

Original Research Article

Assessment of antecedents for violence against doctors: a cross sectional study on health worker component

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ABSTRACT

Background: The occupational safety and health administration considers physicians, nurses and other healthcare providers to be vulnerable and at a high risk of workplace violence. 75% of the doctors in India have been victims of violence at workplace.

Methods: This was a hospital based cross sectional study among resident doctors in a tertiary care hospital of Maharashtra.

Results: Among 137 residents interviewed, 81% of them faced verbal abuse in previous 1 year. In 57.6% of the cases the perpetrators of violence were the relatives of the patients. The most common place of harassment was the indoor patient wards followed by emergency/casualty department.

Conclusions: Lifestyle factors such as quality of sleep pattern, addictions have associations with events of harassment among the resident doctors. There should be a comprehensive plan aimed at reducing the lifestyle risk factors of the physicians and allow them proper rest between duty hours.

Keywords: Doctor, Health worker, Violence

INTRODUCTION

The changing times are challenging the principles of health care. Health care, which was earlier regarded as service, is now widely perceived as a commodity and the patient as a consumer. The healthcare workers are constantly being tested in this new crucible. Although the technological advances and healthcare innovations in the twentieth century have improved the quality of healthcare services manifold, but the ever-increasing burden on public healthcare system and service delivery personnel is a long-standing unresolved problem glaring at us in the face, still in search of its solution.

Workplace violence is violence or threat against the workers at or outside the workplace but related to their

work.¹ This may range from threats, verbal abuse, physical assault to even homicide. Studies show majority of cases of harassment (60-70%) are verbal abuse or aggressive gesture.² The occupational safety and health administration considers physicians, nurses and other healthcare providers to be vulnerable and at a high risk of workplace violence. Such incidences of violence at workplaces not only puts the life and liberty of the healthcare workers at risk but also leads to decreased efficiency of workers, reduced risk taking attitude, greater unwarranted referrals, and subsequent higher healthcare costs. These may lead to undesirable and adverse impact on the health of the patients in the long run.³

Different studies have reported workplace violence against doctors all over the world ranging from 56% to

75%. A survey by British medical association revealed that around one third of the respondents had faced verbal or physical abuse in past one year. In another study conducted among the tertiary care hospitals of Pakistan it was observed that around 75% of the respondents had faced some kind of violence in previous one year. A survey by Indian Medical association found that over 75% of the doctors had faced violence at work.⁴ Another study also reported, 75% of the doctors have been victims of assault at work in India.⁵

There is dearth of good quality data regarding factors associated with workplace violence against doctors. The objective of this study is to identify factors pertaining to the lifestyle of doctors, so that the findings of this study can serve as basis for future recommendations to prevent workplace violence against doctors/ health care professionals.

METHODS

This was a hospital based study conducted among resident doctors working in a tertiary care teaching hospital in Mumbai. The inclusion criteria included those who had spent at least 1 year in the hospital. The sample size was calculated considering 78% as expected prevalence of violence at work place and 10% precision. Minimum sample size was 113. A total of 180 resident doctors were contacted out of which 137 gave consent to be included in the study. Data were collected from January 2017 to April 2017.

After obtaining written informed consent the respondents were interviewed using semi structured questionnaire. The questionnaire included information regarding demographic data, work place related information, satisfaction at work place and quality of sleep using Athen's score. The content validity of the questionnaire was tested by 5 independent experts, whose agreement was 95%. Workplace satisfaction score used was a 7 component likert scales (maximum score 28 and minimum score 0). Higher the score higher was the workplace satisfaction. The data was collected and compiled using SPSS version 16.0. Categorical data were represented as proportions and numerical data as mean and standard deviation. Level of significance was taken as p value less than 0.05.

RESULTS

137 resident doctors were included after taking informed consent and interviewed in the study. The mean age of the study participants was 27.64 (standard deviation 2.5). The study participants included 123 (89.8%) resident doctors currently undergoing postgraduate training and 14 (10.2%) post PG senior resident doctors.

The demographic characteristics revealed 85 (65%) of them were male, 124 (92.5%) had graduated from

government medical colleges, and 87 (63.5%) belonged to joint family (Table 1).

Table 1: Demographic characteristics of the resident doctors.

Variable	Frequency	Percentage
Gender		
Male	85	62
Female	52	38
Graduation		
Govt. colleges	124	92.5
Private colleges	13	9.5
Type of family		
Joint	50	36.5
Nuclear	87	63.5
Education of mother		
Doctor	6	4.4
Homemaker	105	76.6
Lab technician	7	5.1
Private employment	6	4.4
Teacher	13	9.5

The history of harassment in last 1 year revealed, 111 (81%) of them had been harassed at least once verbally, psychological harassment was experienced by 60 (43%) of them. Most of the study subjects i.e. 79 out of 137 (57.66%) had faced harassment by the relatives of the patient while rest of them i.e. 67 (48.9%) had been harassed by their seniors. The most common place of harassment was the indoor patient wards followed by emergency/casualty department (Table 2).

Table 2: Particulars of harassment faced by resident doctors.

Variable	Frequency	Percentage
Harassment faced		
Harassed	111	81.0
Physically harassed	0	0
Verbally abused	111	81.0
Psychological harassment	60	43.8
Perpetrators of harassments		
Patients	39	28.4
Relatives of the patients	79	57.66
Seniors	67	48.9
Places of harassment		
Emergency	77	56.2
OPD	35	25.5
Ward	79	57.7
Any other	7	5.1

There were significant associations of gender and type of undergraduate college, with the events of harassment among the residents (p value- 0.02, 0.001 respectively). (Table 3). There was no significant association of alcohol

consumption, smoking or experience of suicidal thoughts by the residents with events of harassment (Table 4).

Table 3: Association of demographic characteristics and harassment faced in workplace by the resident doctors.

Characteristic	Harassment of any kind N (%)	P values
Gender		
Female	37 (71.2)	0.02
Male	74 (87.1)	
Type of family		
Joint family	38 (76)	0.25
Nuclear family	73 (83.9)	
Type of undergraduate college		
Government	105 (84.7)	0.001
Private	6 (46.2)	

Table 4: Associations of habits of resident doctors with events of harassment.

Habit	Harassment of any kind N (%)	P value
Alcohol consumption		
Non alcoholic	63 (82.9)	0.355
Alcoholic	42 (76.4)	
Smoking		
Non smokers	90 (81.8)	0.63
Smokers	21 (77.8)	
Suicide thought		
No	97 (78.9)	0.056
Yes	14 (100)	

Table 6: Assessment of factors associated with the place of harassments.

	Emergency (%)	OPD (%)	Ward (%)	Other places (%)
Bed time				
Upto 12 am	14 (51.9)	7 (25.9)	7 (25.9)	0
Beyond 12 am	63 (57.3)	28 (25.5)	72 (65.6)	7 (6.4)
P value	0.611	0.96	<0.001	0.178
Type of Under graduation College				
Government	71 (57.3)	35 (28.2)	79 (63.7)	7 (5.6)
Private	6 (46.2)	0	0	0
P value	0.443	0.026	<0.001	0.37
Sex				
Female	30 (57.7)	14 (26.9)	22 (42.3)	0
Male	47 (55.3)	21 (24.7)	57 (67.1)	7 (8.2)
P value	0.78	0.73	0.004	0.034
Family type				
Joint	31 (62)	14 (28.0)	26 (52)	7 (14)
Nuclear	46 (52.9)	21 (24.1)	53 (60.9)	0
P value	0.3	0.618	0.3	<0.001
Experience after completing undergraduate				
Service experience	57 (58.8)	14 (14)	52 (53.6)	0
No service experience	20 (50)	21 (52.5)	27 (67.5)	7 (17.5)
P value	0.347	<0.001	0.135	<0.001

There was a statistically significant difference of mean Athens score and mean hours of sleep per week among those who had faced harassment and those who did not. The residents who faced harassment were having significantly higher mean Athens score and significantly lesser hours of sleep per week during their residency p value 0.012 and <0.001). The mean age of those who had not faced harassment was significantly higher as compared to that of those who experienced harassment (Table 5).

Table 5: Association of quality of sleep among resident doctors and events of harassment.

	Harassed	Not harassed	P value
Athens score	8.94±3.5	7.04±3.1	0.012
Hours of sleep per week	35.5±3.9	42.42±4.9	<0.001
Mean age in years	27.4±2.1	28.54±3.7	0.04

The common places where the doctors had experienced harassments were emergency department, OPD and IPD wards. There were significantly higher events of harassment in Indoor patient ward faced by residents, who went to bed later than 12 am, those who were government medical college undergraduates and male residents. The harassment events in OPDs were significantly higher among the government college undergraduates and among the resident doctors who had no service experience after completing under graduate course (Table 6).

The total score of workplace satisfaction scale was found to be significantly negatively correlated with hours of sleep per week (correlation coeff. -0.279, p value=0.001). The number of events of harassments was found to be significantly correlated with Athens score (correlation coefficient 0.196, 0.022) and hours of sleep per week (correlation coefficient -0.529 and p value<0.001).

The multivariate analysis showed that the factors significantly associated with the events of harassment were smoking, sleep time later than 12 am, higher Athens score, higher age and less hours of sleep per week (Table 7).

Table 7: Logistic regression showing the factors related to doctor's demographic or lifestyle characteristics associated with events of harassment.

Factors	Adjusted odd ratio
Smoking	7.648
Home maker mother	8.399
Bedtime later than 12 am	<0.000
Athens sleep score	2939.541
Hours of sleep per week	0.043
Age of the doctor	21146.578
Constant	0.000

Table 8: Association of factors with workplace satisfaction among resident doctors.

Facotrs	Mean score of workplace satisfaction	Standard deviation	P value
Bed time			
Before 12 am	13.72	2.4	<0.001
After 12 am	18.72	4.8	
Harassment			
Yes	18.31	4.9	0.004
No	15.19	4.3	
Alcohol			
Yes	16.24	5.03	0.009
No	18.53	4.18	
Smoking			
Yes	16.22	6.1	0.08
No	18.08	4.5	

DISCUSSION

The results of the study showed the mean age of the study participants was 27.64 (standard deviation 2.5). Majority of the study participants were male post graduate residents belonging to joint family. Anand et al in 2016 did a study on workplace violence against resident doctors and concluded that 61.5% of the respondents were males. Mean age was 28.6 year. 78.1% of them were post graduate residents.³ The post graduate residents in a tertiary care hospital are among the first line of health

care workers to attend most serious and moribund patients while continuing their training.

The history of harassment revealed that out of 137, 111 (81%) were abused at least once verbally while psychological harassment was experienced by 60 (43%) of them in preceding 1 year. Verbal abuse as most common form of abuse has been corroborated by many studies.⁶⁻⁸ Most commonly harassments were perpetrated by relatives of the patients 79 (57.66%) followed by the seniors of the same department they were working in i.e. 67 (48.9%). Sen et al in 2019 observed that 75% of the doctors in India faced violence, 50% of the violence had taken place in ICUs and in 70% of the cases the perpetrators were relatives of patients.⁵ Ahmed et al in 2018 did a study on violence against doctors and concluded that 85.11% of the physicians faced verbal assaults and 38.1% had been subjected to violence from patients and their attendants.⁹ Anand et al in 2016 concluded that 40.8% of the respondents faced violence in previous 1 year. Among the perpetrators of violence 53.6% of them were relatives of the patients.³

The most common place of harassment was the indoor patient wards followed by emergency/casualty department. This finding was similar to results of Anand et al in 2016, which said 78.3% of the cases of violence happened in casualty.³ Singh et al in 2019 in a multicentric study on workplace violence concluded that around 68% of violence happened in emergency department of the hospitals.^{6,11,12}

There were significant higher chances of harassment faced by male residents and government medical college undergraduates (p value 0.02, 0.001 respectively). Disturbed sleep or lack of good quality sleep (higher Athens score and less hours of sleep per week) was significantly associated with higher events of harassment. Lack of service experience after under graduation, erratic sleep pattern had significant associations with events of harassment in OPD and IPD departments. Multivariate analysis showed smoking, erratic sleep pattern, working mother and higher age are the factors associated with events of harassment among the residents. Similar finding were also corroborated by Ghosh et al in 2018. He mentioned poor quality emergency care, poor grievance redressal, poor communication skill, high work load as factors for violence against doctors.² Sen et al in 2019 told resident doctors usually work 36-48 hours without sleep and often without food.⁵

Limitations

The study focuses on the physician component of the harassments but factors pertaining to the patients and their relatives also play very important role in events of harassments of doctors which was out of purview of this study and should be further investigated.

CONCLUSION

Violence at workplace for doctors is part of the vicious cycle which culminates in worsening doctor patient relationship affecting patient management and significantly hampering health service delivery. There should be a comprehensive plan aimed at reducing the lifestyle risk factors of the physicians and allow them proper rest between duty hours. There should also be a system of psychological support for those who faced harassments.

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