

# Perception of safety from workplace violence affects job satisfaction among doctors practicing modern medicine in India: A nationwide survey

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## ABSTRACT

**Background:** Doctors are often been judged negatively as a consequence of high expectation and demand from their job and face violence at workplace. Continuous worry of facing aggression at workplace may seriously affect job satisfaction and intention to job turnover. However, the association between workplace safety and job satisfaction had not been studied earlier in India. **Methods:** A cross-sectional survey was conducted among doctors from November 2019 to April 2020 using a pre-tested, semi-structured, anonymous “Google forms” based questionnaire among doctors working in private and/or public healthcare settings across India. Perception of safety was assessed by scoring in a scale. Cronbach’s coefficient of the scale was calculated to be 0.88. Job satisfaction was assessed using the 5-item Brayfield and Rothe measure of job satisfaction. Cronbach’s coefficient of the scale was 0.76. The data was coded and analyzed with the help of STATA-12. **Results:** 617 doctors practicing modern medicine participated in this study from all over India. 262 (42.5%) doctors were found to be satisfied at their job. Perception of safety at workplace was found to have 2.5 times greater influence on job satisfaction of doctors. 23.2% of the doctors expressed job turnover intention which was positively correlated with job satisfaction and perception of safety. **Conclusion:** Perception of safety from workplace violence was found to have significant effect on job satisfaction and turnover intention than actual violence. Appropriate strategy may be undertaken to address this apprehension at workplace.

**Keywords:** Job satisfaction, job turnover intention, occupational health, workplace safety, workplace violence

## Introduction

Incidences of workplace violence in healthcare settings where healthcare providers are abused, threatened, assaulted, or subjected to offensive behavior are on the rise globally and in India.<sup>[1]</sup> The incidents of violence against doctors have been reported even amidst the COVID-19 crisis.<sup>[2]</sup>

Workplace violence in healthcare settings has been reported in various forms like intimidation, verbal abuse or threat, damaging properties, sexual assault, or physical injuries. In our earlier study, we had reported that three out of four practicing doctors in India experienced workplace violence in the last 12 months of their practice.<sup>[3]</sup> An increased prevalence of aggression at the workplace has created a high-pressure work environment for doctors, and often they are at a risk of being judged negatively and face the consequences of disdain from either patients or relatives of patients.<sup>[4]</sup> Significant effect of this violence was also noted to be associated with the psychosocial health of doctors which further affected the management of patients.<sup>[3]</sup> Although aggressions that lead to actual physical injury to doctors were

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found to be less than verbal abuse or bullies, sustained fear of aggression or violence at the workplace is an important source of stress which may also affect the psychosocial health of doctors. Increased stress usually increases the degree of burnout at the job.<sup>[5]</sup>

In a recent survey, the Indian Medical Association has reported that 82.7% of the doctors in India feel stressed out in their profession. Fear of violence at the workplace was the primary source of stress for 46.3% of practicing doctors. About 62.8% of the doctors practicing in India are unable to meet their patients without any fear of facing violence.<sup>[6]</sup> Continuous worry of being judged negatively decreases motivation to deal with complex situations, resulting in a tendency of avoiding management of critical patients.<sup>[7]</sup> This avoidance behavior and indulging in a defensive attitude affect job satisfaction among doctors.<sup>[8]</sup> Various factors like age, sex, professional achievements, safety in the work environment, relationship with colleagues, subordinates, and seniors, workload, stress, autonomy at the workplace, pay and incentives, etc., have been reported to cause a significant effect on job satisfaction of doctors in the earlier study.<sup>[9]</sup>

However, even with such a high burden of workplace violence in our country, the association of perceived safety at the workplace with job satisfaction has not been studied at the national level. In this study, we assessed the association between perceptions of safety from workplace violence and job satisfaction and intention to job turnover among doctors in India.

## Materials and Methods

The present cross-sectional study was undertaken in the All India Institute of Medical Sciences (AIIMS), Kalyani, West Bengal, India. The medical graduates (Bachelor of Medicine & Bachelor of Surgery, MBBS), specialists [Doctor of Medicine (MD) and Master of Surgery (MS)], and super-specialists [Doctorate of Medicine (DM) & Master of Chirurgiae (M. Ch.)] managing patients in private and/or public healthcare settings in any part of India formed the study population. The doctors practicing modern medicine who had more than 1 year of experience in managing patients were included in the study.

### Sample size

The sample size was calculated using Krejcie Morgan formula for sample size calculation.<sup>[10]</sup>

$$[S = X^2NP(1-P)] / \{d^2(N-1) + X^2P(1-P)\};$$
 where, S = required sample size;  $X^2$  = the table value of Chi-square for one degree of freedom at the desired confidence level ( $0.05 = 3.841$ ); N = the population size; P = the population proportion (assumed to be 0.50 as this would provide maximum sample size); d = the degree of accuracy expressed as proportion (0.05).

The sample size, thus, calculated was 384. After adding a 20% non-response rate, the final sample size was calculated to be 461.

### Sampling technique

The convenience sampling technique was used for data collection. The survey was conducted from November 2019 to April 2020 using a pre-tested, semi-structured, anonymous “Google forms” based questionnaire. Google forms is an internet-based application under Google LLC that allows collecting data/information from users via personalized surveys without imposing any charges.

At first, 20 faculty members, belonging to different regions of India, working in different departments of AIIMS, Kalyani, at the time of the start of the study, were selected as “primary deliverers.” The link to our questionnaire, embedded in a brief message describing the purpose of the study, was sent to the “primary deliverers” via social media platforms like WhatsApp and e-mail. The names and affiliations of the investigators were given at the end of the circulated message for integrity. The participant information sheet was introduced as the first page of the questionnaire with the option of choosing “agree” to participate in the survey and “disagree” to quit. Also, the completion and submission of the filled questionnaire were taken as implied consent for participation in the study.

Then, the colleagues, classmates, and friends of the “primary deliverers,” practicing modern medicine in different parts of India, were invited to participate in the online survey by the “primary deliverers.” This group formed the “secondary deliverers” and so on. Consequently, the size of the sample increased. Therefore, the messages were circulated in closed medical fraternity groups to ensure filling of the questionnaire only by the doctors practicing modern medicine. The study tool was customized for a single response per participant. The link to the Google form was de-activated after the time period of three months.

### Measures

The study questionnaire included sociodemographic and professional information like age, sex, marital status, academic qualification, years of experience, practice setting (government and/or private), and area of practice (rural and/or urban). The respondents were also assessed for the experience of workplace violence, safety arrangements at the workplace, perception of safety at the workplace, and overall job satisfaction.

For assessing safety at the workplace, the respondents were asked “How safe do you feel?” in different departments – in OPD, Emergency/Casualty, during on-call duties, during night duties, and in IPD and during a meeting with patients’ attendants. The response of feeling safe while working in the various departments was collected as “Completely safe,” “Relatively safe,” “Partly safe-partly unsafe,” and “Completely unsafe,” with the score of each response given as “4,” “3,” “2,” and “1,” respectively. If the respondent was not working in any of the above-mentioned departments and clicked on the “Not applicable” response, the score of “0” was assigned. The total score, which was a sum of

overall response ranging from 0 to 20, was calculated for each participant. The median score was taken as the cutoff value for perceived safety at the workplace, with values above the median value designated as “Safe” and the lower scores as “Unsafe.” Cronbach’s coefficient of the scale was calculated to be 0.88.

The overall job satisfaction was assessed using the 5-item Brayfield and Rothe measure of job satisfaction.<sup>[11]</sup> These five items were “I feel fairly well satisfied with my present job,” “Most days I am enthusiastic about my work,” “Each day of work seems like it will never end” (reverse-scored), “I find real enjoyment in my work,” and “I consider my job rather unpleasant” (reverse-scored). The response scale ranged from 1 “strongly disagree” to 4 “strongly agree”. The total scores were calculated for the five items, in each case, to produce a single score for overall job satisfaction. The median score was taken as the cutoff value to define overall job satisfaction, with scores more than the median value taken as “Satisfied” and the other scores classified as “Not satisfied.” Cronbach’s coefficient of the scale was calculated to be 0.76.

## Data analysis

The automatically filled dataset in the Microsoft Excel spreadsheet was downloaded from Google drive of the investigator. It was coded and analyzed with the help of STATA-12 statistical software (StataCorp. 2011. Stata Statistical Software: Release 12. College Station, TX: StataCorp LP). Categorical data were presented as percentages (%). The correlation between independent and dependant variables was calculated using the Pearson Correlation Coefficient. Multiple regression analysis was done in which job satisfaction and job turnover intention were regressed on various sociodemographic and professional factors. A *P* value of less than 0.05 was considered statistically significant.

## Ethics

Ethical clearance was obtained from the Institutional Ethics Committee of All India Institute of Medical Sciences, Bhubaneswar, Odisha, India (Reference number – T/IM-NF/Kalyani/19/02).

## Results

A total of 617 doctors practicing modern medicine participated in this study from all over India. Most of the study participants were in the age group of  $\geq 35$  years (52.2%), male (73.3%), ever married (78.6%), and had experience of less than 10 years in the profession (55.8%). Other details of study participants and their work setting environment have been given in Table 1.

### Job satisfaction and its relationship with selected variables [Tables 2 and 3]

Out of total study participants, 262 (42.5%) reported to have job satisfaction at the time of the study. Job satisfaction was found significantly positively correlated with age, years of experience in the profession, highest qualification, and perceived safety.

**Table 1: Distribution of study participants as per selected socio-demographic factors, professional details and work environment**

Parameters	Variables	Total study participants n (%)
Age	<35 years	295 (47.8)
	$\geq 35$ years	322 (52.2)
Sex	Female	165 (26.7)
	Male	452 (73.3)
Marital status	Unmarried	132 (21.4)
	Ever married	485 (78.6)
Year of experience	<10 years	344 (55.8)
	$\geq 10$ years	273 (44.2)
Highest qualification	MBBS	121 (19.6)
	MD/MS/DNB/ Diploma/DM/MCh	496 (80.4)
Area of practice	Rural	48 (7.8)
	Urban	569 (92.2)
Setting of work	Government	244 (39.5)
	Private	305 (49.4)
	Both	68 (11.0)
Experience of violence	Absent	140 (22.7)
	Present	477 (77.3)
Security arrangements at workplace	No	100 (16.2)
	Yes	517 (83.7)
Perceived safety	No	349 (56.6)
	Yes	268 (43.4)

Job satisfaction was found significantly negatively correlated with sex [Table 2] On regression analysis, it was found that male doctors were almost 50% less satisfied at job than female doctors [OR: 0.56 (95% CI: 0.38–0.82). Doctors with perceived safety at the workplace had 2.5 times higher satisfaction with job than others [OR = 2.46 (1.75–3.44)] [Table 3].

### Job turnover intention and its relationship with selected variables

Around one-fourth (23.2%) of the study participants reported to have job turnover intention. Intention for job turnover was found to be 63% less among doctors who were more satisfied at current job [OR: 0.37; 95%CI: 0.24–0.59], and 55% less among doctors with decreased perception of safety from workplace violence [OR: 0.45; 95%CI: 0.29–0.69]. Absence of security arrangement at workplace had two times higher intention for job turnover [OR: 1.96; 95%CI: 1.19–3.22], as well as in doctors working in private set-up [OR: 1.81; 95%CI: 1.08–3.03] [Table 4].

## Discussion

Job satisfaction is defined as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences”.<sup>[8]</sup> It is a parameter of perception of working conditions among the employees or workers. Job dissatisfaction among doctors is broadly related to three major consequences: (i) stress, burnout, and depressive symptoms, (ii) difficulty in recruitment and retention of doctors in challenging conditions, and (iii) deleterious effect on the quality of patient care.<sup>[12]</sup>

Table 2: The Pearson correlation analysis among research variables

Variables	1	2	3	4	5	6	7	8	9	10	11
Age	1.00										
Sex	0.81*	1.00									
Marital status	0.47**	0.10**	1.00								
Years of experience	0.74**	0.11**	0.39**	1.00							
Highest qualification	0.33**	0.02	0.44**	0.28**	1.00						
Area of practice	0.07	0.02	0.04	0.02	0.12**	1.00					
Work setting	0.21**	0.16**	0.36**	0.24**	0.24**	0.07	1.00				
Experience of violence	0.05	0.01	-0.05	0.03	0.04	0.04	-0.02	1.00			
Security arrangements	0.02	0.11**	0.07	0.08*	0.12**	0.06	0.13**	0.01	1.00		
Perceived safety	0.05	0.04	0.01	0.06	0.07	0.07	0.07	-0.02	0.04	1.00	
Job satisfaction	0.09*	-0.10*	-0.01	0.10*	0.09*	0.04	0.01	0.03	-0.02	0.21**	1.00
Mean	1.52	0.73	0.79	1.44	0.80	0.92	0.71	0.77	0.72	0.43	0.42
SD	0.49	0.44	0.41	0.50	0.39	0.27	0.65	0.42	0.45	0.49	0.49

\*Significant at the 0.05 level (two-tailed); \*\*significant at the 0.01 level (two-tailed)

Table 3: Results of regression analysis for job satisfaction

Variables	Odds Ratio (95% Confidence Interval)				
	Model 1 ( $R^2=0.02$ ; $P=0.002$ )	Model 2 ( $R^2=0.02$ ; $P<0.001$ )	Model 3 ( $R^2=0.03$ ; $P=0.003$ )	Model 4 ( $R^2=0.03$ ; $P=0.004$ )	Model 5 ( $R^2=0.03$ ; $P=0.008$ )
Age					
<35 years	1.00	1.00	1.00	1.00	1.00
≥35 years	1.71 (1.18-2.48)**	1.26 (0.76-2.09)	1.31 (0.78-2.20)	1.30 (0.77-2.12)	1.30 (0.76-2.23)
Sex					
Female	1.00	1.00	1.00	1.00	1.00
Male	0.61 (0.42-0.87)**	0.60 (0.42-0.87)**	0.59 (0.41-0.86)**	0.59 (0.41-0.86)**	0.56 (0.38-0.82)**
Marital status					
Unmarried	1.00	1.00	1.00	1.00	1.00
Ever married	0.75 (0.45-1.17)	0.61 (0.37-1.00)	0.61 (0.37-1.01)	0.62 (0.37-1.02)	0.65 (0.39-1.10)
Years of experience					
<10 years		1.00	1.00	1.00	1.00
≥10 years		1.41 (0.87-2.29)	1.41 (0.87-2.29)	1.41 (0.87-2.30)	1.40 (0.85-2.31)
Highest qualification					
MBBS		1.00	1.00	1.00	1.00
MD/MS/DNB/Diploma/DM/MCh		1.60 (1.00-2.59)	1.60 (0.99-2.60)	1.59 (0.98-2.58)	1.52 (0.92-2.49)
Area of practice					
Rural			1.00	1.00	1.00
Urban			1.34 (0.71-2.55)	1.33 (0.70-2.54)	1.24 (0.65-2.38)
Work setting					
Government			1.00	1.00	1.00
Private			0.93 (0.62-1.39)	0.93 (0.62-1.40)	0.86 (0.77-1.73)
Both			1.17 (0.66-2.09)	1.17 (0.65-2.09)	1.15 (0.63-2.08)
Experience of violence					
Present				1.00	1.00
Absent				1.11 (0.75-1.64)	1.15 (0.77-1.73)
Security arrangements					
No					1.00
Yes					0.89 (0.61-1.31)
Perceived safety					
No					1.00
Yes					2.46 (1.75-3.44)**

\*\* $P<0.001$ 

In the present time, job satisfaction and morale among medical practitioners is a ubiquitous concern. The current study found that 57.5% of doctors in India were not satisfied with their job. The observed level of job satisfaction in our study was lower than the studies conducted in other parts of India, where the observed

satisfaction levels were 74% and 60%, respectively.<sup>[13,14]</sup> But the proportion was higher than the studies done by Chaudhury *et al.* and Kaur *et al.*, who reported that 40% of the doctors working at the Armed Forces Medical College in Pune (India) and 50% of the doctors working at a tertiary care hospital at New Delhi (India),

Table 4: Results of regression analysis for job turnover intention

Variables	Odds Ratio (95% Confidence Interval)				
	Model 1 ( $R^2=0.01$ ; $P=0.125$ )	Model 2 ( $R^2=0.01$ ; $P=0.185$ )	Model 3 ( $R^2=0.03$ ; $P=0.025$ )	Model 4 ( $R^2=0.07$ ; $P<0.001$ )	Model 5 ( $R^2=0.10$ ; $P<0.001$ )
Age					
<35 years	1.00	1.00	1.00	1.00	1.00
≥35 years	0.64 (0.42-0.97)*	0.84 (0.47-1.49)	0.68 (0.37-1.25)	0.73 (0.39-1.36)	0.76 (0.40-1.45)
Sex					
Female	1.00	1.00	1.00	1.00	1.00
Male	1.31 (0.84-2.03)	1.33 (0.86-2.07)	1.27 (0.81-1.99)	1.28 (0.81-2.03)	1.15 (0.71-1.85)
Marital status					
Unmarried	1.00	1.00	1.00	1.00	1.00
Ever married	1.35 (0.81-2.28)	1.40 (0.81-2.43)	1.29 (0.72-2.31)	1.14 (0.63-2.06)	1.06 (0.58-1.95)
Years of experience					
<10 years		1.00	1.00	1.00	1.00
≥10 years		0.68 (0.39-1.19)	0.68 (0.38-1.22)	0.66 (0.36-1.21)	0.70 (0.38-1.29)
Highest qualification					
MBBS		1.00	1.00	1.00	1.00
MD/MS/DNB/Diploma/DM/MCh		0.98 (0.58-1.67)	0.83 (0.48-1.44)	0.84 (0.48-1.47)	0.94 (0.53-1.67)
Area of practice					
Rural			1.00	1.00	1.00
Urban			1.65 (0.71-3.86)	1.79 (0.75-4.25)	1.88 (0.78-4.52)
Work setting					
Government			1.00	1.00	1.00
Private			1.80 (1.11-2.92)*	1.88 (1.13-3.12)*	1.81 (1.08-3.03)*
Both			0.96 (0.47-1.97)	0.97 (0.46-2.03)	0.96 (0.45-2.05)
Experience of violence					
Present				1.00	1.00
Absent				0.69 (0.44-1.08)	0.70 (0.44-1.11)
Security arrangements					
Yes				1.00	1.00
No				1.93 (1.19-3.14)*	1.96 (1.19-3.22)*
Perceived safety					
No				1.00	1.00
Yes				0.39 (0.25-0.59)**	0.45 (0.29-0.69)**
Job satisfaction					
No					1.00
Yes					0.37 (0.24-0.59)**

\* $P<0.05$  and \*\* $P<0.001$ 

respectively, were satisfied with their job.<sup>[9,15]</sup> These differences were due to use of different scales and parameters in assessment of job satisfaction among Indian doctors.

### Effect of contextual factors on job satisfaction

We found security arrangements at the workplace, experience of actual violence; place/setting of work (Government or Private), and area of practice (rural or urban) had no effect on job satisfaction. This is in contrast to a study that has reported decreased job satisfaction is mainly affected by frequent experience of workplace violence.<sup>[16]</sup> This inconsistency in findings may be due to following reasons: workplace violence and job satisfaction had been mostly studied among doctors from emergency, psychiatry, and anesthesia departments or among general practitioners who are frontline physicians and are exposed to high-risk patients directly, whereas in our study data was collected from a wide range of medical professionals from different specialties across India.

We found perception of safety at workplace had a significant effect on job satisfaction compared to actual experience of violence. Fear of violence depletes worker's emotional resources more significantly with higher emotional exhaustion.<sup>[5]</sup> Moreover, perception of threat of violence is sufficient for employees to exhibit many of the typical negative consequences of direct violence, such as anxiety, illness symptoms, and negative occupational outcome.<sup>[17]</sup>

### Effect on intention of job turnover

Job turnover is an increasing threat to sustained optimum functioning of healthcare sector worldwide.<sup>[18]</sup> Increase job turnover among doctors in the healthcare system may increase cost and decrease quality of healthcare. According to Price and Mueller, turnover intention is the principal cognitive precursor of turnover behavior and turnover intention better reflects the real level of working conditions than actual turnover behavior.<sup>[19,20]</sup> In this study, 23.2% of doctors expressed

intention to turnover from present job. Age, work setting, security arrangement, perceived safety from workplace violence, and job satisfaction were found to be important determinants of intention to job turnover as per our study which is in accordance to previous reports.<sup>[21]</sup> We found perceived safety from workplace violence to have significant effect on job turnover intention. This may also reflect significant effect of fear or apprehension of violence at the workplace on emotional attachment of the doctors to job. According to previous reports, emotional exhaustion is a major factor of job dissatisfaction and increased job turnover intention.<sup>[22]</sup>

### Implications on primary care practice

The results of the study indicate that the majority of doctors do not consider their workplace as safe regarding violence. This is likely to hamper the healthcare service delivery at all levels, including primary healthcare level.

Healthcare managers need to develop and implement strategies to identify and decrease the stressors related to workplace violence. Regular training on the assessment of body language and communication skills related to aggression would increase confidence among doctors to manage violence.<sup>[5]</sup> A team of support staff dedicated to managing conflict may also be beneficial. Also, strategies to increase job control, which would increase the autonomy, may be beneficial for doctors.

### Limitations

Convenience sampling strategy was used in this study. There may be a possibility of sampling bias, where people who chose to participate might have been attitudinally different compared with those who did not choose to participate in the study.

### Strengths

Doctors from private and government sector, teaching, and non-teaching hospitals were included in this study. This has increased the generalizability of study findings.

### Summary and Conclusion

In the present nation-wide cross-sectional study, 617 doctors practicing modern medicine in various specialties responded from all over India. Out of them, 262 (42.5%) doctors were satisfied with their job. The perception of safety at the workplace had 2.5 times influence on the job satisfaction of doctors. Around one-fourth of doctors expressed job turnover intention, which was significantly associated with job satisfaction and the perception of safety at the workplace. These are novel findings in the context of healthcare delivery services in India.

It can, therefore, be concluded that the perception of safety at the workplace has a significant effect on job satisfaction and turnover intention than actual violence. Appropriate strategy at different healthcare levels is needed to address this apprehension at the workplace.

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### Conflicts of interest

There are no conflicts of interest.

### References

1. Nagpal N. Incidents of violence against doctors in India: Can these be prevented? *Natl Med J India* 2017;30:97-100.
2. Sakthivel P, Rajeshwari M, Malhotra N, Ish P. Violence against doctors: An emerging epidemic amidst COVID-19 pandemic in India. *Postgrad Med J* 2020;postgradmedj-2020-138925. doi: 10.1136/postgradmedj-2020-138925.
3. 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. doi: 10.1371/journal.pone.0239193.
4. Sumner P, Vivian-Griffiths S, Boivin J, Williams A, Venetis CA, Davies A, *et al.* The association between exaggeration in health related science news and academic press releases: Retrospective observational study. *BMJ* 2014;349:g7015. doi: 10.1136/bmj.g7015.
5. Portoghese I, Galletta M, Leiter MP, Cocco P, D'Aloja E, Campagna M. Fear of future violence at work and job burnout: A diary study on the role of psychological violence and job control. *Burn Res* 2017;7:36-46.
6. Indian Medical Association Press Release. Majority of doctors fear violence and are stressed out reveals IMA study. 2017. Available from: [http://emedinews.in/ima/Press\\_Release/2017/July/1.pdf](http://emedinews.in/ima/Press_Release/2017/July/1.pdf). [Last accessed on 2020 Apr 23].
7. Loerbroks A, Weigl M, Li J, Angerer P. Effort-reward imbalance and perceived quality of patient care: A cross-sectional study among physicians in Germany. *BMC Public Health* 2016;16:342.
8. Nørøxe KB, Pedersen AF, Bro F, Vedsted P. Mental well-being and job satisfaction among general practitioners: A nationwide cross-sectional survey in Denmark. *BMC Fam Pract* 2018;19:130.
9. Chaudhury S, Banerjee A. Correlates of job satisfaction in medical officers. *Med J Armed Forces India* 2004;60:329-32.
10. Krejcie RV, Morgan DW. Determining sample size for research activities. *Educ Psychol Meas* 1970;30:607-10.
11. Brayfield AH, Rothe HF. An index of job satisfaction. *J Appl Psychol* 1951;35:307-11.
12. Gan Y, Gong Y, Chen Y, Cao S, Li L, Zhou Y, *et al.* Turnover intention and related factors among general practitioners in Hubei, China: A cross-sectional study. *BMC Fam Pract* 2018;19:74.
13. Bhattacharjee S, Ray K, Kumar Roy J, Mukherjee A, Roy H, Datta S. Job satisfaction among doctors of a government medical college and hospital of eastern India. *Nepal J Epidemiol* 2016;6:596-602.
14. Sharma M, Goel S, Singh SK, Sharma R, Gupta PK. Determinants of Indian physicians' satisfaction & dissatisfaction from their job. *Indian J Med Res* 2014;139:409-17.
15. Kaur S, Sharma R, Talwar R, Verma A, Singh S. A study of job satisfaction and work environment perception among doctors in a tertiary hospital in Delhi. *Indian J Med Sci*

- 2009;63:139-44.
16. 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.
  17. Hall JK, Spector PE. Relationships of work stress measures for employees with the same job. *Work Stress* 1991;5:29-35.
  18. Misra-Hebert AD, Kay R, Stoller JK. A review of physician turnover: Rates, causes, and consequences. *Am J Med Qual* 2004;19:56-66.
  19. Price JL: The development of a causal model of voluntary turnover. Ames: Iowa State University Press; 2000.
  20. Griffeth RW, Hom P, Gaertner S. A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*.2000;26:463-88.
  21. Wen T, Zhang Y, Wang X, Tang G. Factors influencing turnover intention among primary care doctors: A cross-sectional study in Chongqing, China. *Hum Resour Health* 2018;16:10.
  22. Terence RM, Lee TW. An alternative approach: The unfolding model of voluntary employee turnover. *Res Organ Behav* 2001;23:189-246.