



RESEARCH ARTICLE

PREVALENCE AND FACTORS ASSOCIATED WITH WORKPLACE VIOLENCE AGAINST HEALTH WORKERS IN TERTIARY HOSPITALS IN SOKOTO, NIGERIA

*Yunusa, E.U., Ango, U.M., Musa, A.S., Shaba, M.A. and Khadija, A.S.

Department of Community Health, Usmanu Danfodiyo University, Sokoto, Nigeria

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ABSTRACT

Background: Workplace violence poses global health threats, endangering everyone in their places of work which is considered a public health hazard. Particularly in developing countries, assaults in the workplace results in stress, low self-esteem, and emotional instability leading to lack of effective and efficient performance of duties among workers in their places of work. This study aimed to determine the prevalence and factors associated with workplace violence against health workers in tertiary hospitals in Sokoto, Nigeria.

Methodology: The study was cross-sectional, conducted from December 2015 to May 2016, among 180 health workers selected using multistage sampling technique. Data were collected using a set of pre-tested interviewer administered, semi-structured questionnaire, and were analyzed using IBM SPSS version 20 statistical package.

Result: The mean age of the respondents was 26.14 ± 7.65 years. Seventy four (38.7%) of the respondents were within the age range of 30-39years. Majority 104 (54.5%) of the respondents were males. This study obtained a prevalence of physical violence of 33(18.3%). The doctors had the highest prevalence 12(23.1%). Most 23(65%) of the perpetrators of violence were patient relatives due to dissatisfaction with hospital waiting time (81.8%). Another factor associated with violence was lack of existing policies to protect workers which was reported among the respondents 12 (37.1%).

Conclusion: The study demonstrated a high prevalence of workplace violence among health workers in tertiary hospitals in Sokoto, Nigeria. The services in the healthcare facility should be improved upon to minimize wasting time during health service provision.

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INTRODUCTION

Workplace violence is any form of assault either physical, psychological which may be directly or indirectly on a worker in his/her place of work which could poses a threat to the safety and wellbeing of the worker (World Health Organization, 2017). Most often, workplace violence is perceived as being only physical assault in the workplace which represents only incidence leading to fatal injuries. Physical assault in the workplace is in fact a tip of iceberg compared to psychological abuse, bullying and other forms of non-fatal assault resulting in stress, low self-esteem, and emotional instability leading to lack of effective and efficient performance of duties in workplace (World Health Organization, 2017). Healthcare setting is one of the most vulnerable areas affected by workplace violence anywhere in the world which is a serious and growing occupational hazard that is of global concern (Schat and Kellowa).

It has been estimated that more than 50% of health workers have experienced a violent incident at work with up to 80% for nurses and doctors (Schat and Kellowa; Mohamad and Motasem, 2016). While the perpetrator of physical assault and violence in healthcare setting are commonly patients or patient relatives, the perpetrator of psychological assault are commonly co-workers, employer or supervisors. Violence is not only an occupational health issue but also may have significant implications on the quality of care provided and the decision by health workers to leave healthcare profession. This can result in reduction in health services available to the general population and an increase in health costs (Mohamad and Motasem, 2016). Researchers investigating the impact of the violence on health workers show that it can interfere with normal working and leisure activities for months or years after the incident. All categories of health workers are at risk of violence though at different degrees with the nurses having up to 3 times higher risk than others (Leadbetter and Trewartha, 2016). Sub-Saharan Africa, have reported high prevalence of violence in the health sector of up to 88% (Fisher et al., 2016; O'Brien-Pellas et al., 2016). Studies have repeatedly shown that workers in this occupational group are subject to higher

*Corresponding author: Yunusa, E.U.,
Department of Community Health, Usmanu Danfodiyo University, Sokoto,
Nigeria.

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rates of verbal and physical assault than almost any other occupational group with workers being subject to abuse from patients, family members, peers and employers (Weiss, 2007; Rugala and Isaacs, 2017; Budd, 2016). In Nigeria, Ogbonnaya *et al.* 2014 reported high prevalence of violence in the Health care sector up to 88%. He discovered that bullying, harassment, and violence is more prevalent in the health sector than any other sector, with 54.4% taking place in the hospital, condition of work in Nigeria such as long bureaucracy in service delivery, lack of needed materials in the facility sometimes get patients impatient (Ogbonnaya *et al.*, 2014). There are gender variations while the international evidence is patching, it appears consistent (Molewijk *et al.*, 2017). Female victims tend to experience higher levels and sexual abuse, while male victims tend to receive more overt threats and physical assaults (Molewijk *et al.*, 2017; Hornby *et al.*, 2016). This variation in risk can be partially explained by the gender division of labor with women concentrated in lower status and caring jobs with greater face-to-face contact.

MATERIALS AND METHODS

Methods

This was across-sectional study conducted from December 2015 to May 2016 among 180 health workers selected by multistage sampling technique in Sokoto, Nigeria. Health workers who were directly involved in the management of patients and have been in service for at least one year and consented to participate in the study were considered eligible for this study. The sample size was estimated at 180 using the Fisher's formula for calculating sample size for cross-sectional descriptive studies (Molewijk *et al.*, 2017), 88.1% prevalence of workplace violence from a previous study (Hornby *et al.*, 2016), a precision level of 5% and an anticipated participant response rate of 95%.

Design

The eligible participants were selected by a multistage sampling technique (Lewis, 2016).

Stage 1: stratified sampling technique was used to group the tertiary hospitals into 2 strata (WHO, 2016), the highly specialized and advanced Federal Health Facilities (A) and Specialized State Health Facilities (B). Federal neuropsychiatric hospital Kware and Usmanu Danfodiyo University Teaching Hospital, Sokoto form the highly specialized and advanced Federal Health Facilities (A) while Specialist hospital Sokoto and Orthopedic hospital Wamakko form the Specialized State Health Facilities (B). Simple random technique was used to select one hospital from each stratum.

Stage 2: Stratified by four professional groups (doctors, nurses, pharmacists, lab scientist including technicians).

Stage 3: Stratified by seniority. Among doctors; stratified was into 2- consultants, residents and medical officers. Among nurses; stratified into 2- matrons and above and rank less than matron and below. Among pharmacists, stratified into 2- senior pharmacists and above and those below. Among lab scientists/technicians; stratified into 2- senior laboratory scientists and above and those below.

Stage 4: Simple random sampling from each substratum. The list of members was obtained from respective institutions, selection of study samples was made by balloting from each of

the stratum sampling frame. In order to make appropriate representation of units with small sampling frame such as pharmacists and medical laboratory scientists, proportionate allocation of sample size to each stratum was done.

Data Collection

A standardized, semi-structured, interviewer-administered questionnaire was developed and used to obtain information on participants' socio-demographic characteristics, prevalence of workplace violence against health workers and factor associated with workplace violence. The questionnaire comprised of four sections;

Section A: Contained questions on socio-demographic characteristics,

Section B: Contained questions on prevalence of workplace violence against health workers, section C: Contained questions on factors associated with workplace violence against health workers.

The questionnaire was pretested and validated among 20 health workers each in Maberia clinic and Primary Health Center Yar Akijato test for time spent on each questionnaire, ensuring accuracy internal validity and to test for the generability or external validity of result to be obtained from the actual research. Data was manually sorted out, inputted into the computer system and cleaned, analyzed using SPSS version 20 and presented using charts, graphs and frequency tables. Frequency distribution tables were constructed; and cross tabulations were done to examine the relationship between categorical variables. The chi-square test was used to compare differences between proportions. All levels of significance were set at $p < 0.05$.

Ethical Considerations

Ethical clearance was obtained from the ethics committee of the Usmanu Danfodiyo University Teaching Hospital Sokoto, Ethics committee of Specialist Hospital Sokoto. Permission from the Heads of various departments in UDUTH as well as in Specialist Hospital Sokoto including Chief Nursing Officers in charge of various wards and Heads of Laboratories and Pharmacy departments was obtained. Informed consent was also obtained from all the participants. Confidentiality, anonymity and privacy were fully guaranteed.

Limitations of the study

The limitations to this study include difficulty in accessing the participants due to rotation of duty. Retrieval of the questionnaires was also challenging and many participants took longer period to fill their questionnaire resulting in delayed data analysis.

RESULTS

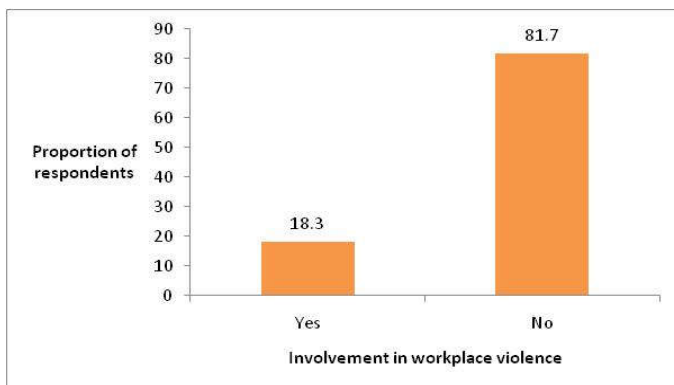
Socio-demographic characteristics of the respondents: All the questionnaires administered to the 180 health workers enrolled into the study were completely filled and used for analysis giving a response rate of 100%. The mean age of the respondents was 26.14 ± 7.65 years. Majority 74 (38.7%) of 180 respondents were in the 30-39 years age group. More than half, 104 (54.5%) of the respondents were males. Majority 116 (66.8%) were Muslims.

Table 1. Socio demographic characteristics of the respondents

Variables	Frequency (n=180)	Percentage(%)
Age group(years)		
20-29	52	22.9
30-39	74	38.7
40-49	39	20.3
50-59	9	4.6
60-69	6	3.0
Sex		
Male	104	54.5
Female	76	45.5
Tribe		
Hausa/Fulani	100	52.1
Yoruba	37	19.3
Igbo	26	13.5
Others	17	15.1
Religion		
Christianity	64	33.2
Islam	116	66.8
Profession		
Doctor	60	31.1
Nurse	81	42.0
Med Lab Scientist	26	20.2
Pharmacist	13	6.7

Table 2. Distribution of workplace violence by respondents' cadre

Cadre	Experienced workplace violence (n = 180)		Test of significance
	Yes Frequency (%)	No Frequency (%)	
Doctor	12(23.1)	40(76.9)	$\chi^2=8.13$ p=0.043
Nurse	17(22.1)	60(77.9)	
Med Lab Scientist	4(10.5)	34(89.5)	
Pharmacist	0(0)	13(100)	
Total	33	147	

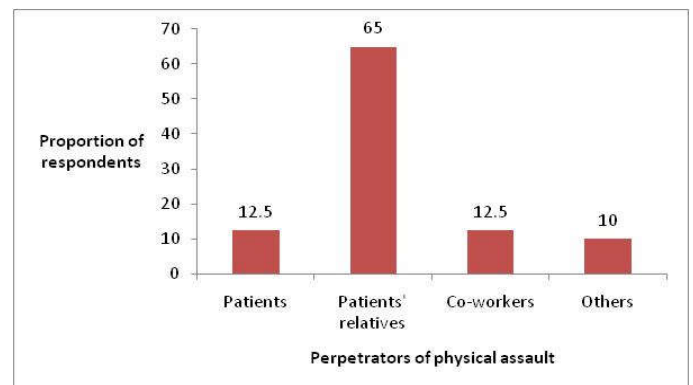
**Figure 1. Involvement of respondents in workplace violence**

Most 108(52.1%) of the respondents were Hausa/Fulani. Majority 81(42.0%) of the respondents were nurses (Table 1).

Prevalence of workplace violence among the respondents: Thirty-three (18.3%) of the 180 respondents have been involved in violence during their practice while 147 (81.7%) have not been involved (Figure 1).

Distribution of workplace violence by respondents' cadre: Twelve (23.1%) of 52 doctors, 17(22.1%) of 77 nurses, and 4(10.5%) of 38 medical laboratory scientists were involved in workplace violence in their places of work. There was a statistical significance difference between the professions in involvement of workplace violence ($\chi^2=8.13$ and $P=0.043$) as shown in Table 2.

Factors associated with workplace violence among the respondents: Majority 27(81.8%) of the 33 respondents that have experienced workplace violence cited dissatisfaction with

**Figure 2. Perpetrators of physical assault**

the services provided and the care given (especially long waiting time before being attended to by the health workers) as reasons for the workplace violence they experienced. Another common reason given was that the patients' relatives felt that the health condition of their patients was not improving (Table 3).

Perpetrators of physical assaults

Majority 23(65%) of physical assaults were perpetrated by the patients' relatives (Figure 3).

Existence of policies to protect health workers

Twelve (37.1%) of the 33 respondents that have ever experienced workplace violence reported the existence of policies to protect health workers against violence in their places of work (Figure 4).

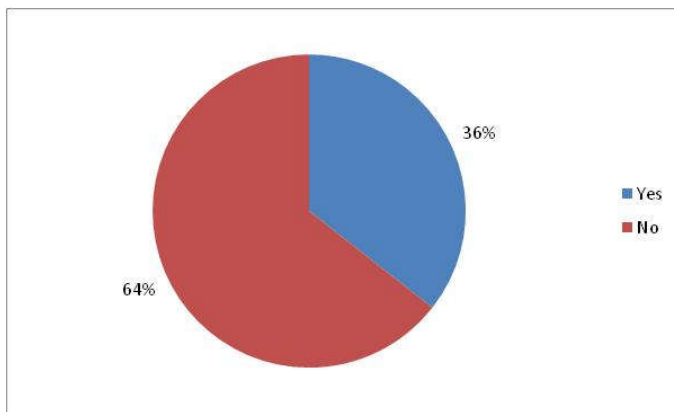


Figure 3. Existence of policies to protect health workers against violence in workplace

DISCUSSION

The mean age of the respondents was 26.14 ± 7.65 years. Majority 74(38.7%) of the respondents were within the age range of 30-39 years. This is similar to the study done by Ogbonnaya et al [11] on workplace violence against health workers in a tertiary hospital in South-western Nigeria where the age range was between 20-49 years 187(77.2%) (Mansingh and Ramphal, 2016). One hundred 100 (52.1%) of the respondents were Hausas, this constitutes the majority of the study population which is not surprising as Sokoto state is in the Northern part of Nigeria with predominantly Hausa tribe. More than half, 104 (54.5%) of the respondents in this study were males. This is however contrary to the study done by Ogbonnaya et al in South-western Nigeria where the females constituted 112 (68.6%) (Ogbonnaya et al., 2014). Another study in Lebanon discovered 109 (58.8%) of the respondents to be females (Mansingh and Ramphal, 2016). One hundred and sixteen (66.8%) of respondents in this present study were Muslims. This is because Sokoto is an Islamic dominated state. This study revealed a prevalence of workplace violence of 33(18.3%). This is lower than 56(63.7%) among general practitioners working in urban areas of New South Wales, Australia (Gofin et al., 2016), 47(38.0%) among public health field workers in Ireland (Chalmers et al., 2017), 56(49.5%) recorded among health workers in San Francisco healthcare settings (CAL/OSHA, 2016; Cheppell and Di Martino, 2016). A prevalence of 68(73.1%) was also found in a study in Mozambique (Bowie, 2017). Majority 23(65.0%) of physical assaults were due to patient relatives. This is similar to the result obtained by Budd et al (2016). This finding is contrary to a study conducted in Lebanon where majority of the assaults were from patients 54(62.9%). A study on workplace violence among dental professionals in Southern Nigeria revealed that the main perpetrators of violence were patients themselves 40(54.5%) (Ogbonnaya et al., 2014 ; LaMar et al., 2016). This study shows that doctors are more involved in physical violence than other professions with the highest prevalence of 12(23.1%) and followed by nurses with 17(22.1%). These is contrary to 48(52.1%) prevalence of violence obtained among nurses in US and 11(13%) in Minnesota nurses study.

Conclusion and recommendations

This study has demonstrated a prevalence of 33(18.3%) of the healthcare workplace violence against health workers in tertiary hospitals in Sokoto, with the doctors being the highest involved 12(23.1%). The perpetrators of the assaults were found

to be patient relatives 23 (65.0%) with the main reason being dissatisfaction with care given (78.9%). The services in the healthcare facilities should be improved upon by the health care workers to minimize violence against health care workers. There is a need for policy to be re-addressed and implemented by the government on the issue of violence against health workers.

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