

## ORIGINAL ARTICLE

# Violence against resident doctors, its psychological impact and associated factors in accident & emergency department in a tertiary care institute of Haryana

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<a href="#">Abstract</a>	<a href="#">Introduction</a>	<a href="#">Methodology</a>	<a href="#">Results</a>	<a href="#">Conclusion</a>	<a href="#">References</a>	<a href="#">Citation</a>	<a href="#">Tables / Figures</a>
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## Abstract

**Background:** Violence in the healthcare setting is very common with the emergency department (ED) having the highest rate of violence in the hospital. While on one hand, the physical violence at the workplace has always been well recognized, the existence of psychological violence has been long underestimated. **Materials and Methods:** The study was a descriptive type of cross-sectional study conducted in 6 months in a tertiary care center of Haryana among doctors in Emergency and casualty Department. Study subjects were junior residents and senior residents posted in the emergency department. The questionnaire is a predesigned survey questionnaire formulated by ILO/ ICN/ WHO/ PSI Joint. **Results:** Most of the physical violence was seen in Surgery & Orthopaedics department with respective frequency of 44% & 39% respectively; while most of the verbal abuse reported in Medicine department with frequency of 33%. Most of the physical violence and verbal abuse occurred in age group of 25-29; males were more predisposed to both physical and psychological violence. Only 63% of the subjects knew about the procedures of reporting existing in the health facility. **Conclusion:** The study concludes that physical violence and verbal abuse are high in our institute, but majority of doctors did not know about the procedures of reporting.

## Keywords

Violence; Psychological Impact; Haryana

## Introduction

According to a WHO Expert Group, violence is the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which

either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation. (1)

While on one hand, physical violence at the workplace has always been well recognized, the

existence of psychological violence has long been underestimated. With the increasing knowledge in field of psychiatry and life full of increasing stresses, psychological violence is currently emerging as a priority concern at all the workplaces including health care setting leading to a new awareness and re-evaluation of the importance of all psychological risks at work. Physical violence/assault/attack is defined as attempt at physical injury or attack on a person leading to actual physical harm. It includes beating, kicking, slapping, stabbing, shooting, biting, sexual assault and rape, among others.(2)

Violence in the healthcare setting is very common with the ED having the highest rate of violence in the hospital.(3) The Bureau of Labor Statistics in 2004 published a report showing that nearly half of all acts of workplace violence occur in healthcare settings during the study duration of 1996-2000.(4) Among doctors, the ones believed to be at highest risk of aggression and violence are psychiatrists and emergency medicine physicians.(5) Kowalenko *et al* reported that 75 per cent of physicians had encountered verbal violence and 28 per cent had been the victims of physical assault in a period of 12 months in a study conducted in U.S. emergency departments.(6) As far as studies in India are concerned, recent trend shows increasing rates of violence. An ongoing study by the Indian Medical Association showed that more than 75% of doctors have seen violence at work.(7) Although chiefly a problem in large urban emergency departments, violent acts occur regardless of practice size and setting as shown by a study conducted by Blando *et al*.(8) It is not uncommon now to see patients and their visitors carry weapons.(9) In a study conducted by Boz *et al* in Turkey, it was found that over one-third of the victims suffered psychological problems following assault implying that the acts of violence can leave behind permanent scars.(10) These acts of violence merit attention since the effects of aggression and violence at work as described by victims are manifold: posttraumatic stress disorder (PTSD), depression, sleeplessness, reliving experiences, fearfulness, having to take time off work, decreased professional self-confidence, refusal of visits in certain areas, house calls only in the presence of the police, fear of patients, or thoughts to give up the medical profession due to reduced job satisfaction. The increasing prevalence of violence necessitates the need to study various

factors which are responsible for violence against doctors.

### Aims & Objectives

1. To study prevalence of violence against doctors in a tertiary care institution in Haryana.
2. To study various factors contributing to violence against doctors in a tertiary care institution in Haryana.

### Material & Methods

The study was conducted in Pt. B. D. Sharma PGIMS, Rohtak which is a tertiary care center of Haryana. This is a super-specialty hospital which caters to around 7000 patients in O.P.D daily. Average number of patients coming to emergency department is 800-1000. It was a descriptive type of cross-sectional study conducted in a tertiary care center of Haryana among doctors in Emergency and casualty Department. The study period was 6 months and subjects were junior residents and senior residents posted in the emergency department. Emergency department is mainly manned by the Medicine, Surgery, Paediatrics, Orthopedics and Obstetrics & Gynaecology departments. Total number of Junior Residents and Senior Residents posted in all the five departments were 215 during the study period. The questionnaire was provided to the selected study participants and was collected back. The questionnaire is a predesigned survey questionnaire formulated by ILO/ ICN/ WHO/ PSI Joint (11) Programme on Workplace Violence in the Health Sector which is a country case study intended to reduce the incidence of violence in the health sector and to minimize its negative impact on the victims and services. The survey questionnaire was modified a bit after discussion with the ethical board; the sections on racial and sexual harassment were removed from the questionnaire. A written informed consent was taken from the study participants. Ethical approval was taken from the institutional ethic committee.

**Inclusion Criteria:** Junior Residents and Senior Residents of Surgery, Medicine, Paediatrics, Orthopaedics and Obstetrics and Gynaecology posted in the emergency department were included in the study.

**Exclusion criteria:** Those who were not willing to give consent were excluded from the study.

**Data analysis:** Data collected was entered into Microsoft Excel and loaded into the Statistical Package for Social Sciences (SPSS) software version 17.0 for descriptive statistical analysis. Descriptive statistics was used for determining frequency, percentage, mean and standard deviation and Chi-square test was used to

determine association between each factor of independent variables and the dependent variable.

## Results

The study was conducted among junior and senior residents posted in emergency department of Pt. B. D. Sharma PGIMS Rohtak. Residents of Medicine, Surgery, Paediatrics, Orthopedics and Obstetrics & Gynaecology departments were enrolled in the study.

As seen in (Table 1), out of a total sample size of 215, around 54% of doctors belonged to the age group of 24-29 years and about 55% were males. About half of the doctors were in medicine and surgery departments. Around 87% were junior residents and rest were senior residents and about one third were married.

According to (Table 2), 45 doctors experienced physical violence accounting for about 20.9% and as many as 119 doctors had experienced verbal violence (55.3%) for at least once in past 12 months. Various factors that have influenced prevalence of physical and verbal violence have been noticed during the study. About three-fourths of the victims of physical violence and approximately 85% of those of verbal violence were in the age group of 24-34 years. Whereas the prevalence of verbal violence was only a bit higher in males (57%) with a work experience of less than five years; the physical violence was largely experienced only by males (90%) with work experience of about 5-9 years. Around three-fourth proportion of physical violence was faced by junior residents of surgery and orthopedics departments; whereas the verbal violence largely involved junior residents of medicine, surgery and gynecology departments although the data was not statistically significant. Most of the violence occurred inside the health institution in afternoon and evening hours; about one-third occurred on Saturdays and Sundays.

## Discussion

Although many studies have been done in the past regarding the prevalence and factors influencing violence against doctors, but only a few have been conducted in Indian setting and that too in the state of Haryana where frequent incidences of violence are reported. A study like this was much needed to know the status of violence against doctors in Haryana and what could have been the possible factors responsible for such a status.

The prevalence of violence in health sector has been escalating in recent times (15,16). The study was conducted in a tertiary care hospital of Haryana which caters to the health care needs of large proportion of population of Haryana and has large number of doctors working therein. This study shows that around 20% of

doctors have faced physical violence and around 55% have faced verbal violence in past 12 months. This is in comparison to a study conducted by Kowalenko *et al* in U.S. emergency departments where in 28% of the doctors faced physical violence and 75% faced verbal violence in last 12 months<sup>6</sup>

This study shows that most of the violence, whether physical or verbal was faced mostly by younger male physicians of surgery and orthopedics departments posted for emergency duty with work experience of less than 10 years; with most of the violence occurring on weekends during evening hours. There were no other factors that were found to influence the prevalence rates of violence. A study conducted by Arimatsu *et al* showed that younger physicians and psychiatrists were at higher risk of verbal violence and female physicians, psychiatrists, emergency physicians were at higher risk for physical violence (18). The results of this study have been a bit contradictory as the doctors from Psychiatry department have not been included in this study. Such high rates of violence influence the doctors in large ways. There have been both physical and psychological effects of violence on doctors. About one-third of victims were injured by physical acts of violence and around one-fourth suffered from psychological upset. Some of them also took off from the work. A study conducted in Kuwait showed that 86% of the doctors suffered from psychological effects of violence (19). The study conducted by Carmi-Iluz *et al* in Negev showed that in 25% of the cases, violence had detrimental effects on the lifestyle of doctors (17). This indicates that the effects of violence have been variable depending on the area of the study and the spectrum of departments that doctors belonged to.

Such large influence of violence on doctors and thereby to the functioning of healthcare system prompts intervention in this field. There were still one-fourth of the doctors who didn't know about the reporting procedures in their health care facility. Moreover, the action against such incidences was taken only in 25% of cases which was certainly a poor response. In the study conducted by Carmi-Iluz *et al* in Negev, two-thirds of the cases were not handled by the hospital authority (17). The reasons for such low reporting and poor response to such incidences by the authorities may be that both doctors and authorities might not consider this as a significant incident severe enough to be handled by the authorized committee. The doctors also told that all this could be prevented if there were good security measures and efficient reporting systems to handle such incidences.

**Conclusion & Recommendation**

The study concludes that physical violence and verbal abuse are high in the institute but procedures of reporting such violence and protocol to be followed after that are not known to doctors posted in emergency department. Procedure for reporting any violence against medicos needs to be improved at every level. Violence is more among males doctors as compared to female doctors posted in same department, it indicates that we need to initiate some counseling groups before the doctors are posted in emergency department. Moreover, this group should come into play whenever there is violence in emergency department.

**Authors Contribution**

All authors have contributed equally in this article.

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**Tables**

**TABLE 1 CHARACTERISTICS OF THE STUDY SUBJECTS (N= 215)**

Sr. No.	Age (Years)	Frequency	Percentage
1.	Less than 25	39	18.1
	25-35	166	77.2
	More than 35	10	4.7
2.	<b>Gender</b>		
	Female	97	45.1
	Male	118	54.9
3.	<b>Department</b>		
	Medicine	55	25.6
	Surgery	60	27.9
	Pediatrics	25	11.6
	Orthopedics	36	16.7
	Gyanecology	39	18.2
4.	<b>Designation</b>		
	Junior Resident	187	87.0
	Senior Resident	28	13.0
5.	<b>Marital status</b>		

	Single	136	63.3
	Married	76	35.3
	Living with partner	1	0.5
	Separated/divorced	2	0.9

**TABLE 2 FACTORS INFLUENCING THE PREVALENCE OF PHYSICAL OR VERBAL VIOLENCE IN LAST 12 MONTHS.**

Sr. No.	Parameter	Physical Violence			Verbal Violence		
		N	Total	Chi square, p value, df	n	Total	Chi square, p value, df
	<b>Age</b>			$\chi^2=22.50, df=10, p=0.013$			$\chi^2=39.73, df=10, P < 0.01$
1.	Less than 25	7	17.1 (41)		14	11.8(119)	
	25-35	30	73.2 (41)		102	85.7(119)	
	More than 35	4	9.8(41)		3	2.5(119)	
2.	<b>Gender</b>			$\chi^2=26.57, df=1, P <0.01$			$\chi^2=2.2, df=2, P=0.331$
	Female	4	9.8(41)		51	42.9(119)	
	Male	37	90.2(41)		68	57.1(119)	
3.	<b>Department</b>			$\chi^2=57.18, df=8, P<0.01$			$\chi^2= 27.72, df=8, P < 0.01$
	Medicine	5	12.2(41)		34	28.5(119)	
	Surgery	14	34.1(41)		30	25.2(119)	
	Pediatrics	3	6.8(41)		13	10.9(119)	
	Orthopedics	19	46.3(41)		19	16.0(119)	
	Gyanecology	0	0.0		23	19.2(119)	
4.	<b>Designation</b>			$\chi^2=20.60, df=2, P <0.01$			$\chi^2= 4.16, df=2, P =0.124$
	Junior Resident	35	85.4(41)		112	85.7(119)	
	Senior Resident	6	14.6(41)		7	14.3(119)	
5.	<b>Place of violence</b>			$\chi^2=191.38, df=1, P<0.01$			$\chi^2= 5.85, df=2, P<0.01$
	Inside health institution	38	92.7(41)		113	95.0(119)	
	Outside (on way to work/home)	3	92.7(41)		6	5.0(119)	

**TABLE 3 PHYSICAL AND PSYCHOLOGICAL EFFECTS OF VIOLENCE ON DOCTORS**

PARAMETER	Physical Violence N=215	%	Verbal Violence N= 215	%
<b>PHYSICAL EFFECTS</b>				
No. of doctors injured consequent to event	13	6.04	0	0
No. of injured doctors that required formal treatment	2	0.93	0	0
<b>PSYCHOLOGICAL EFFECTS</b>				
<b>Repeated disturbing memories, thoughts or images of the event</b>				
No or little bit	30	13.95	113	94.9
Yes	11	5.11	6	5.1
<b>Trying to avoid thinking, talking or having feelings related to the event</b>				
No or little bit	29	13.48	0	0
Yes	12	5.58	0	0
<b>Being super alert all the time</b>				
No or little bit	24	11.16	111	93.2
Yes	17	7.90	8	6.8
<b>Feeling of everything being done on effort</b>				
No or little bit	26	12.09	112	94.1
Yes	15	6.97	7	5.9
<b>No. of victim doctors who took time off from work</b>	16	7.44	0	0