden of diseases in sub-Saharan Africa, there is an acute shortage of specialists particularly in the field of mental health.[18] This situation puts a lot of pressure on mental health institutions and their staff and heightens the risk of occupational hazard and therefore reduces the productivity of these few specialists. As a consequence, physical violence compromises the quality of care and puts health-care provision at risk. It also leads to immense financial loss in the health sector. Unfortunately, a lot of the violence and harassment against mental health workers often goes

unreported officially.[19] Work-related violence against health care providers will continue in the absence of data to assist in the formulation of necessary preventive measures.

Health workers in the psychiatric department do their best to provide quality care for patients within their organisational and constitutional frameworks. Despite their compassion and empathy, many psychiatric health workers are the targets of acts of violence and aggression. It is vital that stake holders in the health sector such as the government, communities, organisations and individuals understand that violence is not an acceptable workplace hazard especially among health workers in the psychiatry department where the prevalence of violence is highest. We, therefore, decided to investigate the occurrence of physical violence, related factors and the available sources of support for the victims of workplace violence in the Psychiatric Department of the Jos University Teaching Hospital (JUTH). We believe this would assist in raising awareness of this hazard among all concerned stakeholders, and lead to the development of protocols to combat it.

Methodology

This was a descriptive cross-sectional study conducted between February and March 2019 among health workers in the psychiatric department of the Jos University Teaching Hospital (JUTH) which is a tertiary health centre located in Jos, Plateau State, north-central Nigeria. The psychiatry department has male and female wards with 26 and 25 bed space capacity respectively. The department has a staff strength of about 60 which includes doctors, nurses, laboratory technicians, health management (administrative, professionals) and support workers (clerical workers, cleaners and ward attendants). Sample size for the study was calculated using the formula;

$n = Z^2pq/d^2$;

where n = minimum sample size,

Z = standard normal deviation at 95% confidence interval which is 1.96.

p = prevalence of physical assault based on similar studies =49.5%[4]=0.495.

q = complementary probability (1-p) = 1-0.495 = 0.505

$$n = \frac{1.96^2 \times 0.495 \times 0.505}{0.05^2} = 384$$

A 5% non-response rate was used, making;

n = 403 (total population of health workers less than 10,000 therefore, correction for finite population was done).

Therefore, $nf = n/1+(n/N)$[20]

Where, n=calculated value of sample size-403, N= estimated available sample size-60

Nf =403/1+(403/60) = 52.27, which was approximated to 53. All consenting workers in the psychiatric department of JUTH were therefore studied.

Permission to conduct the study was obtained from the hospital's Institutional Health Research Ethical Committee. Written informed consent was also obtained from each respondent with assurance of confidentiality. Data was collected using a semi-

structured self-administered questionnaire adapted from similar studies; and was divided into the following sections:

SECTION A: Socio-demographic characteristics; **SECTION B:** assessment of the nature of assault and circumstances surrounding assault; and
SECTION C: assessment of support systems available to victims of physical assault. The questionnaire was pre-tested in the accident and emergency unit of JUTH, another department with a documented high prevalence of physical assault to ensure a good understanding of the questionnaire.

Data analysis

Data collected was cleaned and analyzed using Epi-info software version 3.5.4. Quantitative data were presented using means and standard deviation while qualitative data was presented using frequency tables, percentages and charts. Prevalence, nature and circumstances surrounding physical assault as support systems available to victims of physical assault were assessed. Bivariate analysis was done using Chi square statistical test at 95% confidence interval with a p-value of $\leq$ 0.05 considered statistically significant.

Results

The questionnaires were administered to 60 respondents. However, only 55 questionnaires were returned giving a 92% response rate.

The age range of respondents was between 21-65 years with a mean age of 39±10 years. Thirty (54.5%) health workers were females. Majority of the staff were married 41 (74.5%) and had a tertiary level of education 49 (89.1%). Thirty (54.5%) workers had work experience of less than 10 years. The largest proportion of health professionals were nurses 24 (43.6%). Only 14 (25.5%) of the staff had ever attended training on violence prevention.

Among the respondents, 33 (60.0%) had ever been attacked by a patient and 21 (38.2%) said the attack occurred within the last 12 months. The nurses 18 (75.0%) were the health workers mostly assaulted in the department of psychiatry. Out of the 38 persons that were assaulted, only 10 (26.3%) was reported. The study findings showed no statistically significant association between the various socio-demographic factors and prevalence of physical assault among the health workers.

Table 1: Socio-demographic Characteristics of Respondents

Variables	Assaulted (%) n=33	Not assaulted (%) n=22	Total (%) n=55	χ^2	df	p
Age in years						
21-30	6 (37.5)	10 (62.5)	16 (29.1)	Fisher's p= 0.193		
31-40	9 (75.0)	3 (25.0)	12 (21.8)			
41-50	14 (66.7)	7 (33.3)	21 (38.2)			
>50	4 (66.7)	2 (33.3)	6 (10.9)			
Mean age 39±10						
Gender						
Female	12 (40.0)	18 (60.0)	30 (54.5)	0.205,	1,	0.430
Male	11 (44.0)	14 (56.0)	25 (45.5)			
Tribe						
Plateau indigenous tribe	18 (60.0)	12 (40.0)	30 (54.5)	0.000,	1,	1.000
Others*	15 (60.0)	10 (40.0)	25 (45.5)			
Profession						
Doctors	6 (50.0)	6 (50.0)	12 (21.8)	4.013,	2,	0.134
Nurses	18 (75.0)	6 (25.0)	24 (43.6)			
Others**	9 (47.4)	10 (52.6)	19 (34.6)			
Marital status						
Married	26 (63.4)	15 (36.6)	41 (74.5)	1.904,	1,	0.386
Single & widowed	7 (50.0)	7 (50.0)	14 (25.5)			
Level of education						
≤ Secondary	3 (50.0)	3 (50.0)	6 (10.9)	0.281,	1,	0.596
Tertiary	30 (61.2)	19 (38.8)	49 (89.1)			
Duration of practice (years)	15 (50.0)	15 (50.0)	30 (54.5)	2.750,	1,	0.097
1-10	18 (72.0)	7 (28.0)	25 (45.5)			
11-35						
Training on Violence prevention						
Yes	10 (30.3)	23 (69.7)	33 (60.0)	1.022,	1,	0.312
No	4 (18.2)	18 (81.8)	22 (40.0))			

***Igbo, Yoruba**; ****social workers, psychologists, pharmacists, attendants, cleaners, records staff; ***Fisher's exact test**

A high proportion of the victims of physical assault were hit 19 (34.5%) which was closely followed by attempted rape 15 (27.3%), pushing 13 (23.6%) and being spat-on 12 (21.8%). Physical assault occurred mostly at the wards 24 (72.4%) and occurred least at other places 1(1.8%). Most respondents 37(67.3%) indicated that there was no channel available for reporting physical assault. Thirty-five (63.6%) respondents had no knowledge of any support system available to victims of physical assault, however 16 (29.1%) indicated that medical leave was given to victims.

Table 2: Pattern of physical assault experienced by respondents

Variable	Frequency (n=55)	Percentage (%)
Type of physical assault*		
Hit	19	34.5
Sexual assault	15	27.3
Pushed	13	23.6
Spat on	12	21.8
Kicked	5	9.1
Shaken	5	9.1
Beating	4	7.3
Struck with object	3	5.5
Attempted strangling	2	3.6
Others**	6	10.9
Location where physical assault occurred		
Ward	24	43.6
Clinic	6	10.9
Emergency unit	2	3.6
Other places	1	1.8
Availability of a channel for reporting physical assault	18	32.7
Yes	37	67.3
No		
Support systems available for victims		
None	35	63.6
Medical leave	16	29.1
Paid visit to psychologist	2	3.6
Monetary compensation	2	3.6
*Multiple responses allowed; **splashed water on, stoned		

Discussion

The current study reveals that physical violence against health workers exists in Jos, Nigeria just like in other parts of the world.[4,8,11,12,15] The lifetime and twelve months prevalence rates obtained in this study are similar to the rates previously reported by the study conducted in Botswana.[15] However, the lifetime and twelve months prevalence rates obtained in this study are respectively higher than the rates previously reported in the study conducted among mental health workers in Lagos, Nigeria.[4] The disparity may be attributed to the fact that, unlike the survey conducted in Lagos which was restricted to professional mental health staff, expectedly more competent in handling potentially aggressive patients, our study included other hospital workers that are not suitably trained for such and may be more at risk of experiencing violence. The high prevalence of violence in this study underscores the need to take critical actions in curtailing the occurrences which have become a public health threat. Various ways have been proposed, and these include raising awareness on the likelihood of the event, frequent incidence reporting and reviewing, adequate staffing, the use of different methods of restraint, and regular

training in early identification of potentially violent patient.[3, 21]

The results of this study support earlier investigations that nurses are significantly more at risk than other healthcare providers in their lifetime and over the past twelve months to experience violence and aggression perpetrated by patients.[4,8] Studies have established that, apart from the fact that nurses spend more time with patients, and set rules and limits on the permissible type of behaviour, they are, of all members of the health team, the closest to the patients.[22,23] This finding is useful in guiding the development of protocols in violence prevention programs, as emphasis may need to be directed at this group of highly exposed professionals.

In the present study, there was no difference in gender or the age-groups studied, of those who reported being attacked, both in their period of employment in the hospital and in the past 12 months. There have been conflicting reports on factors that influence the risk of violence against health care providers. Some authors believe that female staff, and older staff are associated with higher risk of violence in health care services[10,22] while some have contrary reports.[8] For example, an Arabian study found a positive relationship between male staff and violence, unlike what has been reported in earlier studies.[8,10] This disparity may be related to the cultural practice in the region which gives extra respect to the female.[8] The disparity in gender association with violence is partly a reflection of cultural influence or other stronger but unexplored factors which could be investigated in future studies.

Longer duration of service was found to be associated with violence in the present study, which is similar to the studies by other researchers.[4, 15] Ukpong and colleagues compared physical assaults by psychiatric patients against the staff of two psychiatric hospitals and found that the staff in the hospital where physical assaults were higher had long years of employment.[4] Longer duration of service by staff of the department perhaps may only translate to more exposure to violence. This means that the number of years spent in service alone does not correlate with a wealth of experience in escaping violence, and frequent sessions of training and retraining of staff may be necessary. It is notable to find that respondents reported receiving little support from the management and that there was no channel for reporting cases of physical assault in the Jos University Teaching Hospital. The consequences of physical attacks or violence on care providers, lack of support from the management and opportunity to seek redress may have an untoward effect on productivity and service delivery if not adequately

addressed. Therefore, in addition to reporting assaults, policies on seeking redress should be put in place.

A limitation of this study is the possibility of recall bias on the side of the respondents especially with lifetime prevalence of work place violence.

Conclusion

A significantly high percentage of staff at the psychiatric department of JUTH had experienced physical violence in their lifetime. Physical violence was highest among the nursing staff and among those with more years of practice. Majority of the staff had received no training on violence prevention and there was little or no support for victims of physical violence. Based on these findings, it is recommended that protocol on handling of cases of physical violence should be developed by the Psychiatric Department, JUTH and there should be periodic training of the staff of the department on violence prevention with specific attention given to the nurses who are often recipients of this physical assault. In addition, support systems such as medical leave, payment of medical bills for any treatment and paid visits to the psychologist should be made available to victims of physical assault by the management of the hospital.

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Author's contribution

TYO, NBD, OKM and OED were involved in the conceptualization and development of the research protocol for this study. NBD and OED were part of the data collection team. TYO, NBD and OED did the data analysis

All the authors were involved in drafting of the manuscript

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