Research Square

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Predictors of Work-Related Violence Against Nurses Working at a Tertiary Hospital in Kisumu, Kenya.

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Abstract

Background

Workplace violence (WPV) is any act in which a person is abused, threatened, intimidated or assaulted in their work environment. It could involve physical, verbal or written threatening behaviour or physical attacks. Workplace violence against nurses is increasingly becoming a major problem globally. Because of the nature of their work, nurses are at increased risk of workplace violence.

Objective

To assess workplace violence against nurses at Jaramogi Oginga Odinga Teaching and Referral Hospital.

Materials and methods

It employed a cross-sectional study design among 184 nurses randomly selected from Jaramogi Oginga Odinga Teaching and Referral Hospital in Kisumu-Kenya. Data was collected using a self-administered questionnaire that asked questions regarding their sociodemographic characteristics, nature of their work, experience with workplace violence and institutional factors that could be associated with workplace violence. The data obtained was analysed descriptively (in the form of frequencies and proportions for categorical variable and inferentially as mean with corresponding standard deviation) and inferentially. Pearson chi-square test was adopted to assess statistically significant association between predictors of WPV and violence occurrence. Odds ratios were computed at 95% confidence interval.

Results

This study enrolled 184 nurses with a mean age of 37 (± 9.5) years, of whom 62% were female. Majority (88%; n = 162) of the nurses enrolled were at the operational level with 2 (1.1%) being supervisors and 20 (10.9%) being in senior management. Workplace violence was reported by 70% of the respondents, with 41.8% of them saying they were verbally abused. Among those physically abused, 71.8% were assaulted by the relatives of the patients with 28.2% being injured because of the incident. Bullying by co-workers was noted among 24 (13.0%) of the respondents while 41 (22.3%) reported sexual harassment. 96.2% had not received any training on WPV prevention in the last twelve months. Working in the general surgery department ($p < 0.001$) and lack of safety measures ($p = 0.020$) predicted WPV.

Conclusion

the study reports that working in general surgical wards and lack of institutional measures against violence are the major predictors of workplace violence among nurses. There is need to understand institutional processes, procedures and operations that reduce the likelihood of workplace violence in

other hospital departments and apply these findings to the general surgery unit where there was a higher prevalence of workplace violence.

INTRODUCTION

Workplace violence is any act or threat of physical violence, harassment, intimidation or threatening disruptive behaviour that occurs at place of work[1,2]. Workplace violence in hospitals refers to violent or aggressive incidents that occur in healthcare settings. According to the Health and Safety Executive (HSE), workplace violence is defined as “any incident in which a person is abused, threatened, or assaulted in circumstances relating to their work.” This workplace violence could include but is not limited to a carer bitten by a person with learning disabilities during normal care, an irate visitor verbally abusing a ward manager due to perceived inadequate treatment, a nurse facing verbal abuse and threats from a patient refusing prescribed medication or a catering assistant being hit by a confused elderly patient. Because of the busy and routine nature of hospitals, there is a high prevalence of workplace violence [3–5]. This can further be attributed to high flow and work-intensive departments such as the emergency departments, surgical and medical wards[6]. Workplace Violence (WPV) is a significant issue within the healthcare sector that has been on the rise over the past decade, with a notable increase during the COVID-19 pandemic. This alarming trend is commonly witnessed in emergency departments, where incidents of violence have doubled compared to pre-pandemic levels. Workplace Violence not only impacts the patient’s quality of care, but also affects the well-being of healthcare employees. Organizational interventions aimed at addressing WPV have shown varying degrees of success, with many failing to produce sustained improvements. This is often due to a tendency by healthcare organizations to oversimplify the causes of violence, leading to interventions that primarily focus on individual-level responses like staff education and security modifications [7]. However, these approaches are insufficient in tackling the full spectrum of factors contributing to WPV.

Violence against nurses in their workplace is a major global problem that has received increased attention in recent years[1]. Work-related violence is defined as any act in which a person is abused, threatened, intimidated or assaulted in their work environment[8]. It includes threatening behaviour, verbal or written threats, harassment, verbal abuse and physical attacks[9]. Violence and threats of violence are an emerging problem in jobs where workers are in constant contact with clients, the public and co-workers. Unfortunately, it has been reported that health care workers experience the highest rate of WPV as compared to other sectors often because nurses on the frontline are more at risk of workplace assault than other health professionals.[10] The nature of nursing work exposes them to increased risk of work-related violence. High rates of both physical and nonphysical violent events have been reported among nurses working in nursing homes, emergency departments, psychiatric and geriatric departments.[11] Being male, working at night and working in an environment with more colleagues have been associated with workplace violence against nurses.[12]

Globally violence against health care workers; of who nurses form the highest number is a growing problem and can severely impact on the health care system.[13] Work-related violence against healthcare professionals is a problem that is occurring with increased frequency in many parts of the world. Because of the nature of their work, nurses are prone to workplace violence more than any other category of healthcare workers.[14] Workplace violence has a negative impact on the physical and psychological wellbeing of health care personnel[3]. It has been shown a relationship between workplace violence and stress.

This study assessed workplace violence against nurses. Specifically, it assessed individual and institutional factors influencing workplace violence. It also explored determinants of workplace violence as well as evaluated the effect of workplace violence on nurses' mental well-being.

MATERIALS AND METHODS

This cross-sectional descriptive study was conducted among nurses with a minimum of one-year experience working at the Jaramogi Oginga Odinga Teaching and Referral Hospital in Kisumu-Kenya. Data was collected using a self-administered questionnaire that asked questions regarding their sociodemographic characteristics, nature of their work, experience with workplace violence and institutional factors that could be associated with workplace violence. The data obtained was analysed descriptively (in the form of frequencies and proportions for categorical variable and inferentially as mean with corresponding standard deviation) and inferentially. Pearson chi-square test was adopted to assess statistically significant association between predictors of WPV and violence occurrence. Odds ratios were computed at 95% confidence interval. We obtained ethical approval from the institutional research and ethics committees of Masinde Muliro University of Science and Technology (MMUST) and the Jaramogi Oginga Odinga Teaching and Referral Hospital/ (JOOTRH). Additionally, a research license was obtained from the National Commission for Science, technology and Innovations (NACOSTI). Lastly, a written informed consent was obtained from all participants prior to enrolment.

RESULTS

We enrolled 184 nurses, majority of whom were female (62.0%), aged 25–34 years (48.9%), married (81.0%), attained a diploma level of education (57.6%) and all professed the Christian faith (Table 1).

Table 1
Sociodemographic Characteristics (N = 184)

Variables	Categories	n	%
Gender	Male	70	38.0
	Female	114	62.0
Age group in years	25–34	90	48.9
	35–44	49	26.6
	45–55	30	16.3
	≥ 55	15	8.2
Mean age ± SD (Range)		37.0 ± 9.5 (25.0–59.0); Median = 35.0	
Marital status	Single	27	14.7
	Married	149	81.0
	Separated	5	2.7
	Widowed	3	1.6
Level of training	Certificate	16	8.7
	Diploma	106	57.6
	Degree	62	33.7
Religion	Christian	184	100.0

Majority (88%) of the nurses interviewed were operational nurses with about one in ten (10.9%) being senior managers. Mean number of years worked was 10.8 ± 9.9 and ranged from 1 to 35. The mean number staff per workstation was 5 with a range of 1–18. Nearly half (48.9%) worked in general surgery while 28.8% were in general medicine. Majority (96.7%) worked in shifts with less than three-quarters (71.7%) working in adult setting. Slightly more than half (51.1%) worked with male patients compared to 36.4% who worked in mixed gender setting (Table 2).

Table 2
Nurses’ Individual characteristics

Variables	Categories	n	%
Job position	Senior Management	20	10.9
	Supervisor	2	1.1
	Operational nurse	162	88.0
Mean number of years of experience in health sector ± SD (Range)		10.8 ± 9.9 (1.0–35.0)	
Mean number of staff (Range)		5 (1–18)	
Where spends most of the times in workplace	Accident and emergency	15	8.1
	Ambulatory, ICU, Specialized unit	8	4.4
	General surgery	90	48.9
	General medicine	53	28.8
	Other	18	9.8
Work in shifts	Yes	178	96.7
	No	6	3.3
Patients / Clients work with	Newborn	2	1.1
	Infants	8	4.4
	Children	39	21.2
	Adolescents	3	1.6
	Adults	132	71.7
Sex of patients work with	Male	94	51.1
	Female	23	12.5
	Male / Female	67	36.4

Seven in ten nurses reported experiencing some form of workplace violence, with 41.8% of them saying they were verbally abused. Among those physically abused, 71.8% were assaulted by the relatives of the patients with 28.2% being injured because of the incident. Bullying by co-workers was noted among 24 (13.0%) of the respondents while 41 (22.3%) reported sexual harassment (Fig. 1).

Availability of workplace safety measures and effectiveness in management of workplace violence significantly reduced the likelihood of WPV occurrence. Nurses who believed in the institutional safety

measures were significantly less likely to experience WPV (OR: 0.2; 95% CI: 0.11–0.41; $p < 0.001$) as shown on Table 3.

Table 3
Institutional predictors of workplace violence

Predictor	OR (95% CI)	p-value
Presence of safety measures	0.3 (0.13, 0.84)	**0.020**
WPV measures	0.2 (0.11, 0.41)	< 0.001
Effectiveness in WPV management	0.3 (0.18, 0.65)	0.009
Working in general surgery	9.7 (3.60, 27.01)	< 0.001

Effect of workplace violence on nurses' mental well-being was assessed using the GHQ-28 instrument scores which included assessment on somatic symptoms, anxiety / insomnia, social dysfunction and severe depression. A score of 24 and higher was considered as presence of mental illness while a score of < 24 was considered as normal status of well-being. Nurses who had experienced workplace violence were 10.8 times more likely to have presented with symptoms of mental illness (OR: 10.8; 95% CI: 5.22–22.48; $p < 0.0001$) than those who had not. Those who had experienced physical (OR: 4.7; 95% CI: 1.72–12.62; $p = 0.001$), verbal abuse (OR: 3.9; 95% CI: 2.00–7.89; $p < 0.0001$), bullied (OR: 14.9; 95% CI: 1.97–113.41; $p = 0.0007$) or sexual violence (OR: 6.7; 95% CI: 2.26–19.76; $p = 0.0001$) had higher odds of having manifested with symptoms of mental illness (Table 4).

Table 4
Test of Association between the participants' characteristics and barriers to contraceptive use

Independent variable	OR (95% CI:)	p-value
Experienced workplace violence	10.8 (5.22, 22.48)	< 0.0001
Physical violence	4.7 (1.72, 12.62)	0.001
Verbal abuse	3.9 (2.00, 7.89)	< 0.0001
Bullied	14.9 (1.97, 113.41)	0.0007
Sexual violence	6.7 (2.26, 19.76)	0.0001

DISCUSSION

This study defined work-related violence as self-reported experiences of physical attack, verbal abuse, bullying or sexual harassment which occurred in the workplace over the past 12-months (from the time of data collection). Based on this, 70% of the participants reported some form of work-related violence. This overall one-year prevalence of work-related violence is close to that reported in Kenya at 76.8%.[15] This finding is higher than the global prevalence estimated to be between 51.7 to 66.7%.[16] Lower

proportions have also been reported in other African countries such as Ethiopia[17] at 26.7%, Ghana[18] at 52.7% and Gambia[19] at 62.1%. The high prevalence of workplace violence in the current study could be attributed to the fact that workplace violence is rising in the healthcare industry due to heavy workloads, increasing work pressures, work-related stress, interpersonal conflict, economic disruptions and social uncertainty[20]. This workplace violence within healthcare settings exacerbates in the event of a crisis or disaster involving groups of people overwhelmed with their work and exhibit panic attacks, uncertainties, shock and worries. Additionally, the hospital is located in densely populated area, and is the main teaching and referral hospital in Kisumu County. The hospital receives high number of patients daily which may be overwhelming to the staff. Thus, the daily large number of patients may lead to long waiting periods with the tendency of making patients and their relatives irritable.[21]

This study noted that younger nurses below 35 years were more predisposed to workplace violence compared to their older counterparts, a relationship that was statistically significant. This finding is comparable to that conducted in Canada's Alberta and British Columbia in Canada where the authors noted that younger nurses were more predisposed to workplace violence because of their age and inadequate experience. Furthermore, younger nurses were noted to acknowledge violence more readily than their older counterparts who may accept a level of violence as an occupational hazard.[22] In contrast, a study conducted in the emergency departments at general hospitals within Basra city of Iraq, the authors[23] reported a significantly higher proportionate increase in the proportion of workplace violence with advancement in age. This phenomenon was noted by the authors as a reverse pattern in contrast to previously published studies.

Secondly, nurses with certificate or diploma level of training experience less likelihood of workplace violence compared to those with at least bachelor's degree in nursing. The current study also found a statistically significant association between physical violence and the rank of the nurse/midwife. The study revealed that staff nurses were most frequently physically assaulted than other ranks. This finding could be because of their lack of experience in dealing with potentially violent patients[21]. Nurses who attain higher education and work for at least 5 years are less exposed to physical violence than their younger and less experienced colleagues[18].

There was a statistically significant association between those working in general surgery and workplace violence with the odds being ten times higher than those working in other departments. Settings like accident and emergency, psychiatry, geriatric care, and nursing homes have been recurrently found exposed to higher frequency of violent episodes, but also general care departments like medical/surgical wards and community care are increasingly reported to be vulnerable to the occurrence of harassment and aggression [24]. Anecdotal data indicate that majority of healthcare professionals (such as nurses) who work in general hospital wards attend to patients with varying medical and surgical conditions are exposed to workplace violence compared to their colleagues in other wards[5](Jakobsson et al., 2020). In a systematic review conducted in Switzerland, the authors[25] noted that there was a high prevalence of violence meted upon nurses by patients and visitors in general surgery units of public hospitals. This

study also revealed a statistically significant relationship between working in medical, surgical, psychiatric and emergency units with physical violence. Results from a study conducted by Hahn et al., (2011),about half of the nurses had experienced verbal abuse while one-quarter reported to have been subjected to physical violence. The high prevalence of work-place violence was reported more in the medical and surgical wards as well as the intensive care units. Medical, surgical and emergency units are units usually have severely ill patients who need nursing care and regular monitoring [6]. This phenomenon creates unnecessary anger and anxiety leading to violence on the part of patients [6,26,27].

Furthermore, nurses working with male patients were about three times more likely to have experienced workplace violence compared to those working with female or patients of both sexes. This favourably compares with a study conducted in Northwest Ethiopia [17] where results revealed that working in a male ward was independently associated with workplace violence. Nurses working in male wards were about eight times more likely to experience violence compared to those working in female wards. The authors attributed this phenomenon to the fact that males are more aggressive as compared to females.

Availability of workplace safety measures and effectiveness in management of workplace violence significantly negatively influenced prevalence of workplace violence. Nurses who were of the view that the institution had safety measures were 80% unlikely to have experienced workplace violence. Equally where there was effective management of workplace violence, the nurses were 70% less likely to have reported workplace violence.

From the findings of this study, nurses who had experienced workplace violence had a ten-fold likelihood of presenting with symptoms related to mental illness compared to those who had not. Furthermore, nurses who had experienced physical, verbal abuse, bullying or sexual violence increasingly manifested symptoms of mental illness. Overally, all participants who experienced any one form of workplace violence had a greater risk of mental disorders compared with those who had not. These findings are consistent with those reported in previous studies which noted that workplace violence can have serious short- and long-term implications for the mental health and well-being of those exposed.[28]

This was also noted in a cross-sectional study conducted in Palestinian hospitals where it was reported that violence led to psychological effects as about 30% of the exposed revealed fear, anxiety, hopelessness, and feelings of guilt. Additionally, majority of those who had been exposed to violence indicated intention to quit work which possibly could complicate job retention and lead to shortages of qualified personnel.[6]Furthermore, in a previous study conducted in Palestine, the authors noted that understaffing, job stress, low job satisfaction are among possible factors that might lead to aggression towards colleagues and co-workers in Palestinian hospitals. Furthermore, victims of co-worker violence reported a loss of confidence in their clinical abilities, and this subsequently influenced their mental wellbeing [26]. This is because, the violence meted upon healthcare workers represents a complex and dangerous occupational hazard – such as mental health challenges. In a study conducted in Italy,[14] workplace violence was associated with job burnout and mental fatigue that may reduce productivity,

presence at work and work engagement and may negatively affect the therapeutic relationship between providers and patients.

CONCLUSIONS AND RECOMMENDATIONS

This study reports a high rate of workplace violence among approximately three-quarters of the nurses at Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH). Nurses aged below 35 years, with advance training and working in the general surgery and male wards were at increased risk of workplace violence against nurses compared to those who were older, with less training and working in other wards. Availability of workplace safety protection measures significantly reduced the likelihood of workplace violence. Other institutional factors that reduced the likelihood of workplace violence were availability of training opportunities and effectiveness in management of workplace violence against nurses.

There is need to understand institutional processes, procedures and operations that reduce the likelihood of workplace violence in other hospital departments and apply these findings to the general surgery unit where there was a higher prevalence of workplace violence. Nurses in these violence prone departments should be availed for psychotherapy and other necessary interventions to help them overcome the trauma associated with workplace violence. Overally, experiencing various forms of WPV significantly affected the wellbeing of the nurses enrolled.

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Figures

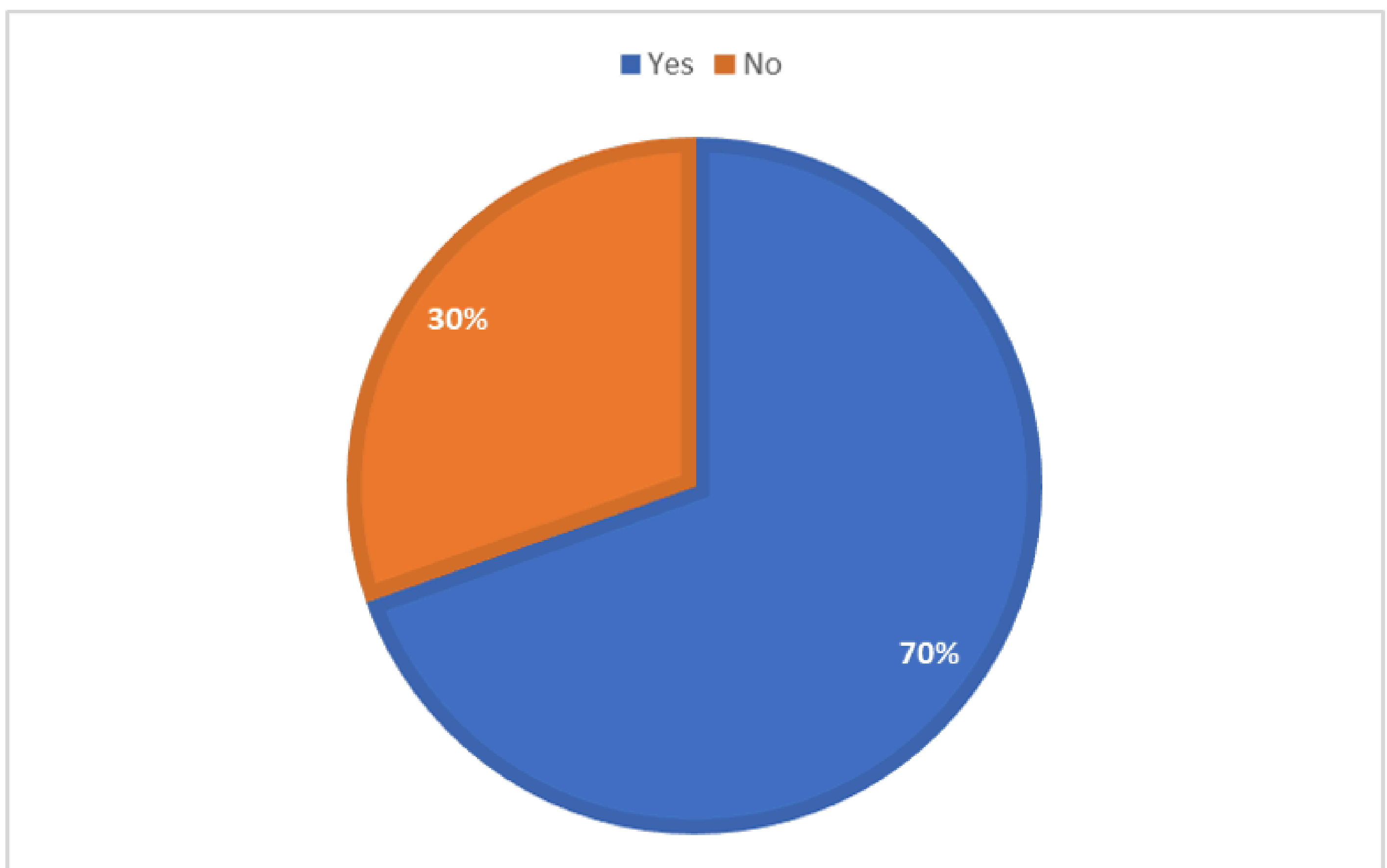

Figure 1

Prevalence of Workplace Violence