REVIEW ARTICLE

A Review on Violence Against Health Care Professionals in India and Its Impact

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ABSTRACT

Background: Workplace violence (WPV) is an emerging and contextually relevant public health problem among healthcare professionals (HCPs) globally, including in India. It is now recognized as a significant occupational hazard and an emergency public health problem. This study reviewed to identify the concept and prevalence of WPV, its trend, consequences, impact on healthcare professionals, and preventative measures in the Indian Context.

Methods: We searched Pub Med, Google Scholar, Scopus and other sources, for the published articles between 2014 and 2022.

Results: We included 25 studies in total. Doctors and nurses are victims in Emergency Rooms, Intensive Care Units, and Outpatient departments (OPD). The majority of incidents across all contexts involved verbal violence. Patients and visitors are perpetrators of WPV and has impacts on service. Waiting time, poor communication, infrastructural issues, and negative media coverage are predisposing factors to WPV against HCPs.

Conclusion: With WPV showing increased trends, there is a need for a more systemic approach to reducing violence in the workplace that incorporates accountability at various tiers.

Keywords: Workplace violence, healthcare professionals, verbal abuse, attack on doctors, violence against Nurses

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Introduction

Violence against HCPs is a chronic and eminently emerging and spreading public health problem. Violence against health sector is considered to be workplace violence (WPV). WPV is defined by World Health Organization (WHO) 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". As it is a key occupational hazard faced by HCPs globally, hostility against HCPs in developing countries is preeminent.

India has a high burden of WPV similar to other LMICs. The Indian Medical Association (IMA) has reported that 75% of doctors face either physical or verbal abuse at some point of their career.3 This violence may take the form of Physical violence as the primary type of violence against doctors. These may include punching, slapping, spitting, kicking, scratching, biting, and even throwing excreta on doctors. Other forms include verbal abuse, telephonic threats, blackmailing, cyber bullying, aggressive gestures, and intimidation. Vandalism, arson, and murder violence has been reported to cause healthcare professionals to experience mental health issues such as depression, sleeplessness, posttraumatic stress disorder, fear, and anxiety, which can result in absenteeism.4 In a developing country like India there is increasing hostility against HCPs. In recent years multiple incidents are taking place all over the country and one of the States's Chief Minister issued an ultimatum to the doctors who are on strike to return to work within 4 hours.5

After several incidents of workplace hostility against doctors, public hospitals across India went on a one-week strike. When doctors across the nation struck for workplace safety, this strike gained national attention. India's HCPs' outburst shows the issue's severity. WPV against HCPs is poorly documented. Few studies address WPV against HCPs. This review examines WPV's prevalence, trend, effects, impact on healthcare professionals, and prevention in India.6

Healthcare facility violence

Although WPV affects nearly every industry and group of workers, it is clear that violence in healthcare settings poses a severe threat to public health and is an increasingly worrying occupational health issue.⁷ Compared to other industries, there is an increase in the risk of injury for workers in the healthcare and social service industries due to workplace violence.⁸ More importantly, it is estimated that roughly a quarter of all workplace violence occurs in the health sector.⁹ The COVID-19 pandemic has made the risks even worse for HCPs; WHO reports that between 8 and 38% of healthcare workers experience physical violence during their careers.¹⁰

In addition, COVID-19 has aggravated situations of violence against them. Specifically, the pandemic has exacerbated existing sources of violence and opened up new areas of confrontation between HCPs, patients and visitors, and the people.¹¹ Many others, meanwhile, are targets of verbal abuse or intimidation. Patients' loved ones commit the most acts of violence, followed by the patients themselves. When a crisis, emergency, or disaster involves many people already stressed out from dealing with their own or their loved one's medical conditions, the situation can quickly escalate into violent outbursts.¹² This leads to patients taking out their frustrations on HCPs. Workers in emergency rooms, ICU, obstetrics and psychiatric settings, particularly resident doctors, nurses and paramedics, and those providing direct care to hospital patients are at risk. Type II Customer/Client on worker: The aggressor is someone who is the recipient of a service provided by the affected workplace or by the worker. Examples are assault or verbal threats by patients, carers or relatives of the patient.¹³ According to existing studies, researchers found that verbal abuse was the most common form of WPV against HCPs (61.2%), followed by psychological violence.14 Up to 62% of healthcare professionals (HCPs) have experienced workplace violence.² Verbal abuse (58%) is the most common form of non-physical violence, followed by threats (33%) and sexual harassment (12%),15 many incidents, particularly those involving Bullying, verbal abuse, and harassment, go unreported. Underreporting occurs for many reasons, including a lack of reporting guidelines or policy, trust in the reporting system, and a fear of retaliation.¹⁶

This paper examines the concept and prevalence of WPV, its trend, consequences, impact on healthcare professionals, and preventative measures in the Indian Context through a review.

METHODOLOGY

Identifying the research question: What is the prevalence of WPV among HCPs in India and its impacts?

Search strategy and identification of relevant lit**erature:** Fig: 2 illustrate the summary a flowchart of the literature search and selection process. The search conducted in the scientific databases Scopus, Pub Med, Google Scholar, web of sciences and other sources. A combination of keywords was used to make the searches such as "workplace violence" or "violence" or "aggression" or "attack" or "assaults" or "abuse" or "harassment" or "bullying" AND "Health care professionals" or 'health workers" or "Nurses" or "Doctors" or "residents" or "physician" or "surgeons" or "hospitals" or "health care facilities" AND "incidence" or "prevalence" or "epidemiology" or "occurrence" or "predictors" or "determinants" or "factors" or "causes". To address questions of the impact of violence against HCPs, we focused on the

original research papers, reviews, and authorized documents to provide evidence about factors determining the violence against HCPs. There are limited discussions on the impact of violence against HCPs; therefore, we presented this paper as a structured narrative review. We included any paper that described about violence against HCPs; this included published primary research, commentaries, and editorials. We also included grey literature (unpublished reports) Overall, we included published and unpublished papers reported in English. In contrast, we excluded papers not focused on violence against HCPs or papers that focused on Violence against HCPs but lacked methods or description. This study was limited to studies in the last eight years (2014-2022).

Summarizing, extracting, and reporting the data: Having selected the studies from the previous stage, the researchers then carefully studied all the relevant papers and extracted and organized the information they needed for the current study. The re-

sults of reviewing the studies led to the extraction of the paper and organization of the content on the prevalence of WPV among HCPs and its antecedents, risk factors including prevention strategies in India. Seven categories have been mentioned in the assessed articles such as types of prevalence, location and time of the study, risk factors, repercussions, impact of WPV, under reporting, prevention and management.

An overview of the topic's wide range is given in this review. Additionally, more references were included to the introduction, such as cornerstone and prevalence references on WPV among HCPs. The unsystematic search method, which may result in the subjective selection of articles and subsequently add bias to the overall interpretation of findings, is the main limitation of narrative reviews, it is important to emphasize. Although authors took into account this drawback in their search strategy, they gave the necessity for an overview of the chosen issue priority due to the paucity of published data.

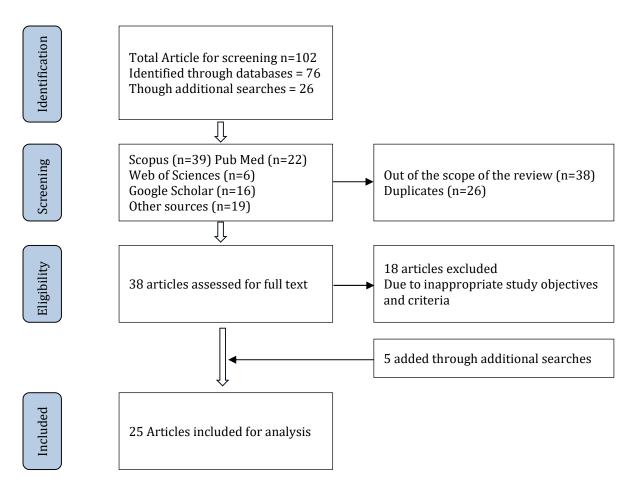


Figure 1: Flow diagram of the review process-look at diagram

RESULTS

A total of 102 papers were included in the study. Seventy-six papers were identified through scientific data-bases of Pub Med, Scopus and from grey literature, further searches were conducted in Google Scholar, and 26 papers were identified. From the ar-

ticles retrieved in the first search round, additional references were identified by a manual search among the cited references. Individual papers (e.g., reviews, opinion pieces, and commentaries) were considered for full-text review. A total of 38 papers were accessed for full text (observational studies n=7, review articles n=6, comments/letters/opinion

pieces' n = 5, and of them, 25 papers that laid down at least prevalence of WPV among HCPs and its impact of WPV were abstracted for information and included in the review.

We were able to derive information from the literature review that may be broken down into the following categories: (1) Epidemiology of WPV and Violence against health care professionals; (2) Factors leading to violence (3) Repercussions and Impact of WPV in the healthcare system; and (4) Managing and preventing hostility against healthcare professionals

Epidemiology of WPV and Violence against health care professionals

In a study, the prevalence of WPV was 67.9%, physical violence was 18.5%, verbal violence was 41.6%, and WPV was common among Emergency Medical Technicians (EMTs). 14,15,16 A study reported facing verbal threats and intimidation rather than verbal abuse. Physical violence is the primary type of violence against doctors. These may include punching, slapping, spitting, kicking, scratching, biting, and even throwing excreta on doctors. Other forms include verbal abuse, telephonic threats, blackmailing, cyber bullying, aggressive gestures, and intimidation. Vandalism, arson, and murder have also been reported.17,18 Several surveys stated that they had experienced at least one violent incident in the previous year. Psychological violence is the more common type of WPV.19

Healthcare professionals at risk

Study by Joshi et al²⁰ highlights the vulnerability of junior doctors and nurses, particularly those working in emergency departments, ICUs, and mental health facilities; male physicians are more likely to experience physical assault, while female nurses are more likely to experience sexual harassment.²¹ Night shift HCPs in emergency services are at higher risk of violence than their daytime counterparts, and patients and staff in psychiatry, emergency, and geriatric care settings are more likely to be physically violent towards each other.²²

Who, When, and where violence begins?

A study found that the two most common perpetrators of violence against HCPs were patient and visitors; psychological violence is the most common type of violence. Such violence is repeatedly taking place in the outpatient department, night and evening shifts.^{23,19,24} Young and female HCPs face more violence.²⁵ In addition to the aforementioned, physicians were also named as a cause of violence within the medical community. The staff members' actions also played a role.²⁶ According to a study, a higher number of cases were reported from public facilities in Delhi and Uttar Pradesh (UP), and Maharashtra and Rajasthan reported more violence from private facilities.²⁷

Factors leading to violence

A. Patient related

Proximal factors: Clinical disorders such as delirium, substance intoxication, brain injury, and other psychiatric diseases, poor communication skills, and low health literacy^{28,29,30}, mistrust between civilians and HCPs^{31,32}, out of pocket expenses, denial or delay in treatment in the emergency room, non-availability of consultants and other staff²⁵, and also low socioeconomic status is also a major risk factor³³. Significant stress and a wide range of emotional responses characterize loss of life of any patient under care, which can manifest itself in rage outbursts.³⁴

Distal factors: Aggression in later life is linked to childhood seclusion and deprivation. People's protests may be a way for underserved groups to voice their displeasure with the healthcare system as it now stands. Sensational reports from the media also play a vital role in violent behaviors.²⁹ Out-of-pocket expenditure, the effects of seeing hostile acts among families and communities are comparable.^{18,35}

B. Health care professional related

Proximal risk factors: The workload in an acute and emergency setting, overburden with consumer influx, and inflicting painful covert experiences on quality-of-service delivery, newer staff, and delay in treatment response are important risk factors. Besides, poor prognosis communication with near relatives is also an additional risk factor.²⁸

Distal risk factors: Health care professionals are more likely to display hostility and confusion towards patients and close relatives if they have personal experience with violence at work and, a general feeling of insecurity and lack of experience, poor communications skills of HCPs.^{36,18} Low health expenditure³⁷, Poor Doctor–patient and low nurse-topatient relationships are lowest ebb^{38,39}, inadequate medical care insurance systems leave patients and their families with heavy financial burdens, as well as negative portrayal of healthcare professionals in the media.^{40,18} There is worldwide concern about unethical conduct, medical negligence, irrational treatment, and overcharging by India's private healthcare sector.⁴¹

Social and economic risk factors: Financial distress, domestic violence, and lack of facilities like medicines and consumables at odd hours can precipitate violence against HCPs.⁴²

Managing and preventing hostility against healthcare professionals

Violence against healthcare workers is an alarming issue that can harm both the physical and mental health of HCPs as well as the standard of care given to patients. Here are some preventative measures that can be taken to lessen hostility against HCPs.

Table1: Repercussions and Impact of WPV

Repercussions	Description
Physical harm	Physical harm, such as scratches, cuts, fractures, and head injuries can be sustained by healthcare professionals during violent actions (Kumar, 2016 ^{44,45,46,47})
Emotional harm	Violence can cause psychological distress in healthcare professionals, which can result in sadness, nervousness, post-traumatic stress disorder (PTSD), as well as other mental health problems ^{48,49,38,50}
Reduced quality of care	Due to physical and mental harm healthcare professionals who have been the victims of violence might not be able to treat patients with the same degree of care. Patient outcomes and the standard of treatment might be lowered as a result. ^{51,52}
Staff shortages	Violence may prevent healthcare professionals from working, which results in staff deficiencies and lengthier wait periods for patients seeking treatment ^{53,54,55}
Access to care	Patients may have less access to treatment if healthcare professionals are scared of violence because they may be less willing to treat high-risk patients or work in particular locations ⁵⁶
Trust in the healthcare system	Trust in the healthcare system can be affected by violence against healthcare professionals. When getting medical attention, patients might feel less secure and at ease, which might make them less apt to do so again in the future ^{57,58}
Financial impact	Patients' financial well-being may be affected by violence against medical personnel. Patients might experience financial hardship if lengthier wait times are caused by a lack of staff members and require them to take more time off work or invest a greater amount on caring ⁵⁶
Legal implications	Patients who assault healthcare professionals may experience judicial repercussions, which may have an adverse effect on their lives 57

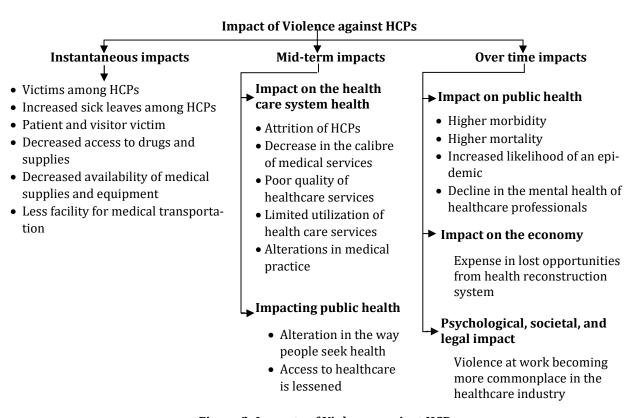


Figure 2: Impacts of Violence against HCPs

(i). Education and Training: Programs for education and training can be created to inform medical personnel about the dangers of violence and teach them how to spot and react to possible threats. This might entail instruction in self-defense⁵⁹, negotiation, and de-escalation strategies⁶⁰. (ii). Workplace policies: Policies can be created and put into action to encourage a climate of courtesy and security at the workplace. This can include anti-violence laws, protocols for reporting and handling violent events, and assis-

tance programs for medical personnel who have been the victims of violence.⁴ (iii). Adequate security measures: To safeguard healthcare workers from harm, adequate security measures should be implemented. Security employees, security cameras, emergency buttons, and limited access to particular sections of the healthcare center can all be part of this. (iv). Cooperation with Law Enforcement: Working together with law enforcement can help stop malice against healthcare professionals. This may en-

tail teamwork in training, information exchange, and violent event reaction. (v). Technology: Using electronic monitoring systems, access control systems, and personal alarm devices for healthcare professionals are just a few examples of how technology can be used to improve security measures. (vi). Public outreach campaigns: Public outreach initiatives can be created to inform the public of the necessity of honoring healthcare professionals and the repercussions of acting violently toward them. (vii). Support for victims: Counseling services and medical attention should be made available to healthcare professionals who have been the victims of abuse.⁶¹

DISCUSSION

This study examined a variety of forms of HCPs violence at work. Psychological violence is more common than physical violence. The majority of the studies in this review, which are primarily situated in urban regions, recorded WPV in tertiary care facilities. Therefore, the research findings in this review do not provide information about the severity of WPV in India's rural regions. Which have underdeveloped infrastructure, a serious lack of human resources, low rates of general populace literacy, extreme poverty, a lack of ability to pay for healthcare, and numerous other obstacles to providing healthcare. A lack of adequate referral services leads to an increase in the flow of patients into tertiary care facilities. It would be necessary to communicate behavior change at the healthcare and community levels in order to raise consciousness and engage people in health services.

Workplace violence comes from a wide variety of perspectives, highlighting the intricacy of a problem whose causes intersect with firm, social, and cultural factors. The once-respected and highly regarded medical field appears to be losing not only its sanctity but also its image as alarmingly pervasive patterns of violence against healthcare professionals are being observed in different parts of India.62 A study found that frustration and anxiety among family members when the treatment outcome becomes unfavorable results in low government expenditure and health insurance coverage. Patients, peers, family members, police⁶³, politicians, and even discursive violence by media narratives against HCP and medical systems were the most common sources of violence⁶⁴.

Violence against healthcare professionals can have far-reaching repercussions, including an adverse impact on the standard of treatment given to patients. Victimized healthcare professionals may suffer from physical and psychological stress, which can lower morale at work, cause exhaustion, and increase the risk of medical mistakes. Defensive medical procedures, such as having ineffective tests and procedures in order to protect themselves from possible litigation or violence, may also be brought on by a dread of violence.⁶⁵

The diminution of social and structural barriers, resolving the perceived difficulties particular to contexts and individuals, and addressing sociobehavioral risk factors of WPV in a specific population are all part of a broader strategy that healthcare professionals can use to address social inequalities.

Healthcare professionals are afraid of reporting such events.14 The underreporting of Violence against HCPs is a worldwide issue; incident reporting processes are frequently difficult to manage and management support is insufficient; the primary barrier is past experiences where no action was done or a dread of negative outcomes. 50,66 In addition, some HCPs may doubt that adequate measures will be taken to punish those responsible for the violence. As a result, some HCPs may conclude that disclosing the incident will not affect change⁶⁷; The organization should set up feedback mechanisms, hospital code systems, and electronic sites for reporting and managing grievances to encourage employees to come forward with such incidents⁶⁸. There is a not enough of knowledge about how to prevent violence against HCPs, so various degrees of measures should be taken. The perpetual fear of victimization and acceptance of violence should be surmounted by HCPS, and lawmakers should think about making violence against healthcare professionals a distinct form of crime with appropriate penalties. Protocols for reporting incidents need to be implemented as well. It is crucial to ensure the implementation of instructional programs and cost-effective, scientifically protected alternatives.

By putting these prevention techniques into practice, health care institutions can enhance patient treatment, make their workplaces safer for their employees, and lower the incidence of violence against healthcare professionals.

LIMITATIONS AND FUTURE DIRECTIONS

While drawing conclusions, several limitations of the review should be taken into account. First of all, because it was a narrative review, it possibly didn't cover all of the pertinent publications in the field. However, the aim was to highlight the varied aspects of workplace violence against HCPs. Second, we separated the risk factors into professional and patient/relative categories. There can be further categories. Third, there is a lack of WPV preventive strategies that have been studied and reported. Other strategies might exist, but they haven't been thoroughly studied.

Most of the existing studies are done only in tertiary care facilities, which are located in urban areas, and the magnitude and causes of WPV in private healthcare facilities have not been sufficiently examined in the extant research on WPV in healthcare facilities. Future studies are required to fill this knowledge gap and explore the severity and underly-

ing root causes of WPV in various healthcare and geographic settings throughout India.

Conclusion

An alarmingly high number of incidents have been reported nationwide, and violence against healthcare workers is a serious and increasing issue in India. Lack of trust, high-stress environments, and a lack of accountability for those who perpetrate violent acts are just a few of the many factors that contribute to the complexity of the issue. On the other hand, the problem is becoming more and more well-known, and solutions are being sought. It is possible to create a safer and more respectful environment for both patients and healthcare workers by putting violence prevention measures into place and offering assistance to HCPs who have been the victims of violence.

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REFERENCES

- WHO. World Health Organization, Framework guidelines for addressing workplace violence in the health sector [Internet]. 2002 [cited 2022 Dec 23]. Available from: https://apps.who. int/iris/handle/10665/42617
- Liu J, Gan Y, Jiang H, Li L, Dwyer R, Lu K, et al. Prevalence of workplace violence against healthcare workers: a systematic review and meta-analysis. Occupational and environmental medicine. 2019;76(12):927–37.
- 3. Ghosh K. Violence against doctors: a wake-up call. The Indian journal of medical research. 2018;148(2):130.
- Nagpal N. Incidents of violence against doctors in India: Can these be prevented? The National medical journal of India. 2017;30(2):97.
- Striking Doctors Set Terms After Mamata Banerjee's Ultimatum [Internet]. 2019. Available from: https://www.ndtv.com/ india-news/mamata-banerjee-issues-4-hour-ultimatum-tojunior-doctors-in-bengal-protesting-over-attack-on-collea-2052539
- Hindustan Times, New Delhi. Doctors' strike highlights: Weeklong strike called off after Mamata Banerjee accepts demands to scale up security [Internet]. 2019 Jun. Available from: https://www.hindustantimes.com/india-news/doctors-onnationwide-strike-assault-on-doctors-in-west-bengal-live-updates/story-OMF8n4Qz1hRy0g9brr7b3l.html
- Devi N, Singh A, Thongam K, Padu J, Abhilesh R, Ori J. Prevalence and attitude of workplace violence among the post graduate students in a tertiary hospital in Manipur. J Med Soc [Internet]. 2014 [cited 2022 Dec 3];28(1):25. Available from: http://www.jmedsoc.org/text.asp?2014/28/1/25/135222
- Visi V, Akoijam BS. Verbal and Physical violence towards junior doctors in a medical college in Manipur: A cross sectional study. 2018;
- Dixit S, D'Souza B, Singh R, Thomas J, Kamath R. Factors Contributing to Workplace Violence Against Doctors in a Tertiary

- Care Teaching Hospital in South India. Indian Journal of Forensic Medicine & Toxicology. 2019;13(3).
- WHO. Preventing violence against health workers [Internet].
 2022 [cited 2022 Dec 23]. Available from: https://www.who.int/activities/preventing-violence-against-health-workers
- 11. Kengadaran S, Divvi A, Kengadaran S. Violence among healthcare workers during COVID-19 pandemic in India. Journal of family medicine and primary care. 2021;10(2):1066.
- 12. Garg N, Garg R, Sharma DK, Gupta SK, Dudeja P. Violence against health care workforce in COVID and non COVID times: Analysis of predisposing factors. Indian J Community Health [Internet]. 2020 Dec 31 [cited 2022 Dec 10];32(4):659–64. Available from: https://www.iapsmupuk.org/journal/index.php/IJCH/article/view/1839
- 13. ILO/ICN/WHO/PSI. ILO/ICN/WHO/PSI Workplace Violence in the Health Sector [Internet]. WHO; 2003 [cited 2022 Dec 23]. Available from: https://www.who.int/docs/default-source/documents/violence-against-health-workers/wvmanagement victimspaper.pdf?sfvrsn=7c9b3992_2
- Lindquist B, Koval K, Mahadevan A, Gennosa C, Leggio W, Niknam K, et al. Workplace violence among prehospital care providers in India: a cross-sectional study. BMJ open. 2019;9(11):e033404.
- 15. Singh A, Ranjan P, Sarkar S, Kaur TP, Mathew R, Gora D, et al. What do clinical resident doctors think about workplace violence? A qualitative study comprising focus group discussions and thematic analysis from a tertiary care center of India. Journal of family medicine and primary care. 2022; 11(6):2678–84.
- 16. Hr S, Nekar MS, Bant DD. Prevalence of Violence against Health Care Personnel in a Tertiary Care Centre, Hubballi, India. Natl J Community Med [Internet]. 2022 Feb 28 [cited 2023 Feb 3];13(2):79–84. Available from: https://www.njcmindia.com/ index.php/file/article/view/154
- Dora SSK, Batool H, Nishu RI, Hamid P. Workplace Violence Against Doctors in India: A Traditional Review. Cureus [Internet]. 2020 Jun 20 [cited 2022 Dec 11]; Available from: https://www.cureus.com/articles/28089-workplace-violence-against-doctors-in-india-a-traditional-review
- Nagpal N. Incidents of violence against doctors in India: Can these be prevented? The National medical journal of India. 2017;30(2):97.
- Datta M, Das A. Circumstances, Patterns, and Reporting of Incidents of Workplace Violence among Resident Doctors Posted at Selected Departments of a Tertiary-Care Hospital in Kolkata, India. J Health Sci Med Res [Internet]. 2021 Nov 5 [cited 2022 Dec 11];40(1):35–43. Available from: http://localhost/journal2/index.php/jhsmr/article/view/815
- 20. Joshi SC, Joshi R. Doctor becomes a patient: a qualitative study of health care work place violence related perception among junior doctors working in a teaching hospital in India. Int J Community Med Public Health [Internet]. 2018 Apr 24 [cited 2022 Dec 11];5(5):1775. Available from: http://www.ijcmph. com/index.php/ijcmph/article/view/2911
- 21. Kapoor M. Violence against the medical profession. J Anaesthesiol Clin Pharmacol [Internet]. 2017 [cited 2022 Dec 11];33(2):145. Available from: https://journals.lww.com/10. 4103/joacp.JOACP_102_17
- Aatmika Nair AN. Solving systemic violence against healthcare workers in India [Internet]. The BMJ. 2021. Available from: https://blogs.bmj.com/bmj/2021/10/04/solving-systemicviolence-against-healthcare-workers-in-india/
- 23. 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. Med J DY Patil Vidyapeeth [Internet]. 2019 [cited 2023 Apr 4];12(4):347. Available from: http://www.mjdrdypv.org/text.asp?2019/12/4/347/262229
- Gohil RK, Singh PK, Saxena N, Patel G. Work place violence against resident doctors of a tertiary care hospital in Delhi, India. International Surgery Journal. 2019;6(3):975–81.
- 25. 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. Journal of clinical and diagnostic research: JCDR. 2016;10(11):LC06.
- Jeffery R. Current challenges for doctors in India: Deprofessionalisation, reprofessionalisation or fragmentation. Sociology of Health & Illness. 2022;
- 27. Ranjan R, Meenakshi, Singh M, Pal R, Das J, Gupta S. Epidemiology of violence against medical practitioners in a developing country (2006-2017). J Health Res Rev [Internet]. 2018 [cited 2022 Dec 12];5(3):153. Available from: http://www.jhrr.org/text.asp?2018/5/3/153/248449
- Reddy IR, Ukrani J, Indla V, Ukrani V. Violence against doctors: A viral epidemic? Indian journal of psychiatry. 2019;61(Suppl 4):S782.
- 29. Mishra S, Chopra D, Jauhari N, Ahmad A, Kidwai NA. Violence against health care workers: a provider's (staff nurse) perspective. Int J Community Med Public Health [Internet]. 2018 Aug 24 [cited 2022 Dec 10];5(9):4140. Available from: http:// www.ijcmph.com/index.php/ijcmph/article/view/3421
- 30. Kar SP. Addressing underlying causes of violence against doctors in India. The Lancet. 2017;389(10083):1979–80.
- 31. Shastri D. Violence Against Doctors. Indian Pediatr. 2019 Aug 15;56(8):629–31.
- 32. Kaur J, Sharma S, Singh MI, Sharma S. How trainee doctors and nurses react to simulated scenarios of violence against healthcare workers: A cross-sectional study. IJME [Internet]. 2022 Jul 23 [cited 2023 Feb 3];7(3):219–25. Available from: https://ijme.in/articles/how-trainee-doctors-and-nurses-react-to-simulated-scenarios-of-violence-against-healthcare-workers-a-cross-sectional-study/?galley=html
- Dora SSK, Batool H, Nishu RI, Hamid P. Workplace violence against doctors in India: a traditional review. Cureus. 2020;12(6).
- 34. Datta M, Das A. Circumstances, Patterns, and Reporting of Incidents of Workplace Violence among Resident Doctors Posted at Selected Departments of a Tertiary-Care Hospital in Kolkata, India. J Health Sci Med Res [Internet]. 2021 Nov 5 [cited 2022 Jul 8];40(1):35–43. Available from: http://localhost/journal2/index.php/jhsmr/article/view/815
- 35. Marathe S, Hunter BM, Chakravarthi I, Shukla A, Murray SF. The impacts of corporatisation of healthcare on medical practice and professionals in Maharashtra, India. BMJ Global Health [Internet]. 2020 Feb 1;5(2):e002026. Available from: http://gh.bmj.com/content/5/2/e002026.abstract
- 36. Chauhan V, Galwankar S, Kumar R, Raina SK, Aggarwal P, Agrawal N, et al. The 2017 Academic College of Emergency Experts and Academy of Family Physicians of India position statement on preventing violence against health-care workers and vandalization of health-care facilities in India. International journal of critical illness and injury science. 2017;7(2):79.
- World bank. Current health expenditure India [Internet].
 Available from: https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=IN

- Grover S, Sahoo S, Bhalla A, Avasthi A. Psychological problems and burnout among medical professionals of a tertiary care hospital of North India: A cross-sectional study. Indian J Psychiatry. 2018;60(2):175–88.
- 39. Roy D. State of nursing in India: Persistent systemic challenges. The Lancet Regional Health-Southeast Asia. 2022;6.
- Kumari A, Kaur T, Ranjan P, Chopra S, Sarkar S, Baitha U. Workplace violence against doctors: characteristics, risk factors, and mitigation strategies. Journal of postgraduate medicine. 2020;66(3):149.
- 41. Gadre A, Shukla A. Dissenting diagnosis. Random House India; 2016.
- 42. 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. International journal of emergency medicine. 2020;13(1):1–9.
- 43. Kumar M. A Study of Workplace Violence Experienced by Doctors and Associated Risk Factors in a Tertiary Care Hospital of South Delhi, India. JCDR [Internet]. 2016 [cited 2022 Jul 8]; Available from: http://jcdr.net/article_fulltext.asp?issn=0973-709x&year=2016&volume=10&issue=11&page=LC06&issn=0973-709x&id=8895
- 44. Das N, Khar P, Karia S, Shah N. Suicide among Health Care Professionals—An Indian Perspective. In MDPI; 2022. p. 354.
- Reddy IR, Ukrani J, Indla V, Ukrani V. Violence against doctors: A viral epidemic? Indian journal of psychiatry. 2019;61(Suppl 4):S782.
- 46. Hossain MM, Sharma R, Tasnim S, Al Kibria GM, Sultana A, Saxena T. Prevalence, characteristics, and associated factors of workplace violence against healthcare professionals in India: a systematic review and meta-analysis. medRxiv. 2020;
- 47. Raveesh B, Lepping P, Lanka SV, Turner J, Krishna M. Patient and visitor violence towards staff on medical and psychiatric wards in India. Asian journal of psychiatry. 2015;13:52–5.
- Anand T, Grover S, Kumar R, Kumar M, Ingle GK. Workplace violence against resident doctors in a tertiary care hospital in Delhi. National medical journal of India. 2016;29(6).
- 49. Gupta S, Sahoo S. Pandemic and mental health of the front-line healthcare workers: a review and implications in the Indian context amidst COVID-19. Gen Psych [Internet]. 2020 Oct [cited 2022 Dec 20];33(5):e100284. Available from: http:// gpsych.bmj.com/lookup/doi/10.1136/gpsych-2020-100284
- 50. Jain G, Agarwal P, Sharma D, Agrawal V, Yadav SK. Workplace violence towards resident doctors in Indian teaching hospitals: A quantitative survey. Trop Doct [Internet]. 2021 Jul [cited 2022 Dec 13];51(3):463–5. Available from: http://journals.sagepub.com/doi/10.1177/00494755211010005
- 51. 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;15(9):e0239193.
- Sanjay Nagral KD. Healers Or Predators? Corruption In India's Healthcare. 2021.
- 53. Priyanka Vora PV. India's hospital assaults: Patients blame doctors while doctors blame the broken health system. Scroll.in [Internet]. 2017 Mar 21; Available from: https://scroll.in/pulse/832349/hospital-violence-patients-blame-doctors-while-doctors-blame-the-broken-health-system
- 54. Lindquist B, Koval K, Mahadevan A, Gennosa C, Leggio W, Niknam K, et al. Workplace violence among prehospital care providers in India: a cross-sectional study. BMJ open. 2019;9(11):e033404.

- 55. Sharma K, Kumar A, Kumar M, Bhogal RPSi. Indian Nurse's Diaspora in Global Health Care; Uncovering the Key Findings About Migration of Nurses from Indian Perspective: A Review. Natl J Community Med [Internet]. 2022 Aug 31 [cited 2023 May 29];13(08):565–70. Available from: https://njcmindia.com/index.php/file/article/view/2124
- 56. Agarwal SK. Healthcare in India and violence against doctors: The missing links. Indian journal of nephrology. 2019; 29 (4): 221.
- Raveel A, Schoenmakers B. Interventions to prevent aggression against doctors: a systematic review. BMJ open. 2019; 9(9):e028465.
- 58. 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 [Internet]. 2019 [cited 2022 Jul 8];63(2):143. Available from: http://www.ijph.in/text.asp?2019/63/2/143/260606
- Chaudhary A, Barwal VK. Defensive Medicine in the Context of the Indian Health System. Indian pediatrics. 2022;59(11):882–
- 60. 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. Journal of clinical and diagnostic research: JCDR. 2016;10(11):LC06.
- 61. Aparna Hegde AH. Violence in hospitals: Three steps towards mending doctor-patient relationships [Internet]. Scroll.in. 2017. Available from: https://scroll.in/pulse/837572/violence-in-hospitals-three-steps-towards-mending-doctor-patient-relationships

- 62. Ranjan R, Meenakshi, Singh M, Pal R, Das J, Gupta S. Epidemiology of violence against medical practitioners in a developing country (2006-2017). J Health Res Rev [Internet]. 2018 [cited 2022 Jul 8];5(3):153. Available from: http://www.jhrr.org/text.asp?2018/5/3/153/248449
- 63. Bhuyan A. Protests in India: doctors condemn police violence and restrictions on hospital access. BMJ [Internet]. 2020 Jan 3 [cited 2022 Dec 20];m13. Available from: https://www.bmj. com/lookup/doi/10.1136/bmj.m13
- 64. Thapar R, Hegde K, Bhat N, Kumar N, Unnikrishnan B, Mithra P, et al. Violence against doctors: Perception among doctors and patient caretakers–A facility-based cross-sectional study in Mangalore. Journal of Datta Meghe Institute of Medical Sciences University. 2022;17(2):249.
- Das N, Khar P, Karia S, Shah N. Suicide among Health Care Professionals—An Indian Perspective. In MDPI; 2022. p. 354.
- 66. Garg R, Garg N, Sharma D, Gupta S. Low reporting of violence against health-care workers in India in spite of high prevalence. medical journal armed forces india. 2019;75(2):211–5.
- 67. Dixit S, D'Souza B, Singh R, Thomas J, Kamath R. Factors Contributing to Workplace Violence Against Doctors in a Tertiary Care Teaching Hospital in South India. Indian Journal of Forensic Medicine & Toxicology. 2019;13(3).
- 68. Hossain MM, Sharma R, Tasnim S, Al Kibria GM, Sultana A, Saxena T. Prevalence, characteristics, and associated factors of workplace violence against healthcare professionals in India: a systematic review and meta-analysis. medRxiv. 2020;