

Prevalence of physical and verbal violence against physicians and nurses in primary health care centres, Buraidah, Qassim province

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Abstract

Background: Workplace violence in healthcare settings is a global problem, with negative effects on safety and well-being of health care workers as well as workplace activities. However, there is a lack of studies on workplace violence generally and in Saudi Arabia particularly.

Objectives: To estimate the prevalence and determine the demographic and occupational characteristics associated with workplace violence in primary health care centres (PHCCs) in Buraidah, Saudi Arabia.

Subjects and Methods: A cross-sectional study including 288 physicians and nurses working at PHCCs in Buraidah city in Qassim region was carried out during June and July, 2021. A semi-structured self-administered questionnaire was used to estimate the frequency, timing, causes, reactions, and consequences of workplace violence in addition to participants' demographic and occupational data.

Results: Among 288 study participants, 64.2 % were nurses and 63.7% were females. The mean (\pm SD) age of study participants was 36.7 \pm 8.2 years. History of exposure to workplace violence was mentioned by 41.2% of the participants. The majority (98.2%) of insults were verbal. The offender was a patient in most of the incidents (79.7%). Females represented 63.2% of offenders and those aged

between 21 and 45 years represented 72.1% of them. The reasons for the violent event included misunderstanding, unmet service demand, overcrowding, and long waiting time. No action was taken as a reaction to violent event by 56.3% of the victims while reporting to supervisors was mentioned by 34.8% of the respondents.

Conclusions: A considerable proportion of physicians and nurses in PHCCs were exposed to violence in the workplace; mainly verbal type. More than half of the violent incidents were not reported. Implementation of an appointment system in PHC settings and increasing awareness of patients regarding their rights and responsibilities is recommended.

Key words: physical violence, verbal violence, physician, nurses, PHC, Qassim province, Saudi Arabia

Introduction

Worldwide, healthcare workers (HCWs) are at risk of facing violence; between 8% and 38% of health workers suffer from physical violence at some point in their careers [1]. Workplace violence can be physical, sexual or psychological in nature and can be actual or threatened [2-4]. The violence sources against HCWs can be from the patients or from patients' relatives or other health workers. Consequences of violence in workplace for both staff and patients include direct and indirect effects beside compromised patient care [5].

The World Health Organization (WHO) defines violence 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"[6].

There are numbers of factors that increase the risk of workplace violence against health care workers, including factors related to doctors and nurses, offender or co-workers and to the environment of the work place [7-9]. Several studies have explored the factors associated with violence by patients. These factors include anxiety, acute stress reaction, dementia, suicidal ideation, alcoholism and drug intoxication, male gender, older age, having history of violence, and access to firearms. The factors associated with HCWs include patients' service in emergency and psychiatric department, less staff members (especially during meal times and visiting hours), working alone, and long working hours. Moreover, workplace factors of violence were reported as long waiting period, over crowdedness, uncomfortable waiting places, poorly designed place of service, lack of good functioning security, surveillance video cameras, and policies that prevent violence [10].

Because of adverse effects of violence and its risk among doctors and nurses, this issue needs to be explored in order to help develop policies, regulations, and interventions to prevent violence. There is a lack of statistics and a dearth of studies from Saudi Arabia in general and in Qassim region in particular regarding violence against HCWs. The available literature mostly addresses the violence in hospitals including emergency departments and psychiatric units, with little investigated violence in the primary care setting. To fill this gap, we designed the current study with the objectives to determine the prevalence of violence against physicians and nurses, to investigate the causes and consequences of violent events, and to explore the association of violence with demographic and occupational characteristics of physicians and nurses working at PHCCs in Buraidah, Qassim region. The results of this study will help in designing interventions to prevent the events of violence against health care workers.

Methods

1. Study Design, Setting and Study Population

A cross sectional study was conducted at Primary Health Care Centers (PHCCs) in Buraidah city, Qassim Region, Saudi Arabia. Buraidah, the capital of Qassim, has 39 PHCCs belonging to the Ministry of Health (MOH), Saudi Arabia. The physicians and nurses working at PHCCs in Buraidah constituted the study population. All physicians and nurses working in the selected PHCCs were included in the study. However, those who had vacations or were absent during the data collection period, were excluded from the study. Pharmacists, dentists, dental assistant and lab technicians working at PHCCs were also excluded from the study.

2. Data collection tool and procedure

Data were collected by standardized validated, semi structured and self-administered questionnaire. The study questionnaire was adapted from the WHO survey questionnaire about violence in health care settings [11]. The questionnaire had two main sections. The first section gathered information about demographic characteristics (age, sex, marital status, occupation and nationality) and occupational characteristics (years of work experience, working hours and duty shifts, number and gender of coworkers) of the study participants. This section also included questions about experiencing violence by the health care workers and questions about violence reporting system at PHCCs. The second section included questions specific to the last violent event faced by the respondent including questions about the details of the incident and the offender. Questions regarding reasons and consequences of the violent event were also included in this section. Finally, the participants were asked about their suggestions for prevention of violence at PHCCs. The questionnaire was pilot tested for clarity and understandability. No modifications were required in the questionnaire as the respondents found it clear and understandable.

All physicians and nurses working at PHCCs in Buraidah were invited to participate. Five medical students participated in data collection. The medical students were trained for data collection. After explaining the objectives of the study and taking informed consent, the physicians and nurses available at the time of the survey were provided with the questionnaire. The data collectors collected the filled questionnaires on the same day. The data was collected during June 2021-July 2021.

3. Data analysis

Data were entered and analyzed using Statistical Package for Social Sciences (SPSS) software, version 26. Descriptive analysis was carried out; the mean, range, and standard deviation (SD) were calculated for quantitative variables; frequency and proportion were calculated for categorical variables. For comparisons, chi-square test was used for testing the association between categorical variables while t-test and ANOVA were used for the quantitative variables. A p-value ≤ 0.05 was considered significant for all inferential analysis.

4. Ethical consideration

The ethical approval was taken from the Regional Research Ethics committee, Qassim. A permission letter was obtained from the administrative authorities

before starting the data collection. Informed consent was obtained from each participant. The confidentiality of the participants was maintained at all steps of the study.

Results

1. Demographic characteristics

A total of 288 physicians and nurses participated in the study. The demographic characteristics of the study participants are summarized in Table 1. Their age ranged between 24 and 66 years with an arithmetic mean (\pm SD) of 36.7 ± 8.2 years. Females represented 63.7% of them while nurses represented 64.2% of the respondents. The majority were married (81.4%) and Saudi nationals (75.3%).

Table 1: Demographic characteristics of the study participants (n=288)

Demographic characteristics	No.	%
Age in years (n=204)		
<30	32	15.7
30-50	160	78.4
> 50	12	5.9
Range	24-66	
Mean \pm SD [¶]	36.7 \pm 8.2	
Gender (n=278)		
Female	177	63.7
Male	101	36.3
Job (n=274)		
Physician	98	35.8
Nurse	176	64.2
Marital Status (n=273)		
Single	46	16.8
Married	222	81.4
Divorced/widow	5	1.8
Nationality (n=275)		
Saudi	208	75.6
Non-Saudi	67	24.4

¶SD: Standard deviation

2. Occupational characteristics

Table 2 presents the occupational characteristics of the study participants. The health sector experience of almost one-third (33.7%) of the participants ranged between 6 and 10 years whereas that of 19.9% exceeded 15 years. The experience in primary healthcare ranged between 1 and 5 years for 33.8% of the study participants whereas 12.5% respondents had more than 15 years of experience in the primary healthcare system. The majority of the respondents (97.1%) worked in morning shifts. Number of co-workers ranged between one and five in 50.7% of cases. In the majority of cases, the usual patient's gender was either female (39.4%) or both genders (40.7%).

Table 2: Occupational characteristics of the participants (n=288)

Occupational characteristics	No.	%
Experience in the health sector (years)		
1-5	59	20.9
6-10	95	33.7
11-15	72	25.5
>15	56	19.9
Experience in primary health care (years)		
1-5	105	38.8
6-10	86	31.7
11-15	46	17.0
>15	34	12.5
Time of the work (n=279)		
Morning shift	271	97.1
Evening/night shift	5	1.8
Both	3	1.1
Number of co-workers (n=278)		
1 –5	141	50.7
6 –10	88	31.7
>10	49	17.6
Usual patient's gender (n=282)		
Male	56	19.9
Female	111	39.4
Both	115	40.7

3. Violence reporting system

More than one-third of the participants (n=109, 39.5%) reported existence of a system for reporting violence at their primary healthcare center. Among those who reported existence of a system for reporting violence at PHCC, 75.2% knew how to use the system; 63.1% mentioned that there is encouragement to report violent events and 61.8% believed that the violence reporting system is effective (Table 3).

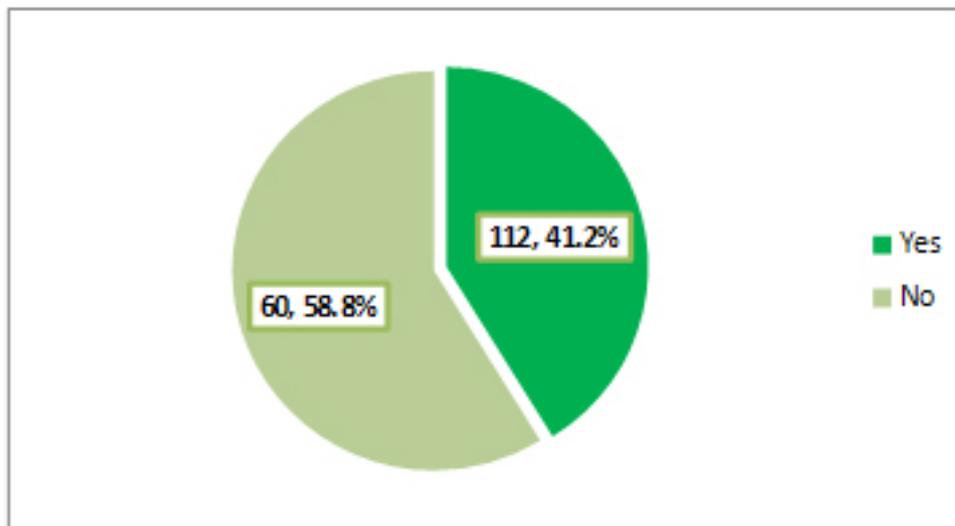
Table 3: Experience of the participants with the violence reporting system at primary healthcare center (n=109)

	No.	%
Do you know how to use the system of reporting? (n=105)		
Yes	79	75.2
No	26	24.8
Is there encouragement to report violent event? (n=103)		
Yes	65	63.1
No	17	16.5
Don't know	21	20.4
Do you think the violence reporting system is effective (beneficial)? (n=102)		
Yes	63	61.8
No	8	7.8
Don't know	31	30.4

4. Prevalence of workplace violence

History of exposure to workplace violence was mentioned by 41.2% of the participants as illustrated in Figure 1.

Figure 1: Study participants' history of exposure to work place violence over the past 12 months (n=172)



Violent incidents were faced monthly by almost half (48.2%) of those reporting history of exposure to workplace violence. The majority (98.2%) of the incidents were verbal. Slightly more than half of the incidents (52.6%) happened within 1-3 months prior to the survey. Time of the attack was morning shift in the majority of cases (88.1%) and inside the workplace (96.4%). The offender was a patient in most of the incidents (79.7%). Females comprised 63.2% of offenders and those aged between 21 and 45 years represented 72.1% of them (Table 4).

Table 4: Description of the workplace violence experienced by the participants in the last 12 months (N=112)

	No.	%
Frequency of facing violent insults (n=108)		
Daily	4	3.7
Weekly	12	11.1
Monthly	52	48.2
Less than monthly	40	37.0
Type of last event of violence		
Physical	1	0.9
Verbal	110	98.2
Both	1	0.9
How long since the last attack happened?		
Within 1-3 months	59	52.6
Within 4-6 months	20	17.9
Within 7-12 months	33	29.5
Time of the last attack (n=109)		
Morning shift (8am-4pm)	96	88.1
Evening shift (5pm-8pm)	11	10.1
Night shift (8pm-11pm)	2	1.8
Place of the last attack		
Inside workplace	108	96.4
Outside workplace	4	3.6
Who is the offender? (n=108)		
Patient	86	79.7
Companion	15	13.9
Staff member	5	4.6
External colleague/worker	1	0.9
Others	1	0.9
Gender of the offender (n=106)		
Male	39	36.8
Female	67	63.2
Age of the offender in approximate years (n=104)		
21 – 45	75	72.1
≥46	21	20.2
Don't know	8	7.7

Regarding the cause of the violent event, the most frequently reported were misunderstanding (41.1%), unmet service demand (29.5%), overcrowding (26.8%) and long waiting time (25%). Nothing happened as a reaction to violent events by 56.3% of the victims, while reporting to supervisors was mentioned by 34.8% of them. Among those who did nothing, the main reason was non-efficiency of the reporting system (95.2%). More than half (57.5%) of the victims reported no action was taken to investigate the causes of the incident. As regards consequences of the event, 78.9% reported nothing while 11.4% reported decrease in performance of their work. More than half of the victims (53%) were either unsatisfied or very unsatisfied with the consequences.

Table 5: Reasons and consequences of the violent events faced by the participants in the last 12 months

	No.	%
The reason of the violent event: participant`s view*		
Unmet service demand	33	29.5
Lack of penalty for offender	18	16.1
Over crowding	30	26.8
Long waiting time	28	25.0
Misunderstanding	46	41.1
Reaction to the violent event*		
Nothing	63	56.3
Report to supervisor	39	34.8
Request to move from your work place	8	7.1
Consult colleague or friend	9	8.0
Report to police	1	0.9
Others	2	1.8
Reasons for not reporting the violent event* (n=63)		
Fear of revenge	13	20.6
Fear of loss of job	4	6.3
Felt ashamed/guilty	11	17.5
Not efficient system of reporting	60	95.2
Fear of negative reaction from family	4	6.3
Others	11	17.5
Any action taken to investigate the causes of the incident? (n=106)		
Yes	13	12.3
No	61	57.5
Don`t know	32	30.2
Consequence of the last violent event (n=105)		
Nothing	83	78.9
Injury, need no medical care	1	1.0
Absenteeism	3	2.9
I was transferred from the work place	1	1.0
I had decreased performance of work	12	11.4
I felt ashamed or guilty	4	3.8
Others	1	1.0
Level of satisfaction with consequences (n=102)		
Very satisfied	4	3.9
Satisfied	14	13.7
Neutral	30	29.4
Unsatisfied	41	40.3
Very unsatisfied	13	12.7

5. Factors associated with workplace violence

Females were more likely to be exposed to workplace violence compared to males (46.7% versus 33.7%, $p=0.039$). Half of the physicians compared to 37.5% of nurses reported exposure to workplace violence. However, the difference was borderline insignificant ($p=0.052$). The majority of divorced/widowed participants (80%) compared to 25% of singles reported exposure to violence at workplace ($p=0.011$). Participants' age and nationality were not significantly associated with exposure to workplace violence.

The highest rate of exposure to workplace violence was observed among participants who had between 11 and 15 years of experience in the health sector (54.5%) whereas the lowest rate was observed among those who had the lowest experience (1-5 years) (30.9%). However, the difference was borderline insignificant ($p=0.055$). Participants who reported female or both genders as regards the usual patient's gender were more likely to report workplace violence opposed to those who reported males (47.6% and 45.9% versus 21.2%, $p=0.003$). Other studied factors (experience in the primary healthcare, time of work, and number of co-workers) were not significantly associated with exposure to workplace violence.

On asking whether the violent event was preventable, 106 participants responded; more than half ($n=60$; 56.6%) of them believed that the incident could have been prevented.

Regarding suggestions for prevention of violent events at PHCCs, the study participants suggested availability of security guard for primary healthcare centres, mandatory penalty for offenders, and implementation of appointment system for patients.

Discussion

Workplace violence towards health care providers has increased during the last decades with serious consequences that may extend beyond individuals to an entire health care organization [13]. Therefore, this study was conducted to explore the extent and characteristics of work-related violence against physicians and nurses working in primary health care centers in Buraidah, Qassim Region, Saudi Arabia.

In the current study, workplace violence was reported by 41.2% of HCWs. A comparable rate was reported recently in the Eastern Province of Saudi Arabia (2020) as the prevalence of violence against healthcare workers at primary care centers was 46.9% [14]. Additionally, few local studies were conducted among workers in primary healthcare settings. In Abha city (2018), a study carried out in two governmental hospitals and ten primary healthcare centers revealed that 57.5% of healthcare workers had experienced some kind of workplace violence at least once [15]. In Riyadh (2016), in 12 Family Medicine centers, the prevalence of any kind of workplace violence over 12 months prior to the study was 45.6% [10]. In AL- Hassa

city (2010), 28% of primary HCWs experienced at least one violent event during the past 12 months [16].

International studies on workplace violence have reported varying figures. In Egypt (2010), 28% of nurses working in four hospitals and 12 primary health care centers encountered at least one type of violence [17]. In Bosnia and Herzegovina (2019), the prevalence rate of all forms of workplace violence was very high (90.3 %) [13]. A systematic review in Africa (2020) revealed that the overall prevalence ranged from 9% to 100% with the highest in Egypt (59.7%-86.1%) and South Africa (54%-100%) [18]. In the current study, verbal violence was the most common type of violence encountered by the vast majority of respondents (98.2%), which is consistent with the previous research conducted elsewhere [13,16,18]. The majority of perpetrators of violence were the patients themselves followed by their companions. These results are consistent with those reported in the literature in different places [9,14,19,20].

Several studies [15,18,21] have reported that nurses were more exposed to violent events than physicians because they comprise one of the largest groups in the health care professions and have direct contact with patients and their relatives. However, in this study, the rate of violence was higher, although not reaching the critical significance level among physicians, than nurses. This may be explained by the fact that our study was conducted in primary health care centers where physicians and nurses are equally in direct contact with patients. Similar results have been obtained from a study carried out among HCWs working at primary healthcare settings in Turkey [13].

There is contradictory evidence on whether a healthcare provider's gender is a risk factor for being exposed to violence. While some researchers [22] reported that men experience violent events significantly more often than women, others ascertained the opposite and reported that women, particularly nurses, are more likely to encounter violence and aggressive behaviour than men [12,23]. However, other authors in accordance with our study reported that there was no difference in the overall frequency of violent events between health staff according to their gender [13].

In the current survey, in accordance with others [14] almost one-third of the study participants were aware of the existence of reporting system. Also, 34.8% of victims reported a violent incident to their supervisor and one victim reported it to police. Among those who did not report, the main reason was non-efficiency of the reporting system (95.2%). Additionally, more than half (57.5%) of the victims reported that no action was taken to investigate the causes of the incident. As regards consequences of the event, 78.9% reported nothing and overall, more than half of those (53%) were not satisfied with consequences. In the same context, 56.6% of victim HCWs thought that violent attacks could have been prevented. Quite similar results have been observed in other local studies carried out among primary healthcare workers in Eastern Province [14] and Riyadh [10].

Conclusion

A considerable proportion of HCWs (physicians and nurses) in primary health care centers in Buraidah, Qassim Region, Saudi Arabia were exposed to violence in the workplace. The most common type of violence encountered by the majority of respondents was verbal violence. Physicians were more likely than nurses to experience violence in the workplace. Most of the violent incidents were not reported mainly because of the belief of the victims that the system of reporting is inefficient. Ever married health workers and those usually dealing with females or both genders were more likely to be exposed to violence in the work place. According to the respondents' suggestions, availability of a security guard for primary healthcare centers, application of penalty role for offenders and implementation of appointment system could decrease the incidents of violence at primary healthcare settings. Implementation of an appointment system at primary healthcare settings and increasing awareness of patients regarding their rights and responsibilities towards healthcare staff is recommended.

Data Availability

The data used to support the findings of this study are presented in the research article and are available from the corresponding author upon request.

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