



Nurses Exposure to Work-Place Violence in a Large Medical City, Riyadh, Saudi Arabia, Cross Sectional Study, 2019-2020

Authors

Roba Ibrahim Aboabat¹, Arwa Sulaiman Alkabas², Saeed Mohammed Al-Qahtani³

¹King Abdulaziz Medical City, NATIONAL GUARD, Riyadh –KSA

²King Abdulaziz Medical City, NATIONAL GUARD, Riyadh –KSA

³King Saud bin Abdulaziz University for Health Sciences KSA

Abstract

Background: Workplace violence is a significant issue worldwide. Among health care workers, nurses are considered as high-risk group.

Objective: Our aim is to assess and investigate the rate, types, consequence and work-related characteristics associated with violence toward nurses within multicenter hospital in Riyadh region of Saudi Arabia.

Methods: A cross sectional study was conducted from 2019-2020 at all hospitals, primary care centers of Large medical city in Riyadh, Saudi Arabia. A total of 371 nurses had been voluntarily recruited in this study. We used Modified WHO questionnaires regarding working place violence that was distributed via email to all the nurses working in the hospitals.

Results: 371 nurses with a mean age of 36 years (SD 8.401) with a majority of females 86% responded to the questionnaire, 44.4% of the participants were exposed to either type of violence, psychological and or physical. 42% of the sample were exposed to psychological abuse, more than 70% were abused verbally, around 50% were bullied, about 30% of the nurses were sexually harassed, and 47.9% were exposed to racial abuse. 7.3% of the sample have been attacked physically. 50% of the nurses who got physically attacked reported that the attacker was the patient, 42% was the sitter of the patient and only 7.7% the source was a staff member. On the other hand, 38% of the nurses who were psychologically attacked the source was the sitter, 27.7% were abused by the patient and the rest were abused by a staff member. Among the nurses who witnessed WPV 46.8% of them reported the incident.

Conclusion: This study conclude that high percentage of nurses were exposed to either type of violence. An effective interventions should be implemented to reduce the prevalence of WPV among nurses, and the negative consequences on the nurses psychological well-being. Health care Institutes should implement WPV reporting programs, to encourage nurses to report, and to support the victims of WPV.

Keywords: Work-Place Violence, Nurses, Saudi Arabia.

Introduction

Violence is a significant issue worldwide. According to the (WHO) violence is defined as: “The intentional use of physical force or power, threatened or actual, against another person or

against oneself or a group of people that results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation.”⁽¹⁾.

The International Labour Office (ILO), International Council of Nurses (ICN), World Health Organization (WHO), and Public Services International (PSI) established a joint program that defined workplace violence (WPV) as “Incidents where staff are 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 or health”.⁽²⁾

WPV has been categorized in two forms, physical violence which is the use of physical force against another person or group, that results in physical, sexual or psychological harm. The other is psychological violence (Emotional abuse) defined as Intentional use of power, including threat of physical force, against another person or group, that can result in harm to physical, mental, spiritual, moral or social development. Includes verbal abuse, bullying/mobbing, harassment, and threats.⁽²⁾

WPV went up considerably in recent years. However, the prevalence of violence varies and is limited as it is depending on the term and criteria used.⁽³⁾ Moreover, many studies worldwide have shown that work-related violence toward the healthcare providers is as high as 90% of health workers.⁽⁴⁻⁹⁾

As the nurses are at the frontline of healthcare, many studies internationally indicate that nurses have the highest percentage of violence compared to other healthcare providers^(10,11). Locally it is the most frequent profession exposed to violence in the healthcare sector.⁽¹²⁾

In the literature, several studies have investigated WPV among nurses. A large study done in Taiwan, reported that 49.6% of the nurses had experienced at least one episode of any type of violence in the past year⁽¹³⁾ Another one done in Iran reported that 74.7% of the nurses were exposed to psychological violence.⁽¹⁴⁾ Similarly, a study conducted in Abha, Saudi Arabia revealed that approximately 63% of the nurses had been exposed to violence⁽¹²⁾. Almost half of the nurses experienced violence in Saudi university

hospital.⁽¹⁵⁾ While in a public hospital in Riyadh, a study on health care professionals showed that 76.3% of the nurses had been exposed to violence.⁽³⁾

Previous research indicates that the psychological violence is reported as the highest form, specifically verbal violence.^(16,17) Moreover, a study in Jordan in the emergency department showed that verbal violence can occur five time more than physical violence.⁽¹⁸⁾ A public hospital in Saudi Arabia, Riyadh, showed that the most common type of violence encountered by the health care professionals was verbal 94.6%⁽³⁾. Also, it was the most frequently reported in primary health care workers⁽¹⁹⁾. Three out of ten nurses experienced verbal abuse in Khobar, Saudi Arabia⁽²⁰⁾. On the other hand, physical violence toward nurses was reported in 23% of nurses in Ethiopia.⁽²¹⁾ And around 16 % in Riyadh, Saudi Arabia.⁽²²⁾ With pushing as the most commonly reported form of physical violence⁽¹⁷⁾.

Most of the literature suggests that the most common source of WPV were patients (60.9%) followed by patients' companion (49.4%)⁽²²⁾. A study found that understaffing was the most frequently reported factor by the nurses that contribute to WPV. Followed by misunderstandings due to the communication barrier⁽¹⁵⁾. Although risk factors have been reported in the literature in different categorizes. Which are the characteristics of perpetrators, health care providers, health organization, and environment⁽³⁾.

Exposure to violence can cause physical, psychological and emotional harm. That will eventually affect the professional well-being of nurses through impairing job performance, therefore affecting patient care and safety.⁽²³⁾

The aim of this study is to assess and investigate the rate, types, consequence and work-related characteristics associated with violence toward nurses within multicenter National Guard Hospital in Riyadh region of Saudi Arabiasince the is no similar studies done in our institute discussed this matter to the best of authors' knowledge.

We believe the results of this extensive research will clarify the additional stressors on practising nurses and indicate the magnitude of this problem in healthcare facilities. Consequently, this will help to modify the policy to protect the health care providers and it can be recommended and implemented on larger extent of ministry of health.

Methods

This is a cross sectional study that was conducted in all hospitals, departments and centers of Large medical city in Riyadh, Saudi Arabia including the two main hospitals, in addition to the six primary care centers.

Sample was 371 participants from 4498 nurses. Data was collected by using modified questionnaire from WHO (workplace violence in the health sector country case studies research instruments) developed by Joint Program on Workplace Violence in the Health Sector.⁽²⁾ The questionnaire contains three parts, first part collected participant Personal and workplace data (i.e., age, gender, nationality, Region and center of work, years of experience, time of work and specialty), second part is about Physical violence and the third is questioning psychological violence. The questionnaire was distributed via email to all the nurses working at the institute.

Collected data was analyzed by SPSS Version 20 where descriptive analysis such as (frequency, percentage, mean, and standard deviation), Chi square test was used to examine statistical differences between categorical variables. The research was approved by King Abdullah International Medical Research Center (KAIMRC).

Results

A total of 371 nurses participated in the online survey form. The majority of the participants were females 86%. Aged 35 years or less (n=201; 54.2%). Mean of the age was 36, (SD 8.401). Of all participants, more than half were from Philippine, and less than 20% were Malaysian,

while Saudi nurses were around 13.7%. Number of nurses who had work experience more than 10 years was almost equal to the nurses who worked less than 10 years. 12.5 years was the mean of the work experience among the nurses, (SD 7.6). The mean of the work experience at the institute was 7 years, (SD 5.4). 51.3% of the nurses worked more than 5 years at the institute. In addition, 82.6% of participants were working at the two main hospitals of the institute. The rest of the sample worked at the primary health care centers. Around 45% of nurses had staff nurse 2 (SN2) as their job title, 34.8% with staff nurse 1 (SN1) title. In regards to the specialty, more than 24% of nurses were working in the Surgery department. Equal percentage which is around 13% between them working in ICU and general medicine. The rest were working in other specialties. Moreover, most nurses reported that they deal with adult and elderly patients. See Table 1

Table 1

Patient nurses work with	Frequency	Percent
Newborn	49	13.2%
Infants	56	15.1%
Children and adolescents	77	20.8%
Adults	304	81.9%
Elderly	139	37.5
Don't work with patients	4	1.1

44.4% of the participants were exposed to either type of violence, physical and or psychological. In addition, the percentage of nurses who witnessed either type of WPV was 34% (126). Most nurses reported different worrying levels toward WPV among the nurses, Somewhat worried (19.1%), moderately worried (38.3%) very worried (16.2%), and extremely worried (15.1%). But only 11.3% of nurses were not worried at all about WPV. 72% of nurses believed that the source of either type of violence are the sitters "relatives" of the patients, 21% thought the source is the patient and only 6.5% believed it's from the staff members. Majority of the sample 63.6% did not believe that there are enough staff members working in their department. The measures that nurses's believe would reduce violence are shown in Table 2

Table 2

Measures that nurses's believe would reduce violence	Frequen cy	%
Reporting system	120	33%
Penalty to abusers	80	22%
Institute facilities (camera, secure areas)	73	20%
Increase the number of security staff	88	24%

72 % of the nurses were aware of violence reporting procedures at the institute. Only 14.3% of them did not know how to use the reporting system. In addition, almost 80% of nurses feel encouraged to report by the institute. 89% of nurses reported that they have never been disciplined for reporting incidents of WPV. Only 17.3% of nurses reported an incident of WPV in the preceding year, whereas 59.3% did not report. The rest of the nurses did not report as they have never witnessed or experienced WPV. 22% of nurses think that reporting is useless and not important, whereas 68.9% of them are afraid of the negative consequences of reporting. Only 8.9% feel ashamed and guilty if they report incidents of WPV.

Relationship between demographics and reporting of WPV

In regard to reporting overall incidents (physical and psychological), nurses aged 35 years or less were less likely to report incidents of violence in the workplace. 13.9% of them reported incidents of WPV. Whereas nurses aged more than 30 years, the percentage of reporting was higher. Around 21.2 % of them reported an incident of WPV, Although the Pearson Chi-square test was not statistically significant, (P value: 0.058).

Nationality, it was found to be a significant factor affecting percentage of reporting any incident that was witnessed or experienced by the nurses, The results showed that Saudi nurses have a higher percentage of reporting incident of violence, with a percentage of 39.2 %, whereas Philippine nurses reporting percentage was 13.9%, When Malaysian reporting rates were 12.2%, (P value of 0.002).

Similarly Saudi nurses' percentage of reporting an incident of physical violence in the workplace was 100%, on the other hand only 43.8% of Philippine nurses did report. There was no significant relationship between nationality and being exposed to physical or psychological violence. Gender was also not a significant factor in reporting an incident of WPV or in being exposed to either type of violence.

Where work experience plays a role in reporting WPV incidents, (20%) of nurses with 10 or more years of overall work experience reported an incident of WPV compared to (17.3%) of less experienced nurses. (P value: 0.008). Reporting percentage of WPV, were almost similar in nurses with less than 5 years of experience in the institute and in more experienced nurses, 16.1%, 18.3% respectively (P value 0.015). Furthermore, no relationship was found between work specialty and reporting an incident of WPV or in being exposed to either type of violence.

Psychological violence

42% of the sample were exposed to psychological abuse in the preceding year, more than 70% were abused verbally, around 50% were bullied, about 30% of the nurses were sexually harassed, and 47.9% were exposed to racial abuse.

The source of psychological violence reported by the nurses, 38% were abused by the patient's sitter, 27.7% were abused by the patient and the rest were abused by a staff member. And regarding to nurses' beliefs about the contributing factors to psychological violence, the majority reported that patient's condition and the long waiting time as a contributing factor. Table 3 shows the frequency of each contributing factor to WPV. Furthermore, nurses' responses to psychological abuse are demonstrated in Table 4. Among nurses who were "extremely worried" about WPV, (66.1%) had previous experience with psychological abuse compared to only (21.4%) previous experience among those who are not worried at all (P value < 0.001).

Table 3

Nurses' beliefs about the contributing factors to violence	Physical violence		Psychological violence	
	Frequency	Percent	Frequency	Percent
Delayed treatment	146	39.2	150	40.4%
Treatment refusal	129	34.8%	116	31.3%
Language barrier	164	44.2%	161	43.4%
Long waiting time	171	46.1%	171	46.1%
Patient condition (psychiatric, chronic illness)	188	50.7%	171	46.1%
Substance/Alcohol use	82	22.1%	67	18.1%

Table 4

Nurses response to abuse	Physical abuse		Psychological abuse	
	Frequency	%	Frequency	%
Took no action	6	22%	68	28%
Tried to pretend it never happened	3	11%	48	19.8%
Told the person to stop	12	44%	80	32%
Tried to defend myself physically	6	22%	NA	
Told friends/family	2	7.4%	39	16%
Sought counselling	4	14.8%	11	4.5%
Told a colleague	9	33%	73	30%
Reported it to a senior staff member	17	63%	111	45.7%
Sought help from association	4	14.8%	9	3.7%
Completed incident/accident form	10	37%	32	13.2%
Pursued prosecution	4	14.8%	2	0.8%

When examining the relationship between the demographics and WPV, there was no significant relationship between psychological abuse and age. All nurses regardless of their years of experience had a similar percentage in psychological abuse exposure (P value 0.346). The relationship between the exposure to psychological violence with the nurses' experience at the institute was not statistically significant. 71.2% of Nurses working in managerial positions have been exposed to psychological violence

Physical Violence

Only 7.3% of the sample have been attacked physically in the preceding year, as a result 14.8% of the nurses were injured. 50% of the nurses who got physically attacked reported that the attacker was the patient, 42% was the sitter of the patient and only 7.7% the source was a staff member. Around 40% of nurses reported this incident. Most of the nurses responded by reporting the incident to a senior staff member. As around 43.8% of nurses think reporting is useless. 70% of them believed that it is a typical “frequent” incident. The consequences that nurses suffered,

being super-alert, watchful and on guard was reported by around 92.6% of nurses. Only 1.8% of nurses took time off work after being exposed to physical violence. Regarding nurses' beliefs about the contributing factors to physical violence, the majority reported that patient’s condition as a contributing factor. Table 3 shows the frequency of each contributing factor to WPV. Furthermore, nurses’ responses to physical abuse are demonstrated in Table 4

In terms of the relationship between the demographics and WPV, physical violence was more common among nurses younger than 35 years old (10.4%) compared to only (3.5%) among nurses older than 35 years old. (P value 0.011). Age was a significant factor in terms of reporting the incident of physical WPV among nurses, 83.3% of nurses older than 35 years reported the incident whereas only 28.6 % of nurses aged 35 years or younger did report, 71.4% did not report. (P value 0.016)

Out of 185 Nurses with 10 years or less of experience, 18 nurses (9.7%) have been physically abused. Whereas among 185 nurses with more than 10 years of experience, 9 nurses were

exposed to physical violence (4.9%). Among 18 nurses of less than 10 years of experience only 5 nurses (27.8%) reported the incident of physical abuse, whereas 6 out of 9 nurses with more experience reported the incident of physical abuse a (P value 0.0536). Out of 180 nurses with 5 or less years of experience at the institute, 19 nurses (10.6%) have been physically attacked, on the other hand 8 (4.2%) out of 191, of nurses with more experience at the institute were physically attacked (P value 0.018). out of 10 Nurses with 5 or less years of experience at the institute, only 6 nurses (31.6%) have reported the incident of physical violence. Out of 8 nurses with more experience, 5 nurses (62.5%) reported the incident. 41.1% of nurses working in clinical positions have been exposed to physical violence.

Discussion

The results of this study corroborate previous studies, and confirms the high level of nurses' exposure to WPV. This study demonstrated that 44.4% of nurses were exposed to either type of violence, which was consistent with the study finding in another hospital in Riyadh, where the prevalence of WPV was 54.3%¹⁰. On the other hand, international studies showed a higher percentage, around 82.8% of nurses in Ethiopia reported history of WPV exposure¹⁷, similarly In Hong Kong percentage was 76%¹³, Although one study In Taiwan reported less the prevalence of WPV 49.6%¹⁵.

Psychological violence was the most frequent form of WPV among the nurses in this study, specifically verbal abuse, which was reported by around 70% of the sample. In accordance with previous local studies, a study was conducted in the same region of Riyadh found that of all types of WPV verbal abuse was the most frequently reported by the nurses 83.9%⁹. Comparing to international studies, prevalence of verbal abuse in Lebanon was 62%¹, in Turkey 79.4%¹⁹, and in Ethiopia 81%¹⁷. Verbal abuse was less commonly in Taiwan 46.3%¹⁵

In regard to nurses exposure to physical violence, this study showed that 7.3% of the nurses were physically attacked. In accordance with previous study done in Riyadh which showed 5%⁹. Whereas a another study conducted in same region of Riyadh in 2002 percentage was higher, 16.2% of nurses reported physical violence.¹⁰ Additionally, in Lebanon it was found around 10%¹, and in Jordan 13.1%¹⁸

Another valuable finding of this study was the source of violence, 72% of nurses believed that the source of WPV are usually the sitters "relatives" of the patients. Which was the case for the nurses who experienced psychological violence, also similar pattern was observed in regional and international studies. A study done in Turkey found that majority of nurses 72.9% were verbally abused by patients' relatives.¹⁹ Wheres in a study conducted in eastern province of Saudi Arabia, 52.3% reported that the source was the patient.⁴

But in regard to physical violence study showed almost 50% of nurses reported that the source was the patient. In the other hand in a Jordanian study, 53.8% of nurses reported that physical violence was committed by the relatives of the patient.¹⁸ Similarly in Ethiopia a study reported that around 65.8 of the nurses were violated by the relatives of the patients.¹⁷

Reporting is a necessary tool to reduce WPV. However, this study found that only 22.5% have ever reported an incident of WPV. Among the sample 40% of nurses who experienced physical violence reported incident. Although almost 80% of nurses feel encouraged to report by the institute. 89% of nurses reported that they have never been disciplined for reporting incidents of WPV. This study showed that foreign nurses are less likely to report. Following an incident of WPV only 43.8% of Philippine nurses did report compared to 100% of Saudi nurses. The two main reasons for not reporting the violence were the belief that it's useless and begin afraid of the negative consequences. Work experience plays a role in reporting WPV incidents, nurses with 10 or

more years of experience the reporting percentage was more than nurses with less years of experience, 20%, 17.3% respectively. With a P value of 0.008. This could be attributed to younger nurses' inexperience in appropriate actions following violent acts.

Most local and international literature indicates under-reporting of WPV among nurses. A study in Eastern Province, Saudi Arabia 86.7% of verbally abused nurses did not report the incidents.⁴In addition a study conducted in Ethiopia revealed that majority of nurses 83.9% did not report the incidents of WPV.¹⁷

In this study, the most frequently reported contributing factor to WPV was the patient condition (psychiatric or chronic illness) followed by long waiting time. Similar to a study conducted in Turkey were the most reported reason for WPV was the patient's illness.¹⁹

Conclusion

The prevalence in this study of WPV was high, especially psychological violence. As nurses are the first line dealing with patients and have right to be safe as other health care workers. Also, the negative consequences on the nurse's psychological well-being. So, researchers recommend for the health care institute implement strategies toward nurses. And educate all nurses how to use the reporting system. As well as to encourage them to report, any type of violence. It is very important to insure them no bad sequences if they report as most of them believes. We believe also the importance of enhancing the public awareness of this phenomena and empower the rules through different public tools to the society.

Acknowledgement

The researchers acknowledge the help of Dr. Emad in the analysis the data by SPSS. We also thank the nurses' managers for disruption of the questionnaire to nurses. Moreover, we are grateful for the nurse's cooperation who participated in this study and is highly appreciated.

References

1. Krug EG, Mercy JA, Dahlberg LL, Zwi AB. The world report on violence and health. *The Lancet*.2002;360(9339):1083-8.
2. Richards J. "Management of workplace violence victims." Joint Programme on Workplace Violence in the Health Sector, Geneva WHO. 2003.
3. Algwaiz W, Alghanim S. Violence exposure among healthcare professionals in Saudi Public Hospitals A preliminary investigation. *Saudi medical journal*. 2012;33:76-82.
4. Workplace violence: Issues in response. In: Federal Bureau of Investigation USDoJ, editor. 2018.
5. Jansen GJ, Dassen TWN, Groot Jebbink G. Staff attitudes towards aggression in health care: a review of the literature. *Journal of Psychiatric and Mental Health Nursing*. 2005;12(1):3- 13.
6. Magin PJ, Joy E, Ireland MC, Adams J, Sibbritt DW. Experiences of occupational violence in Australian urban general practice: a cross-sectional study of GPs. *Medical Journal of Australia*. 2005;183(7):352-6.
7. Fida R, Tramontano C, Paciello M, Guglielmetti C, Gilardi S, Probst TM, et al. 'First, Do No Harm': The Role of Negative Emotions and Moral Disengagement in Understanding the Relationship Between Workplace Aggression and Misbehavior. *Front Psychol*. 2018;9:671-.
8. Hahn S, Müller M, Hantikainen V, Kok G, Dassen T, Halfens RJG. Risk factors associated with patient and visitor violence in general hospitals: Results of a multiple regression analysis. *International Journal of Nursing Studies*. 2013;50(3):374-85.
9. V. M. Workplace Violence in the Health Sector: Country Case Studies. Brazil, Bulgaria, Lebanon, Portugal, South Africa,

- Thailand and an Additional Australian Study. World Health Organization: Geneva. 2002.
10. Aytac S, Bozkurt V, Bayram N, Yildiz S, Aytac M, Sokullu Akinci F, et al. Workplace Violence: A Study of Turkish Workers. *International Journal of Occupational Safety and Ergonomics*. 2011;17(4):385-402.
 11. St-Pierre I, Holmes D. The relationship between organizational justice and workplace aggression. *Journal of Advanced Nursing*. 2010;66(5):1169-82.
 12. Alsaleem SA, Alsabaani A, Alamri RS, Hadi RA, Alkhayri MH, Badawi KK, et al. Violence towards healthcare workers: A study conducted in Abha City, Saudi Arabia. *J Family Community Med*. 2018; 25(3):188-93.
 13. Wei C-Y, Chiou S-T, Chien L-Y, Huang N. Workplace violence against nurses – Prevalence and association with hospital organizational characteristics and health-promotion efforts: Cross-sectional study. *International Journal of Nursing Studies*. 2016;56:63-70.
 14. Fallahi Khoshknab M, Oskouie F, Najafi F, Ghazanfari N, Tamizi Z, Ahmadvand H. Psychological violence in the health care settings in iran: a cross-sectional study. *Nurs Midwifery Stud*. 2015;4(1):e24320-e.
 15. Alkorashy H, Moalad F. Workplace violence against nursing staff in a Saudi university hospital. *International Nursing Review*. 2016;63:n/a-n/a.
 16. Berlanda S, Pedrazza M, Fraizzoli M, de Cordova F. Addressing Risks of Violence against Healthcare Staff in Emergency Departments: The Effects of Job Satisfaction and Attachment Style. *Biomed Res Int*. 2019;2019:1-12.
 17. Acquadro Maran D, Varetto A, Zedda M, Magnavita N. Workplace Violence Toward Hospital Staff and Volunteers: A Survey of an Italian Sample. *Journal of Aggression, Maltreatment & Trauma*. 2018;27(1):76-95.
 18. Albashtawy M. Workplace violence against nurses in emergency departments in Jordan. *International Nursing Review*. 2013;60(4):550-5.
 19. El-Gilany A-H, El-Wehady A, Amr M. Violence Against Primary Health Care Workers in Al- Hassa, Saudi Arabia. *Journal of Interpersonal Violence*. 2009;25(4):716-34.
 20. Al-Shamlan NA, Jayaseeli N, Al-Shawi MM, Al-Joudi AS. Are nurses verbally abused? A cross-sectional study of nurses at a university hospital, Eastern Province, Saudi Arabia. *J Family Community Med*. 2017;24(3):173-80.
 21. Teferralikassa, Jira C. Assessment of the prevalence and predictors of workplace violence against nurses working in referral hospitals of Oromia Regional State, Ethiopia. *JIMS8M: The Journal of Indian Management & Strategy*. 2015;20:61.
 22. Mohamed AG. Work-related assaults on nursing staff in riyadh, saudi arabia. *J Family Community Med*. 2002;9(3):51-6.
 23. Rippon TJ. Aggression and violence in health care professions. *Journal of Advanced Nursing*. 2000;31(2):452-60.