

# **Cross-Sectional Descriptive Study: Evaluate of Violence against Health Care Worker in Workplace at Emergency Department in the Primary Health Care Centres during COVID-19 Pandemic in Makkah Al-Mokarramah, Saudi Arabia2022**

**Muhanna Saeed Saleh Alkhodidi<sup>1</sup>, Naif Mohammed Ahmed Alzahrani<sup>2</sup>, Mohammed Mater Mahzari<sup>3</sup>, Muhannad Ali Alqahtani<sup>4</sup>, Mohammed Yasseen Qumawi<sup>5</sup>, Hesham Hashem Alzahrani<sup>5</sup>, Marwah Saud Abdulaziz Alhtalani<sup>6</sup>, Norah Fahad Saleh Alazmi<sup>7</sup>, Hani Dakhil R Alharbi<sup>8</sup>, Fatemah Mohamad Hussin Namazi<sup>9</sup>, Ohud Abdullah Ibrahim Saktawi<sup>10</sup>, Amani Ibrahim Mohammed Alasmari<sup>11</sup>, Badrya Eidhah wedyan Alyazedi<sup>12</sup>, Walaa Abdullatef Bokhari<sup>13</sup>**

<sup>1</sup>Epidemiologist, King Abdulaziz Hospital, Makkah, Saudi Arabia.

<sup>2</sup>Specialist Nursing, Al Noor specialist Hospital, Makkah, Saudi Arabia.

<sup>3</sup>Pharmacy Technicians, Alardah General Hospital, Saudi Arabia.

<sup>4</sup>Public Health, Al Noor Specialist Hospital, Saudi Arabia.

<sup>5</sup>Physiotherapy Specialist, Al Noor Specialist Hospital, Makkah, Saudi Arabia.

<sup>6</sup>Health service Management specialist, Alyamama Hospital, Saudi Arabia.

<sup>7</sup>Healthcare Management Technician, Alyamama Hospital, Saudi Arabia.

<sup>8</sup>Dentist, Almagrah Health Care Center, Makkah.MOH.SA

<sup>9</sup>Medical Laboratory Technician, Hira General Hospital, Makkah, Saudi Arabia.

<sup>10</sup>Medical Laboratory specialist, Hira General Hospital, Makkah, Saudi Arabia.

<sup>11</sup>Nursing specialist, Burn unit-head nurse, Alnoor specialist hospital, Saudi Arabia.

<sup>12</sup>Nursing specialist, Quality management department, Alnoor specialist hospital, Saudi Arabia.

<sup>13</sup>Pharmacy Technicians, King Abdulaziz Hospital-Makkah, Saudi Arabia.

## **Abstract**

### **Background**

Workplace violence (WPV) against Healthcare Workers (HCWs) has emerged as a global issue. Emergency Department (ED) HCWs as front liners are more vulnerable to it due to the nature of their work and exposure to unique medical and social situations. COVID-19 pandemic has led to a surge in the number of cases of WPV against HCWs, especially against ED HCWs. In most cases, the perpetrators of these acts of violence are the patients and their attendants as families. The causes of this rise are multifactorial; these include the inaccurate spread of information and rumors through social media, certain religious perspectives, propaganda and increasing anger and frustration among

the general public, ED overcrowding, staff shortages etc. Frontline health care workers in workplace at emergency department in the primary health care center during COVID-19 pandemic were at distortion ate risk of workplace violence.

**Aim of the study:** To Evaluate of violence against health care worker in workplace at emergency department in the primary health centers during COVID-19 pandemic in Makkah Al-Mokarramah, Saudi Arabia2022.

**Method:** Cross-sectional analytical study has been conducted at emergency departments (EDs) among health care worker in workplace at in the primary health care center during COVID-19 pandemic in Saudi Arabia, to attending physicians and nurses using a self-administered structured questionnaire. The total sample has been (300) of health care worker.

**Results:** age the highest age was(45.0%) were(30-35) years, the gender the most of participant female were (61.0%), the nationality Saudi were (82.0%), the marital status most of participant married(42.0%) and (23.0%)were single but widowed were (22.0%). Your qualification is majority of the participated had diploma were(23.0%).

**Conclusion:** The COVID-19 pandemic has probably exacerbated the perpetration of WV against HCWs globally and Saudi Arabia. While complying with the oath of providing care to patients regardless of the prevailing circumstances, HCWs are exposed to varying levels of WV perpetrated majorly by patients and their relatives. The emotional impact of WV on HCWs is grave, with many HCWs exposed to high levels of mental stress, fatigue, and increased predisposition to mental illness alongside thoughts of quitting their engagement as HCWs, timely preventive measures should be undertaken for emergency department Saudi Arabia.

**Keywords:** Evaluate, violence, health care worker, emergency, department, primary health care, COVID-19, Makkah, Saudi Arabia.

## Introduction

Workplace violence against healthcare workers (HCWs) is very common. Aggressions against HCWs constitute almost a quarter of all episodes of violence occurring in the workplace [1]. Workplace violence in the healthcare sector has been defined by the World Health Organization 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]. In general, physical violence may result in physical, sexual, or psychological harm, whereas psychological violence, including verbal abuse, bullying/mobbing, harassment, and threats, can result in harm to physical, mental, spiritual, moral, or social development [3]. Work violence is increasingly being acknowledged worldwide as a worrying

occupational health hazard [4], even if to date only a minority of countries have included Workplace violence among the occupational hazards that the employer must prevent [5]. Workplace Violence (WPV) is referred to an act or threat of physical or verbal violence, harassment, terrorizing or other intimidating behaviour occurring at a work-site that leads to a physical or psychological injury to the victim.[6] WPV has evolved as a global issue and is regarded as an epidemic in some countries.[7] International research has found that staff and patient attributes, the interaction between staff and patients, as well as environmental characteristics, are important factors associated with the occurrence of patient and visitor violence.[8] Healthcare workers (HCWs) are more prone to it and it ranges from threats and verbal abuse to physical assaults and even homicide[9] besides the impact on healthcare professionals, violence also, directly and indirectly, affects the quality of patient care.[10] HCWs in the emergency department (ED) are more vulnerable to violence.[11]

Due to a variety of stressors including the overcrowding of ED, unresolved issues of emergency patients, disease stress, patient pain, high acuity of patient illness, rotating staff and late hours.[12] Healthcare system goals include prevention of an infection pandemic, as well as provision of high-quality medical care for those infected; pandemics pose a psychological toll associated with social isolation, behavioral, and emotional contagion of fear and anxiety [13]. The proliferation of Corona Virus Disease-19 (COVID-19) that gained worldwide attention in December 2019 led to the declaration of a Public Health Emergency of International Concern (PHEIC) by the WHO Emergency Committee at the end of January 2020 [14]. As of February 2021, there have been over 108 million recorded COVID-19 cases, with almost 2.4 million deaths worldwide [15]. Frontline healthcare providers (HCPs) facing this public health pandemic are put under physical and psychological stress; being at risk of being infected while caring for patients or exposed to patients' environment or biological samples with subsequent transmission to their family members [16]. It is expected that with asymptomatic persons driving continued community transmission, the spread of the disease will be greater with initial estimates of 10 to 20% of all diagnoses for HCPs [17].

## **Literature Review .**

Egypt is reported to have the highest prevalence of Workplace violence against healthcare workers in Africa (ranging from 59.7% to 86.1%) [18]. The incidence of violence in emergency rooms has been a recurrent problem in Egypt due to lack of security measures at hospitals and the absence of legislation for violence against healthcare professionals. Further, the incidence of WPV reportedly increased during the COVID 19 pandemic [19].

Study in Saudi Arabia of late in Riyadh (2017), Alharthy N and her studies group researched the prevalence of workplace violence about emergency medical services laborers. They reasoned that

the prevalence of workplace violence was 65%. Concerning the type, verbal abuse was the commonest (61%). Most of the perpetrators were patients' family members relatives (80%) followed by patients themselves (51%). More youthful (<30 years), lower experienced staff ( $\leq 10$  years) had fundamentally higher violent incidents than their partners. Reporting the incidents the occurrences to a more significant position authority was referenced by just 10% of the victims.[20]. Since no studies have used similar timeframe, direct comparison with findings of this study was not possible. For the sake of orientation, the 1-month prevalence of verbal and physical WPV against ED clinicians were 15.8% and 3.3%, respectively, while the corresponding figures for 3-month prevalence were 13.8% and 3.3% [21].

A study in the Arabian Gulf region concluded that WPV among healthcare providers in EDs is common and can be serious when weapons are used. The majority of respondents, 75.6%, said that they have experienced verbal abuse or bullying at the hands of patients or families of patients. [22]

Aljohani B. et al. (2021) conducted a systematic review that included 26 articles and found that WPV in the ED was reported in 9072 cases, with 6575 (72%) involving verbal abuse and 1639 (18%) involving physical violence. This study showed that healthcare providers who experienced workplace violence were 2112 physicians (36.5%), 3225 nurses (55.7%), and 455 other ED staff (7.8%)[1]

At a university hospital, Eastern area (Khobar), Al-Shamlan et al (2017) gauges the prevalence of verbal abuse about nurses. Over a time of one year, the pervasiveness of verbal abuse was 30.7% about nursing. Greater part of them didn't report the incidents; Majority because they believed that reporting would yield no positive results. Male nurses, nurses in the emergency department, and those who indicated that there were procedures for reporting violence in their workplace were more likely to have verbal abuse.[23] This study is limited by the fact that they included all nursing staff not only those working in emergency departments and also it focused on nurses only.

In Bahrain, Rafeea F, et al (2017) completed a cross-sectional at the ED of the Bahrain Defense Force to assess frequency of violence in the workplace. Results uncovered that the most regular frequent reported type of violence in the past 12 months was verbal abuse (78%), trailed by physical abuse (11%) and sexual abuse (3%). most than half (53%) of instances of violence happened during night shifts, while physical abuse was accounted for to happen during all the shifts.[24]

An extensive extent (40%) of the staff didn't know about the strategies against workplace violence, and 26% of the staff thought about finding employment elsewhere. The most elevated reasons of violence revealed by the staff were long holding up time and patient expectations.[25] However, this research's was directed in one healthcare facility which could influence the generalizability of its outcomes.

### **Rationale:**

Our research will help to explore the perceptions of ED healthcare providers (doctors, nurses and frontline staff) regarding workplace violence during the COVID-19 pandemic. Specifically, the findings of the qualitative study will provide a better understanding of study participants' challenges about workplace violence during COVID-19 pandemic. Finally, this study would suggest strategies to improve the overall experiences of health care workers working in emergency rooms of the public and private primary health care during the COVID-19 pandemic. The study would also guide the development of context-specific interventions to address challenges of frontline emergency rooms health care workers regarding workplace violence during the COVID-19. The study may also serve as a strong base for a multicenter quantitative/mixed methods study at a larger sample size among emergency rooms health care workers across the country.

### **Aim of the study:**

To Evaluate of violence against health care worker in workplace at emergency department in the primary health care centers during COVID-19 pandemic in Makkah Al-Mokarramah , Saudi Arabia2022

### **Specific objectives:**

This study will by to Evaluate of violence against health care worker in workplace at emergency department in the primary health centers during COVID-19 pandemic in Makkah Al-Mokarramah , Saudi Arabia2022.

### **Primary objective:**

To assess the impact of violence in health care worker in workplace at emergency department in the primary health centers during COVID-19 pandemic in Saudi Arabia2022 .

### **Methodology**

#### **Study Design**

Cross-sectional descriptive study design has been adopted.

#### **Study Area**

The study has been conducted at emergency departments in primary health centers, the largest seaport on the Red Sea, there are primary health centers belonging to Ministry of health and include emergency departments, where the study has been carried ..

#### **Study population:**

Physicians and nurses providers working at emergency departments of primary health care centers in Saudi Arabia (males and females) have been included in the study.

## **Eligibility Criteria**

### **Inclusion criteria:**

- Physicians and nurses working at emergency departments of primary health care centers  
Male and female .
- All nationalities.

### **Exclusion criteria:**

Healthcare providers working in clinics at primary healthcare centers in Saudi Arabia .

### **Sample Size**

The primary health centers to MOH are classified . Using Roasoft online sample size calculator and assuming the number of physicians and nurses working at primary health centers .

The prevalence of workplace violence at emergency department . At 95% confidence of interval and 5% accepted margin of error, the sample size is 300 physicians and nurses. This figure has been increased by 10% to compensate for none or incomplete response, thus the total sample has been (300) physicians and nurses.

### **Sampling Technique**

**Stage I :** Stratified sampling techniques (selection of the primary health centers)

The Ministry of primary health centers has been divided into strata workers

The total number has been taken from each selected primary health centers based on proportion to sample size. Then the health workers) has been divided into two strata. Doctors and nurses .

From each stratum the sample has been calculated based on proportion to size.

### **Data Collection Tool**

A self-administered questionnaire distributed to all working physicians and nurses in the EDs departments, primary health centers chosen for the study. The questionnaire was mainly developed from literature review and the WHO survey questionnaire about violence in health care settings validity has been taken by 3 consultants.

**The first section** of questionnaire includes demographic data of the respondents (age, gender, nationality, job title, qualification, marital status and years of experience).

**The second section** has been consist of questions to estimate physical abuse , how many time ,during which shift, type and place of violence, source of violence , reasons , outcome of violence, reported or not , if reported to whom and if not why .

**The third section** has been consist of questions to estimate verbal abuse , how many time ,during which shift, type and place of violence, source of violence , reasons , outcome of violence , reported or not, if reported to whom and if not why.

## Data Collection Technique

The researcher has been visit the chosen EDs in primary health centers in Saudi Arabia after getting official permissions to conduct the study .

They have been explaining the purpose of the study to the ED head in each setting. Then, the questionnaire has been distributed on physicians and nurses after explaining the purpose of the study and how to fill the questionnaire to them.

## Data Entry and Analysis

Data has been collected, reviewed, coded and entered into the personal computer. Data has been presented in the form of frequencies and percentages. Chi-squared test ( $\chi^2$ ) has been used for comparing qualitative data. Other statistical tests have been applied whenever appropriate. Statistical significance has been considered at p-value  $\leq 0.05$ . Analysis has been done using SPSS program version 24.

## Pilot Study

A pilot study on 10% of physicians and nurses in one of the non-selected primary health centers has been conducted to test the feasibility of the methodology and wording of the questionnaire as well as to estimate the average time to complete it. A necessary modification has been done, based on pilot study results. Their results has been not included in the final report .

## Ethical Considerations

- Approval from the Research and Ethical Committee Joint Program of Family Medicine was taken.
- Approval from the director of Ministry of health in Makkah has been obtained.
- All collected data has been kept confidential and will not use except for research purposes.

## Budget

- The research will be self-funded

## Result

**Table (1) . Distribution of Socio-demographic characteristics of the studied population (300)**

	N	%
<b>Age</b>		
<30	111	37
30-35	135	45
>35	54	18
<b>Gender</b>		

Female	183	61
Male	117	39
<b>Nationality</b>		
Non-Saudi	54	18
Saudi	246	82
<b>Marital status</b>		
Single	69	23
Married	126	42
Widowed	66	22
Divorced	39	13
<b>Your qualification is</b>		
Diploma	69	23
Bachelor	60	20
Resident	54	18
Specialist	33	11
Master	54	18
Consultant	30	10
<b>Job title</b>		
Doctor	87	29
Nurse	213	71

Regarding the age the highest age was(45.0%) were(30-35) years followed by <30 years were(37.0%), regarding the gender the most of participant female were (61.0%) while males were (39.0%), regarding the nationality Saudi were (82.0%) while non-Saudi were (18.0%), regarding the marital status most of participant married(42.0%) and (23.0%)were single but widowed were (22.0%). Regarding Your qualification is majority of the participated had diploma were(23.0%), followed by bachelor were(20.0%) but resident and master were (18.0%), regarding Job title the majority of participated nursing were(71.0%), followed by doctor were(29.0%).

**Table 2 Distribution of the characteristic of experienced and type of workplace violence**

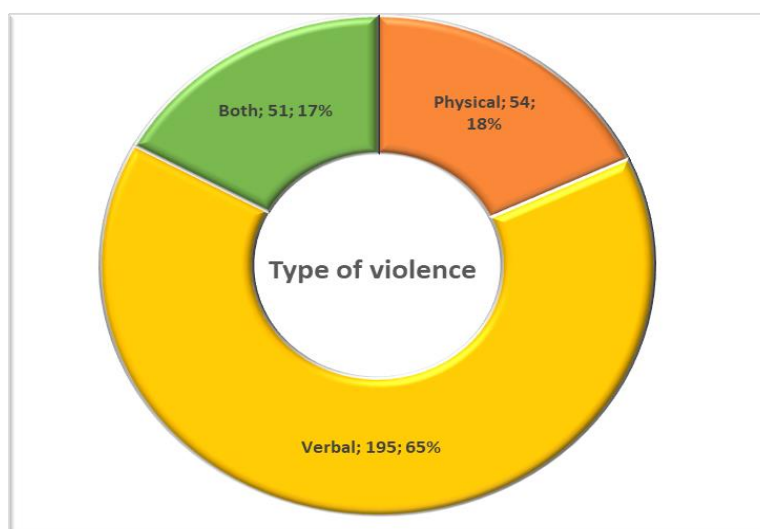
	N	%
<b>Primary Shift</b>		
Day	69	23



Evening	132	44
Night	99	33
<b>Years of experience in emergency department</b>		
Under 1 year	63	21
1 - 5 years	87	29
6 - 10 years	87	29
11 - 15 years	54	18
16 - 20 years	9	3
<b>Have you ever experienced physical or verbal violence</b>		
Yes	186	62
No	114	38
<b>Which type of violence</b>		
Physical	54	18
Verbal	195	65
Both	51	17

Table 2 show most of the participants were evening shift were (44.0%) followed by Night were(33.0%), regarding the Years of experience in emergency department the most of participant 1 - 5 years and from 6 - 10 years were (29.0%). Followed by Under 1 year were(21.0%), regarding you ever experienced physical or verbal violence the most of participant were answer Yes were(62.0%) followed by No were(38.0%), regarding type of violence the most of participant verbal were (65.0%) while both Physical and Verbal respectively were (18.0%, 17.0%).

**Figure 1 Distribution of the characteristic of experienced and type of workplace violence .**



**Table 3 Description of Violence in the emergency department by survey period during COVID-19 .**

	Pre/Early-COVID		Mid/Late-COVID		Chi-square	
	No	%	No	%	P-Value	P-Value
How safe do you feel in the emergency department						
Extremely safe	177	59	48	16	170.353	<0.001*
Very safe	81	27	63	21		
Moderately safe	24	8	102	34		
Slightly safe	9	3	54	18		
Not safe at all	9	3	33	11		
How often were you verbally abused by patients or visitors in the past 6 months?						
Less Than Once a Month	153	51	39	13	104.296	<0.001*
Every Month	36	12	57	19		
Every Week	33	11	84	28		
Every Day or Two	42	14	57	19		
Less Than Once a Month	36	12	63	21		
How often have you reported incidents of violence in the past 6 months?						
Always	117	39	60	20	31.185	<0.001*
Often	57	19	54	18		
Sometimes	48	16	63	21		
Rarely	33	11	57	19		
Never	24	8	39	13		
Not Applicable/did not Respond	21	7	27	9		

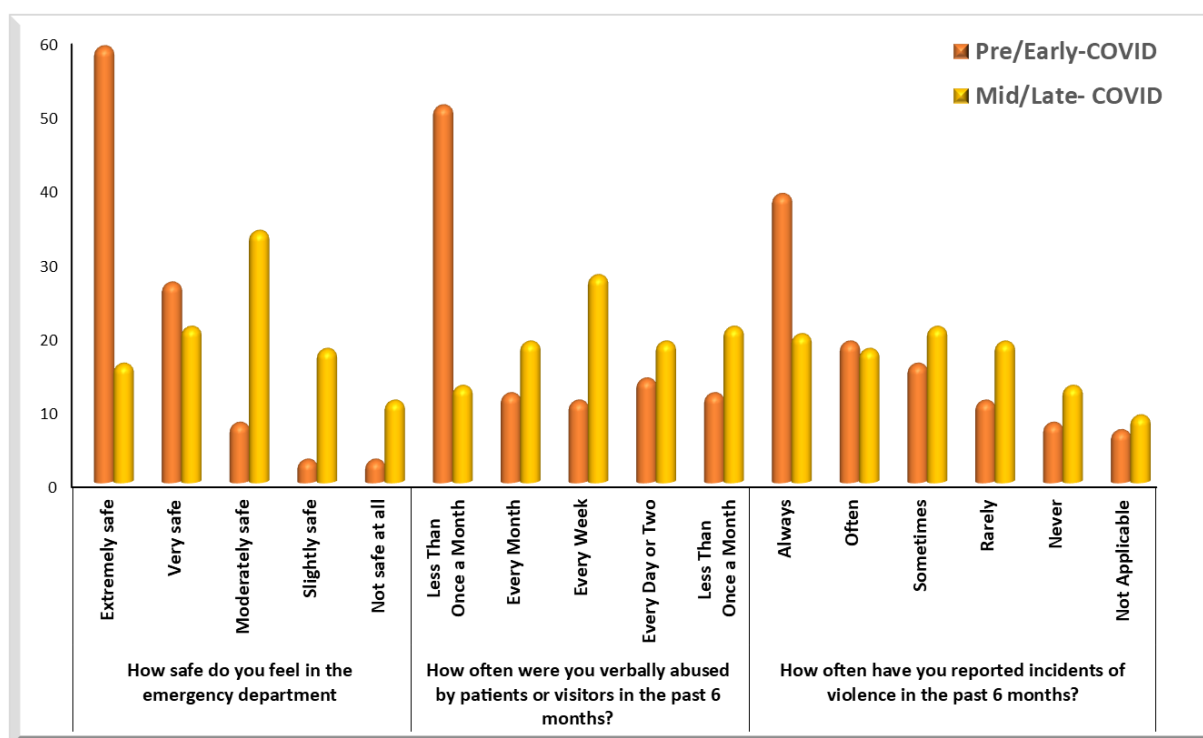
Table 3 show regarding safe do you feel in the emergency department most of participants answer Extremely safe were(59.0%) follow by Very safe were (27.0%,) during Pre/Early-COVID, regarding mid/late COVID most of participants answer Moderately safe were(34.0%) follow by Very safe were (21.0%,) while a significant relation were P-value <0.001 and  $X^2$ 170.353 .

Regarding often were you verbally abused by patients or visitors in the past 6 months the most of participant answer Less Than Once a Month were(51.0%) but Every Day or Two were(14.0%) during Pre/Early-COVID while during Mid/Late- COVID Every Week were (28.0%) followed by

Less Than Once a Month were (21.0%) While a significant relation were P-value <0.001 and  $X^2$  104.296 .

Regarding often have you reported incidents of violence in the past 6 months the most of participant answer Always were(39.0%) but Often were(19.0%) during Pre/Early-COVID but Sometimes were(21.0) followed by Always were(20.0%)during Mid/Late- COVID While a significant relation were P-value <0.001 and  $X^2$  31.185

**Figure 2 Description of Violence in the emergency department by survey period during COVID-19**



**Table 4 Description of the relation between Socio-demographic data and type of workplace Physical violence during COVID-19(physical, verbal, both)**

		type of violence						Chi-square	
		Physical		Verbal		Both			
		N	%	N	%	N	%	X <sup>2</sup>	P-value
Age	<30	41	75.93	47	24.10	23	45.10	66.256	<0.001*
	30-35	9	16.67	115	58.97	11	21.57		
	>35	4	7.41	33	16.92	17	33.33		
Gender	Female	9	16.67	166	85.13	8	15.69	136.350	<0.001*
	Male	45	83.33	29	14.87	43	84.31		

<b>Nationality</b>	<b>Non-Saudi</b>	7	12.96	32	16.41	15	29.41	5.762	0.056
	<b>Saudi</b>	47	87.04	163	83.59	36	70.59		
<b>Marital status</b>	<b>Single</b>	27	50.00	23	11.79	19	37.25	70.508	<0.001*
	<b>Married</b>	6	11.11	111	56.92	9	17.65		
	<b>Widowed</b>	15	27.78	41	21.03	10	19.61		
	<b>Divorced</b>	6	11.11	20	10.26	13	25.49		
<b>Your qualification is</b>	<b>Diploma</b>	32	59.26	20	10.26	17	33.33	94.984	<0.001*
	<b>Bachelor</b>	11	20.37	30	15.38	19	37.25		
	<b>Resident</b>	6	11.11	38	19.49	10	19.61		
	<b>Specialist</b>	2	3.70	29	14.87	2	3.92		
	<b>Master</b>	2	3.70	51	26.15	1	1.96		
	<b>Consultant</b>	1	1.85	27	13.85	2	3.92		
<b>Job title</b>	<b>Doctor</b>	11	20.37	50	25.64	26	50.98	14.989	0.001*
	<b>Nurse</b>	43	79.63	145	74.36	25	49.02		

Regarding age results show a significant relation between physical or verbal and both violence and age were  $X^2$  66.256 and P-value=0.001, increase in the age <30 were(75.93%) in the physical but in the verbal in (30-35) age were(58.97%) followed by <30 years in both were (45.10%).

Regarding Gender results show a significant relation between physical or verbal and both violence and Gender were  $X^2$  136.350 and P-value=0.001, increase in the Male were(83.33%) in the physical but in the verbal in female were (85.13%) followed by male in both were (84.31%).

Regarding Nationality results show no significant relation between physical or verbal and both violence and Nationality were  $X^2$  5.762 and P-value=0.056, increase in the Saudi were(87.04%) in the physical but in the verbal in Saudi were (83.59%) followed by Saudi in both were (70.59%).

Regarding Marital status results show a significant relation between physical or verbal and both violence and Marital status were  $X^2$  70.508 and P-value=0.001, increase in the Single were(50.00%) in the physical but in the verbal in Married were (56.92%) followed by Single in both were (37.25%).

Regarding Your qualification is results show a significant relation between physical or verbal and both violence and Your qualification is were  $X^2$  94.984 and P-value=0.001, increase in the Diploma were(59.26%) in the physical but in the verbal in Master were (26.15%) followed by Bachelor in both were (37.25%).

Regarding Job title results show a significant relation between physical or verbal and both violence and Your qualification is were  $X^2$  14.989 and P-value=0.001, increase in the Nurse

were(79.63%) in the physical but in the verbal in Nurse were (74.25%) followed by Doctor in both were (50.98%).

## Discussion

Our research will help to Evaluate of violence against health care worker in workplace at emergency department in the primary health care centers during COVID-19 pandemic in Makkah Al-Mokarramah , Saudi Arabia (doctors and nurses ) regarding workplace violence during the COVID-19 pandemic. Specifically, the findings of the descriptive study will provide a better understanding of study participants' challenges about workplace violence during COVID-19 pandemic. Workplace violence against HCWs in conflict settings has been a major concern for decades, the COVID-19 pandemic appended an additional burden on the already stressful healthcare work environment,[26] also workplace Violence among Physicians and nurses at emergency department is a serious phenomenon that affects the patient experience as well as the quality of practice for healthcare providers, the global and rapidly expanding pandemic has placed unprecedented pressures on healthcare systems all over the world. Due to heavy clinical workloads, low clinician-patient ratio, and stressful work settings, health care workers are vulnerable to high risk of workplace violence [27]. They have withstood to keep up with the intensifying care needs, and many healthcare structures have suffered enormous difficulties to their provision of healthcare services [28], the aim of study to evaluate of violence against health care worker in workplace at emergency department in the primary health centers during COVID-19 pandemic in Makkah Al-Mokarramah , Saudi Arabia 2022. Our study showed the age the highest age was(45.0%) were(30-35) years followed by <30 years were(37.0%), regarding the gender the most of participant female were (61.0%) while males were (39.0%), regarding the nationality Saudi were (82.0%) while non-Saudi were (18.0%), regarding the marital status most of participant married(42.0%) and (23.0%)were single but widowed were (22.0%). Regarding Your qualification is majority of the participated had diploma were(23.0%), followed by bachelor were(20.0%) but resident and master were (18.0%), regarding Job title the majority of participated nursing were(71.0%), followed by doctor were(29.0%). (See Table 1)

Regarding the description of Violence in the emergency department by survey period during COVID-19 (see figure2)

In the results of another study, where verbal attacks were the most reported WPV attacks among the participants . This is also in line with previous studies in Egypt and Jordan [29], which showed that verbal abuse occurs more often than physical violence. This similarity might be attributed to the fact that the Arab countries almost share culture, social, environmental, and behavioral factors.

Moreover, in Ethiopia, verbal abuse was the most well-known type of violence, followed by physical violence [30]. In South Korea, a survey study was conducted at a Seoul university hospital and found that the prevalence of verbal abuse was higher than that of physical violence. Most studies have shown that psychological violence (especially verbal abuse) was higher than physical violence.[31] The number of incidents of verbal abuse was approximately 5-fold that of the number of incidents of physical violence among nurses in several EDs in Jordan. Similarly, a study in Macau revealed incidents of verbal abuse (53.4%) [29] Verbal abuse was the most common form of violence because it was easy to perpetuate and could not be controlled by any sort of security measures.[25], but contrary to others[29], in which the companions of the patients and patients relative were the main source of incidents. health care workers in emergency departments who experienced violence reported that it was caused by absence of action(51.4%), shortage of staff was the most common cause of verbal violence (42%), while lack of security were (56.5%) the most common cause of physical violence. as supported by management in the workplaces, following the rule “the patient is always right”. Workplace violence had negative consequences on Physicians and Nurses at Emergency Department, which is supported by previous studies (30) (See Table 4). Finally, this study would suggest strategies to improve the overall experiences of health care workers working in emergency department of the public during the COVID-19 pandemic. The study would also guide the development of context-specific interventions to address challenges of frontline emergency department health care workers regarding Workplace violence during the COVID-19. The study may also serve as a strong base for a multicenter quantitative/mixed methods study at a larger sample size among emergency department health care workers across the country.

## Conclusions

Saudi Arabia frontline health care worker in workplace at emergency department experienced high levels of workplace violence (WPV) against Healthcare Workers (HCWs) fear during to the COVID-19 pandemic. The type of healthcare facility and work department had significant associations with the levels of workplace violence (WPV) fear among participants. Greater levels of fear were related to lower job satisfaction and higher intentional turnover and workplace violence (WPV). Improving environmental, housing conditions, sanitation and raising personal awareness and attitude to minimize cross infection in all community age groups and avoid the workplace violence (WPV) Future nationwide larger scale continuous studies are needed to reflect the need and propose the solution of such challenges are encouraged.

## References

1. Aljohani, B., Burkholder, J., Tran, Q. K., Chen, C., Beisenova, K., & Pourmand, A. (2021). Workplace violence in the emergency department: a systematic review and meta-analysis. *Public Health*, 196, 186-197.
2. Al-Qadi, M. M. (2021). Workplace violence in nursing: A concept analysis. *Journal of occupational health*, 63(1), e12226.
3. Bhatti, O. A., Rauf, H., Aziz, N., Martins, R. S., & Khan, J. A. (2021). Violence against healthcare workers during the COVID-19 pandemic: a review of incidents from a lower-middle-income country. *Annals of global health*, 87(1).
4. Popa, I., Ștefan, S. C., Olariu, A. A., Popa, Ș. C., & Popa, C. F. (2022). Modelling the COVID-19 pandemic effects on employees' health and performance: a PLS-SEM mediation approach. *International Journal of Environmental Research and Public Health*, 19(3), 1865.
5. Boyle, M. J., & Wallis, J. (2016). Working towards a definition for workplace violence actions in the health sector. *Safety in health*, 2, 1-6.
6. Kader, S. B., Rahman, M. M., Hasan, M. K., Hossain, M. M., Saba, J., Kaufman, S., ... & Koly, K. N. (2021). Workplace violence against doctors in Bangladesh: a content analysis. *Frontiers in psychology*, 12, 787221.
7. Yang, Q., Yang, L., Yang, C., Wu, X., Chen, Y., & Yao, P. (2022). Workplace violence against nursing interns and patient safety: The multiple mediation effect of professional identity and professional burnout. *Nursing open*.
8. Ghareeb, N. S., El-Shafei, D. A., & Eladl, A. M. (2021). Workplace violence among healthcare workers during COVID-19 pandemic in a Jordanian governmental hospital: the tip of the iceberg. *Environmental Science and Pollution Research*, 28(43), 61441-61449.
9. Zhang, X., Li, Y., Yang, C., & Jiang, G. (2021). Trends in workplace violence involving health care professionals in China from 2000 to 2020: a review. *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research*, 27, e928393-1.
10. Kibunja, B. K., Musembi, H. M., Kimani, R. W., & Gatimu, S. M. (2021). Prevalence and effect of workplace violence against emergency nurses at a tertiary hospital in Kenya: a cross-sectional study. *Safety and health at work*, 12(2), 249-254.
11. Salvador, J. T., Alqahtani, F. M., Al-Madani, M. M., Jarrar, M. T. K., Dorgham, S. R., Victoria Reyes, L. D., & Alzaid, M. (2021). Workplace violence among Registered Nurses in Saudi Arabia: A qualitative study. *Nursing open*, 8(2), 766-775.
12. Aman-Ullah, A., Ibrahim, H., Aziz, A., & Mehmood, W. (2022). Impact of workplace safety on employee retention using sequential mediation: evidence from the health-care sector. *RAUSP Management Journal*, 57, 182-198.

13. Stubbs, A., & Szoek, C. (2022). The effect of intimate partner violence on the physical health and health-related behaviors of women: A systematic review of the literature. *Trauma, violence, & abuse*, 23(4), 1157-1172.
14. Harapan, H., Itoh, N., Yufika, A., Winardi, W., Keam, S., Te, H., ... & Mudatsir, M. (2020). Coronavirus disease 2019 (COVID-19): A literature review. *Journal of infection and public health*, 13(5), 667-673.
15. Thakur, A., & Kumar, A. (2022). Management of Future Outbreak Risks (Prevention, Control and Treatment). *Healthcare Informatics for Fighting COVID-19 and Future Epidemics*, 67-89.
16. Hidayat, R. (2022). TACKLING COVID-19 BASE ON THE CONCEPT OF TAGHYĪR (CHANGE) QS. AL-RA 'DU 11. *Al-Misykah: Jurnal Studi Al-qur'an dan Tafsir*, 3(1), 45-60.
17. Yun, S. H., Park, B. G., Jung, E. Y., Kwon, J. Y., Park, Y. K., & Kim, H. J. (2022). Factors affecting the practice of corona virus disease-19 prevention activities in patients with heart diseases in korea. *Clinical Nursing Research*, 31(4), 713-723.
18. Njaka, S., Edeogu, O. C., Oko, C. C., Goni, M. D., & Nkadi, N. (2020). Work place violence (WPV) against healthcare workers in Africa: A systematic review. *Heliyon*, 6(9), e04800.
19. Salem, H., Nafad, R., & Taha, S. (2022). Legal response of physicians towards Workplace Violence during COVID-19 pandemic in Egypt: A cross sectional study. *Zagazig Journal of Forensic Medicine*, 20(2), 29-46.
20. Alharthy, N., Mutairi, M. A., Alsahli, A., Alshehri, A., Almatrafi, A., Mahah, A., & Qureshi, S. (2017). Workplace violence among emergency medical services workers in Riyadh, Saudi Arabia. *Journal of Hospital Administration*, 6(3), 26-32.
21. Wang, P. Y., Fang, P. H., Wu, C. L., Hsu, H. C., & Lin, C. H. (2019). Workplace violence in Asian emergency medical services: a pilot study. *International journal of environmental research and public health*, 16(20), 3936.
22. Al-Maskari, S. A., Al-Busaidi, I. S., & Al-Maskari, M. A. (2020). Workplace violence against emergency department nurses in Oman: a cross-sectional multi-institutional study. *International nursing review*, 67(2), 249-257.
23. Al-Shamlan, N. A., Jayaseeli, N., Al-Shawi, M. M., & Al-Joudi, A. S. (2017). Are nurses verbally abused? A cross-sectional study of nurses at a university hospital, Eastern Province, Saudi Arabia. *Journal of Family & Community Medicine*, 24(3), 173.



24. Rafeea, F., Al Ansari, A., Abbas, E. M., Elmusharaf, K., & Zeid, M. S. A. (2017). Violence toward health workers in Bahrain Defense Force Royal Medical Services' emergency department. *Open access emergency medicine: OAEM*, 9, 113
25. Alsmael, M. M., Gorab, A. H., & AlQahtani, A. M. (2020). Violence against healthcare workers at primary care centers in Dammam and Al Khobar, Eastern Province, Saudi Arabia, 2019. *International Journal of General Medicine*, 13, 667
26. Power, K. (2020). The COVID-19 pandemic has increased the care burden of women and families. *Sustainability: Science, Practice and Policy*, 16(1), 67-73.
27. Xie, X. M., Zhao, Y. J., An, F. R., Zhang, Q. E., Yu, H. Y., Yuan, Z., ... & Xiang, Y. T. (2021). Workplace violence and its association with quality of life among mental health professionals in China during the COVID-19 pandemic. *Journal of Psychiatric Research*, 135, 289-293.
28. Liu, R., Li, Y., An, Y., Zhang, L., An, F. R., Luo, J., ... & Xiang, Y. T. (2021). Workplace violence against frontline clinicians in emergency departments during the COVID-19 pandemic. *PeerJ*, 9, e12459
29. Abou-ElWafa, H. S., El-Gilany, A. H., Abd-El-Raouf, S. E., Abd-Elmouty, S. M., & El-Sayed Hassan El-Sayed, R. (2015). Workplace violence against emergency versus non-emergency nurses in Mansoura university hospitals, Egypt. *Journal of interpersonal violence*, 30(5), 857-872.
30. Siraneh, Y., Taye, A., Asefa, F., Tesfaye, A., & Ahmed, Y. (2021). Sexual Assault Profile in Jimma University Medical Center, Southwest Ethiopia. *Adolescent health, medicine and therapeutics*, 12, 17.
31. Ghareeb, N. S., El-Shafei, D. A., & Eladl, A. M. (2021). Workplace violence among healthcare workers during COVID-19 pandemic in a Jordanian governmental hospital: the tip of the iceberg. *Environmental Science and Pollution Research*, 28(43), 61441-61449.