

ASSAULT AND VIOLENCE AGAINST HEALTHCARE WORKERS IN HOSPITALS OF
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ABSTRACT

Introduction: Violence at work refers to acts or threats of violence aimed at employees, both inside and outside the workplace. Violence against healthcare workers is a global and complex issue that affects a wide range of healthcare workers. Healthcare workers are on the frontline, dealing with individuals in difficult and unpredictable situations. Workplace violence can have a negative impact on their performance outcomes, influencing patients' health and satisfaction. However, few studies have examined assault and violence against healthcare workers in Iraq. **Method:** A cross-sectional study was conducted from 1st of April 2025 until 1st of June 2025 among 590 healthcare workers at two hospitals of Karbala city. Data were collected using a self-administered questionnaire consist of four section covering the socio-demographic characteristics of participants, exposure to assault and violence, effects of violence and participants opinion regard best solutions to protect workers. **Results:** A total of 500 healthcare workers from two hospitals of Karbala city, The mean age was 30.44 ± 7.31 years, slightly more than half of the participants were female sex and married. A total 300 participants (60%) had experienced at least 1 type of violence, the common type of violence was verbal (94.7%), the place of violence was mainly emergency department (42.7%), misunderstanding was the main cause of violence. The primary perpetrators of violence were the patient's relative (76%). Almost half of participants did not report the violence and primarily due to belief that reporting would not change anything and the main impact of violence was psychological effect (39.3%). Age, years of work, job title were strongly significant associated with exposure to violence. **Conclusion:** Workplace violence was discovered to be highly prevalent in which three out of five are exposed to violence, particularly against doctors, verbal violence was the most common type against healthcare workers who frequently did not react to or report it. The study's findings demonstrate the need to develop and evaluate a violence prevention program in order to provide safe, high-quality healthcare services.

KEYWORDS: violence, physical violence, verbal violence, health care workers, depression Iraq, Karbala City.

INTRODUCTION

Every level of society is impacted by violence, which can happen anywhere—at home, on the streets, in institutions, at work and in schools.^[1]

Workplace violence (WPV) is defined by the National Institute for Occupational Safety and Health (NIOSH) as any act or threat of violence, directed at individuals at work ranging from verbal abuse to physical assaults.^[2] According to World Health Organization (WHO), WPV

can be defined as Incidents in which workers being abused, threatened or assaulted in circumstance related to their work, involving implicit or explicit conflict affecting their health, safety or wellness.^[3]

Although WPV is a big issue for all workers, healthcare workers (HCWs) are at the highest risk among other occupation.^[4] Workplace violence in the healthcare industry has become a concerning global issue that frequently occurs and affects the well-being and dignity

of millions of HCWs, it is ethically and socially unacceptable phenomena that has to be addressed.^[5]

The World Medical Association most recently addressed violence against HCWs as an international emergency that undermines the very foundations of health systems and impacts critically on patient's health. Verbal and physical abuse of HCWs has reached significant levels throughout the world.^[6] While verbal violence contains threats of physical force that cause harm to one's body, mind, soul, morals and society, physical violence is the application of force that results in bodily injury.^[7] Physical violence involved stabbing, slapping, biting, pushing and pinching.^[8]

Physical violence can be perpetrated not just with body parts such as hands or feet, but also with harmful objects such as bottles, knives, and glassware, even any object from the hospitals infrastructure.^[9] While being yelled at, cursed at, threatened with danger and using offensive language were all considered forms of verbal violence or abuse.^[10] Due to the physical injury that physical abuse can cause, it usually get more attention than verbal abuse.^[11]

The WHO has estimated between 8% and 38% of health workers suffer physical violence at some point in their careers. Many more are threatened or exposed to verbal aggression.^[7]

Iraq's healthcare services are in a state of chaos as a result of decades of horrific violence brought on by wars and foreign invasions. In 2006, a survey conducted among 80 doctors in two hospitals in Baghdad revealed that 87% of them had experienced violence from patients. This study was considered the first publication to address patient-induced violence in Iraq.^[12]

This study aims to investigate the prevalence, types of WPV against HCWs in hospitals of Karbala city and to asses consequences of assault and violence on HCWs and identify causes and associated factors that lead to violence.

PATIENTS AND METHODS

Study Design

A cross-sectional study.

Study Time and Setting

The study conducted from 1st of April 2025 until 1st of June 2025.

The study conducted in governmental hospitals across Karbala city, Iraq these included:

1. Imam Al- Hussein Medical City.
2. Al- Imam Al- Hassan Al- Mujtaba (A.S)Teaching Hospital.

Hospitals were selected using simple random sampling technique from a total of 7 hospitals to ensure representativeness and provide each hospital an equal

opportunity of inclusion, within these hospitals different departments and units such as (ED, wards, intensive care unit(ICU), outpatient department and laboratory) were also selected randomly to include diverse range of healthcare workers in the sample.

Population and Sample size

The target population consist of all HCWs who work in the selected hospitals of Karbala city. The sample size was calculated based on sample size formula: Sample size.

$$n = \left[\frac{z\alpha}{d} \right]^2 \times p[1 - p], \text{ Then } n_{adj} = n/1 + (n-1/N)$$

n means initial sample size

z is the confidence interval taken as 1.96

d precision (if the precision is 5%then d=0.05)

p expected prevalence or proportion =0.5

N population size (number of healthcare workers in Karbala health director =20,592)

n_{adj} the adjusted sample size

The minimum sample size calculated was 377. In this study 590(male& female) participants included to overcome any non-response or incomplete data. Those who didn't complete the survey nor had special issue regarding the survey were excluded; the final sample was 500 with response rate (84.7%).

Inclusion criteria

-All included HCWs (doctors, dentist, pharmacist, nurse, laboratory technician, anesthesia technicians and others) currently working in the selected hospitals of Karbala city.

-Healthcare workers required to have working experience equal or more than 6 months.

-Those who gave informed consent to participate in the study.

Exclusion criteria

-Healthcare workers who refused to fill the form either they were busy or didn't have the desire to participate.

-Administrative and non _clinical staff.

Data collection

Data was collected using an anonymous self-administered questionnaire; participants were informed about the questionnaire and study objective, after the researcher self-introduction. The participants were promised that their responses would be anonymous. Participants provided verbal agreement and were assured that their participation in the study was fully voluntary. The researcher distributed the questionnaire form to the participants by hand at different departments inside the hospital and different shifts. It took about 10 minutes to complete the survey.

Pilot study

Prior to the study's full implementation, a **pilot study** with 30 participants was conducted randomly to manage any issues that might arise during data collection and to

evaluate the question's clarity and feasibility based on feedback. However, these participants were not included in the study sample, and a few items were removed from the questionnaire and fine details were added.

Data collection tools

The tool of data collection was questionnaire based-method from previously published studies^{[13][29]} and with some modification was adapted following discussion with the two supervisors.

The final questionnaire consisted of four main sections, totaling around 25 items:

-Section1: sociodemographic data consist of 7 questions including (sex, age, marital status, job title, years of work experience, level of education and work shift).

-Section 2: about history of exposure to WPV consist of 14 questions including (exposure to violence, type of violence, the perpetrators, frequency of exposure to violence, place of violence, causes of violence, reaction after violence, reporting the violence, tribal settlement).

-Section 3: consist of 2 questions including (Effects of the assault on participants and measures taken by the hospital to prevent assaults).

-Section 4: consist of 2 questions (about witnessed an attack on other health workers, and also matrix using Likert scale (strongly agree to strongly disagree) to assess agreement with potential preventive strategies.

A lot of these questions were skippable if the respondent answer no in a preceding question (e.g. if a worker didn't experience violence then section 2, 3 were skipped). The questionnaire was written in Arabic, the native language of participants and was phrased in clear and simple terms.

It used a combination of closed-ended (yes/no, multiple choice) and scale-based questions (Likert).

Statistical analysis

Data were entered and analyzed throughout the use of the Statistical Package for the Social sciences (SPSS 23.0 for Windows). Descriptive statistics presented as frequency and percentage (or mean $\pm$ standard deviation (SD) in appropriate tables and graphs. Possible association between the study variables was tested using Chi-Square test or T-test. Significance level was considered if $p \leq 0.05$.

Ethical Considerations

The study was approved by the Arab Board of health Specialization /family medicine, consent was obtained from Karbala health director and from Research Ethical Committee in Karbala Health Directorate, from Imam Al-Hussein medical city, Al-Imam Al-Hassan Al-Mujtaba (A.S) Teaching Hospital, and verbal consent was obtained from HCWs in hospitals of Karbala city.

RESULTS

The current study included a total of 500 HCWs in hospitals in Karbala city. Slightly more than half of the study participants were female sex and married. The mean age of the participants was 30.44 ± 7.31 years. The medical staff accounted for 45.4% of total study participants, nursing staff 32.6% and technicians & other HCWs 22%. More than one half of the participants reported that they worked in the health field for less than five years. Two thirds of the study participants reported level of academic achievement as bachelors and half of them reported morning shift of work (table-1).

Table-1: Socio-demographic characteristics among study participants.

Characteristics		Number (%) N=500
Sex	Male	236 (47.2)
	Female	264 (52.8)
Age (years)	Mean $\pm$ SD	30.44 $\pm$ 7.31
Marital status	Married	258 (51.6)
	Single	230 (46)
	Divorced/widow	12 (2.4)
Job title	Doctor	113(22.6)
	Dentist	6 (1.2)
	Pharmacist	108 (21.6)
	Nurse	163 (32.6)
	Laboratory technician	75 (15)
	Anesthesia technician	24 (4.8)
	Others	11 (2.2)
Years of work in the health field	less than 5	285 (57)
	5-15	163 (32.6)
	More than 15	52 (10.4)
Level of academic achievement	Preparatory school	27 (5.4)
	Institute	84 (16.8)
	Bachelor's	333 (66.6)
	Postgraduate	56 (11.2)
Working time	Morning	246 (49.2)

	Evening	155 (31)
	Both	99 (19.8)

The study revealed that 300 participants (60%) reported that they were subjected to assault and violence (verbal or physical) at work (figure 1).

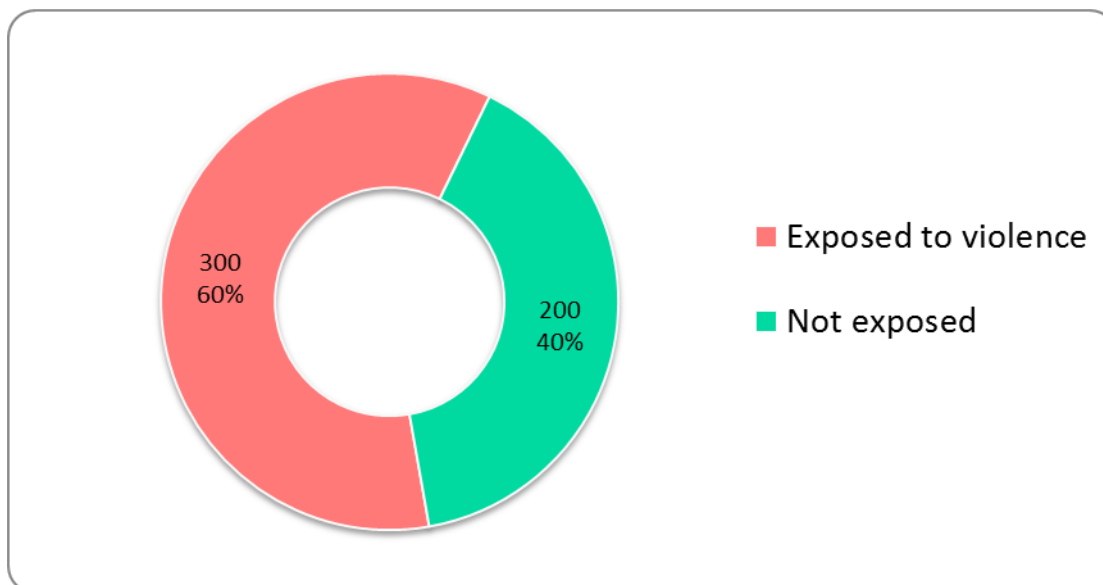


Figure 1: Distribution of study group by exposure to violence at work.

The main type of violence was Verbal (screaming and scolding, insults, curses and threats) followed by

Psychological (bullying, humiliation, belittling) as showed by (figure 2).

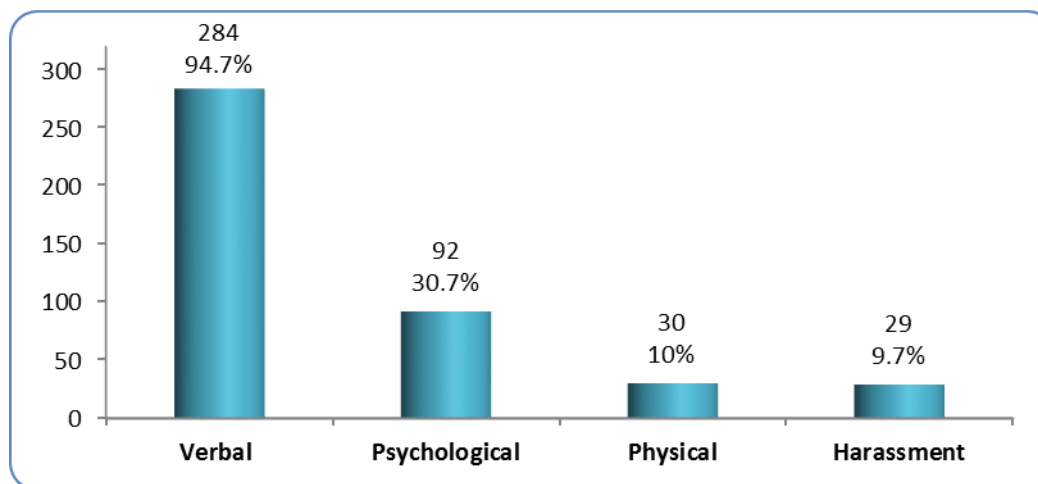


Figure 2: Types of violence among exposed participants (multiple answers allowed).

The study demonstrated that the main aggressor was Relative followed by Patients and Coworker (figure 3).

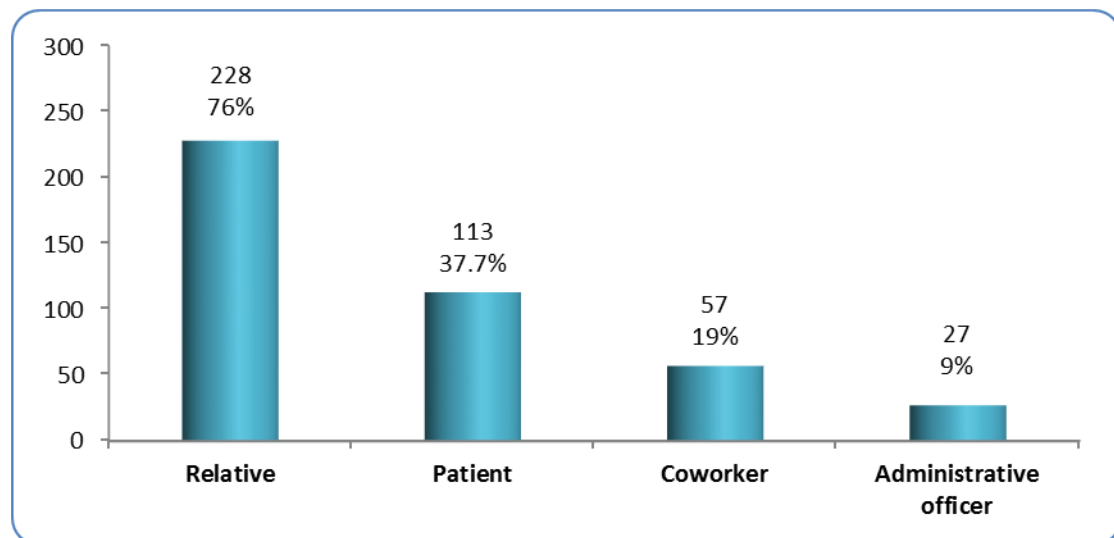


Figure 3: Violent person on exposed participants(multiple answers allowed).

The main reaction after being subjected to the assault or violence among study participants was stay away from

the source of violence, reporting to security authorities and doing nothing (figure 4).

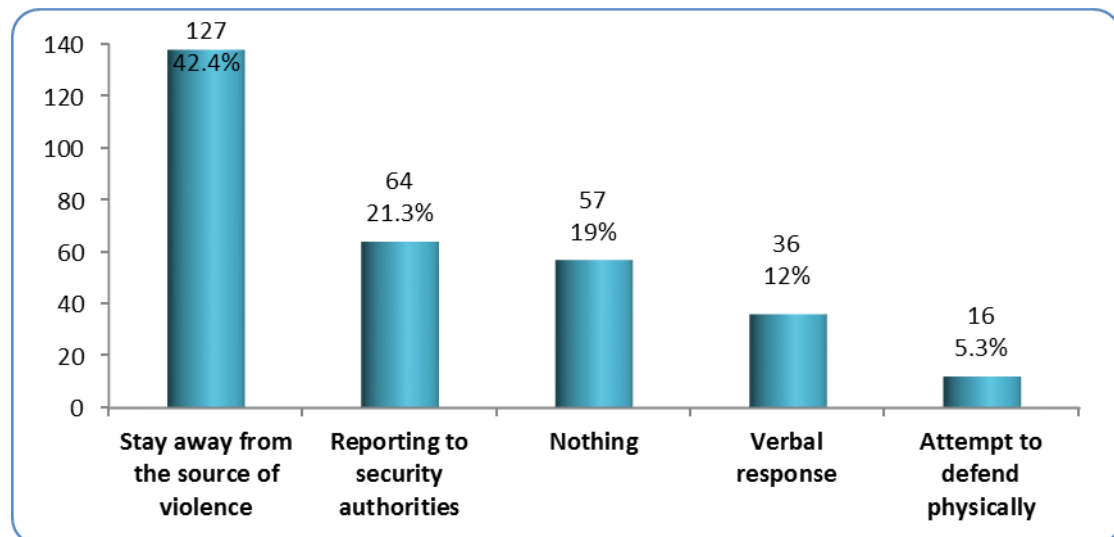


Figure 4: Reaction after being subjected to the assault or violence.

The present study revealed that nearly one quarter of the exposed participants reported exposure to violence once, whereas 30% reported exposure for more than five times. The place of violence was mainly) Emergency Department followed by Wards and outpatient department (42.7%, 32.7% and 20.7% respectively).

Misunderstanding was the main cause of violence reported by half of the study participants followed by Long waiting periods and Dissatisfaction with treatment (22% and 20% respectively) as showed by(table 2)below.

Table-2: Distribution of exposed participant by violence characteristics.

Characteristics		Number(%) n=300
Frequency of violence	Once	80 (26.7)
	2-5 times	130 (43.3)
	More than 5 times	90(30)
Place of violence*	Emergency Department	128 (42.7)
	Wards	98(32.7)
	Outpatient department	62 (20.7)
	ICU	44 (14.7)
	Others	20 (6.7)

Cause of violence*	Misunderstanding& miscommunication	151 (50.3)
	Long waiting periods	66(22)
	Dissatisfaction with treatment	60 (20)
	Weak security measures	54 (18)
	Emotional trauma	49(16.3)
	Lack of medical supplies	32 (10.7)
	Work pressure and staff shortage	31 (10.3)
	Unauthorized access to restricted areas	11 (3.7)
	The assailant under the influence of alcohol or drugs	3 (1)
Needs after exposure to violence	Hospital admission	2 (0.7)
	Receiving treatment	12 (4)
	Need leave	27 (9)
	Don't need anything	259 (86.3)

*(multiple answers allowed)

The study showed that 44.7% of the exposed individuals mentioned that the most recent assault was reported mainly to direct supervisor or hospital director and security forces in hospital. More than one third of them mentioned that there were no any legal or administrative procedures after reporting it. Only 25 participants (40.3%

of those reported the assault) were satisfied with the outcome of the procedures. The main reasons behind not report the assault were belief that reporting would not change anything and that no harm existing as illustrated in (table 3) below.

Table-3: Reporting of violence among exposed participants.

Characteristics		Number (%) n=300
Was the assault reported	Yes	134 (44.7)
	No	166 (55.3)
To whom was the violence reported (n=134)	Direct supervisor or hospital director	81 (60.4)
	Security forces in hospital	53 (39.6)
legal or administrative procedures after reporting it (n=134)	Yes	37 (27.6)
	No	49 (36.6)
	Somewhat	37 (27.6)
	Don't know	11 (8.2)
Satisfaction with the outcome of the legal procedures (n=62)	Yes	25 (40.3)
	No	22 (35.5)
	Somewhat	15 (24.2)
the reason of not reporting the violence* (n=166)	Belief that reporting would not change anything	77 (46.4)
	No harm existing	56 (33.7)
	Don't trust the hospital management	26 (15.7)
	Offender apologized	12 (7.2)
	Others (felt ashamed, fear of revenge)	12 (7.2)
Threatened or subjected to tribal settlement after the assault (n=300)	Yes	30 (10)
	No	270 (90)

*(multiple answers allowed)

The study demonstrated that psychological effect was the main impact of the assault on exposed individuals. In regard to measures does the hospital take to prevent assaults, providing security guards in all department was

mentioned by 31.3% and Installation security camera by 25% of exposed individuals, whereas no clear procedures was mentioned by 37.7% as described by(table 4).

Table-4: Impact and prevention measures of violence among study participants.

Characteristics		Number (%) n=300
Impact of the assault*	Psychological effect	118 (39.3)
	No significant effect	111 (37)
	Poor concentration at work	50 (16.7)
	Thinking about leaving the profession	47 (15.7)
	Physical injury	5 (1.7)

Measures that the hospital take to prevent assaults* *multiple answers allowed	No clear procedures	113 (37.7)
	Providing security guards in all department	94 (31.3)
	Installation security camera	75 (25)
	Imposing penalties on the offenders	53 (17.7)
	Others	10(3.3)

The study demonstrate that Most participant (81.4%)witnessed assaults on other staffs, whereas(18.6%) did not (figure 5).

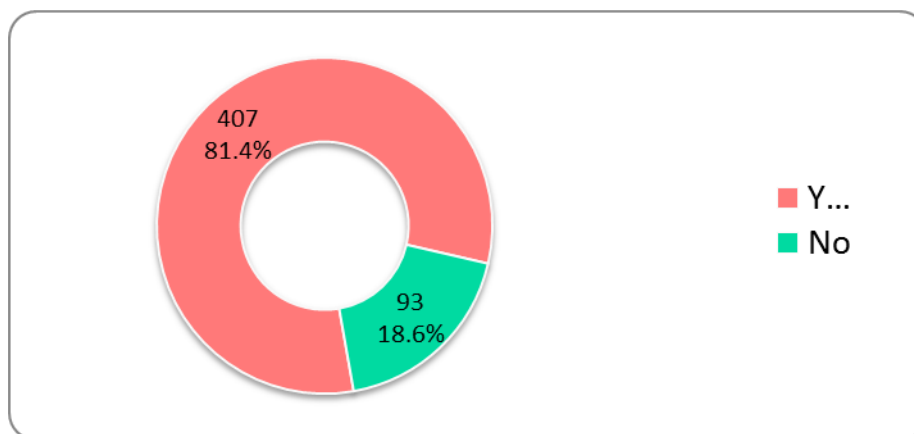


Figure 5: Witnessing an assault on other staff other than yourself.

In regard to the opinions of study participants about the best solutions to protect medical staff, 98.2% of the total study participants strongly agree/ agree that "Tightening laws and penalties for aggressors", 97% mentioned that

"Improving the work environment and reducing pressure on staff" and 94.2% of them mentioned that "Raising awareness among patients and their families" as showed in (table 5).

Table-5: Participants Opinions about the best solutions to protect healthcare workers.

Items in the questionnaire	Choices				
	Strongly agree	agree	Neutral	disagree	Strongly disagree
Tightening laws and penalties for aggressors	420 (84)	71 (14.2)	8 (1.6)	1 (0.2)	0
Holding courses to enhance communication skills with patients and companions in stressful situations	276 (55.2)	169 (33.8)	40 (8)	11 (2.2)	4 (0.8)
Activating the role of syndicates	325 (65)	120 (24)	42 (8.4)	10 (2)	3 (0.6)
Increase security personnel in the hospital	322 (64.2)	134 (26.8)	31 (6.2)	9 (1.8)	4 (0.8)
Improving the work environment and reducing pressure on staff	366 (73.2)	119 (23.8)	12 (2.4)	2 (0.4)	1 (0.2)
Raising awareness among patients and their families	356 (71.2)	115 (23)	22 (4.4)	4 (0.8)	3 (0.6)
Training on how to deliver bad news to patient	290 (58)	157 (31.4)	39 (7.8)	12 (2.4)	2 (0.4)

In regard to the association of the socio-demographic characteristics and WPV among study participants, there was significant statistical difference in mean age of study participants and the workplace violence ($p=0.014$). In regard to job title, the analysis of the current data revealed that there was significant statistical association of Job title and workplace violence ($p<0.001$), i.e. Doctor had significantly higher proportion of WPV followed by nurse. The years of work in the health field revealed significant statistical association with workplace violence

($p=0.005$) i.e. the higher the years of work in the health field associated with the higher proportion of WPV among study participants (as illustrated in table 6 below).

Table 6: Association of the socio-demographic characteristics and Workplace violence among study participants.

Characteristics	Categories	WPV		P value
		Yes	No	
Sex	Male	145(61.4)	91(38.6)	0.534
	Female	155(58.7)	109(41.3)	
Age in years	Mean $\pm$ SD	31.09 $\pm$ 7.79	29.45 $\pm$ 6.43	0.014*
Marital status	Married	155(60.1)	103(39.9)	0.070
	Single	134(58.3)	96(41.7)	
	Divorced/widow	11(91.7)	1(8.3)	
Job title	Doctor	85(75.2)	28(24.8)	<0.001*
	Pharmacist/ Dentist	51(44.7)	63(55.3)	
	Nurse	102(62.6)	61(37.4)	
	Laboratory technician	43(57.3)	32(42.7)	
	Anesthesia technician	12(50)	12(50)	
Years of work in the health field	less than 5	154(54)	131(46)	0.005*
	5-15	108(66.3)	55(33.7)	
	More than 15	38(73.1)	14(26.9)	
Level of academic achievement	Preparatory school	19(70.4)	8(29.6)	0.124
	Institute	54(64.3)	30(35.7)	
	Bachelor's	188(56.5)	145(43.5)	
	Postgraduate	39(69.6)	17(30.4)	
Working time	Morning	142(57.7)	104(42.3)	0.215
	Evening	91(58.7)	64(41.3)	
	Both	67(67.7)	32(32.3)	

* Significant P value of less than 0.05. or Chi-Square test or Independent Samples T- test was used.

DISCUSSION

Workplace violence is considered one of the most insistent problems in health industry nowadays; the impact of this issue is profound. So, urgent and appropriate solutions are needed.

The present study revealed a high prevalence of WPV among HCWs in hospitals of Karbala city, with 60% of participants reporting exposure to violence.

When compared to research from adjacent countries, close to the prevalence observed in Egypt in study about violence against female healthcare workers (66.3%)^[15] and in study in China the prevalence of WPV against HCWs found to be 58.2%.^[16]

The prevalence in current study is notably lower than the prevalence reported by(Lafta et al.) in Iraq, where more than 85% of HCWs experienced some form of violence.^[17]

This difference could be attributed to differences in institution types (primary health care centers and hospitals in Lafta's study versus only hospitals in this study).

The prevalence in this study is also lower than that reported in a study in China^[18], which found a prevalence of (83.3%) of participants experienced WPV, but higher than that reported in study in Saudi Arabia which found (48.6%) of participants experienced

WPV^[10] and higher than the prevalence in study in Malaysia 38%.^[19]

Disparities in prevalence may be related to disparities in views and definitions of WPV, discrepancies in reporting systems, cultural, geographic factors, patient load, research methods, and hospital security measures.

The high prevalence identified in this study underlines the persisting difficulty in ensuring workplace safety for HCWs.

Regarding the different types of violence recorded, this study found that verbal violence was the most common form of violence. This finding is consistent with studies in Iraq the most common type of violence was verbal violence.^[20]

This is also in line with previous studies in Saudi Arabia^[10], Egypt^[8], Jordan^[21], Sudan^[22], Lebanon^[23], Italy^[24], India^[25] and Congo.^[26]

The prevalence of verbal attacks may be attributed to cultural tolerances for confrontational speech, a perceived low danger of legal repercussions.

In the current study, just a few participants experienced sexual harassment; this could be related to the cultural sensitivity of the topic and the fear of stigmatization. This finding is similar to that of other studies in Bahrain^[27], Palestine^[28] and Ethiopia.^[29]

This study demonstrated that the main aggressor was relative of patient which is consistent with other studies findings in Iraq^[30], Saudi Arabia^[31], Morocco^[32], Jordan^[33], Nigeria^[34] and China.^[35]

This could be attributed to the presence of patients' relatives during patient management, their high stress due to the fear of losing patients' lives, failure to follow visiting time guidelines and the presence of a weak security system. In opposite, other studies found that the offenders were patients, followed by relatives of patients.^[50,51,52]

Various researches indicated numerous reasons leading to WPV against HCWs.

This study found (misunderstanding and miscommunication) was the main reason of violence reported by half of the study participants followed by long waiting periods and dissatisfaction with treatment (22% and 20% respectively). This is in line with study in Pakistan in which communication failure was recognized as the leading cause of violence against healthcare professionals.^[39] This might be due to The fact that patients and their families are under a lot of stress, have high expectations, and deal with HCWs with poor communication skills.

While in another study in Iraq found the leading cause of violence against nurses was (grief and mourning)^[30] and in Indian study crowding or wait times, were reported as the most common precipitant of violence.^[40]

The Place of violence in this study was mainly” ED “ similarly to this result the likelihood of violence was higher in ED in studies in Iraq^[20], Sudan^[41], Nigeria^[42], Bangladesh^[43], and Pakistan.^[39] This could be attributed to greater emotional stress caused by the patients' situation, which makes both family and patients more emotionally reactive. Also people with life-threatening illnesses and severe injuries arrive in a panic, which causes them to act aggressively against HCWs, additionally, exhausted and worried staff in emergency situations are another reasons In opposite, Italian study found psychiatry department was the main place of violence.^[44]

The main reaction after being subjected to the assault or violence among study participants was stay away from the source of violence then reporting to security authorities and doing nothing. While in other study in Saudi Arabia, found that verbal warning was the most common action taken, then no action and the least reaction was aggressor prosecution.^[11] In Jordanian study the staff told the person to stop violence and avoided violence sources.^[13] While in study in Kenya almost half of the participant responded by doing nothing^[45] and in Chinese study most participants responded to violence with “pretend nothing happened”.^[35]

This could be due to the health status of the offender, the absence of defined procedures to look into and handle WPV and the possible normalization of such behavior could all be contributing factors.

This study showed that 44.7% of the exposed individuals mentioned that the assault was reported mainly to direct supervisor or hospital director and security forces in hospital, similar level of reporting were described by study in China (45.5%).^[46] In opposite to this study level of reporting were lower in studies in Saudi Arabia and Congo (16.2%, 9.43% respectively).^[13,40] These discrepancies in reporting rates between studies could be due to variances in hospital policies, cultural attitudes, and employee opinions.

In this study 55.3% not report the violence; the main reason behind not report the violence was “Belief that reporting would not change anything”. This agrees with study in Saudi Arabia^[10] which found that it was useless to report. Violent workforce events are widely underreported to hospital authorities in this study as well as in other study. A variety of reasons for underreporting of violent acts was demonstrated by many studies.

In Iraqi study underreporting was likely due to clinicians' limited expectations that these instances might be addressed constructively.^[47] Chinese study found that half of nurse did not know how and what types of assault to report, followed by hospitals that paid more attention to patients rather than HCWs.^[46]

With regard to consequences of exposure to violence, the present study showed that psychological effect was the main impact of the assault on exposed individuals. This is in line with the studies done in Jordan^[13], Nigeria^[42], Saudi Arabia,^[48] and Italy^[44], where a majority of the impact of WPV reported was psychological.

The psychological impact of WPV on HCWs is often the most significant could be due to psychological harm—such as anxiety, despair and burnout tends to be long-lasting, less visible and constantly reinforced by continued threats or verbal abuse.

In regard to the association of the socio-demographic characteristics and WPV among study participants (Doctors) had significantly higher proportion of WPV followed by nurse. This aligns with studies in Sudan^[41], Morocco^[32] and Bangladesh.^[49] In opposite to this study nurses are found to experience more WPV than other HCWs in Saudi Arabia^[50], Nepal^[51] and Italy.^[24] Doctors are often exposed to higher rates of violence compared to others might be due to they are the main decision-makers in diagnosis and treatment, they also spend more time communicating sensitive information, such as poor prognosis or treatment costs, which increases the likelihood of conflict. In many cultures, doctors are perceived as having the ultimate responsibility for

outcomes and patient care, so they are more frequently blamed when expectations are not met.

This study found that those with higher years of experience were more likely to suffer violence than those working experience less than 5 years.

Which is similar to study in Saudi Arabia^[10] which found HCWs with longer duration of experience (10+ years) were more than two times likely to suffer violence than those working less than 5 years.

While a study in Jordan found there were statistically significant associations between duration of work (≤ 10 years) and exposure to violence^[13] This can be explained by the fact that HCWs with over ten years of experience dealt with high number of patients and their families compared to those with less than 5 years of experience.

In the current study, however, there was no significant relationship between exposure to violence and HCWs' sex. This finding magnifies the extent of the problem; both male and female might suffer WPV at any time.

In this study, 10% of participants was subjected to tribal settlement this agrees with study in Iraq^[52] which discovered 10% had what is known as the "Tribal penalty," which means that if a patient has any complication, his family (tribe) may force the doctor to compensate him or risk his death. This might be due to societal and tribal culture in Iraq and lack of protection to HCWs.

This study's limitation is that The data were collected through self-reported questionnaires while necessary for feasibility which might be subject to recall bias or underreporting of incidents, the cross-sectional design of the study does not allow establishing causal relationships between variables, the study did not cover violence through social media due to difficulty of accurately measuring such incident, although the sample size was good and exceeded the required minimum the selected sample of this study does not represent the whole HCWs in Karbala since this study does not include HCWs in primary health care also those who work in rural or periphery hospitals.

CONCLUSIONS

1. Workplace violence against HCWs is common in hospitals of Karbala city, verbal violence was the most common form of WPV among HCWs with relatives of patient being the most aggressor and emergency department was the main place of WPV.
2. Misunderstanding and miscommunication was the most significant contributing cause and psychological effect was the most common consequence.
3. Healthcare workers thought that "Tightening laws and penalties for aggressors" could be an important factor to prevent exposure to violence.

4. Age, years of work and occupation were strongly significant associated with exposure to violence, with doctors being at the highest risk, older and more experience HCWs were the most susceptible to violence.

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