

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

Amandeep Singh¹, Piyush Ranjan¹, Siddharth Sarkar², Tarang Preet Kaur³,
Roshan Mathew⁴, Dinesh Gora⁵, Ajay Mohan⁶, Jaswant Jangra⁷

Departments of ¹Medicine, ²Psychiatry and National Drug Dependence Treatment Centre, ³Obstetrics and Gynaecology, ⁴Emergency Medicine, ⁵Trauma Surgery and Critical Care, ⁶Surgical Disciplines and ⁷Psychiatry, AIIMS, New Delhi, India

ABSTRACT

Background: Workplace violence (WPV) is a significant problem in both developed and developing countries among healthcare workers. The study aims to examine the perspective of resident doctors on various aspects of WPV to promote a better understanding of the complexity of the problem of WPV at a tertiary care center in India. **Material and Methods:** Seven focus group discussions were conducted with resident doctors from various departments, which were recruited through convenience and snowball sampling. Discussions were audio recorded and transcribed verbatim to English. Thematic analysis was done using Atlas. ti 8 to generate themes, subthemes, and codes from the discussions. **Results:** A total of 39 resident doctors with a mean age of 28.0 ± 3.8 years were recruited. The themes that emerged during the analysis are as follows: types of WPV, risk factors for WPV, the impact of WPV, and mitigation strategies for WPV. **Conclusion:** Exposure to WPV is not uncommon in India. Factors associated from individual to policy level are involved in subjugating the episodes of violence. Findings from this study will contribute in devising mitigation strategies for the same.

Keywords: Assault, focus group discussion, harassment workplace violence, healthcare personnel, occupational threat

Introduction

Workplace violence (WPV) is an important global problem that has a long-term adverse effect on individual healthcare providers as well as the whole healthcare system.^[1] Studies suggest that almost three in four of all doctors have suffered from WPV at some point of time in their career.^[2] These increasing numbers are reported more in the primary healthcare and community

healthcare setup due to increased vulnerability resulting from lack of infrastructure, health awareness, and overburdening.^[3] This has accentuated doctors' negative emotions leading to adverse consequences, such as a decline in job performance, increased turnover intentions, reduced job satisfaction, decreased quality of life, and burnout.^[4]

Although it is a multifaceted global problem, and many studies have been done in the western and developed world on this, data in developing countries are somewhat limited.^[5] WPV in different countries have varied attributes of sociobehavior

Address for correspondence: Dr. Piyush Ranjan,
Department of Medicine, All India Institute of Medical Sciences,
Ansari Nagar - 110 029, New Delhi, India,
E-mail: drpiyushdost@gmail.com

Received: 17-09-2021

Revised: 07-12-2021

Accepted: 07-12-2021

Published: 30-06-2022

Access this article online

Quick Response Code:



Website:
www.jfmpc.com

DOI:
10.4103/jfmpc.jfmpc_1872_21

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: 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 centre of India. *J Family Med Prim Care* 2022;11:2678-84.

characteristics, risk factors, and scenarios, as the occurrence, expression, and aftermath depend on cultures, law enforcement agencies, government policies, and the healthcare system of the country.^[6-9] Qualitative study design and thematic analysis help in an in-depth, systematic perspective about a sociobehavioral issue like WPV. The various aspects of WPV, such as risk factors that lead to varied forms of violence, their impact, and preventive strategies, which will promote a better understanding of the complexity of the problem can be better studied by qualitative approaches.^[10] This study has been planned by keeping these factors in mind and sought to examine the perspective of doctors on various aspects of WPV at a tertiary care hospital in India.

Methodology

Study design

The purpose of this study was exploratory; therefore, a qualitative design with an inductive approach was chosen, and focus group discussion (FGD) method was used for data collection with resident doctors. The study was conducted at a public-funded medical school in India which offers graduate and post graduate (specialist and super-specialist) training. The institution founded more than half a century ago caters to both referred and non-referred patients from Delhi and other parts of the country. Selection of trainees is through national competitive examinations. Treatment of patients and training of students is largely subsidized.

Ethical consideration

The study was approved by the institute ethics committee of the All-India Institute of Medical Sciences, New Delhi (Reference no. (IEC-844/06.12.2019, RP-46/2020)) and informed written consent was taken from all the participants and confidentiality and anonymity were assured.

Study participants

A total of 39 resident doctors were enrolled from various departments of the hospital. Purposive and snowball sampling techniques were used to enforce the principle of maximum diversity in terms of gender, department, and years of experience. Seven FGDs were conducted with each having a minimum of five and a maximum of seven participants.

Data collection and tools

Data were gathered from 18th June 2021 to 21st June 2021. Each FGD lasted for an average duration of 40 to 50 min. The discussions were conducted on an online video conferencing platform and audios were recorded for each session which were transcribed subsequently verbatim to English for analysis. Each FGD was stimulated by a moderator and was initiated with a comprehensive introduction about the topic to bring unanimous understanding among the participants. Ground rules about the discussion were explained, and each participant was asked to introduce himself/herself to build a rapport and bring a sense of openness and willingness to talk about a variety of

aspects related to violence. The discussions were initiated with open-ended questions followed by specific questions to keep the participants on the course of the subject [Table 1]. Topics were related to the genesis of violent events, staff and patient behavior before and during episodes of violence, the impact of the episodes, factors affecting the violent episodes, and mitigating strategies for such episodes.

Data analysis

Data were analyzed using the Atlas. ti 8. Preliminary codes and quotations were obtained automatically using Atlas. ti 8 from the excerpts of the transcript.

Results

Sociodemographic characteristics

Thirty-nine resident doctors participated in this study. The general characteristics of the participating doctors are included in Table 2. There was a fair representation of both genders, and all the participants were from a young age group (28.0 ± 3.8 years). Data were collected from various residents of different departments, with the majority belonging to emergency medicine, 15 (38.5%).

Thematic analysis of qualitative data

The analysis of FGDs with resident doctors generated various codes that could be grouped into four major categories, which are as follows: the type of violence, risk factors of violence, the impact of violence, and mitigation strategies for violence, and these were further grouped into 11 subcategories and that led to the emergence of the themes and representative quotes that are mentioned in Table 3.

Types of WPV in the healthcare setting

The majority of the doctors had experienced violence at some point in their careers, some have experienced it to a greater extent than others. Two major types of violence subcategories that emerged in the analysis were *verbal violence* and *physical violence*, and as per their experience, the instances of verbal violence were more frequent as compared with physical violence. In verbal

Table 1: Focus group discussion's guide

Type of question	Questions
Opening Question	What types of episodes have made you feel uncomfortable and unsafe in your work setting?
Introductory Question	What was the extent of impact these episodes had on your overall well-being?
Transition Question	What do you think are the reasons for these kinds of episodes at the workplace?
Key Question	What can be done to mitigate the frequency and severity of these episodes against doctors in emergency settings?
Ending Question	Finally, do you feel that there is anything specific to your experience that we have not discussed during our session? Please feel free to mention any point you feel is important.

Table 2: Sociodemographic characteristics of participants (n=39)

Characteristics	Mean/n (%) (n=39)
Age	28.0±3.8 years
Gender	
Male	26 (69.2)
Female	13 (33.3)
Years of experience	4.4±3.8 years
Department	
Community medicine	2 (5.1)
Emergency medicine	15 (38.5)
Geriatric medicine	4 (10.3)
Obstetrics and gynecology	3 (7.7)
Psychiatry	3 (7.7)
Surgery	3 (7.7)
Trauma surgery	3 (7.7)
Others	6 (15.4)

violence, *abusive language* and *violent arguments* were the most common incidents.

“Patient had to undergo an ultrasound. We told them that it was not available there so they started arguing and yelling and said if the patient died here, it would be your responsibility and we will sue you” -Participant 39.

There were instances of *sexual harassment, mob attacks, slapping, and throwing objects around* in physical violence, which were though less frequent but had a more detrimental impact on their overall well-being.

“We went out and the guards couldn’t control them, nobody could do anything, a crowd of 30-40 people gathered there they tried to get physical” -Participant 9.

Risk factors for WPV in the healthcare setting

Across the groups, participants were able to identify certain risk factors which made these violent incidents more common; they were categorized into *hospital-related factors, doctor-related factors, patient-related factors, and attendant-related factors*. A large number of themes emerged from these subcategories in the hospital-related factors, such as *high foot fall, lack of security, scarcity of beds, lack of law enforcement, and time constraints*.

“Overcrowding which is occurring at tertiary care where there is resource limitation because the number of beds is less and number of patients acquiring care is more” -Participant 12.

In *doctor-related factors*, there was a lot of emphasis on themes like *lack of communication, rapport formation, physiological state of the doctors, and their clothing* (Personal protective equipment), since it influenced their caregiving behavior and work efficiency as well.

“On doctor’s part one problem can be there like poor communication, be may not explain all things to the attendant” -Participant 34.

“If you are in PPE it gets uncomfortable and irritable to see a patient as

you are all sweaty and you also have your issues, mental presence is very important” -Participant 1.

Among the *patient-related factors*, the *characteristics of the patient, critical condition of the patient, and blaming doctors for incompetence* were some factors in increasing the violence. Along with this the role of *social media* was highlighted in provoking and highlighting the violent incidents. The majority of the violent episodes that occur with doctors are attendant-led instead of patient-led, and there are certain *attendant-related factors* involved in it which are their *demands, denial and anger outburst, expedite care, impatience, language barrier, low education level, pessimistic attitude, too many attendants with one patient, being a political figure, and young age*, and these make them prone to perpetrate violence against doctors.

“Usually, a political figure or a person who thinks that he knows the system very well is involved. They also lead to more workplace violence than the normal population” -Participant 3.

Impact of WPV in the healthcare setting

The violent episodes were immensely impactful on the well-being of participants and from a varied set of information, it was identified that it majorly affected their *mental health* and conditions like *depression, Post traumatic stress disorder (PTSD), work performance anxiety, mood changes*, and being *terrified and disgusted* emerged, and along with this, it affected their *work* because of instances such as, *they didn’t feel like working, wanted to choose alternate careers, they were uncomfortable in doing the procedure in front of a patient, and they had a low attachment with the patients*.

“I observed a change in my decision-making. I have heard such episodes a lot and now I have decided that I will always work in tertiary hospitals and avoid district hospitals” -Participant 20.

“You become desensitized and it affects your day-to-day relationships also, and impacts your nature and social life as well” – Participant 25.

Mitigation strategies for WPV in the healthcare setting

Participants identified numerous mitigation strategies from the focus group to tackle the violence. It varied from personal strategies to policy level strategies, which were *hospital-related factors* such as *deployment of security guards, training of doctors, and patient–doctor coordinators*; many participants emphasized that they believed that majority of incidents occur because of insufficiencies on part of the hospital due to overburdening of the healthcare system.

“Giving training to guards, receptionist, and clerks as I don’t think they have the training to deal with people as they have some basic graduation but no skills to manage people and communicate better as they mostly appear frustrated and be rude to the patient” -Participant 38.

Participants were keen on pointing out *Doctor-related* mitigation strategies like *managing composure and along with this strengthening of laws, marches, and protests, and proper documentation of all events*, because

Table 3: Themes and subthemes of discussions

Category	Subcategory	Themes	Representative quotes
Type of violence	Verbal	Arguments, verbal abuse, and threatening	<i>"I have never been a victim of physical abuse but yes mental abuse as once I was politically threatened and pressured which was very awkward."</i> -Participant 7
		Bullying	<i>"Here we have employee health care system, which is nice but often these employees harass and ask us to go beyond our basic protocols and if we don't comply, they fuss, go to our seniors and complain that we didn't work properly"</i> - Participant 6 <i>"Seniors feel that juniors are like peon to them. They feel that it's our duty to work like that"</i> - Participant 33 <i>"Whenever you try to take help for studies or something most of the times you get humiliation only"</i> - Participant 33
	Physical	Sexual harassment	<i>"Once my female colleague who was coming alone from hospital to hostel alone in midway around 12 at night when there were no lights the guard that was posted at that time tried to inappropriately touch on her private parts, and threaten her"</i> - Participant 8
		Physical abuse and Mob attack	<i>"A 65 years old patient came to the hospital from a road accident and had crush injury, his right leg was crushed and brain was dead. We tried our best but the patient was brain dead so we declared. Some of the relatives came and they took out their guns and shot at us. There were guards and thankfully they missed"</i> - Participant 29
Risk factors	Hospital related	High footfall	<i>"It takes another 2-3 hours till they see a doctor and by that the doctor himself has seen more than 80 patients, he hasn't taken his lunch both of them are stressed out."</i> - Participant 38
		Lack of security	<i>"There wasn't much security they even abused female workers like nurses and junior resident, we went out the guards couldn't control them"</i> - Participant 9
		Scarcity of beds for admission	<i>"These sorts of episodes come across majorly from PHC, SHC and from those places where we don't have proper medical infrastructure."</i> - Participant 23
		Law enforcement	<i>"Violence against doctors is a non-bailable offence which many people aren't aware of and these laws are not strictly enforced hence people tend to go on"</i> -Participant 7
		Long waiting hours	<i>"They waited for the JR for like 1/2 hr but after that became hostile. So, they started fighting with others as well. The whole event was so big that we had to call the cops and get them out of the ward"</i> - Participant 35
	Doctor related	Physiological state	<i>"If you are in PPE, it gets really uncomfortable and irritable to see a patient as you are all sweaty and you also have your personal issues, mental presence is very important so all these factors are very important"</i> - Participant 1
		Lack of communication	<i>"First patients are not aware of the consequences of the disease and second is the communication gap between the treating facility and the patient attendant"</i> - Participant 26
		Unable to form rapport	<i>"Emergency is the place where we get to face all such issues as the patient is generally critical, we are unable to form rapport with the patients in such small time"</i> - Participant 3
	Patient related	Critical patient	<i>"I was subjected to verbal abuse; patient was critical and then their relatives came inside OT they verbally abused and threatened us"</i> - Participant 8
		Patient characteristics	<i>"Situations when they are carrying someone who is in a very bad condition or who is VIP or political clan or police or famous person from the local area and if he will be denied or get service after some time, he will get violent, he will not even think before slapping a doctor"</i> - Participant 24
Blaming doctors for incompetent work		<i>"You don't know anything and you are following the same treatment for everyone"</i> - Participant 36	
Social media		<i>"Earlier patients used to think that a doctor knows the best but recently with the advent of the internet, social media and media they have created a conflict between doctor and patient"</i> Participant 33	
Attendant related	Demanding	<i>"The attendant intercedes every now and then we have to justify our things which drains our energy and creates insecurity in the doctor"</i> - Participant 39	
	Denial and anger outburst	<i>"When a violent act occurs, denial is the first stage followed by anger and lashing out on the next person they see and many times it's the doctor"</i> - Participant 9	
	Political figure	<i>"Usually, a political figure or a person who thinks that he knows the system very well is involved. They also lead to more WPV than the normal population"</i> - Participant 3	
Impact	Mental health	Depression	<i>"One of my seniors faced abuse in my MBBS due to the death of a patient and the abuse was physical. It was very depressing for him"</i> -Participant 7
		PTSD	<i>"It hurts a lot and we don't feel like doing the work and it impacts how we work with the next patient, as that violent episode is tacked but it does affect how we deal with the next patient, we try to avoid in going to that area"</i> - Participant 9
		Work performance anxiety	<i>"Whenever we are doing a procedure if the attendants are around, we are not very comfortable in doing a procedure, it may be a very difficult procedure for any resident"</i> Participant 4
		Demotivating	<i>"So, after this incident my productivity had decreased, writing extra investigations to avoid such instances in future so this has happened and it has affected my state of mind"</i> Participant 30
Work	Lack of division of work	<i>"People from the nursing department can counsel and settle the issues but they don't do that"</i> - Participant 28	

Contd...

Table 3: Contd...

Category	Subcategory	Themes	Representative quotes
Mitigation strategies	Hospital related	Chose alternate careers	<i>"I have faced many incidents like quarrel and mob attack in emergency so I worked in many fields like critical care, cardiac etc., So after 4-5 years I joined forensic science"</i> - Participant 29
		Uncomfortable in dealing with patients and poor attachment	<i>It leaves a scar on the doctor for the next time when we communicate or deal with a patient or relative, you don't feel comfortable, and your emotional attachment is brought down"</i> - Participant 1
	Doctor related	Security guards	<i>"When the patient's relatives see that there are more guards and too healthy guards and there is optimum security so such incidents are less"</i> - Participant 19 <i>"I want to add one thing in critical care where a single doctor is posted for the emergency. There should be proper security and infrastructure should be improved like CCTVs should be installed"</i> -Participant 29
		Training of doctors	<i>"I actually wanted to say that the self-defence training should happen every twice a month to train yourself and for new trainees also"</i> Participant 30
		Patient-doctor coordinators	<i>"There should be a separate team of the hospital to communicate to the patient party, whatever type of patient relatives it is".</i> - Participant 17
		Clear and frequent communication	<i>"The ways to improve communication between doctors and patients should be taught at the very root level during our medical course also"</i> - Participant 24
		Build rapport	<i>"I introduce myself and ask about the attender and make a rapport with them whenever I need to make them run say for sample, ECG or report I call them by their name"</i> - Participant 3
		Breaking bad news	<i>"We have specific guidelines to break that bad news and first is to go to an isolated place and I had to break this news to people that their child is aborted in front of 100s of people and patients start to cry. We don't even have a separate room to talk"</i> Participant 37
		Empathy	<i>"We are doing our part most of the time and not focussing on the relative counselling at all, say as you are not doing anything my patient is lying there as it is and I am just standing outside"</i> - Participant 28
		Law strengthening	<i>"Stricter laws must be enforced like never throw their hand at policeman similarly provisions should be made for the safety of the doctors"</i> - Participant 37
Patient related	Proper documentation	<i>"In ward settings we can spend more time with the patient learning about their families to gain their trust and confidence"</i> - Participant 11	
	Patient education and awareness	<i>"I think there should be animated videos through which we can explain about a procedure/ treatment to the patient's relatives so that they may know what is happening with their patient"</i> - Participant 17	

they proclaimed that when the synergy at all levels is attained, this problem will be eradicated.

"We keep blaming the patient for violence but sometimes it's the doctor which is the reason as we don't even talk well often imagine a doctor is working 3 in the morning, they are bound to make some mistakes, there are some limitations to even our side" -Participant 39.

There was a lot of discussion on patient-related factors and the key themes that emerged from it were *increasing patient awareness and educating them and along with this limiting the number of attendants with the patient*, as the incidents of violence was prone to happen when there were more attendants with a patient or if a patient was *not familiar with the hospital routine* or was a new visitor at the hospital.

Discussion

This qualitative study explored the various aspects of WPV that concerned resident doctors of different clinical specialties. The in-depth discussions highlighted four major aspects associated with WPV.

First, despite the significant prevalence of WPV in the healthcare setting, there is a lack of awareness among the scientific community and policymakers about this, and consequently, not much is said or done on this important issue.^[11] Most of the participants in the discussion reported some form of a

violent incident in their career. The incidents of non-physical violence are much higher and frequent as compared with physical violence.^[12] Participants felt that there is a lack of stringent policies, legislation, and other mitigating strategies in this country which is leading to a rise in such events. More studies like this are required to draw the attention of concerned authorities and policymakers in this country.

Second, the risk factors for WPV in India differ from that of western countries, because people are dependent on primary healthcare centers or subcenters for their basic care which are often under staffed and sparsely located. People have to face long waiting hours, increased out-of-pocket expenses, and high acuity of illness which triggers a sense of annoyance and frustration among patients and result in violence.^[13,14] Besides, the medical curriculum in India lacks training of medical students and residents in soft skills like communication which hampers the patient–doctor rapport and interferes with optimum care.^[15,16] Along with it, in contrast to developed countries, there is a poor doctor–patient ratio which directly leads to overcrowding, overburdening, and burnout in doctors.^[17] In addition, there is a lack of health literacy and awareness in the patients which affects their perspective toward doctors and the healthcare delivery system.^[18]

Third, another significant finding that emerged in our study is the presence of bullying, which is faced by participants regularly.

Participants have reported a more detrimental effect on mental health as compared with patient-/attendant-led violence, as it is more common and mostly unavoidable. There is a sense of fear in victims and they refrain from disclosing details for fear of jeopardizing their careers.^[19]

Fourth, the participants in the FGDs were very active, positive, encouraging, and solution-oriented which was very promising. They needed change and suggested strategies not just for patients, attendants, or the healthcare system but for themselves. They were able to pinpoint their flaws, frailty, and insufficiencies on their part. They believe that doctors can improve their communication skills and be more empathetic that will help to improvise the WPV scenario in this country.^[20]

Strengths and limitations

An understanding of violence based on real experiences is a way forward. We gathered a vast number of personal accounts describing incidents of violence and abuse in many forms. The discussion reflected many aspects, as well as recurring themes, and we analyzed the material to be saturated. The group was homogeneous. All of the participants were in their residency that helped in openness and willingness to share. The diversity in professional, geographical, and organizational experiences among the participants increased the generalizability of the findings. The limitation of the study was that due to its qualitative design, there may be recall bias and exaggeration of events.

Conclusions

The findings of this study draw attention to how the government and hospital services, infrastructure, doctors, patients, and their attendants are all interrelated in the cycle of violence. It highlights how a mismatch between patient expectations and offered services can be a challenge that needs resolve to manage and even prevent violence. The unique feature here is that it provides qualitative perspective of doctors from India. It can serve as a guide to further cross-sectional surveys, cohorts, or mixed-method studies to understand the various aspects of WPV in greater depth. It can also serve as a guide for violence prevention programs or policy building at the national level.

Key points

- Most of the doctors have experienced violence at some point in their career and the instances of non-physical violence are more frequent as compared with physical violence.
- The violent episodes have detrimental effect on the physical, social, and psychological well-being of the doctors.
- Strengthening of healthcare infrastructure and improving communication skills of the healthcare personnel will help in mitigation of the problem.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Anand T, Grover S, Kumar R, Kumar M, Ingle GK. Workplace violence against resident doctors in a tertiary care hospital in Delhi. *Natl Med J India* 2016;29:344-8.
2. Ghosh K. Violence against doctors: A wake-up call. *Indian J Med Res* 2018;148:130-3.
3. Bharati K, Das S. Has violence against doctors become the norm in India? *J Clin Diagn Res* 2019;13:AB6-9. doi: 10.7860/jcdr/2019/13567.13236.
4. Duan X, Ni X, Shi L, Zhang L, Ye Y, Mu H, *et al.* The impact of workplace violence on job satisfaction, job burnout, and turnover intention: The mediating role of social support. *Health Qual Life Outcomes* 2019;17:93.
5. World Health Organization. Workplace Violence in the Health Sector: State of the Art. Available from: https://www.who.int/violence_injury_prevention/injury/work9/en/.
6. Chen J, Zhou MY, Liu QY, Ye L, Cheng YR, Wang MW, *et al.* High time for ease the doctor-patient relationship in China. *JForensic LegMed* 2020;72:101961.
7. 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.
8. Canada. Parliament. House of Commons. Standing Committee on Health, Casey B. Violence Facing Health Care Workers in Canada. House of Commons Canada=Chambre des communes Canada; 2019. Available from: https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=8.%09Canada.+Parliament.+House+of+Commons.+Standing+Committee+on+Health%2C+Casey+B.+Violence+Facing+Health+Care+Workers+in+Canada.+House+of+Commons+Canada%3D+Chambre+des+communes+Canada%3B+2019+Jun&btnG=.
9. Towhari AA, Bugis BA. The awareness of violence reporting system among healthcare providers and the impact of new ministry of health violence penalties in Saudi Arabia. *Risk Manag Healthc Policy* 2020;13:2057-65.
10. Arnetz JE, Hamblin L, Essenmacher L, Upfal MJ, Ager J, Luborsky M. Understanding patient-to-worker violence in hospitals: A qualitative analysis of documented incident reports. *J Adv Nurs* 2015;71:338-48.
11. Wu D, Wang Y, Yang SZ, Wang N, Sun KS, Lam TP, *et al.* A Socio-ecological framework for understanding workplace violence in China's health sector: A qualitative analysis of health workers' responses to an open-ended survey question. *J Interpers Violence* 2020;886260520980386. doi: 10.1177/0886260520980386.
12. Jatic Z, Erkocevic H, Trifunovic N, Tatarevic E, Keco A, Sporisovic L, *et al.* Frequency and forms of workplace violence in primary health care. *Med Arch* 2019;73:6-10.
13. Das J, Daniels B, Ashok M, Shim E-Y, Muralidharan K. Two Indias: The structure of primary health care markets in rural Indian villages with implications for policy. *Soc Sci Med* 2020;112799. doi: 10.1016/j.socscimed.2020.112799.
14. Kumari A, Kaur T, Ranjan P, Chopra S, Sarkar S, Baitha U. Workplace violence against doctors: Characteristics, risk factors, and mitigation strategies. *J Postgrad Med* 2020;66:149-54.

15. Baitha U, Ranjan P, Sarkar S, Arora C, Kumari A, Dwivedi SN, *et al.* Development of a self-assessment tool for resident doctors' communication skills in India. *J Educ Eval Health Prof* 2019;16:17.
16. Ranjan P, Kumari A, Arora C. The value of communicating with patients in their first language. *Expert Rev Pharmacoecon Outcomes Res* 2020;20:559-61.
17. 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:e0239193.
18. Nagpal N. Incidents of violence against doctors in India: Can these be prevented? *Natl Med J India* 2017;30:97-100.
19. Verkuil B, Atasayi S, Molendijk ML. Workplace bullying and mental health: A meta-analysis on cross-sectional and longitudinal data. *PLoS One* 2015;10:e0135225.
20. Lown BA, Setnik GS. Utilizing compassion and collaboration to reduce violence in healthcare settings. *Isr J Health Policy Res* 2018;7:39.