Workplace violence against doctors: Characteristics, risk factors, and mitigation strategies

Kumari A, Kaur T¹, Ranjan P¹, Chopra S², Sarkar S³, Baitha U¹

ABSTRACT

Workplace violence is a major occupational issue concerning doctors that has a significant impact on their physical and psychological well-being. This ultimately affects the health care services of the country. Patient-led episodes of verbal violence are more prevalent in Asian countries, especially in the emergency department, psychiatric wards, and intensive care units, mostly faced by junior doctors and residents. Some common precursors of violence against doctors are patients and their attendants’ dissatisfaction and low impulse control, poor administration, miscommunication, infrastructural issues especially differences in services between private and public hospitals, and negative media portrayal of doctors. The assessment of risk factors, development and implementation of workplace violence programs, and addressing underreporting of violent episodes have been suggested as some successful organizational mitigation strategies. Recommendations on the management of workplace violence include the development of participative, gender-based, culture-based, nondiscriminatory, and systematic strategies to deal with issues related to violence. This article aims to present a comprehensive review of workplace violence against doctors, discussing the prevalence, degree of violence, predictors, impact on physical and psychological health and intervention strategies to devise practical actions against workplace violence.

KEY WORDS: Aggression, hospitals, physical abuse, physicians, trauma, workplace violence

Introduction

Workplace violence against doctors is an unfortunate reality of medical practice across the globe. According to the World Health Organization (WHO), workplace violence is defined as “incidents where staff is 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”.[1] The healthcare sector witnesses a significant proportion of violence, especially against primary healthcare providers such as doctors and nurses that negatively impacts their physical and psychological well-being, which ultimately limits their work performance and job satisfaction. This affects the functioning and efficiency of the whole healthcare system in the long term.

Studies from different parts of the world suggest that multiple factors control the occurrence of such episodes of violence. Some of these factors are even preventable. Several studies have been done worldwide to understand the risk factors and predictors that cause such incidents and to assess different strategies to reduce them.[2,3] Cognizance of this issue and addressing it systematically can reduce the occurrence of violence against medical practitioners. This review aims to present the different aspects of workplace violence against
Method of Literature Search

An exhaustive literature search was planned to study the characteristics, risk factors, and mitigation strategies of workplace violence against doctors. The search engines used to conduct the electronic literature searches were PubMed and Google Scholar. A combination of keywords was used to make the searches such as (aggression OR violence) AND (Surgeon OR resident OR intern OR physician OR doctor OR "general practitioner" OR "health care" OR clinicians) AND (workplace) AND ("risk factor" OR predictor OR determinants) AND (prevent* OR strategy OR intervent*). The articles published in English language between the years 2000 and 2019 were extracted and included in the study. The findings of these studies were synthesized into a narrative review.

Spectrum of Workplace Violence against Doctors

The spectrum of workplace violence can be graded according to the severity of violent episodes and its impact. The severity can range from minor verbal conflict to serious physical assault causing minor psychological distress to severe injuries and loss of lives. On the basis of these two factors, workplace violence against doctors can be further classified into five grades as shown in Table 1.

| Grade | Description |
|-------|-------------|
| I     | Patient and/or attendant led minor conflict: unwanted argument, shouting, obscene gestures, and emotional blackmauling. Impacts psychological well-being of the doctors and hampers daily routine. |
| II    | Severe form of verbal abuse (use of abusive words, death threats, passing offensive comments) in person or over telephonic call. |
| III   | Physical assault (pushing, kicking/beating, using objects such as knives or guns, slapping, strangling, pulling hair, etc) causing moral and psychological distress but no physical injury. |
| IV    | Physical assault causing severe grievous injuries such as visual disability, hearing disability, dislocation of face, fracture etc., and psychological distress. |
| V     | Most severe form of physical violence, which results in the death or permanent functional disability. Negatively affects the morale of the doctors and might lead to mass protest against administration. |

Prevalence of workplace violence

Workplace violence is common in medical settings. The prevalence of workplace violence depends upon several factors. Some of the commonly used factors to categorize prevalence are: geographical location, the severity of violent episodes, designation of the doctor, and workplace setting. Globally, workplace violence against doctors is high, ranging from 54% (Thailand) to 70% (Morocco), regardless of work setting, access to resources, and organizational culture and support. A rising trend is observed in Asian countries (19.6% to 25%) and a decline in North American countries (48.9% to 32.6%). In developing countries, more than 50% of doctors have faced patient-led verbal and physical abuse. Episodes of verbal abuse are more prevalent (42.5%) than physical violence (24.4%), especially amongst junior doctors and residents working in the emergency department (68.4%), intensive care setting (up to 50%), and psychiatric units (up to 40%). An Indian study conducted by Sharma et al. (2019), reported that cases of verbal violence were maximum against junior residents (53%) followed by senior residents (14%) and consultants (13%). Doctors working in mixed shifts (72.8%) face the maximum violence followed by a comparable prevalence in day shift (50%) and night shift (40%–45%).

Risk factors contributing to workplace violence

Most of the incidences of violence against doctors occur on an impulse, driven by adverse circumstances. However, there are a number of identifiable factors which are known to initiate these episodes of violence. These factors can be broadly classified as professional, patient related, organizational, and societal as depicted in Table 2. Patients with low impulse control, psychiatric disorders, emergency cases, or under the influence of alcohol/drugs may be unable to deal with emotionally distressing situations, which may make them primary perpetrators of violence against doctors. Studies have also shown that young male individuals with lower education status and higher social profile are at high risk of committing violence. Patient dissatisfaction due to inefficient service systems such as long waiting time, overcrowding, less staff or resources, and disagreement with the medical plan may instigate episodes of
violence. In such situations, doctors are primarily exposed to an outburst from the patient. It has been observed that female professionals with fewer years of experience working in shifts are frequent victims of workplace violence. Besides, doctors are usually not well trained in interpersonal and communication skills, which might make it difficult for them to develop rapport or act in an empathetic manner towards the patients and/or attendants in distressing situations. Generally, doctors are told to consider these episodes as “part of the job” and are often encouraged to tolerate abuse. Lack of organizational support in terms of safety protocols and guidelines, penalties for the aggressors, and employee training might lead to underreporting of such incidents. Moreover, the lack of policies at government level to address violence against doctors may make patients feel free to take matters in their own hands when they face inconvenience. An adverse medical event or sudden death of a loved one are common reasons that may instigate mob mentality and snowball into threatening the doctors and damaging hospital property. Public and private hospitals face unique challenges pertaining to workplace violence episodes. On one hand, violence at public hospitals is majorly due to infrastructural and service issues while managing high patient turnover, whereas in private hospitals, high costs of care and perceived questionable motives can lead to instances of violence. The negative media portrayal of the doctors builds public distrust in their services, which further increases the chances of such incidents.

Under-reporting of workplace violence
Accurate documentation of an episode of violence can provide relevant information to strategize prevention and intervention reforms. Underreporting of cases is defined as the failure of the victimized employee to report these events to hospital administration. The underreporting of cases hampers the

Table 2: Risk Factors of workplace violence

| Patient Related Factors | Doctor Related Factors | Organizational Factors | Societal Factors |
|-------------------------|------------------------|------------------------|-----------------|
| Demographics:           |                        |                        |                 |
| Being male              |                        |                        | Language Barrier|
| Lower education status  |                        |                        | Cultural Barrier |
| Higher social status    |                        |                        | Lack of respect for authority |
| Low Impulse Control:    |                        |                        | Patient’s distrust |
| Mental disorders        |                        |                        | Negative media image |
| Influence of drugs and alcohol |          |                        | Lack of Policies |
| Personality: Style of control and dominance | |                      |                 |
| Poor Previous experience|                        |                        |                 |
| Patient Dissatisfaction |                        |                        |                 |
| Unexpected/High cost of services | |                        |                 |
| Poor treatment adherence|                        |                        |                 |
| Legal cases             |                        |                        |                 |
| Patient Death           |                        |                        |                 |
| Visitor:                |                        |                        |                 |
| Complex family relationship |                    |                        |                 |
| Too many or no visitors |                        |                        |                 |
| Visitor category: Siblings and spouses | |                        |                 |

| Demographics: | Being Female | Lower Education status | Less experience | Shift workers |
|---------------|--------------|------------------------|-----------------|--------------|
| Personality traits: | Low self-esteem | High neuroticism | Low agreeableness | Poor communication skills: |
| Rude and indifferent behavior | Inability to de-escalate patient’s feelings | Being unprepared |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) |
| Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training |

Table 3: Suggested intervention plans to reduce incidents of workplace violence

| Individual Level | Organizational Level | Societal Level |
|------------------|----------------------|----------------|
| Training of doctors: | Infrastructure Changes: | Unbiased media reporting |
| Avoid disagreements and miscommunication | Install high-security system and closed-circuit television (CCTV) | Vote Bank Politics: |
| Avoid overpromising and false promising in difficult situation | Install metal detectors at entry | Politicians should avoid targeting medical fraternity |
| Get informed consent signed by the patient or attendant | Install alarm systems | |
| Communication Skills: | Increase lighting in corridors | |
| Learn problem solving | Management Policies: | |
| Include effective communication and interpersonal skills in clinical curriculum | Restricting the number of relatives entering wards | |
| Encourage Empathy: | Improve doctor-patient ratio | |
| Learn technique to break bad news | Technology for faster services | |
| | Transparent billing system | |
| | Active complaint redressal systems | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |

| Department: Psychiatry and Emergency | Poor administration: Lack of resources (equipment and medicines) | Overcrowding | Long waiting time | Delay in service |
| Workload | Inadequate skill mix | Miscommunication |
| Lack of security forces | Poor safety culture: Lack of guidelines and protocol |
| Discouragement on reporting | Staff empowerment: |
| Shared governance | No penalty for aggressor |
| No staff training | |
prevention efforts in two ways: undermining the need for prevention policies and designing policies with limited impact.\(^{(14)}\)

It is often observed that doctors rarely report violent episodes against them. A previous study suggested that out of the total cases, employees report only 50% cases of verbal abuse and less than 40% cases of physical assault.\(^{(21)}\) Doctors have experience of working in emotionally charged situations. While breaking bad news about chronic, life-threatening illness or patient death, the outbursts of violence may seem inevitable and not important enough to be brought to the notice of authorities. Also, doctors working with patients having psychiatric disorders often blame their mental condition for any episode of patient-led violence and might refrain from reporting such cases.\(^{(22,23)}\) Some doctors might consider only episodes causing physical injury as violent episodes. It is important to identify verbal assaults, bullying, sexual harassment, and threats as part of violence.

Doctors feel ashamed of reporting these incidents, considering them trivial as compared to the patient’s deteriorating health status. Besides, some doctors might believe that no effective action will be taken against the perpetrators of violence. According to the theory of learned helplessness by Martin Seligman, when people feel that they do not have any control over the situation, they stop working on changing the situation. Therefore, many doctors may appraise that reporting of the case will not lead to any change.\(^{(24)}\) Lack of organizational support is a major barrier in reporting cases of abuse. The organization should motivate the employees to report such incidents by arranging practical solutions such as feedback mechanisms, hospital code systems, and electronic sites for reporting and management of such grievances.\(^{(25)}\)

**Impact of workplace violence**

The episodes of workplace violence have a wide-ranging impact. The negative effect of these incidents is not just limited to doctors’ physical and psychological well-being but translates to other issues such as reduced job performance, increased burnout and turnover intention, which may ultimately affect the quality of patient care. The most evident impact of violence can be seen if the victim suffers from a physical injury. A cross-sectional survey on 106 victims reported that 56.6% of cases of violence resulted in physical injuries. Out of these cases, 62.3% victims took leave from work, and 45.4% victims did not appear for work for the next two to three days.\(^{(21)}\) Some doctors may also show signs of psychological distress such as post-traumatic distress (15.4%), mental exhaustion (42.4%), and emotional distress (39.3%) after experiencing a violent episode.\(^{(26)}\) The distress caused might noticeably decrease productivity and job satisfaction, causing early burnouts and loss of working days, which collectively might impact the entire health care system.

These acts of violence can negatively impact doctors’ attitude towards work. These episodes might discourage a number of doctors who are public-spirited and genuinely invested in their patients’ health. Sometimes, doctors refrain from performing any complicated procedures or high-risk surgeries to safeguard themselves from the outrage that may occur in case of an unfavorable outcome.\(^{(21)}\) Moreover, doctors and parents of aspiring doctors have become apprehensive of letting their children take up this profession, due to the fear of anticipated violent episodes.

In extreme cases of workplace violence, the healthcare community breaks out in protest to voice out their opinion against unjust treatment by the system. Public protests in the form of strikes may lead to tremendous loss of work, lack of staff, and a significant burden on the entire health care system.\(^{(27)}\)

**Interventions to mitigate workplace violence**

The multifaceted nature of workplace violence makes it difficult to resolve this issue completely. However, steps can be taken to reduce it to a large extent. Many studies have been conducted to identify the various preventive measures that have been found to reduce workplace violence as depicted in Table 3. Generally, these interventions are based on de-escalation methods, simulation methods, training of professionals, and changes in the health care management process. These educational sessions aim to identify the warning signs of violent behavior, the development of prevention strategies to diffuse a violent situation, and coping strategies after facing acts of violence.\(^{(28)}\)

Some of the sessions are based on real cases for educating professionals about self-defense techniques, developing code systems for violence, and making inter-professional teams to handle the episodes of violence.\(^{(29,30)}\) It has been observed that conducting frequent training sessions on communication skills for doctors combined with supportive administration for reporting and management of these episodes helps to prevent cases of violence in health care set-up.

Several organizations such as WHO, Occupational Safety and Health Administration (OSHA), etc\(^{(31)}\) have laid some policies and regulations that can be taken up by the health care sector to reduce the prevalence of workplace violence. These organizations have mainly identified five key areas that should be primarily focused on while mitigating episodes of workplace violence. These key aspects of a mitigation strategy are participative, gender and culture sensitive, nondiscriminatory, and systematic in approach as shown in Table 4.

**Discussion**

The review presented the spectrum of workplace violence against doctors. It has been seen that up to half of the health care workers may have suffered from workplace violence. Workplace violence can have several short-term and long-term impacts on health professionals, which may adversely affect their ability to care for patients. For the morale of health care professionals, it is important that they consider their workplace safe. Safety considerations may have the potential to divert attention away, especially in precarious situations like intensive care units, which may exert additional cognitive load during stressed decision making. Additionally, repeated instances of workplace violence, especially those which result in grievous physical injuries may deter away prospective residents from specific specialties. In this context, not only prevention of episodes of violence is
of relevance, but also emotional and institutional pragmatic support to those who have faced violence would help them feel reassured that they are valued by the health care establishment.

Several risk factors of workplace violence have been presented in this review. They have been segregated into different types of risk factors, but often multiple risk factors act in conjunction. Individual work patterns and vulnerabilities may interact with the profile of the patients/relatives at the center, in the context of organizational structure and policies, in the milieu of social functioning and expectations. It might imply that some doctors may feel safe in particular settings, while others may not. A reasonable fit between these parameters would be helpful to optimally use trained medical personnel.

Several interventions have been tried to reduce workplace violence in the health care setting. A majority of these interventions have focused on communication strategies while some have also suggested changes in institutional policies. The setting of the health care service and the organizational characteristics (like size, funding, patient load, patient features, and geographical location) should be considered to determine which of these interventions can be incorporated, and which of these might work well.

Some limitations of the review should be considered while drawing inferences. Firstly, it was a narrative review and hence might not have covered all relevant articles in the field. However, the aim was to bring forward the various facets of workplace violence against doctors, especially with regard to diverse countries and situations. Secondly, we have divided the risk factors into patient/relative, professional, organizational, and societal factors. There may be other ways to classify. Thirdly, some mitigation strategies, which have been studied and reported have been presented. There may be other strategies, which might work but have not been systematically studied or documented.

**Conclusion**

Developing countries where violence against health care professionals occur commonly need more doctors as well. The doctors need to feel safe before they can effectively care for their patients. Thus, policies and implementable strategies are required to ensure a safe working environment for doctors and other health care workers to strengthen the services and prevent the loss of morale and emigration of trained health personnel.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

**References**

1. WHO | Background [Internet]. Available from: https://www.who.int/ violence_injury_prevention/violence/activities/workplace/background/en/. [Last cited on 2019 Dec 01].
2. Wang N, Wu D, Sun C, Li L, Zhou X. Workplace violence in county hospitals in eastern China: Risk factors and hospital attitudes. J Interpers Violence [Internet] 2018;0886260518792244. Available from: http://journals.sagepub.com/doi/10.1177/0886260518792242. [Last cited on 2019 Dec 01].
3. Chatziioannidis I, Bascialla FG, Chatzivalsama P, Vouzas F, Mitsiakos G. Prevalence, causes and mental health impact of workplace bullying in the neonatal intensive care unit environment. BMJ Open 2018;8:e018766.
4. Ullah R, Siddiqui F, Zafar MS, Iqbal K. Bullying experiences of dental interns working at four dental institutions of a developing country: A cross-sectional study. Work 2018;61:91-100.
5. Chowdhury ML, Husaini MM, Suson KD. Workplace bullying of urology residents: Implications for the patient and provider. Urology 2019;127:30-5.
6. Ling M, Young CJ, Shepherd HL, Mak C, Saw RPM. Workplace bullying in surgery. World J Surg 2016;40:2560-6.
7. Rouse LP, Gallagher-Garza S, Gebhard RE, Harrison SL, Wallace LS. Workplace bullying among family physicians: A gender focused study. J Women's Heal [Internet] 2016;25:892-8. Available from: http://www. liebertpub.com/doi/10.1089/jwh.2015.5577. [Last cited on 2019 Dec 01].
8. Chambers CNL, Frampton CMA, McKee M, Barclay M. ‘It feels like being trapped in an abusive relationship’: Bullying prevalence and consequences in the New Zealand senior medical workforce: A cross-sectional study. BMJ Open 2018;8:e020158.
9. Nowrouzi-Kia B, Chatziioannidis I, Vouzas F, Mitiakos G. Prevalence of type II and type III workplace violence against physicians: A systematic review and meta-analysis. Int J Occup Environ Med 2019;10:99-110.
10. 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. Occup Environ Med 2019;76:927-37.
11. Zafar W, Khan UR, Siddiqui SA, Jamali S, Razak JA. Workplace violence and self-reported psychological health: Coping with post-traumatic stress, mental distress, and burnout among physicians working in the emergency departments compared to other specialties in Pakistan. J Emerg Med 2016;50:167-77.e1.
12. Park M, Cho SH, Hong HJ. Prevalence and perpetrators of workplace violence by nursing unit and the relationship between violence and

**Table 4: Key areas to focus on while formulating mitigation strategy**

| Key Aspects       | Description                                                                                                                                 |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Participative     | Regular meetings with top management and employees to develop and implement workplace violence programs and give feedbacks.⁴¹,⁴²               |
| Gender sensitive  | Policies should address the differences in the way men (physical violence) and women (harassment, verbal abuse, and sexual offences) experience violence such as specialized training, self-defense etc.⁴³,⁴⁴ |
| Culture sensitive | Identify different perceptions of workplace violence concerning the kind of terminology used and forms of workplace violence that have relevance in a specific culture.⁴⁵ |
| Nondiscriminatory | Written policy should be made to handle episodes of discrimination based on race, sex, religion, nationality, which might lead to workplace violence, especially in minority employees. |
| Systematic management | Fundamental steps such as policy development, implementation, and open communication as a feedback system should be articulated to reduce episodes. |

[1] WHO | Background [Internet]. Available from: https://www.who.int/violence_injury_prevention/violence/activities/workplace/background/en/. [Last cited on 2019 Dec 01].
[2] Wang N, Wu D, Sun C, Li L, Zhou X. Workplace violence in county hospitals in eastern China: Risk factors and hospital attitudes. J Interpers Violence [Internet] 2018;0886260518792244. Available from: http://journals.sagepub.com/doi/10.1177/0886260518792242. [Last cited on 2019 Dec 01].
[3] Chatziioannidis I, Bascialla FG, Chatzivalsama P, Vouzas F, Mitsiakos G. Prevalence, causes and mental health impact of workplace bullying in the neonatal intensive care unit environment. BMJ Open 2018;8:e018766.
[4] Ullah R, Siddiqui F, Zafar MS, Iqbal K. Bullying experiences of dental interns working at four dental institutions of a developing country: A cross-sectional study. Work 2018;61:91-100.
[5] Chowdhury ML, Husaini MM, Suson KD. Workplace bullying of urology residents: Implications for the patient and provider. Urology 2019;127:30-5.
[6] Ling M, Young CJ, Shepherd HL, Mak C, Saw RPM. Workplace bullying in surgery. World J Surg 2016;40:2560-6.
[7] Rouse LP, Gallagher-Garza S, Gebhard RE, Harrison SL, Wallace LS. Workplace bullying among family physicians: A gender focused study. J Women’s Heal [Internet] 2016;25:892-8. Available from: http://www.liebertpub.com/doi/10.1089/jwh.2015.5577. [Last cited on 2019 Dec 01].
[8] Chambers CNL, Frampton CMA, McKee M, Barclay M. ‘It feels like being trapped in an abusive relationship’: Bullying prevalence and consequences in the New Zealand senior medical workforce: A cross-sectional study. BMJ Open 2018;8:e020158.
[9] Nowrouzi-Kia B, Chatziioannidis I, Vouzas F, Mitiakos G. Prevalence of type II and type III workplace violence against physicians: A systematic review and meta-analysis. Int J Occup Environ Med 2019;10:99-110.
[10] 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. Occup Environ Med 2019;76:927-37.
[11] Zafar W, Khan UR, Siddiqui SA, Jamali S, Razak JA. Workplace violence and self-reported psychological health: Coping with post-traumatic stress, mental distress, and burnout among physicians working in the emergency departments compared to other specialties in Pakistan. J Emerg Med 2016;50:167-77.e1.
[12] Park M, Cho SH, Hong HJ. Prevalence and perpetrators of workplace violence by nursing unit and the relationship between violence and
Kumari, et al.: Workplace violence against doctors

the perceived work environment. J Nurs Scholarsh 2015;47:87-95.
13. Reddy I, Ukkri J, Indila V, Ukkri V. Violence against doctors: A viral epidemic? Indian J Psychiatry 2019;61:S782-5.
14. Arnetz JE, Hamblin L, Russell J, Upfal MJ, Luborsky M, Janisse J, et al. Preventing patient-to-worker violence in hospitals: Outcome of a randomized controlled intervention. J Occup Environ Med 2017;59:18-27.
15. Singh G, Sharma S, Gautam PL, Sharma S, Kaur A, Bhatia N, et al. Questionnaire-based evaluation of factors leading to patient-physician distrust and violence against healthcare workers. Indian J Crit Care Med 2019;23:302-9.
16. 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;63:143-6. Available from: http://www.ijph.in/text.asp/2019/63/2/143/260606. [Last cited on 2020 Jan 26].
17. Hedayati Emam G, Alimohammadi H, Zolfaghari Sadrabad A, Hatamabadi H. Workplace violence against residents in emergency department and reasons for not reporting them; a cross sectional study. Emerg (Tehran, Iran) [Internet] 2018;6:e7. Available from: http://www.ncbi.nlm.nih.gov/pubmed/29503832. [Last cited on 2020 Feb 05].
18. Kumar M, Verma M, Das T, Pardeshi G, Kishore J, Padmanandar A. A study of workplace violence experienced by doctors and associated risk factors in a tertiary care hospital of south Delhi, India. J Clin Diagnostic Res 2016;10:LC06-10.
19. Berlanda S, Pedrazza M, Fraizzoli M, De Cordova F. Addressing risks of violence against healthcare staff in emergency departments: The effects of job satisfaction and attachment style. Biomed Res Int 2019;2019:5430870.
20. Schnapp B, Slovis B, Shah A, Fant A, Gisondi M, Shah K, et al. Workplace violence and harassment against emergency medicine residents. West J Emerg Med [Internet] 2016;17:567-73. Available from: http://escholarship.org/uc/item/3md9g1kz. [Last cited on 2020 Feb 05].
21. Kynoch K, Wu CJ, Chang AM. Interventions for preventing and managing aggressive patients admitted to an acute hospital setting: A systematic review. Vol. 8, Worldviews on Evidence-Based Nursing. 2011, p. 76-86.
22. Wax JR, Pinette MG, Cartin A. Workplace violence in health care–It’s not “part of the job.” Obstet Gynecol Surv 2016;71:427-34.
23. Phillips JP. Workplace violence against health care workers in the United States. N Engl J Med 2016;374:1661-9.
24. Morken T, Johansen IH, Alsaker K. Dealing with workplace violence in emergency primary health care: a focus group study. BMC Fam Pract. 2015;16:51.