Workplace Violence against HealthCare workers by Patients and Visitors in King Khalid University Hospital Riyadh Saudi Arabia 2021-2022

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Received: November 2022 Accepted: December 2022; Published: December 30, 2022.
Citation: Sulaiman A. Alshammari et al. Workplace Violence against HealthCare workers by Patients and Visitors in King Khalid University Hospital Riyadh Saudi Arabia 2021-2022. World Family Medicine. December 2022 - January 2023 Part 2; 21(1): 6-14 DOI: 10.5742/MEWFM.2023.95251550

Abstract

Background: Violence against healthcare workers has increased globally. Poor productivity and patient care could result from this aggression against healthcare professionals.

Methods: In this retrospective study, the target population was all healthcare workers who activated the white code (n=242) with a sample size (of n=149). A self-administered questionnaire was used and given to participants. Descriptive statistics were presented, and statistical comparisons were made to evaluate differences by gender, age, experience, and other demographic variables.

Results: The prevalence of white code among all codes announced in King Khalid University Hospital, Riyadh, between the 1st of January 2021 and the 31st of December 2021 is 17%.

Females, younger respondents, nurses, and less experienced personnel were the majority exposed to violent episodes compared to their counterparts. Male patients were the primary sources of workplace violence against healthcare workers (59.1%). Most violent acts are performed by individuals over 40, and approximately (51%) of violent behavior is attributed to chronically ill individuals. Verbal violence was the highest type of violence experienced, and the most common violence incident occurred in the wards (Patient Bedside). The most common reason for the violence was poor communication (26.2%). Respondents believe that the presence of violence in the workplace is part of the risk of their job (47.7%).

Conclusion: Frequently, healthcare workers suffer from violence against them. The majority is verbal. These results highlight the need for a thorough approach to managing and preventing workplace violence in healthcare facilities. Additionally, there is a pressing need to raise public awareness about the critical role that healthcare workers play in ensuring the continuity of healthcare services.

Keywords: healthcare worker;
health care professionals; white code; violence; workplace violence.

Introduction

Recently, violence against healthcare workers has escalated globally, with more than two-thirds of respondents in a previous study experiencing some form of violence (1). Annually, two million American employees are victims of workplace violence (2). Furthermore, up to 38% of health workers suffer physical violence, threats, and exposure to verbal aggression at some point in their careers (3). This violence against healthcare employees has a detrimental effect on healthcare providers' physical and psychological well-being and job motivation and satisfaction. Eventually, this violence against healthcare providers will lead to poor productivity and patient care (3,4,5).

Workplace violence is defined by Occupational Safety and Health Administration (OSHA) as a threat of violence or violence against workers. It can happen inside or outside the workplace ranging from verbal abuse and threats to lethal physical assaults (2).

A meta-analysis conducted in 2020 showed the pooled prevalence of white code and violence against healthcare workers was estimated at 19.33% based on 65 studies across all healthcare sectors, diverse healthcare professional types, and multiple countries (6). Additionally, in a survey from academic, tertiary care, and urban hospital in the USA, 34.4% of healthcare workers reported verbal or physical violence incidents in the preceding 12 months. Precisely, 13.5% have reported physical assault (7). Furthermore, a study conducted in Turkey stated the most common type of violence was insult plus verbal threat (39.6%), and the most common reason was the waiting-line problem (21.8%). The highest prevalence of violence was in polyclinic rooms (66.5%); The highest in emergency medicine (36.4%) and the lowest in internal medicine (7.3%) (8).

In Saudi Arabia, a cross-sectional survey at 2 public hospitals in Riyadh in 2011 found that 64.3% of healthcare providers reported violent events. Moreover, excessive waiting time, shortage of staff, and unmet patient demands were the most common reasons for violence. Verbal abuse was the most common type encountered. Nurses were more likely to be targeted than physicians (1).

Moreover, in a cross-sectional survey conducted in emergency departments in Riyadh in 2016, nurses found most participants (89.3%) had experienced a violent incident in the past 12 months. Verbal abuse accounted for (74.1%) of those who had experienced violence, while (18.5%) had faced verbal and physical violence during the past year. Patients (82.4%) and their relatives (64.8%) were the most common instigators of violence (9).

In 2018 the Ministry of Health (MOH) in Saudi Arabia confirmed that verbal and physical abuse against health professionals is a crime punished by law, leading to the imprisonment of up to ten years or a fine of up to a million riyals. It's due to interest in the safety of all health staff and professionals, and under no circumstances will prejudice or verbal or physical abuse against any MOH's team be tolerated (10).

There have been few studies in our region, including Saudi Arabia, on the prevalence of white code and the consequences of each established violent incident.

The present study aims to quantify the prevalence of white code among all other codes in King Khalid university hospital Riyadh; furthermore, to determine the characteristics and the consequences of each established white code.

Methodology

White code is announced by healthcare workers for emergency response to a violent person threatening their own safety and the safety of others.

This retrospective study was conducted at King Khalid University Hospital, Riyadh, Saudi Arabia, between 1st January 2021 to 31st December 2021. King Khalid University Hospital is the biggest academic tertiary care hospital in Saudi Arabia, with a bed capacity of 1600, and it provides services to people from all regions of Saudi Arabia. The study's target population included all healthcare workers who activated a white code (n=242). The sample size was (n=149) using Raosoft.com with a 95% confidence level. We selected the participants using a stratified random sampling technique. We acquired input from the participants using a pre-designed questionnaire. To enhance the validity of the questionnaire, we conducted a pilot study targeting experienced health workers (two consultants, two nurses, and two receptionists) to review the questionnaire and give comments. Accordingly, we did some modifications. Our survey tool consisted of three main domains: demographic characteristics such as age, gender, nationality, educational level, years of experience, and occupation. The second consisted of items that addressed sources of violence, their age, and their health condition; the third was a list of items that addressed the consequences of violent incidents. We gained the participants' written consent to participate in the study. Their identity was confidential by assigning each participant with a code number for the purpose of analysis only. We gained approval from the legal authorities at the hospital and the operations engineering department to use the data. The Institutional Review Board Health Sciences Colleges Research on Human Subjects in King Saud University – College of Medicine (IRB) approved the study as Research Project No. E-22-7107.

Data analysis was done via SPSS 24.0 version statistical software. The chi-square test was used to determine the significance of variations in the prevalence of white code among healthcare workers depending on demographic factors. The p-value was considered significant at <0.05 with a 95% confidence interval.

Results

The codes announced at King Khalid University Hospital in 2021-2022 were 1,422 codes including (White code, Blue code, Brown code, Orange code, Pink code, Purple code, Red code, Yellow code, Trauma code, MP code, RRT code). The prevalence of white code among all codes announced in King Khalid University Hospital was (17%). Table 1. Most healthcare workers who experienced violence were female (61.1%) and younger than 30 (55.7%). The majority of respondents were non-physicians (71.8%), and nurses (61.1%), in addition to receptionists (10%), and security officers (0.7%). Most healthcare workers who were victims of violence had a bachelor's degree or less (70.5%). Most healthcare workers had less than ten years of experience (68.5%). Further division of this group illustrates that individuals with less than 5 years of experience were (36.2%) and more than 5 years of experience were (32.2%). Figure 1 shows that most types of violence encountered by healthcare workers was verbal violence only (58.4%). Physical and verbal violence represented (33.6%), while physical assault only accounted for (8.1%) of incidents.

Table 2 shows the distribution of type of violence among healthcare workers by their demographic characteristics. The chi-square test showed significant differences in violence between male and female healthcare workers ($p = 0.016$). Male (72.4%) dominated and female (49.5%) healthcare workers as a source of violence. Even though the common type of violence was verbal violence only, a greater percentage of (verbal and physical) violence was found in female healthcare workers (39.6%). The nurses (42.9%) had a significantly higher risk of (verbal and physical) violence than other healthcare workers ($p = 0.012$). This study did not find any differences in types of violence among healthcare workers based on their age ($p = 0.055$), education level ($p =0.616$), and duration of the experience ($p = 0.443$).

Table 3 shows that male patients were the primary source of workplace violence against healthcare workers (59.1%). The results revealed that most violent acts are performed by individuals over the age of 40 (44.3%). Approximately (51%)of violent behavior was attributed to chronically ill individuals.

Figure 2 shows the most common violence incidents occurred in wards (Patient Bedside) (63.1%).

In Table 4, the respondents were asked to identify the reasons for violent incidents, given a list of potential reasons, and asked to choose those that applied. Overall (26.2%) of respondents reported that poor communication is the main reason for violent incidents. Opposing Doctor's orders was the second main reason reported (20.8%). The third most common reason was the long waiting time (16.8%). Healthcare workers reported other reasons for violent incidents, including psychological problems, patient health conditions, visitor problems, staff workload/ Under staffing, inadequate security, and patient without an appointment.

Nonetheless, most healthcare workers believe that the presence of violence in the workplace is part of the risk of their job (47.7%). Moreover (84.6%) of respondents reported that they received training on how to deal with violence against healthcare workers. Most respondents (91.3%) knew that violence against healthcare workers is incriminated.

Table1. Frequency distribution of healthcare worker's Demographic Characteristics

Demographic Characteristics	Sub-Group	n	%
Gender	Male	58	38.9
	Female	91	61.1
Age	<=30 Years	83	55.7
	> 30 Years	66	44.3
Occupation	Non-Physician	107	71.8
	Physician	42	28.2
Education Level	<= Bachelor's degree	105	70.5
	> Bachelor's degree	44	29.5
Experience Time	< 10 Years	102	68.5
	=> 10 Years	47	31.5

Figure.1 Types of violence experienced by healthcare workers in King Khalid University Hospital, Riyadh, Saudi Arabia between 1st January 2021 to 31st of December 2021

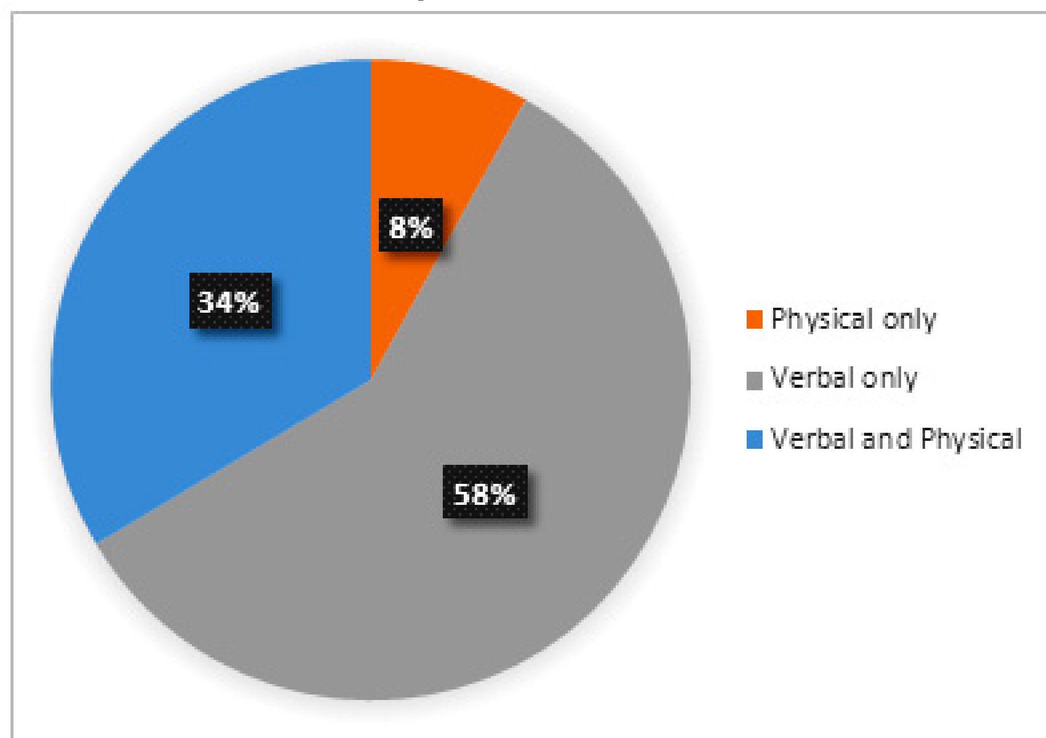

Table 2. The type of Violence against Healthcare Workers by their Demographic Characteristics

Demographic Characteristics	Sub-group	Verbal		Physical		Verbal + Physical		p-value
		n	%	n	%	n	%	
Gender	Male	42	72.4	2	3.4	14	24.1	0.016
	Female	45	49.5	10	11.0	36	39.6	
Age	<= 30 Years	54	65.1	8	9.6	21	25.3	0.055
	> 30 Years	33	50.0	4	6.1	29	43.9	
Occupation	Security	0	0.0	0	0.0	1	100.0	0.012
	Receptionist	14	93.3	0	0.0	1	6.7	
	Nurse	44	48.4	8	8.8	39	42.9	
	Doctor	29	69.0	4	9.5	9	21.4	
Education Level	Diploma degree	4	66.7	0	0.0	2	33.3	0.616
	Bachelor's degree	53	53.5	8	8.1	38	38.4	
	Master's degree	3	75.0	0	0.0	1	25.0	
	Board/ Phd	27	67.5	4	10.0	9	22.5	
Experience Time	< 5 Years	36	66.7	5	9.3	13	24.1	0.443
	5 - 10 Years	27	56.3	3	6.3	18	37.5	
	> 10 Years	24	51.1	4	8.5	19	40.4	

Table 3. Frequency of violent incidents by the Source, age and the health condition.

Variable	Sub-group	n	%
Source of violence	Co-Worker	2	1.3
	Men patient	88	59.1
	Visitors/relatives of patients	32	21.5
	Woman patient	27	18.1
Age of Violence	<20	6	4.0
	20-30	37	24.8
	30-40	40	26.8
	More than 40	66	44.3
if the patient was the source of violence what was the health condition	Acute case	28	18.8
	Chronic case	76	51.0
	Emergency case	25	16.8
	Psychological case	18	12.1
	Bad experience in meeting health workers	2	1.3

Figure 2: the location of the violent event in King Khalid University Hospital, Riyadh, Saudi Arabia between 1st January 2021 to 31st of December 2021

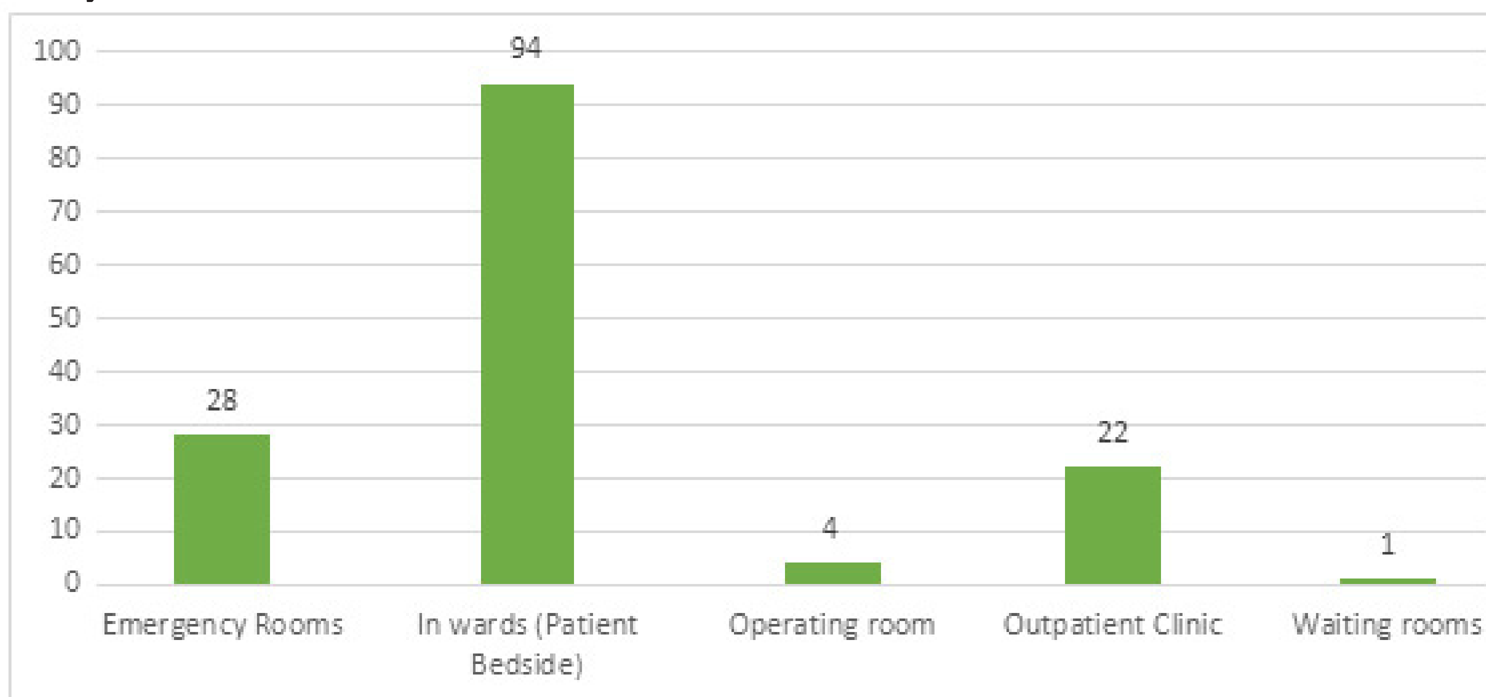

Table 4. shows the reasons for violence, Attitude toward the violence against health workers, training on how to deal with violence against healthcare workers and awareness of health workers of law in such situation

Variable	Sub-group	n	%
The reasons for violence	Communication problems	39	26.2
	Inadequate security	6	4
	Long Waiting-time problem	25	16.8
	Opposing Doctor's orders	31	20.8
	Patient without appointment	4	2.7
	Patient's health condition	10	6.7
	Psychological problems	17	11.4
	Staff workload/Under staffing	8	5.4
	Visitor problems	9	6
Attitude toward the violence against health workers	Feel it as part of job	71	47.7
	Ignore the person.	7	4.7
	Patient can be sometimes excused for aggressive behavior	12	8.1
	Reported it	5	3.4
	Told a colleague/ Family member to intervene.	1	0.7
	Told the person to stop	20	13.4
	Tried to defend myself.	22	14.8
	We should not allow violence against us	11	7.4
Receive training on how to deal with violence against healthcare workers	No	23	15.4
	Yes	126	84.6
Know that violence against health workers is incriminated	No	13	8.7
	Yes	136	91.3

Discussion

In this study, violence announced (white code) among other codes was 17% compared to a systematic review that demonstrated higher prevalence in other regions, such as European and American regions were 26.38% and 23.61%, respectively (6). This could be due to the high variety of people's ethnicity, educational level, and healthcare workers' adaptation. One of the reasons for the low prevalence could be due to low awareness of code white protocol, as a study conducted in Riyadh showed 31.4% of healthcare workers were unaware if there is a system for violence reports, and 68.6% were not familiar with using these systems (11). Also, it is possible to have higher than 17% as this study was limited only to code white reports compared to the other studies, which were questionnaires distributed among healthcare workers to measure workplace physical violence (6). Moreover, a study conducted in Riyadh at the Ministry of National Guard - Health Affairs showed that 81.4% of healthcare workers had experienced verbal or physical violence (13). This high rate could be due to the nature of the patients, as this hospital belongs to the military sector, compared to our findings which mainly deal with the general public.

Nearly two thirds of healthcare workers were nurses, 61.1%. This finding is different from a study conducted in Arar city, as violence was reported by 59% of physicians (12). It may be due to high exposure to patients as nurses have long shifts and multiple contacts with these patients. Expectedly, 31.5% of violence-reported healthcare workers have more than ten years of career experience. Therefore, they had more adaptation and coping with these events and gained more experience managing them without announcing white code.

Our study shows the most common type of violence was verbal violence, toward 58.4% of healthcare workers, while verbal and physical violence was 33,6%, and physical violence was only 8.1%. Verbal violence also was the most common type of violence in Riyadh, with 79.5% of healthcare workers being verbally abused (13); in Arar city, 83% of healthcare workers were being verbally abused (14), and in Abha city, 55.9% of healthcare workers were verbally abused (15). Also, a systematic review of numerous international studies conducted in Asia, Europe, America, Africa, and Australia showed that verbal abuse is the most common type of violence (16).

The majority of verbal and physical violence (63.1%) occurred in the ward (patient's bedside), while in a cross-sectional study conducted in Riyadh, the majority of violence was in the emergency department (13). Perhaps this higher rate of violence in the ward is due to multiple reasons, one of which is direct communication matters. Other causes are resisting physician's orders and long waiting-time issues.
There was a significant difference in the type of violence compared to gender. Although verbal violence was found to be the highest type of violence and was 72.4% and 49.5% in males and females, respectively, there is a high percentage, 39.6%, of both verbal and physical violence in female healthcare providers. Compared to this study previous studies conducted in Saudi Arabia, Brazil, Nigeria, and Poland showed no significant difference between gender and type of violence (13,16,17,18).

The violence source was more likely to be male 59.1% and patients with chronic health conditions 51%. This may be influenced by their long hospital stay and chronic illness.

Limitation:
The study was restricted to only one hospital, KKUH, in Riyadh, which may limit the generalizability. In addition, the survey was self-reported depending on the healthcare worker's information which may induce recall bias.

Conclusion

In conclusion, out of all codes announced in KKUH in 2021-2022, the white code accounted for 17%. Workers in the healthcare sector usually deal with violence against them. The majority is verbal, and had considerable harmful effects. These findings demonstrate the necessity for a comprehensive strategy to prevent and manage workplace violence in healthcare facilities. Training in management skills for healthcare professionals may improve their ability to deal with violence especially with less experienced health workers who suffered more violence.. In addition, the health authority and the media should raise public awareness of the crucial role that healthcare workers play in maintaining the continuity of healthcare services. There is a need to conduct a larger study from multiple hospitals and regions all over Saudi Arabia to investigate violent events and increase awareness among healthcare workers and the public.

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