



# **“Prevalence and Source of Various Types of Workplace Violence among Healthcare Professionals in the Public Hospitals of Karachi” A Cross-Sectional Survey**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. Authors JDM and SZ conceived of the presented idea. Authors JDM and GKM developed the theory and performed the computations. Authors KK and SB verified the analytical methods. Author SMT encouraged author JDM to investigate and supervised the findings of this work. All authors read and approved the final manuscript.*

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## **ABSTRACT**

**Objectives:** To determine the prevalence of violence among medical doctors in public sector hospitals of Karachi relating to physical violence, psychological violence (verbal and bullying/mobbing), sexual harassment and racial harassment).

**Methods:** A cross-sectional study was carried out in three public sector hospitals in Karachi (JPMC, Civil Hospital and Sindh Government Lyari General Hospital Karachi). Medical doctors of any age and gender who worked in outpatient departments, wards, and emergency departments were eligible to participate in the study. A validated WHO-designed questionnaire was used, with questions about exposure to violence, the source and types of violence, and socio-demographic information. In descriptive statistics, frequencies and percentages were reported for all categorical variables. The Chi-square and Fisher's exact tests were used to investigate the relationship between workplace violence and other types of violence.

**Results:** 350 questionnaires were distributed to qualified medical doctors in total. Only 300 of them responded, for an 85.7 percent response rate. The majority of respondents were under the age of 40, and male gender was slightly more exposed to violence. The majority of the doctors were subjected to verbal abuse as well as bullying and mobbing.

**Conclusion:** It was then concluded that any type of violence was common in doctors aged >35 years and male gender was more exposed to any violence as compare to female gender. The main type of violence was verbal violence in our study, whereas racial harassment and sexual harassment was also seen.

*Keywords: Workplace violence; physical violence; verbal violence; sexual harassment and racial harassment.*

## 1. INTRODUCTION

Workplace violence (WPV) among healthcare professionals has now been indicated as a public health threat throughout the world, with a greater prevalence in developing countries where the quality of healthcare and service is deplorable [1]. The vocational health and safety threat of workplace violence (WPV) [2]. has become the focus of considerable global research [3,4]. Workplace violence (WPV) is 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, well-being or health" [5].

With the passage of time, this has become a growing source of concern, drawing the attention of different sectors, including the government and employers. This is because violence not only has a negative impact on an individual and his or her family, but it can also have a deleterious impact on an organization affecting teamwork and employee morale [6,7]. According to The National Institute for Occupational Safety and Health (NIOSH) and International Labor Organization (ILO) identified hospital is the public area where the most violence against employees can be witnessed; and healthcare workers are among the most vulnerable groups experiencing violence and aggressive behavior [8-10].

The rate of violence in healthcare institutions has been alarmingly rising. These events undermine doctors' self-esteem, impede the doctor-patient

relationship, and also limit a responsible approach towards the services of the patient.

In Pakistan medical service is still developing [11] furthermore, technical services and correspondence in healthcare are less comprehensive and far less proactive than in fully developed nations. At the moment, healthcare interactions are extremely volatile, and negative reporting has harmed hospitals' public credibility, resulting in practitioner's fear of facing patients and patients losing trust in medical practitioner [12] The majority of the challenge stems from patients' high expectations and the inappropriate behavior of emotionally loaded attendants, the spark is also fueled by a lack of qualified workforce, an unexpected run out of life-saving medications, and the interference of anti - social aspects in the hospital [13].

Healthcare Practitioners in both developing and developed countries have faced threats and assaults in hospitals and healthcare institutions. In Pakistan, the large percentage (73.4%) of healthcare practitioners have faced some form of violence, ranging from overcrowding in hospitals to an insufficient security measures, with verbal violence being the most commonly reported form [14]. A nationwide study in Pakistan's major tertiary care hospitals found that more than 70% of healthcare workers in hospital emergency rooms had encountered some sort of violence in the two months preceding the research with 12% of physicians reported physical violence and 65% reported verbal harassment [15].

Based on this, the present study sought to ascertain the prevalence of WPV against healthcare workers, as well as to investigate the nature and source of violence in various professional groups, and to ascertain which healthcare profession suffers more frequently from WPV in Karachi hospitals.

## 2. METHODOLOGY

It was a hospital-based cross-sectional study. After approval, data were collected from three public hospitals in Karachi (JPMC, Civil Hospital, and Sindh Government Lyari General Hospital Karachi) between December 2016 and March 2017. The OpenEpi calculator was used to calculate the sample size. According to estimates, 74% of healthcare professionals have experienced some form of violence. The total sample size was 296 individuals, with a 5% margin of error, an 80% power level, and a 95% confidence level. 300 practitioners were involved as the study sample. Healthcare practitioners of all ages and genders who were involved in patient care in OPDs, wards, and emergency rooms were included in the study using a convenient sampling technique in order to reach the targeted sample size.

### 2.1 Inclusion Criteria

For data collection, both male and female healthcare professionals i.e. doctors of all ages were included in the sample.

### 2.2 Exclusion Criteria

- Doctors working on locum basis were not included.
- Doctors working in collaboration with non-governmental organisations were excluded.
- Doctors who work in laboratories were excluded.

### 2.3 Research Instrument & Data Collection

For data collection, a validated modified WHO structured questionnaire (Organization, 2003) was used, which had previously been used to identify WPV among healthcare professionals in Pakistan [16,17]. It included questions about exposure to violence, different types of violence, and how the participant felt after being exposed

to a violent situation. The questionnaire was translated from English into Urdu and distributed by the principal investigator and two trained data collectors. The questionnaire contained all of the responses, which were then entered into SPSS. Study Variables:

#### 2.3.1 Independent Variables

Gender, age, profession, years of experience, job status and working environment and type and source of workplace violence.

#### 2.3.2 Dependent Variables

Physical violence, verbal violence, bullying/mobbing, sexual abuse/harassment, racial abuse/harassment.

### 2.4 Statistical Analysis

SPSS version 21 was used to collect and analyse all data. Frequencies and percentages were reported for all categorical variables in descriptive statistics. To examine the relationship between workplace violence/any type of violence and all independent variables, the Chi-square and Fisher's exact tests were used. P-values less than 0.05 were considered significant.

## 3. RESULTS

Total 350 questionnaires were distributed to qualified medical doctors. Of them 300 responded to the questionnaire, the response rate was 85.7%.

### 3.1 Characteristics of the Study's Participants

The majority of respondents were under 40 years old (range 22-60 years), with 158 females (52.7%) and 142 males (47.3%). Physicians made up 48 (16%) of the study sample, surgeons 63 (21%), PG (Postgraduate) residents 64 (21.3%), CMO (Chief Medical Officer) / MO (Medical Officer) 55 (18.3%), and HO (House Officer) 70 (23.3%).

Respondents with less than five years of work experience in public sector hospitals were 147 (49%); the majority of professionals were full-time employees  $n = 283$  (94%). Respondents worked in the adult ward (70.3%) and the Pediatric ward (29.7%).

**Table 1. Individual characteristic of total participant the study (n=300)**

Characteristics	Total numbers of participant	
	n	Percentage
<b>Age (years)</b>		
22-30	118	39.3%
31-40	120	40%
40 and above	62	20.7%
<b>Sex</b>		
Female	158	52.7%
Male	142	47.3%
<b>Profession</b>		
Physician	48	16%
Surgeon	63	21%
Postgraduate PG resident	64	21.3%
CMO/MO	55	18.3%
HO	70	23.3%
<b>Work experience</b>		
≤ 5 years	147	49%
> 5 years	153	51%
<b>Job status</b>		
Part time/temporary	17	5.7%
Full time	283	94.3%
<b>Working environment</b>		
Pediatric	89	29.7%
<b>Adults</b>	211	70.3%

### 3.2 Types of Violence among Healthcare Professionals

type of violence observed in the study was verbal violence.

Table 2 shows various types of violence experienced by respondents in the previous 12 months. Among 300 participants, 221 (73.3%) experienced verbal violence, 132 (44.0%) experienced bullying/mobbing, 33 (11.0%) experienced racial violence, 28 (9.3%) experienced physical violence, and 15 (5.0%) experienced sexual violence. The most common

### 3.3 Demographic Characteristics of Health Professionals with Workplace Violence

Table 3 shows the demographic characteristics of respondents as well as their exposure to various types of workplace violence in the previous 12 months.

**Table 2. Descriptive of workplace violence (n=300)**

Type of violence	n	%
<b>Physical violence</b>		
Yes	28	9.3%
No	272	90.7%
<b>Verbal violence</b>		
Yes	221	73.7%
No	79	26.3%
<b>Bullying/Mobbing</b>		
Yes	132	44.0%
No	168	56.0%
<b>Sexual harassment</b>		
Yes	15	5.0%
No	285	95.0%
<b>Racial harassment</b>		
Yes	33	11.0%
No	267	89.0%

According to the findings, younger professionals under the age of 35 reported a significantly higher percentage of verbal violence (58.4%) and bullying (52.3%), respectively, while professionals over the age of 35 reported a higher percentage of sexual violence (73.3%). Males reported a higher percentage of physical violence (75%) and bullying (56.8%) than females, who reported a higher percentage of sexual violence (100%).

Furthermore, physicians reported a high percentage of physical violence (28.6 %) and racial violence (27.3%). Whereas surgeons and CMOs had significantly higher percentages of verbal violence (23.1%) and bullying (29.5%), respectively. Female surgeons reported a higher rate of sexual assault (46.7%).

According to our findings, healthcare professionals with more than five years of experience and who work full-time reported a higher percentage of all violence, with significantly higher percentage of verbal (57.9%) and bullying (66.7%) violence ( $p$ -value 0.001). Additionally, those healthcare professionals who work in an adult work environment experienced a high percentage of all violence.

### 3.4 Type and Source of Workplace Violence of Health Professionals

**Table 4** shows that patients' attendants were the most common source of each type of workplace violence, with health professional experiencing the most physical violence (96.4%). In our study, the incidents of sexual harassment/violence and racially harassment/violence (60.6%) occurred outside (on the way) the institute (100%) while incidents occurred inside the institute were verbal violence (99.1%), bullying / mobbing (98.5%), and physical violence (96.4%). Victims of physical violence (42.9%) reported such incidents to senior staff and the institute, whereas victims of verbal (50.2%), bullying (49.2%), and racial (30.3%) violence sought counselling as a response to violence.

## 4. DISCUSSION

The current study looked into the prevalence of violence against medical doctors in Karachi's public hospitals. The current study found that any type of violence is more common among doctors over the age of 35, whereas young doctors under the age of 35 were more likely to experience verbal and bullying/mobbing violence. Aside from

the male gender, practitioners who had direct contact with patients and their relatives and had more than five years of experience were autonomously linked to violence in the workplace. The family members as well as the friends of patients accompanying them to the hospitals were found to be mainly responsible for the violence.

According to our findings, younger doctors under the age of 35 reported a higher percentage of verbal violence, including bullying and mobbing and the increased risk may be due to a lack of work experience and opportunities to improve, which may result in some errors and mistakes. Moreover, they may have fewer healthy communication skills with patients due to lack of experience. These observations are consistent with the findings of another study conducted on nurses in the public sector of Karachi, which exhibited that those under the age of 36 are more likely to be victims of violence (of all types) than those over the age of 36 [18].

In this study, male participants were more likely than females to witness acts of violence. The scientific proof on whether a worker's gender puts him or her at risk of sexual assault is conflicting. Since some researchers revealed that men are far more likely than women to experience violent events [19-21], whereas others found the opposite and confirmed that women, particularly nurses, are more likely to face violence and abusive behavior than male. In fact, according to some other authors, there's been indifference in the overall frequency of physical and verbal violent events among health staff based on their gender [22].

According to our findings, those professionals with more than five years of experience and who work full-time reported a higher percentage of all violence, which may be due to the fact that they are far more familiar to the locals than the new employees. This finding is consistent with the findings of another study conducted in Karachi [23].

The study also revealed that all of the participants were professional medical doctors/practitioners who reported being subjected to various forms of workplace violence and identified verbal violence as the primary source of workplace violence in the public sector of Karachi hospitals. Consistent findings were obtained, which showed nearly identical results in other research conducted in Pakistan [24,25], and other countries [26,27].

**Table 3. Demographic characteristics of health professionals with workplace violence (n=300)**

<b>Characteristics</b>	<b>Physical Violence</b> n = 28 n (%)	<b>Verbal Violence</b> n = 221 n (%)	<b>Bullying/Mobbing</b> n = 132 n (%)	<b>Sexual Harassment</b> n = 15 n (%)	<b>Racial Harassment</b> n = 33 n (%)
<b>Age</b>					
≤ 35 years	13 (46.4)	129 (58.4)	69 (52.3)	4 (26.7)	18 (54.5)
> 35 years	15 (53.6)	92 (41.6)	63 (47.7)	11 (73.3)	15 (45.5)
p-value	0.100	0.021	0.002	0.005	0.346
<b>Sex</b>					
Female	7 (25.0)	110 (49.8)	57 (43.2)	15 (100.0)	13 (39.4)
Male	21 (75.0)	111 (50.2)	75 (56.8)	0 (00)	20 (60.6)
p-value	0.003	0.115	0.004	-	0.139
<b>Professional</b>					
Physician	8 (28.6)	38 (17.2)	21 (15.9)	2 (13.3)	9 (27.3)
Surgeon	6 (21.4)	51 (23.1)	39 (29.5)	7 (46.7)	7 (21.2)
PG resident	8 (28.6)	48 (21.7)	24 (18.2)	4 (26.7)	6 (18.2)
CMO/MO	6 (21.4)	51 (23.1)	39 (29.5)	1 (6.7)	5 (15.2)
HO	0 (00)	33 (14.9)	9 (6.8)	1 (6.7)	6 (18.2)
p-value	-	<0.001	<0.001	0.082	0.442
<b>Work experience</b>					
≤ 5 years	10 (35.7)	93 (42.1)	44 (33.3)	4 (26.7)	12 (36.4)
> 5 years	18 (64.3)	128 (57.9)	88 (66.7)	11 (73.3)	21 (63.6)
p-value	0.166	<0.001	<0.001	0.110	0.142
<b>Job status</b>					
Part time	0 (00)	8 (3.6)	2 (1.5)	0 (00)	1 (3.0)
Full time	28 (100.0)	213 (96.4)	130 (98.5)	15 (100.0)	32 (97.0)
p-value	-	0.019	0.005	-	0.705
<b>Working environment</b>					
Pediatric	7 (25.0)	62 (28.1)	33 (25.0)	0 (00)	9 (27.3)
Adults	21 (75.0)	159 (71.9)	99 (75.0)	15 (100.0)	24 (72.7)
p-value	0.668	0.318	0.128	-	0.842

This study found that 44% of employees were bullied or mobbed at work which in concordant with a study conducted in Turkey which showed the frequency of "mobbing" among those 48.6% is 1 to 3 times per year [28] however, another study conducted in Pakistan found that 63.8% of doctors were bullied or mobbed in the previous

12 months. This disparity in proportions may be due to the fact that the study only reported on one type of violence, and the study participants were all junior doctors. In the last year, 9.3% of workplaces experienced physical violence. In comparison, previous studies in Saudi Arabia found 12.0% [29] and another study done in

Ethiopia found that the physical violence was prevalent in 60.2% of the nurses. The difference could be explained by the fact that the participants in these studies were all nurses. Moreover, because there is an imbalance between health care service need and health care delivery in resource-constrained country like Ethiopia, this issue can directly expose health care professionals to workplace violence [30]. The current study found that sexual harassment was low at work in the previous 12 months; this

finding was consistent with other studies that found that the proportion of sexual harassment was lower when compared to other types of violence.

Furthermore, the current study determined that patients' family members were the primary perpetrators of all types of violence (physical, verbal, bullying/mobbing, sexual, and racial), which is consistent with other studies conducted in other regional studies [31].

**Table 4. Type and source of workplace violence of health professionals (n=300)**

Characteristics	Physical Violence n = 28 n (%)	Verbal Violence n = 221 n (%)	Bullying/Mobbing n = 132 n (%)	Sexual violence n = 15 n (%)	Racial violence n = 33 n (%)
<b>Source of violence</b>					
Patient	0 (00)	4 (1.8)	3 (1.5)	2 (13.3)	1 (3.2)
Relative of patient	27 (96.4)	197 (89.1)	126 (95.5)	13 (86.7)	24 (77.4)
Management	1 (3.6)	20 (9.0)	4 (3.0)	0 (00)	6 (19.4)
<b>Incident take place</b>					
Inside institute	27 (96.4)	219 (99.1)	130 (98.5)	0 (00)	10 (30.3)
Patient's home	0 (00)	0 (00)	2 (1.5)	0 (00)	3 (9.0)
Outside (on way)	1 (3.6)	2 (0.9)	0 (00)	15 (100)	20 (60.6)
<b>Respond to incident</b>					
Took no action	2 (7.1)	51 (23.1)	10 (7.6)	0 (00)	2 (6.1)
Tried to it never happened	3 (10.7)	3 (1.4)	0 (00)	0 (00)	1 (3.0)
Told to any person	0 (00)	5 (2.3)	3 (2.3)	10 (66.7)	3 (9.1)
Tried to defend my self	9 (32.1)	-	-	-	-
Sought counseling	1 (3.6)	111(50.2)	65 (49.2)	0 (00)	10 (30.3)
Reported it to senior staff/association	12 (42.9)	38 (17.2)	42 (31.8)	3 (20.0)	8 (24.2)
Transferred to another position	1 (3.6)	13 (5.9)	12 (9.1)	2 (13.3)	9 (27.3)
<b>Routine direct physical contact with patients</b>					
Yes	17 (60.7)	150 (67.9)	78 (59.1)	12 (80.0)	26 (78.8)
No	11 (39.3)	71 (32.1)	54 (40.9)	3 (20.0)	7 (21.2)
p-value	0.182	0.003	<0.001	0.767	0.536
<b>Sex of the patients most frequently work</b>					
Female	5 (17.9)	48 (21.7)	30 (22.7)	11 (73.3)	3 (9.1)
Both (Male & Female)	23 (82.1)	173 (78.3)	102 (77.3)	4 (26.7)	30 (90.9)
p-value	0.810	1.00	0.778	<0.001	0.073
<b>Encouragement to report work place violence</b>					
Yes	27 (96.4)	217 (98.2)	130 (98.5)	15 (100)	32 (97.0)
No	1 (3.6)	4 (1.8)	2 (1.5)	0 (00)	1 (3.0)
p-value	0.389	1.00	1.00	1.00	0.444

Besides that, across the studies reviewed, the majority of perpetrators against health workers included patients, patients' relatives, visitors, doctors and supervisors at varying rates, with patient relatives ranging from (18.2% –100%) [32-34].

The study revealed some shortfalls in the responses after being exposed to WPV. The majority of healthcare professionals stated that they sought counselling or reported to their seniors if they were subjected to physical, verbal, or sexual assault. As a result of these findings, it appears that WPV is being reported, victims are being compensated, counselled, or given medical attention, and, more importantly, perpetrators are not free to repeat WPV actions without accountability.

No existing institutional guideline on dealing with WPV was reported in most of the studies examined [35-37]. In Ethiopia, 31.6% of the health workers surveyed stated that there was no guideline or reporting procedure on violence [38]. The lack of a guideline on violence in Gambia was reported as a result of the WPV's lack of an adequate reporting system [39]. However, according to Bofo et al. [40]. 72.9% of respondents reported the presence of a process for reporting violence, with 18% reporting that management teams acted quickly to further investigate it [40]. Across the country's numerous health institutions, there is a lack of a policy on violence. As a result, critical steps must be taken to establish policy and strategies for violence management in order to save health workers and encourage them to work harder to improve the situation.

## 5. CONCLUSION

Violence against HCPs is a multifaceted, complex issue and a serious public health problem with a high prevalence. This may have an impact on their well-being and lead to low job motivation, putting healthcare provision at risk in an already strained healthcare system in a developing country like Pakistan. As a result, the safety of the injured and sick, healthcare personnel, healthcare facilities, and healthcare services is critical for the provision of necessary services. Moreover, across the country's numerous health institutions, there is a lack of a policy on violence. As a result, critical steps must be taken to establish policy and strategies for violence management in order to save health workers and encourage them to work harder to improve the situation.

## 6. FUTURE RECOMMENDATIONS

Create more comprehensive studies (qualitative, interventional, and correlational) to investigate the WPV procedure and current prevention models. Establish standard instruments in the clinical setting for assessing and measuring WPV. Create predictive tools for assessing WPV risks. Examine the causes of WPV against healthcare professionals from the perspective of the perpetrators of violence.

## 7. LIMITATION

The study's limitations include convenience sampling that decreases the overall generalization; however, the study's primary focus was on obtaining an in-depth understanding of the problem.

## CONSENT AND ETHICAL APPROVAL

Before the study began, the institutes conducted an ethical review and granted approval. After that the data collection procedure was started, which initially included obtaining informed consent from the participant. Participants were asked and informed about the study, and if they agreed to participate, a valid consent was obtained.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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