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Workplace Violence Against The Doctors In A Tertiary Care Teaching Hospital - A Facility- Based Cross-Sectional Study

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Abstract
Background: *Workplace violence is highly prevalent worldwide in hospitals due to the nature of their services, which are deeply intertwined with the emotional experiences of patients and their families. This study sought to thoroughly assess the prevalence, characteristics, and related risk variables of workplace violence directed at doctors in India.*
Method: *A facility based cross-sectional study was carried out at a tertiary care hospital, involving 208 physicians who had a minimum experience of one year. A predesigned and structured questionnaire was used to collect data and analysed using SPSS software.*
Results: *According to the survey, 76.9% of participants had never been the victim of physical violence, 13.9% had been the victim once in a year, and 4.8% and 4.3% had been the victims once in six months and one month, respectively. Only 21.2% of participants did not experience verbal aggression, while 13% did once a year and 21.6% did once in six months. WPV was found to impact the physical and psychological well-being of the participants. Females were found to be more affected compared to male doctors. Statistical significance was observed between department specialization, type of hospital and gender.*
Conclusion: *Policymakers and healthcare providers must act quickly to prevent workplace violence. A safer workplace for healthcare personnel requires stronger security, antiviolence rules and comprehensive training.*
Keywords: *Workplace violence, doctors, healthcare*

INTRODUCTION

Violence against employees is a worldwide epidemic that affects nearly every industry that deals with the public. Among public sectors, hospitals have a high rate of workplace violence because they provide services that focus on the emotional needs of their patients and their family members.[1] The term workplace violence (WPV) refers to any kind of threat or act of assault, bullying, or other disruptive and threatening behaviours that take place at the workplace.[2] According to the World Health Organization (WHO), approximately 8 to 38 % of healthcare workers experience physical abuse during their careers globally.[3] A recent systematic review encompassing 17 studies revealed that 47% of healthcare professionals experience workplace violence, with a prevalence rate of 68% among physicians.[4]

Workplace violence against doctors is a significant issue worldwide, with reported rates varying from 54% in Thailand to 70% in Morocco, irrespective of the work environment, availability of resources, and the prevailing organizational culture and support systems.[5] In developing nations, over 50% of physicians have encountered verbal and physical abuse from patients or relatives. According to an Indian study conducted in 2019, out of 295 healthcare workers verbal abuse against junior residents was most common (53%) and was followed by senior residents (14%) and consultants (13%).[6]

Healthcare facilities are particularly vulnerable to acts of violence for many reasons. Key elements encompass the emotional attitudes of patients' attendants and their responses, the presence of inexperienced hospital staff, and inadequate customer care facilities.[7,8,9] Interestingly, there is a difference between the causes of violence in private and public healthcare systems. Many public hospitals have violent incidents due to high wait times, limited patient interviews, inadequate counselling, and a lack of caregiver-patient trust. Despite superior care, extended hospital stays, higher economic costs, and unneeded testing encourage violence against healthcare professionals in private institutions.[10]

The occurrences of workplace violence have extensive implications. The adverse impact of these incidents extends beyond the physical and psychological health of doctors, leading to additional concerns such as diminished job performance, heightened burnout, and intentions to leave the profession, all of which can ultimately compromise the quality of patient care.[11,12] The study aimed to

examine the prevalence and types of workplace violence encountered by physicians in their professional roles, as well as to evaluate the psychological and social consequences of such violence. Further, the study evaluated the effectiveness of preventative interventions. Involving in abusing, assaulting or causing harm to the doctor or staff of hospital may attract penalty under the Karnataka Prohibition of Violence Against Medicare Service Personnel and Damage to Property in Medicare Service Institutions Act, 2009.

METHODOLOGY

Study details

This study was a questionnaire-based cross-sectional survey that was carried out among the post-graduate residents at a tertiary care teaching hospital which is in J.N. Medical College & KLES Dr Prabhakar Kore Hospital, Belagavi, Karnataka throughout the course of a period of three months, beginning on 1st January 2025 to 31st March 2025. The Institutional Ethics Committee for the Medical College's research involving human subjects granted ethical clearance, with reference number MDC/JNMCIEC/601 dated 29/01/2025. Written informed consent was obtained from all the study participants before data collection.

Questionnaire development

The questionnaire for the study was developed using a scientific approach in a step-wise manner. Initially, a review of the literature was conducted to develop the questionnaire. A predesigned and structured questionnaire consisting of 27 questions was developed, which include social demographic characteristics, type of violence, causes of violence, reporting of workplace violence, the impact of violence on doctors' psychology and well-being and preventive measures to be considered for preventing violence in a healthcare setting. The developed questionnaire was further reviewed by medical panel members to evaluate its relevancy and authenticity. A pilot study was done, and the questionnaire was revised.

Cross-sectional study

The participants of the study included doctors who had completed MBBS and working in various clinical departments in different healthcare settings and interns of the medical college. PG residents of non-clinical and para-clinical departments (Anatomy, Biochemistry, Physiology, Pharmacology, Pathology, Microbiology) were excluded, as they did not come in direct contact with patients and their attendants. The estimated sample size comprised 208 participants. The participants were selected from each of the workplace categories using a straightforward random selection method.

Statistical analysis

The collected data was coded and entered in MS excelsheet. The analysis of data was done utilizing SPSS software (version 20). The descriptive statistics for the questionnaire were calculated. The statistical significance of differences in proportions related to specific factors is determined using the Chi-square test, and a p-value of less than 0.05 is considered statistically significant.

RESULTS

Demographic characteristics of the study

A total of 208 participants were included in the study. The majority of participants (74.5%) were aged between 26 to 30 years, indicating a predominantly young healthcare workforce. Out of them, 54.3% were males and 45.7% were females. The majority of the participants were single (82.2%) reflecting the young age distribution. Majority of the participants' highest degree was MBBS (84.6%) followed by interns (14.4%) and MD/MS (1%). Most of the participants work in diverse workplaces, which was clubbed as 'others' (72.1%), followed by Rural-Urban health care centres (PHCs/UHCs) (17.3%) and emergency/casualty areas (10.6%). In subcategories of department of residency, community medicine was the most common department (17.3%), followed by interns (14.4%), internal Medicine (10.6%) and orthopaedics (6.3%) **(Table 1)**.

Table 1: Demographic characteristics of the participants(n=208)

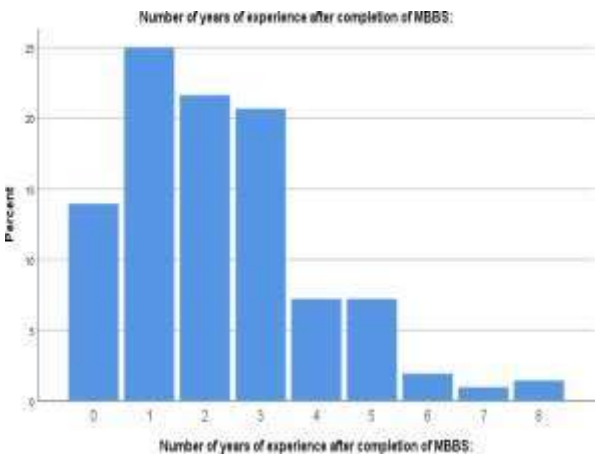
Parameters		**Frequency (n= 208)**	**Percent**
Age Group (in	<25	40	19.2%

years)	26–30	155	74.5%
	>30	13	6.3%
Gender	Male	113	54.3%
	Female	95	45.7%
Marital Status	Single	171	45.7%
	Married	37	82.2%
Qualification	MBBS	176	84.6%
	MD/MS	2	1%
	Intern	30	14.4%
Workplace Setting	Rural-Urban Health Centres	36	17.3%
	Emergency/Casualty	22	10.6%
	Others	150	72.1%
Department of Residency / Specialization / Working	Anaesthesia	17	8.2%
	Community Medicine	36	17.3%
	Internal/General Medicine	22	10.6%
	Orthopaedics	13	6.3%
	Emergency Medicine	9	4.3%
	ENT	11	5.3%
	Ophthalmology	5	2.4%
	Intern	30	14.4%
	Others	65	31.2%

Participants' workplace experience characteristics

Most of the participants had one year of experience (25.0%) after completion of MBBS, followed by 2 years (21.6%), 3 years (20.7%) and no experience (13.9%), reflecting most of them were in their early stage of careers. Similarly, the majority of the participants (33.7%) had
work experience of one year in their current hospital workplace, with a significant number of participants (18.3%) had 2 to 3 years of work experience (Figure 1).

Figure 1: Participants' workplace experience characteristics A. Experience after obtaining MBBS degree in years **B.** Experience in the current workplace in years (n=208)



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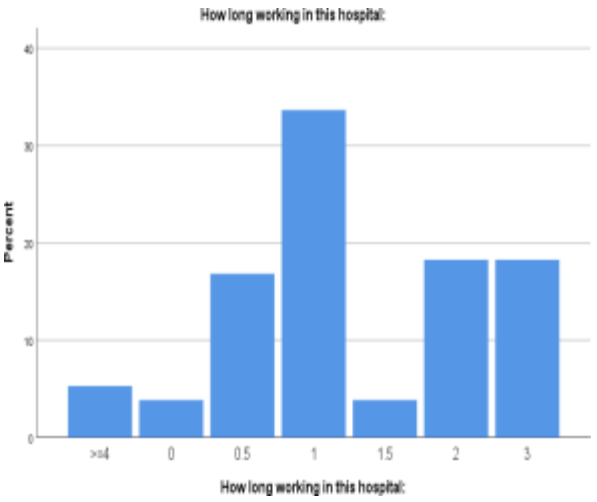
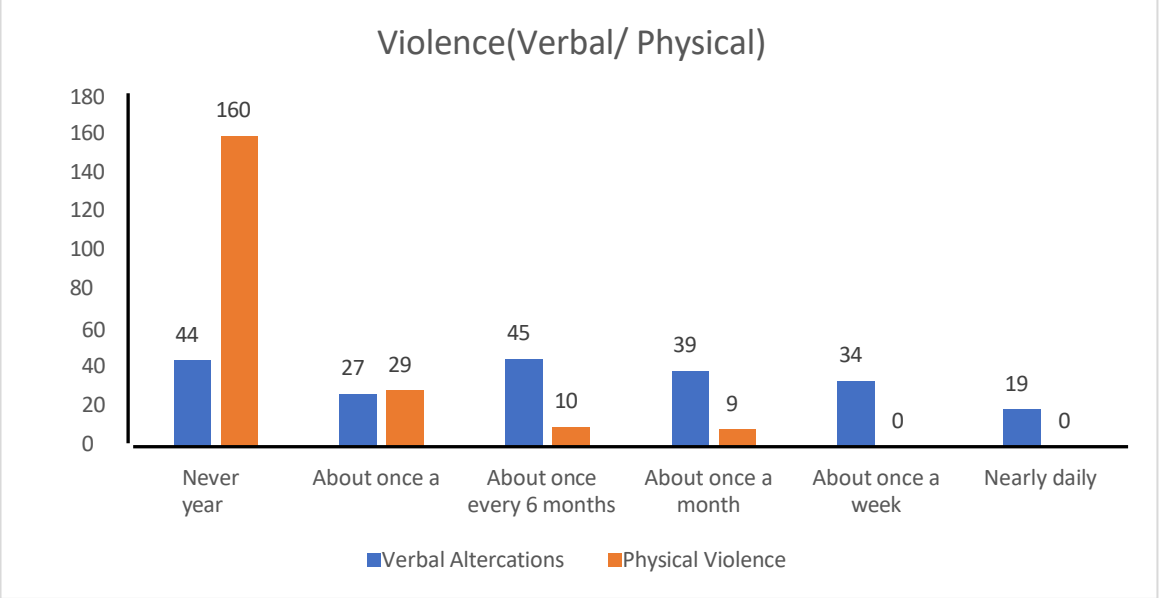


B

Incidence of workplace violence

Violence was categorized into two categories-verbal alterations and physical violence and was studied for a duration ranging from a single day to one year. Around 76.9% of participants never experienced any physical violence, while 13.9% had experienced one physical violence in a year, 4.8% and 4.3% experienced it once in 6 months and 30 days (one month). In the case of verbal alterations, only 21.2% did not experience any verbal violence, whereas 13% experienced it once a year and a significant number of participants (21.6%) experienced it once in 6 months **(Figure 2)**.

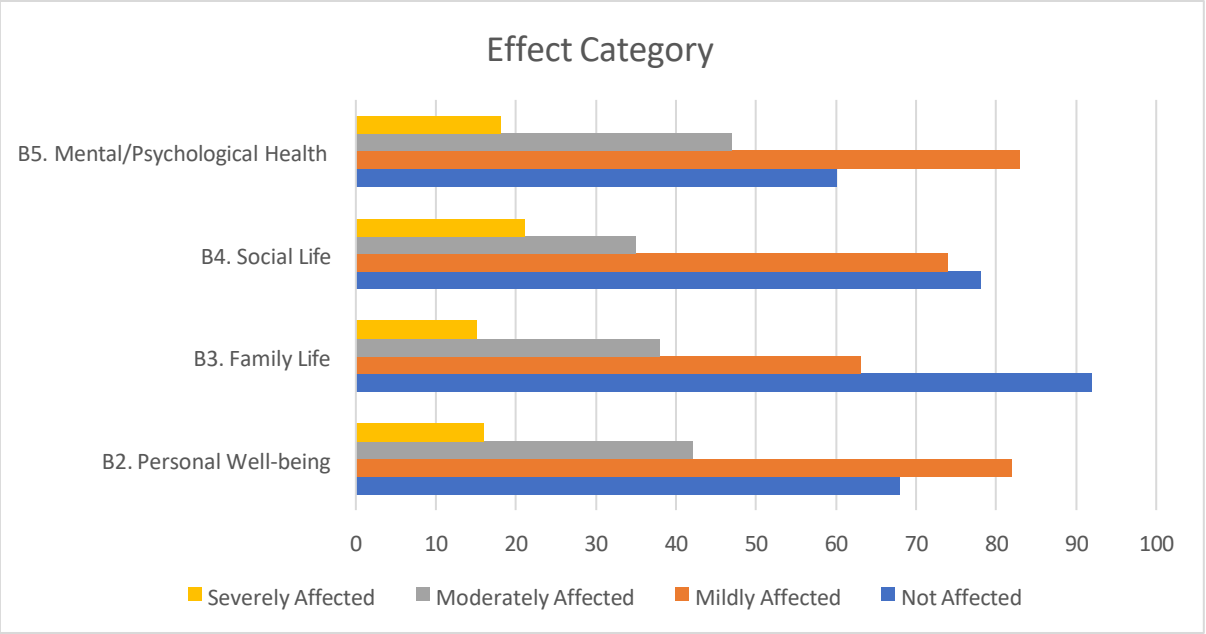
Figure 2: Incidence of hospital based workplace violence in the present study(n=208



Distribution of the participants based on the impact of the violence on their psychological well-being

The impact of the workplace violence on participants was subdivided into 4 categories- mental health, social life, family life and personal well-being. Workplace violence most affected mental well-being, 39.9% were mildly affected, 22.6% were moderately affected and 8.7% were severely affected. Similarly, personal well-being was affected in 67.3% of participants at various levels, while 62.5% had an impact on their social life and 55.7% had an impact on their family life **(Figure 3)**. However, approximately 28.8% of participants had not felt any impact on their mental health or personal life.

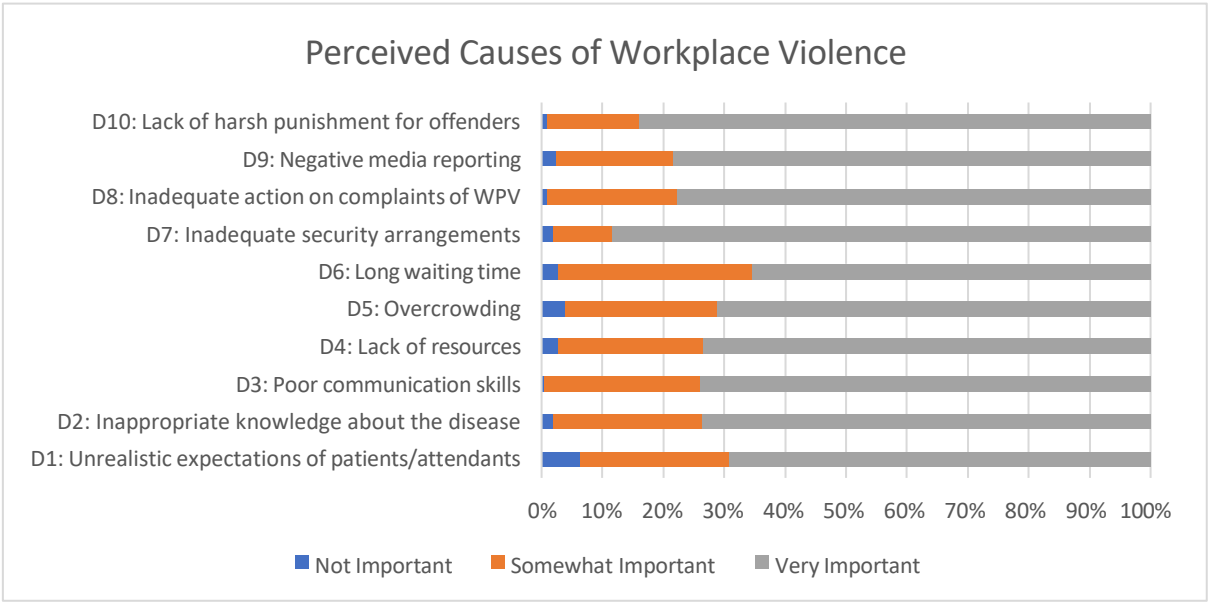
Figure 3: Distribution of the participants based on the impact of the violence on their psychological well-being (n=208)



Perceived Causes of Workplace Violence

The majority of respondents identified inadequate security (88.5%), lack of harsh punishment (84.1%), and negative mass media portrayal (78.4%) as very important contributors to WPV. Internal factors such as poor communication and resource constraints were also rated highly, suggesting both systemic and social causes are perceived as critical **(Figure 4)**.

Figure 4: Perceived causes of workplace violence (n=208)



Strategies to prevent Workplace Violence

A large majority of participants perceived need for strong legislation (88.5%), public sensitization (85.6%), and improving infrastructure (84.6%) and hospital services (83.2%) as very important strategies for reducing WPV. Measures involving education, communication, and mass media responsibility also received high priority, reflecting a multi-pronged preventive approach **(Table 2)**.

Table 2: Strategies to prevent Workplace Violence in hospitals

Suggested measures by the participants	Not Important	Somewhat Important	Very Important
1: Control number of attendants per patient	1.4%	25.5%	73.1%
2: Educate about limitations of medical care and health infrastructure	0.5%	14.4%	85.1%
3: Train healthcare workers in soft skills	1.0%	16.8%	82.2%
4: Improve hospital facilities (e.g., diagnostics, medicines)	1.9%	14.9%	83.2%
5: Improve infrastructure (CCTVs, alarms, security etc.)	1.0%	14.4%	84.6%
6: Strong legislative measures by the government	—	11.5%	88.5%
7: Unbiased mass media reporting	—	16.8%	83.2%
8: Sensitize public figures about statements on healthcare workers	1.9%	12.5%	85.6%

Association of verbal and physical violence with variables

In case of physical violence, a statistically significant associations with department and workplace setting, indicating that where a participant works and his or her department plays a crucial role in their risk of experiencing physical violence. Also, physical violence on female doctors was statistically significant ($p < 0.05$), indicating a greater reported impact or frequency of physical violence events. Similarly, association between verbal alterations and variables (department, workplace settings and experience) was found to be statistically significant ($p < 0.05$). However, the mean scores suggest that female participants reported experiencing slightly more verbal altercations than males, but this difference did not reach statistical significance **(Table 3).**

Table 3: Statistical association between workplace violence and different variables(n=208)

Workplace Violence	Variable	Chi-Square Value	df	p-value (Asymptotic Sig.)
Verbal Altercations	Department/Specialization	150.091	45	0.000
	Workplace Setting	100.336	50	0.000
	Years of Experience (Post-MBBS)	96.299	40	0.000
	Female (Mean = 3.75)	-0.464	0.061	Not statistically significant
Physical Violence	Department/Specialization	99.984	27	0.000
	Workplace Setting	61.916	30	0.001

	Years of Experience (Post-MBBS)	24.463	24	0.435
	Female (Mean = 5.55)	-0.512	0.009	Statistically significant

Rotated Principal Component Analysis of causes of violence in the workplace

The study used a method called Rotated Principal Component Analysis to find the main reasons for violence in the workplace. To make the results easier to understand, they used a technique called 'Varimax rotation'. Three main problem areas (components) were found. First, systemic failures was the most important factor. It includes problems like: lack of resources (scored 0.85) and overcrowding (scored 0.77). These are big-picture problems in the healthcare system or organization that can lead to frustration and violence. Second, knowledge/expectations: people not understanding the disease properly (scored 0.84). This means patients or their families may expect certain things that aren't possible, leading to anger or conflict. Third, security/accountability: no serious punishment for violence offenders (scored 0.84). This suggests that weak consequences for violent behaviour make people feel unsafe or unprotected. After rotating the data, each of these three problem areas explained a more balanced share of the total issues, with systemic failures still being the most important (explaining about 26% of the variation in causes of violence). Also, the different areas were somewhat related but still clearly separate (moderate correlations between 0.48 and 0.52). So, the rotation helped make the categories clearer without making them completely independent. **(Table 4)**.

Table 4 Rotated Principal Component Analysis of Workplace Violence Causes (Varimax Rotation) (n=208)

Component	Key Variables (Loading >0.4)	Loading Range	Variance Explained	Interpretation
Systemic Failures	Lack of resources, Overcrowding, Long waiting time, Negative and inappropriate media reporting	0.62 - 0.85	26.19%	Healthcare system resource deficiencies
Knowledge/Expectation	Unrealistic expectations of patients/attendants, Inappropriate knowledge about the disease/health condition, Poor communication skills	0.58 - 0.84	19.56%	Patient- provider interaction issues
Security/Accountability	Inadequate security arrangements, Lack of the provision of harsh punishment for aggressors/offenders	0.78 - 0.84	17.43%	Institutional safety mechanisms

Total Variance Explained: 63.18%

Correlation analysis between the preventive measures

E7–E8 (.61): Unbiased media reporting and sensitizing public figures go hand in hand, suggesting that tackling misinformation and irresponsible commentary together could create a larger impact. E2–E6 (.61): Educating patients/attendants and strict punishment laws are strongly correlated, indicating that

people see public awareness and legal reform as complementary. E3–E4 (.60): Training healthcare workers in communication aligns well with improving facilities, possibly reflecting a systems- level approach to better patient experience. E1–E5 (.56): Limiting hospital visitors is strongly related to installing safety measures like CCTVs and alarms. E3–E8 (.50): Training healthcare workers and sensitizing politicians are linked—implying solutions are needed both inside and outside the healthcare system. Most strategies are moderate to strongly positively correlated, meaning respondents tend to support
multi-pronged approaches to reduce workplace violence—spanning public education, staff training, hospital infrastructure, legal reforms, and media/political responsibility.

Table 5: Correlation analysis between the preventive measures of WPV

	E1	E2	E3	E4	E5	E6	E7	E8
E1 Controlling number of attendants	1	.42	.43	.49	.56	.43	.35	.37
E2 Educating patients & attendants		1	.47	.55	.52	.61	.31	.43
E3 Soft skills training (HCWs)			1	.60	.53	.38	.46	.50
E4 Improving hospital facilities				1	.58	.43	.34	.38
E5 Security infra (CCTV, alarms)					1	.60	.30	.44
E6 Legal action against offenders						1	.44	.49
E7 Unbiased media reporting							1	.61
E8 Sensitizing public figures								1

DISCUSSION:

This survey examined the incidence and circumstances of workplace violence as reported by medical professionals in a hospital environment. In the present study, 56% of the doctors surveyed verbal alterations and 23% experienced physical violence. Of them, 9.1% experienced verbal abuse daily, 13% experienced verbal abuse once a year and 13.9% experienced physical violence once a year. Similar findings were reported in the Indian geographical healthcare niche. A study conducted in tertiary care settings in Delhi in the year 2014 among 169 doctors found that 40.8% of resident doctors reported experiencing workplace violence within the past year[13]. Also, a study conducted in 2019 in a tertiary care teaching hospital in Karnataka among 263 doctors reported verbal abuse (86.2%) as a predominant form of violence against doctors in 12 months duration.[14] However, a study conducted in a tertiary hospital in Manipur, Northeast region of India in 2011 among 230 postgraduate doctors reported higher incidence rate of 78% against postgraduate medical students within a year duration.[15] The variations in exposure duration, the diverse definitions of workplace violence, and the distinct geographical contexts may account for the discrepancies observed among these studies.

Prior studies have identified age as a contributing factor to workplace violence in general hospital settings.[16] The current study population comprises resident doctors within a narrow age range of <25 to >30 years, which was not identified as a significant risk factor. A cross-sectional study was conducted in Vardhman Mahavir Medical College and Safdarjung Hospital (VMMC & SJH), a tertiary care government hospital located in Delhi, India in 2016 among 151 doctors found that 51% of female doctors and 45% of male doctors had experienced some form of violence.[9] Similarly, in our study, gender was one of the key risk factors of WPV, where a high percentage of female doctors experienced physical

violence with statistical significance ($p < 0.05$). Also, types of department like emergency department were found to be linked to higher prevalence rates of WPV and were found to be of statistical significance. Studies showed the Emergency Department and the Psychiatry and Mental Health Departments were particularly vulnerable because the most prevalent offenders were patients, their families, or visitors.[17]

A retrospective survey of 1973 employees done in the German healthcare and welfare system in 2008-09 showed 56% of respondents had experienced physical violence and 78% verbal aggression. The highest frequency of physical violence was in inpatient geriatric care. The primary negative effects that professionals who have been abused or assaulted— particularly those who have been verbally abused— report experiencing were negative effects on their morale, including fear, anger, aggravation, anxiety, melancholy, embarrassment, shame and disappointment impacting their professional and personal life. These findings are consistent with the majority of research.[18,19] The literature indicates that these feelings can diminish the empathy capacity of health care workers and may contribute to burnout, prompting professionals to exit healthcare or transition to different institutions. The interplay between stress and violence in the workplace can result in a compounding of negative effects, ultimately driving professionals toward exhaustion and conflict, as noted by various scholars.[8]

The current study reveals the existence of the issue and underscores the necessity of preventive measures. It is recommended to train all resident doctors in efficient interpersonal interaction, dispute resolution, and organizational security practices to limit the possibility of this form of aggressiveness. Research revealed a lack of explicit policies for reporting, counseling, reviewing, and prosecuting perpetrators at the grassroots level. This requires integrating targeted interventions to address core problems like workplace conflict. The connection between violence and psychosocial factors highlights the necessity for comprehensive reforms in healthcare organizations such as orientation programme about WPV to all doctors and displaying banners and posters. These reforms should encompass decision- making processes, workplace environment and support, as well as interpersonal relationships among staff members.[20,21]

Strengths and limitations

This study utilized a thorough methodology to ascertain the prevalence, characteristics, repercussions, and possible risk elements associated with workplace violence directed at physicians in a public hospital setting. The study had a few limitations. This is a questionnaire- based study and data was collected was based on the self reported memory of participants. Second, the study was conducted only in a small geographical area covering limited hospitals. Third, there was no direct observation or verification of workplace violence incidents by the investigator.

CONCLUSION

Workplace violence can result in significant detrimental effects on a physician's quality of life and emotional health, potentially hindering the provision of healthcare services and the overall quality of care. Consequently, it is essential to implement legal frameworks and strategies aimed at preventing and managing workplace violence, promoting the reporting of violent incidents, and ensuring that victims receive sufficient physical and psychological support and the offenders are punished.

Recommendations

Healthcare organizations should invest in improving patient education for providing clear and concise information by doctors about disease conditions, treatment options and outcomes, streamlining clinical workflows to reduce patient waiting times, ensuring that patients are seen in a timely and efficient manner by doctors in the hospital, enhancing communication skills to manage patient expectations, address concerns and provide empathetic care. Eg: effective AETCOM training for doctors and strengthening security measures to control number of patient’s attendants, overcrowding and chaos in the hospital, hiring bouncers in high risk workplaces.

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Conflict of Interest
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