

Workplace Violence and Institutional Safety Factors among Female Healthcare Professionals in Western India: A Cross-Sectional Study

Iraj Salimbhai Aevara, Nirmal Jyoti Jyotsana, Niraj Pandit, Sanjana Ganesh Jadhav, Maulik bhai Shambhu bhai Desai
Department of Community Medicine, Smt. B.K. Shah Medical Institute and Research Centre,
Sumandeep Vidyapeeth Deemed to be University, Vadodara, Gujarat, India

Corresponding author: Dr. Nirmal Jyoti Jyotsana, Department of Community Medicine, Smt. B.K. Shah Medical Institute and Research Centre, Sumandeep Vidyapeeth Deemed to be University, Vadodara, Gujarat, India

Email: nirmal.jyotsana31@gmail.com

Citation: Iraj Salimbhai Aevara, Nirmal Jyoti Jyotsana, Niraj Pandit, Sanjana Ganesh Jadhav, Maulik bhai Shambhu bhai Desai. Workplace Violence and Institutional Safety Factors among Female Healthcare Professionals in Western India: A Cross-Sectional Study. Indian J Comm Health. 2026;38(4): p: 647 - 654

<https://doi.org/10.47203/IJCH.2026.v38i04.004>

Article Cycle: Received: 22/05/2026; Accepted: 05/08/2026; Published: 31/08/2026

Abstract

Background: Workplace violence (WPV) is a significant occupational hazard among healthcare professionals, with female healthcare workers facing unique safety challenges. Despite increasing reports of violence in healthcare settings in India, there is limited evidence on safety vulnerabilities of female healthcare professionals and institutional factors associated with workplace violence. This study aimed to assess the prevalence, types, and factors associated with workplace violence, and to evaluate safety and security measures among female healthcare professionals in a tertiary care setting. **Material & Methods:** A hospital-based cross-sectional study was conducted from April to September 2025 among 77 female healthcare professionals in a tertiary care hospital and a private clinic in an urban district in western India. Data were collected using a structured, self-administered questionnaire. Descriptive statistics were used to summarize data. Associations between workplace violence and explanatory variables were assessed using the Chi-square test or Fisher's exact test, followed by univariate and multivariable binary logistic regression to estimate crude and adjusted odds ratios (ORs) with 95% confidence intervals (CIs). A p-value of < 0.05 was considered statistically significant. **Result:** More than half of the participants (55.8%) reported experiencing workplace violence, with verbal abuse being the most common form (76.7%). Approximately half of the affected participants (51.2%) reported incidents, while under reporting was mainly attributed to the perception that no action would be taken (52.4%). A majority perceived CCTV surveillance as inadequate (63.6%). In multivariable analysis, the absence of round-the-clock security personnel was independently associated with workplace violence. **Conclusion:** Workplace violence is highly prevalent among female healthcare professionals, with significant gender-sensitive safety gaps in institutional security measures and reporting mechanisms. Strengthening hospital security infrastructure, ensuring institutional accountability, and implementing gender-responsive workplace policies are essential to improve safety.

Keywords: Workplace violence, Female healthcare professionals, Occupational safety, Hospital security, Workplace harassment

Introduction

Workplace violence (WPV) refers to incidents where workers are abused, threatened, assaulted, or subjected to offensive behaviour in circumstances related to their work. It can occur in any organization and affect individuals across all occupational groups. Healthcare professionals-including doctors, nurses, and other hospital- and community-based providers-are particularly vulnerable due to their continuous and direct interaction with patients and their attendants. This vulnerability increases when healthcare workers manage distressed patients and relatives with high emotional expectations. Healthcare settings with a high proportion of female healthcare workers, round-the-clock operations, multiple entry and exit points, and high-stress environments are more vulnerable to workplace violence.^[1-3]

Workplace violence in the medical profession is a global phenomenon. In 2020, the incidence rate of injuries due to

assaults and violent acts was 10.3 per 10,000 full-time workers among healthcare and social assistance workers, increasing to 21.8 among nursing and personal care facility workers.^[4] In India, incidents of both verbal and physical violence against healthcare professionals are frequently reported in the media, highlighting the magnitude and severity of the problem.^[5]

Workplace violence has a substantial impact on health systems, particularly in developing countries. In India, assaults by patients' relatives on treating doctors are commonly reported. The issue is multifactorial, influenced by increasing commercialization of healthcare, altered public perceptions of physicians, and chronically low public expenditure on health, reflecting deeper systemic deficiencies rather than isolated behavioural incidents. In India, legal measures such as the Epidemic Diseases (Amendment) Act, 2020 have been introduced to protect healthcare workers from violence; however, gaps in implementation persist.^[6] The Ministry of

Health and Family Welfare has emphasized the need for improved hospital security systems and grievance redressal mechanisms.^[7,8] Exposure to workplace violence has been linked to depression, post-traumatic stress disorder, anxiety, absenteeism, and long-term adverse effects on doctors' quality of life and family relationships.^[9]

Emergency departments, outpatient clinics, and night shifts are consistently identified as high-risk settings, while resident doctors and junior clinicians are particularly vulnerable.^[1] Patients and their relatives are the most common perpetrators of non-fatal workplace violence, although emotional abuse and sexual harassment by coworkers have also been reported.^[10] Despite its high prevalence, workplace violence remains underreported due to fear of retaliation, perceived futility of reporting, and inadequate institutional support mechanisms.^[11,12]

Workplace violence has consequences that extend beyond the immediate physical and psychological harm experienced by healthcare professionals. It contributes to stress, anxiety, burnout, reduced job satisfaction, absenteeism, and increased intention to leave the profession, thereby affecting workforce retention. These consequences may compromise the quality and continuity of patient care, reduce staff productivity and morale, and ultimately undermine overall health system performance. Therefore, addressing workplace violence is not only essential for ensuring the safety and well-being of healthcare professionals but also represents an important public health priority for strengthening resilient healthcare systems.^[13,14]

Recognising these wide-ranging consequences, several protective measures, including staff training, institutional policies, CCTV surveillance, and deployment of security personnel, have been proposed. However, their effectiveness remains inadequately evaluated in Indian hospital settings.^[4,15] Recent incidents involving violence against female doctors have further highlighted the safety vulnerabilities of female healthcare professionals, underscoring the need for focused research in this population.^[16]

Accordingly, this study was undertaken to assess the occurrence and characteristics of workplace violence, reporting behaviour following such incidents, the availability of institutional safety measures, and factors associated with workplace violence among female healthcare professionals in a tertiary care hospital in Western India.

Material & Methods

Study design and setting

This hospital-based cross-sectional study was conducted over a period of six months, from April 2025 to September 2025, at a tertiary care hospital and a private clinic in an urban district in western India.

Study population and eligibility criteria

The study population comprised female healthcare professionals, including doctors, nurses, and allied health staff, who were actively involved in patient care or hospital services during the study period at a tertiary care hospital and a private clinic in Vadodara district. Prior permission was obtained from both study sites. Female healthcare professionals involved in clinical or patient-related duties who had been working at the study site for at least six months and were willing to provide informed written consent were included in the study. Healthcare professionals on long-term leave and temporary trainees posted for less than six months were excluded from this study.

Sample size and sampling technique

The sample size was calculated using the formula, $N = Z^2 pq / L^2$, where $Z = 1.96$, $p = 77.3\%$ (prevalence of workplace violence among doctors reported in a previous study), $q = 1 - p$, and $L = 10\%$ absolute precision.^[1] An absolute precision of 10% was considered appropriate in view of the exploratory nature of the study and the feasibility constraints associated with the limited duration and resources of the short-term research project. At a 95% confidence level, the minimum calculated sample size was 67. Although the minimum required sample size was 67, a total of 77 eligible participants were recruited during the study period.

A convenience sampling technique was adopted because healthcare professionals were recruited from different departments and work shifts, making probability-based sampling operationally difficult within the limited study duration. Considering the exploratory nature of the study and feasibility constraints, this approach was considered appropriate. All eligible female healthcare professionals who were available during the data collection period and met the inclusion criteria were invited to participate. All 77 eligible participants provided informed consent and completed the questionnaire, resulting in a response rate of 100%. No eligible participant declined participation during the study period.

Data collection tool and procedure

Data were collected using a pre-designed, structured, self-administered questionnaire developed by the investigators after an extensive review of the relevant literature and previous Indian studies on workplace violence and was not adapted from any previously validated instrument. The questionnaire was reviewed by the investigators and the faculty supervisor to establish content validity and to assess its clarity and relevance before pilot testing. It was subsequently pilot tested among five female healthcare professionals who were not included in the final study sample, and appropriate modifications were made based on their feedback to improve the clarity, wording, and relevance of the questionnaire before its final administration.

The questionnaire was administered electronically using Google Forms. Participation was voluntary, and anonymity was ensured by not collecting any personally identifiable information. The first page of the Google Form contained the informed consent form. Upon providing informed consent, participants proceeded to the questionnaire. The Google Forms questionnaire was designed to require responses to all mandatory items before submission; therefore, no missing data were observed in the final dataset.

The questionnaire consisted of sociodemographic and work-related characteristics, perception of safety within the hospital and during commuting, experience of workplace violence or harassment, type of violence, perpetrators, and reporting behaviour, reasons for non-reporting, awareness, availability, and utilization of workplace safety resources, including institutional policies, training, emergency safety measures, CCTV surveillance, security personnel, and hospital helplines.

For analysis, selected variables were operationally defined. Perception of safety was categorized as 'safe' (very safe/somewhat safe) and 'unsafe' (somewhat unsafe). CCTV surveillance was categorized as 'adequate' or 'inadequate' based on participants' perception of its adequacy. Availability of security personnel was categorized as '24×7 available' or 'not available round the clock' based on participant responses.

The primary outcome variable was the experience of workplace violence or harassment (categorized as yes/no).

Ethical statement

The study was approved by the Institutional Ethics Committee with reference No. SVIEC/ON/MEDI/SRP/ March/25/33 dated 03 March 2025. Written informed consent was obtained from all participants prior to data collection. All data were collected anonymously, and no personally identifiable information was recorded.

Statistical analysis

Data were exported from Google Forms into Microsoft Excel and subsequently imported into Jamovi software (version 2.6.44) for analysis. Descriptive statistics were used to summarize the data. Categorical variables were expressed as frequencies and percentages. Associations between workplace violence and independent variables were assessed using the Chi-square test or Fisher's exact test, as appropriate. All selected explanatory variables (age, designation, department of work, years of experience, work shift type, adequacy of CCTV surveillance, and availability of security personnel) were initially examined using univariate binary logistic regression to estimate crude odds ratios (ORs). Subsequently, all variables were entered into a multivariable binary logistic regression model to estimate adjusted ORs with 95% confidence intervals (Cis). A p-value of <0.05 was considered statistically significant.

Results

Table 1 shows the sociodemographic and work-related characteristics of the study participants. Among the 77 female healthcare professionals, the majority were aged <30 years (59.7%). Nurses (46.7%) constituted the largest group, followed by doctors (36.3%). Most participants were working in the ICU (32.5%), followed by the outpatient department (24.7%). Most participants had less than five years of work experience (76.6%). Regarding work shifts, 57.1% were engaged in rotational duties, while 40.3% worked day shifts.

Table 1-Sociodemographic and work-related characteristics of female healthcare professionals

Variable	Category	n (%)
Age group (years)	<30	46 (59.7%)
	30–39	24 (31.2%)
	≥ 40	7 (9.1%)
Designation	Doctor	28 (36.3%)
	Nurse	36 (46.7%)
	Technician	9 (11.7%)
	Administrative staff & Others	4 (5.2%)
Department of work	Emergency Room	9 (11.7%)
	OPD	19 (24.7%)
	ICU	25 (32.5%)
	Wards	10 (12.9%)
	Others	14 (18.2%)
Years of experience	<5	59 (76.6%)
	5–10	15 (19.5%)
	>10	3 (3.9%)
Work shift type	Day	31 (40.3%)
	Night	2 (2.6%)
	Rotational	44 (57.1%)

Table 2 presents the perception of safety and security among female healthcare professionals within the hospital premises and during commuting. A majority of participants (93.5%) reported feeling safe while working in the hospital. Regarding security measures, 36.4% perceived CCTV surveillance as adequate, and 76.6% reported the availability of security

personnel round the clock. In contrast, 61% of participants reported feeling safe while commuting to the hospital.

Table 2: Perception of Safety and Security among Female Healthcare Professionals (N = 77)

Safety Parameter	Response	n (%)
Feel safe while working in Hospital	Safe	72 (93.5%)
	Unsafe	5 (6.5%)
Perception of CCTV surveillance in hospital	Adequate	28 (36.4%)
	Inadequate	49 (63.6%)
Availability of security personnel (24×7)	24 Hours	59 (76.6%)
	Not 24 hours	18 (23.4%)
Feel safe while commuting to hospital	Safe	47 (61.0%)
	Unsafe	30 (39.0%)

Table 3 presents the experience of workplace violence or harassment among participants. More than half of the participants (55.8%) reported experiencing workplace violence. Among those affected (n = 43), the most common form was verbal abuse (76.7%), followed by discrimination (20.9%), while physical assault (9.3%) and sexual harassment (4.6%) were less frequent. Patients' relatives were identified as the most common perpetrators (65.1%). Among affected participants, 51.2% reported the incident to hospital authorities. Among those who did not report (n = 21), the most common reason was the perception that no action would be taken (52.4%).

Table 3: Prevalence, Type, and Reporting of Workplace Violence among Female Healthcare Professionals

Variable	Category	n(% of those who experienced violence)
Ever faced violence/harassment at workplace	Yes	43 (55.8%)
	No	34 (44.2%)
Type of violence experienced (n = 43) *	Verbal abuse	33 (76.7%)
	Physical assault	4 (9.3%)
	Sexual harassment	2 (4.6%)
	Discrimination	9 (20.9%)
Perpetrator (n = 43) *	Patient	14 (32.5%)
	Patient's relatives	28 (65.1%)
	Senior staff and Colleagues	15 (34.9%)
	Security staff	2 (4.6%)
Reported incident to hospital authorities (n=43)	Yes	22 (51.2%)
	No	21 (48.8%)
Reason for not reporting (n=21) *	Fear of retaliation	4 (19%)
	Lack of reporting mechanism	1 (4.8%)
	No action would be taken	11 (52.4%)
	Others	5 (23.8%)

*Multiple choice response

Table 4 presents the awareness, availability, and utilization of workplace safety resources among female healthcare professionals. Regarding awareness, 65% of participants were aware of workplace policies related to violence and harassment. Only 15.7% reported that regular training sessions on workplace violence and security were conducted, while 48.0% stated that no training sessions were conducted. Similarly, only 15.7% confirmed the availability of emergency safety measures, whereas 48.0% reported that such measures were unavailable and 36.3% were unsure. Access to a hospital helpline or support system was reported by 40.3% of participants, while 20.7% reported that no such support system was available and 39.0% were unsure. Regarding utilization, only 16.9% of participants reported having used any hospital safety resources.

Table 4: Awareness, Availability, and Utilization of Workplace Safety Resources among Female Healthcare Professionals (n = 77)

Theme	Safety Resource / Parameter	Response Category	n (%)
Awareness	Aware of workplace policy against violence and harassment	Yes	50 (65.0%)
		No	27 (35.0%)
Availability	Training on workplace violence and security provided by hospital	Regular training sessions	12 (15.7%)
		Rarely conducted	28 (36.3%)
		No training sessions conducted	37 (48.0%)
	Availability of emergency safety measures for female staff	Yes	12 (15.7%)
		No	37 (48.0%)
		Not sure	28 (36.3%)
	Access to hospital helpline / support system	Yes	31 (40.3%)
		No	16 (20.7%)
		Not sure	30 (39.0%)
Utilization	Ever used any hospital safety resources	Yes	13 (16.9%)
		No	64 (83.1%)

Table 5 presents the association between selected work characteristics and experience of workplace violence among female healthcare professionals. A significantly higher proportion of workplace violence was observed among participants reporting inadequate CCTV surveillance compared to those reporting adequate surveillance ($p = 0.02$). Similarly, lack of 24-hour availability of security personnel was significantly associated with workplace violence ($p < 0.001$). No statistically significant association was observed between workplace violence and shift type, department, age, years of experience, or designation ($p > 0.05$).

Table 5: Association between Work Characteristics and Experience of Workplace Violence (N = 77)

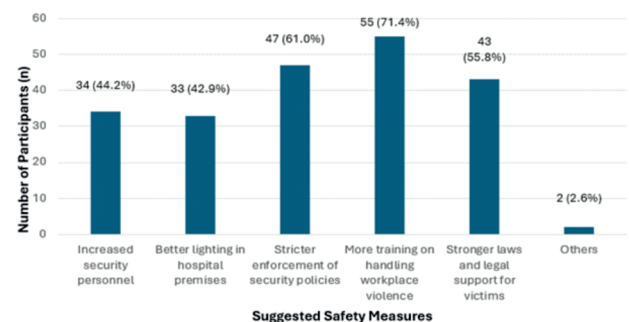
Variable	Category	Experienced Violence n (%)	Did Not Experience Violence n (%)	Total n (%)	Chi-square; p-value
Shift type	Day	14 (45.2%)	17 (54.8%)	31 (40.3%)	2.40; 0.12
	Night Rotational +	29 (63.0%)	17 (37.0%)	46 (59.7%)	
Department	Emergency + OPD	14 (50.0%)	14 (50.0%)	28 (36.4%)	4.01; 0.13
	ICU	18 (72.0%)	7 (28.0%)	25 (32.5%)	
	Wards Others +	11 (45.8%)	13 (54.2%)	24 (31.2%)	
Age	<30	24 (52.2%)	22 (47.8%)	46 (59.7%)	0.62; 0.43
	≥30	19 (61.3%)	12 (38.7%)	31 (40.3%)	
Years of experience	≤5	35 (54.7%)	29 (45.3%)	64 (83.1%)	0.20; 0.65
	>5	8 (61.5%)	5 (38.5%)	13 (16.9%)	
Designation	Doctor	14 (50.0%)	14 (50.0%)	28 (36.4%)	1.83; 0.40
	Nurse	23 (63.9%)	13 (36.1%)	36 (46.8%)	
	Others	6 (46.2%)	7 (53.8%)	13 (16.9%)	
CCTV surveillance	Adequate	11 (39.3%)	17 (60.7%)	28 (36.4%)	4.89; 0.02*
	Inadequate	32 (65.3%)	17 (34.7%)	49 (63.6%)	
Security personnel (24×7)	Yes	26 (44.1%)	33 (55.9%)	59 (76.6%)	14.19; <0.001*
	No	17 (94.4%)	1 (5.6%)	18 (23.4%)	

Multivariable logistic regression analysis showed that the absence of round-the-clock security personnel was the only factor significantly associated with workplace violence among female healthcare professionals (Table 6). Healthcare professionals working in areas without 24×7 security personnel had significantly higher odds of experiencing workplace violence than those with round-the-clock security personnel (AOR = 19.57; 95% CI: 2.28-167.83; $p = 0.007$). After adjustment, no statistically significant associations were observed between age, designation, department of work, years of experience, work shift type, adequacy of CCTV surveillance, and workplace violence ($p > 0.05$).

Table 6. Logistic Regression Analysis of Factors Associated with Workplace Violence among Female Healthcare Professionals (N = 77)

Variable	Category	Crude OR (95% CI)	Adjusted OR (95% CI)	p-value (Adjusted)
Age	<30 years (Ref)	1	1	—
	≥30 years	1.66 (0.65–4.23)	1.37 (0.42–4.49)	0.603
Designation	Doctor (Ref)	1	1	—
	Nurse	1.77 (0.65–4.84)	1.24 (0.28–5.44)	0.779
	Others	0.86 (0.23–3.20)	1.32 (0.25–7.03)	0.742
Department of Work	Emergency / OPD (Ref)	1	1	—
	ICU	2.57 (0.82–8.08)	1.96 (0.47–8.22)	0.357
	Ward / Others	0.85 (0.28–2.52)	0.64 (0.16–2.51)	0.518
Years of Experience in Current Workplace	≤5 years (Ref)	1	1	—
	>5 years	1.33 (0.39–4.49)	1.50 (0.33–6.78)	0.598
Work Shift Type	Day Shift (Ref)	1	1	—
	Night Rotational Shift /	2.07 (0.82–5.23)	1.51 (0.40–5.79)	0.545
Adequacy of CCTV Surveillance	Adequate (Ref)	1	1	—
	Not Adequate	2.91 (1.11–7.60)	1.71 (0.54–5.41)	0.358
Availability of Security Personnel (24×7)	Yes (Ref)	1	1	—
	No	21.58 (2.69–172.92)	19.57 (2.28–167.83)	0.007

Figure 1 shows that more training on handling workplace violence ($n = 55$, 71.4%) and stricter enforcement of security policies ($n = 47$, 61.0%) were the most commonly suggested measures to improve workplace safety.



Note: Multiple responses were allowed; therefore, the total number of responses exceeds the study sample size ($n = 77$), and percentages do not sum to 100%.

Figure 1: Suggested Measures to Improve Workplace Safety among Female Healthcare Professionals (n = 77)

Discussion

This study highlights the substantial burden of workplace violence among female healthcare professionals, characterized by the predominance of verbal abuse, considerable under reporting, and the importance of institutional safety measures in promoting workplace safety.

In this study, more than half of the participants reported experiencing workplace violence, indicating a substantial burden even within a single institutional setting. Variation in prevalence across studies highlights the influence of contextual factors such as institutional policies, patient load, and reporting culture. The reported prevalence is lower than the prevalence reported among postgraduate residents in Manipur,^[17] a multicentric study from Uttar Pradesh,^[7] and a study from Aurangabad,^[9] where the reported prevalence was 78.26%, 87%, and 63.41%, respectively. However, this prevalence was higher than that reported by Anand et al., who found that 40.8% of resident doctors experienced workplace violence in the preceding 12 months.^[10] Findings from previous studies support the heightened vulnerability of female healthcare workers. Vyas et al. reported that 62.8% of female healthcare workers experienced workplace violence, compared with 32.9% of males, with verbal violence being the most common form.^[18] Similar findings were reported by Kumar M in Delhi, where female doctors experienced higher rates of violence (51%) than their male counterparts.^[19] An Ethiopian study by Yenealem et al. also observed that female healthcare workers were more frequently exposed to all forms of workplace violence.^[20]

In this study, nurses appeared to be the most affected group, accounting for approximately 30% of those reporting workplace violence, a finding consistent with observations reported by Vitale et al. and Doehring et al.^[21,22] This may be due to prolonged patient contact, frontline caregiving responsibilities, and greater interaction with patients' relatives, increasing their vulnerability to conflict situations. This finding highlights the need for targeted safety interventions for frontline healthcare workers, particularly nurses who have prolonged and direct patient contact.

Among the 43 participants who reported workplace violence, verbal abuse was the most common form (76.7%), followed by discrimination and physical assault, with a small proportion reporting sexual harassment. These findings align with several Indian and international studies identifying verbal abuse as the predominant form of workplace violence among healthcare workers. Studies by Khiyani et al., Sharma et al., Davey et al., and Kaur et al. have similarly reported high proportions of verbal abuse, particularly in emergency and high-stress clinical settings.^[1,4,5,23] This suggests that non-physical forms of violence are often normalized within healthcare settings and may remain under-recognized, emphasizing the need for institutional acknowledgment and structured reporting mechanisms.

In the present study, multivariable logistic regression analysis showed that the absence of round-the-clock security personnel was the only factor significantly associated with workplace violence after adjustment for potential confounding variables. No statistically significant associations were

observed for age, designation, department of work, years of experience, work shift type, or adequacy of CCTV surveillance. The lack of significant associations with demographic and occupational characteristics is consistent with the findings of Sharma et al.^[5] Although inadequate CCTV surveillance showed a significant association in the unadjusted analysis, this association was not statistically significant after multivariable adjustment.

The finding that institutional safety measures, rather than individual characteristics, were independently associated with workplace violence suggests that organizational factors play a greater role in workplace safety. The availability of round-the-clock security personnel may deter aggressive behaviour and facilitate a prompt response to violent incidents. From a gender perspective, workplace violence prevention should extend beyond physical security measures to include appropriate workplace design, accessible reporting mechanisms, and an organizational culture that encourages reporting without fear of negative consequences. These approaches have been identified as important strategies for improving workplace safety and reporting of violent incidents among healthcare professionals.^[12,23] Strengthening these institutional measures may contribute to a safer and more supportive work environment for female healthcare professionals.

In this study, patients' relatives emerged as the most common perpetrators of workplace violence, followed by senior staff and colleagues. This observation is consistent with multiple studies identifying patients' attendants as the primary source of violence against healthcare workers.^[7,10,17,19] High involvement of patient relatives has been attributed to miscommunication, unrealistic expectations, prolonged waiting times, and emotional distress. Inadequate communication regarding diagnosis and prognosis may precipitate conflicts. Similar findings have been reported by Kaur et al. and Sari et al.^[1,3] The Indian Medical Association has also repeatedly highlighted the rising incidence of violence against healthcare professionals and emphasized the need for stricter enforcement of protective laws. Incidents involving senior staff and colleagues may reflect hierarchical stressors and communication gaps within healthcare settings, as also reported by Anand et al.^[10] Underreporting may be attributed to fear of retaliation, lack of institutional support, and limited awareness of reporting mechanisms, emphasizing the need for strengthened reporting systems and supportive workplace policies. This suggests that workplace violence is not merely a behavioural issue but reflects broader systemic challenges in healthcare delivery, including communication gaps, service constraints, and unmet expectations.

This study contributes to the limited evidence on workplace violence among female healthcare professionals, a group that remains underrepresented in research despite facing unique

safety challenges. The study comprehensively examined the types of violence, perpetrators, reporting behavior, safety perceptions, and availability of institutional safety measures.

Despite the presence of legal protections such as the Epidemic Diseases (Amendment) Act, workplace violence continues to persist, indicating gaps in implementation and enforcement. This reflects broader health system challenges, including high patient load, inadequate staffing, prolonged waiting times, and strained doctor-patient communication. In many settings, healthcare institutions lack robust security governance, clear reporting mechanisms, and accountability frameworks, which contribute to underreporting and normalization of violence. These findings reinforce the need to strengthen institutional security governance through adequate deployment of trained security personnel, effective surveillance systems, clear reporting mechanisms, and strict enforcement of workplace safety policies. Addressing workplace violence therefore requires a systems-based approach focusing on hospital administration, infrastructure strengthening, and policy enforcement rather than isolated behavioural interventions.

However, several limitations should be considered while interpreting the findings. First, the cross-sectional design precludes establishing temporal or causal relationships between workplace violence and the associated institutional factors. Second, the relatively small sample size and the use of convenience sampling may have introduced selection and volunteer bias, while the absence of a defined sampling frame may have affected the representativeness of the study population. Consequently, the findings should be interpreted with caution and may not be generalizable to all healthcare professionals or other healthcare settings. The use of self-reported data may also have introduced recall and social desirability bias, particularly for sensitive issues such as workplace violence and harassment. In addition, the questionnaire was specifically developed for this study and, although it underwent expert review and pilot testing, formal psychometric validation and reliability testing were not performed. Therefore, measurement error cannot be completely excluded. Finally, information on marital status, educational qualification, employment type, and average working hours was not collected. Future studies should include these variables to provide a more comprehensive assessment of factors associated with workplace violence.

Conclusion

Workplace violence is a significant occupational hazard among female healthcare professionals, with over half reporting exposure, predominantly in the form of verbal abuse. Patients' relatives were the most common perpetrators, and substantial under reporting was observed, largely due to the perceived lack of institutional response. The findings underscore the importance of strengthening organizational safety measures, particularly ensuring the availability of

round-the-clock security personnel and effective reporting mechanisms. Strengthening hospital security infrastructure, implementing regular training on workplace violence prevention, and establishing clear and accessible reporting mechanisms are essential to ensure a safer working environment. Healthcare institutions must ensure accountability through strict enforcement of security protocols and prompt action on reported incidents. Furthermore, gender-sensitive workplace policies addressing the specific safety concerns of female healthcare professionals are crucial to creating a secure and supportive work environment.

Financial Support And Sponsorship : Nil

Conflict of Interest: None

Declaration of Generative Ai And Ai-assisted Technologies in the Writing Process: None

References

1. Kaur A, Ahamed F, Sengupta P, Majhi J, Ghosh T. Pattern of workplace violence against doctors practising modern medicine and the subsequent impact on patient care, in India. *PLoS ONE*. 2020 Sep 18;15(9):e0239193. doi:10.1371/journal.pone.0239193
2. Warren B. Workplace violence in hospitals: safe havens no more. *J Healthc Prot Manag Publ Int Assoc Hosp Secur*. 2011;27(2):9-17.
3. Sari H, Yildiz ?, Ça?la Balo?lu S, Özel M, Tekalp R. The frequency of workplace violence against healthcare workers and affecting factors. *PLOS ONE*. 2023 Jul 28;18(7):e0289363. doi:10.1371/journal.pone.0289363
4. Khiyani S, Mishra S, Sahu R, Das A, Pathak A. Pattern of Violence Among Healthcare Workers in a Tertiary Care Government Hospital and a Multi-Specialty Private Hospital in Sagar, India: A Cross-Sectional Study. *Cureus*. 2023;15(11):e48231. doi:10.7759/cureus.48231
5. Sharma S, Shrimali V, Thakkar H, Upadhyay S, Varma A, Pandit N, et al. A Study on Violence Against Doctors in Selected Cities of Gujarat. *Medical Journal of Dr. D.Y. Patil Vidyapeeth*. 2019 Aug;12(4):347. doi:10.4103/mjdrdypu.mjdrdypu_137_18
6. Boddupalli R, Francis G. Epidemic Diseases (Amendment) Bill, 2020: A missed opportunity. *Indian Law Institute Law Review*. 2020;(Special Issue):302-315.
7. Singh G, Singh A, Chaturvedi S, Khan S. Workplace violence against resident doctors: A multicentric study from government medical colleges of Uttar Pradesh. *Indian J Public Health*. 2019;63(2):143-6.
8. Perappadan BS. Majority of doctors in India fear violence, says IMA survey. *The Hindu [Internet]*. 2017 Jul 2 [cited 2026 Apr 12]. Available from: <https://www.thehindu.com/sci-tech/health/majority-of-doctors-in-india-fear-violence-says-ima-survey/article19198919.ece>
9. Pund SB, Kuril BM, Doibale MK, Ankushe RT, Kumar P, Siddiqui N. Study of workplace violence, its risk factors and perceptions about workplace security in doctors of Paithan. *Int J Community Med Public Health*. 2017 May 22;4(6):1987-92. doi:10.18203/2394-6040.ijcmph20172162
10. Anand T, Grover S, Kumar R, Kumar M, Ingle GK. Workplace violence against resident doctors in a tertiary care hospital in Delhi. *Natl Med J India*. 2016;29(6):344-8.
11. Garg R, Garg N, Sharma DK, Gupta S. Low reporting of violence against health-care workers in India in spite of high prevalence. *Med J Armed Forces India*. 2019 Apr;75(2):211-5. doi:10.1016/j.mjafi.2018.11.011
12. Song C, Wang G, Wu H. Frequency and barriers of reporting workplace violence in nurses: An online survey in China. *Int J Nurs Sci*. 2020 Dec 3;8(1):65-70. doi:10.1016/j.ijnss.2020.11.006
13. Nyberg A, Kecklund G, Hanson LM, Rajaleid K. Workplace violence and health in human service industries: a systematic review of prospective and

- longitudinal studies. *Occup Environ Med.* 2021 Feb;78(2):69-81. doi:10.1136/oemed-2020-106450
14. Kumari A, Sarkar S, Ranjan P, Chopra S, Kaur T, Baitha U, et al. Interventions for workplace violence against health-care professionals: A systematic review. *Work.* 2022;73(2):415-27. doi:10.3233/WOR-210046
15. Kumari A, Kaur T, Ranjan P, Chopra S, Sarkar S, Baitha U. Workplace violence against doctors: Characteristics, risk factors, and mitigation strategies. *J Postgrad Med.* 2020;66(3):149-54. doi:10.4103/jpgm.JPGM_96_20
16. Sain S, Chatterjee A, Nundy S. When trust is betrayed: The horrific rape-murder of a young resident doctor on duty in Kolkata: A call for justice and change. *Curr Med Res Pract.* 2024 Sep;14(5):189-91. doi: 10.4103/cmrip.cmrip_142_24
17. Ori J, Devi NS, Singh AB, Thongam K, Padu J, Abhilesh R. Prevalence and attitude of workplace violence among the post graduate students in a tertiary hospital in Manipur. *J Med Soc.* 2014 Apr;28(1):25. doi:10.4103/0972-4958.135222
18. Vyas S, Saini RS, Semwal J, Sharma N, Chaturvedi M, Ansari MWF. Are Health Caregivers safe from workplace violence? A cross sectional study on workplace safety from Tertiary Care Hospital of Uttarakhand. *Indian J Community Health.* 2022 Dec 31;34(4):469-76. doi: 10.47203/IJCH.2022.v34i04.004
19. Kumar M, Verma M, Das T, Pardeshi G, Kishore J, Padmanandan A. A Study of Workplace Violence Experienced by Doctors and Associated Risk Factors in a Tertiary Care Hospital of South Delhi, India. *J Clin Diagn Res JCDR.* 2016 Nov;10(11):LC06-LC10. doi:10.7860/JCDR/2016/22306.8895
20. Yenealem DG, Woldegebriel MK, Olana AT, Mekonnen TH. Violence at work: determinants & prevalence among health care workers, northwest Ethiopia: an institutional based cross sectional study. *Ann Occup Environ Med.* 2019 Apr 3;31:8. doi:10.1186/s40557-019-0288-6
21. Vitale E, Vella F, Matera S, Mazzeo S, Farrauto C, Filetti V, et al. Violence and harassment against healthcare workers: a psychological-clinical perspective on a survey in a Policlinic Hospital. *Front Public Health.* 2025 Jul 22;13:1607011. doi:10.3389/fpubh.2025.1607011
22. Doehring MC, Palmer M, Satorius A, Vaughn T, Mulat B, Beckman A, et al. Workplace Violence in a Large Urban Emergency Department. *JAMA Netw Open.* 2024 Nov 5;7(11):e2443160. doi: 10.1001/jamanetworkopen.2024.43160
23. Davey K, Ravishankar V, Mehta N, Ahluwalia T, Blanchard J, Smith J, et al. A qualitative study of workplace violence among healthcare providers in emergency departments in India. *Int J Emerg Med.* 2020 Jun 17;13:33. doi:10.1186/s12245-020-00290-0
24. Vyas S, Singh A, Boswal V, Srivastava A, Sharma N, Mahmood SE, Krishali A, Bahuguna A, Semwal J and Nautiyal V (2026) Prevalence and patterns of workplace violence against doctors of North India: a cross-sectional study. *Front. Public Health* 14:1653005. doi: 10.3389/fpubh.2026.1653005