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Work place violence among health-care providers working in a tertiary care hospital: A study from Central India

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ABSTRACT

Background: Health-care providers are prone to either physical, verbal, or both type of violence either by patients or their relatives with majority studies conducted in developed countries with paucity in developing countries like India. **Aims and Objectives:** This study was conducted to estimate the prevalence of different types of work-place violence and to assess the various factors associated with it among the health-care providers. **Materials and Methods:** It was a cross-sectional study conducted among total of 253 health-care providers, consisting of both Senior and Junior Residents and Nursing staffs for a period of 6 months. Data were collected, and then entered in MS-Excel with both descriptive and statistical analysis done using IBM-SPSS v23.0. **Results:** It was observed that 89.72% of the health-care providers experienced violence, where 66.01% of them experienced verbal type, while 23.71% of them experienced both, that is, verbal and physical. It was noted that majority of the health-care providers experienced verbal form of violence due to excessive crowd of attendant, that is, 123 (73.65%). Other factors such as not attending patient for a long time and lacunae of empathy towards patient/attendant have strong association with significant result for violence toward health-care providers, adjusted odds ratio (aOR) =4.69 (2.06–10.66), P=0.001 and aOR=4.52 (1.23–16.65), P=0.014, respectively. **Conclusion:** This study of workplace violence among health-care providers revealed that majority, that is, nursing staffs experienced verbal violence because they deal with patients and their attenders for maximum time in a day during their duty hours and also due to less experience.

Key words: Workplace violence; Physical violence; Verbal violence; Health-care providers; Tertiary care hospital

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INTRODUCTION

Globally workplace violence (WPV) is highly prevalent among health-care providers in all type of health-care facilities with maximum in tertiary care. As per reports of World Health Organization (WHO), whenever patients' relatives emotionally develop false assumptions, dissatisfaction regarding ongoing treatment and sometimes death they trigger into violence.[1] In this process, the Senior and Junior Residents and Nursing staffs become vulnerable to physical, verbal, and sometimes both the type of violence. WPV is defined as incident where staffs are abused, threatened, or assaulted in circumstances related to work which includes commuting to and from work, involving a direct or circular challenge to their safety, well-being, or health.[2]

As per the WHO, 8–38% of the health-care providers overall experienced physical violence during their entire career of work.[3] As per recent research, the rate of various forms of WPV such as verbal, bullying or mobbing, physical, sexual and in terms of ethical grounds were found to be around 47.7%, 10.8%, 10.5%, 1.9%, and 0.7%, respectively. Unfortunately, 70–80% of these incidents among health-care providers remain unreported.[4] In the developing countries like India, the consequences of this

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process lead to downfall of the health-care system and efficiency of work among the health-care personnel.[5] As per recent study conducted at two Emergency departments in geographically distinct regions of India in the year 2021, the prevalence of verbal abuse and physical abuse were observed to be 68% and 26% respectively. This burden makes a serious concern regarding safety in workplace especially at emergency department during odd hours of the day. Nowadays, majority of the younger and less experienced health-care providers are vulnerable for these incidents.[6,7]

The rising incidence of violence in the workplace against the health-care providers is a matter of concern. Addressing WPV among health-care providers is imperative to safeguard the well-being of both health-care providers and the patients served. By understanding its prevalence, contributing factors, and potential solutions, stakeholders can develop comprehensive strategies to prevent such type of incidences. Henceforth, this study was conducted to estimate the prevalence, different types of violence experienced by the healthcare providers and various factors associated with violence among the health-care providers of Tertiary care Hospital, Jabalpur.

Aims and objectives

1. To estimate the prevalence of different types of workplace violence experienced by the healthcare providers.
2. To find out the various factors associated with workplace violence among the healthcare providers.

MATERIALS AND METHODS

This was a descriptive cross-sectional study conducted in a tertiary care hospital, Jabalpur, for a period of 6 months (March to August, 2023). This study was conducted among Senior Residents, Junior Residents, and Nursing staffs. In this study, out of total 963 registered healthcare providers in the hospital, 253 participated in the study.

Data collection for the study was done using pre-designed, pre-tested, and self- administered questionnaire by face-to-face interview technique after taking informed consent from the participants and explaining to them well about the purpose of the study and were also informed that data confidentiality will-be maintained and will be used only for research purpose. The informed consent was in both English and local language, that is, Hindi and it was taken as per convenience. Before the data collection procedure, a pilot study was conducted among 30 participants for validation of questionnaire and to make necessary changes if required. The questionnaire consisted of information such as sociodemographic profile of the health-care providers, work-experience, information regarding the violence experienced by them and the factors associated with it.

Inclusion criteria

Health-care providers of work experience more than 1 year were included in the study.

Exclusion criteria

The health-care providers with work experience <1 year, unwillingness to participate, those on extended leave, unavailability during the time of interview, and those provided incomplete information were excluded from the study.

Ethics approval

The study protocol was approved by the institutional ethical committee (IEC) from the author's institution (No. IEC/2022/8883, Jabalpur dated on September 12, 2022).

Statistical analysis

Data entered in MS-excel, descriptive, and inferential statistical analysis was done using IBM-SPSS Version 23.0 (IBM Corp. Released 2015. IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY: IBM Corp.). Results were interpreted by means of frequencies, percentages, and adjusted odds ratio (aOR), at 95% confidence interval (CI) where aOR ≥1, association present. Chi-square test was applied for test of significance and interpreted by P-values (significant at P<0.05).

RESULTS

In this study, among total of 253 health-care providers mean age of participants was found out to be 31.12±4.68

Table 1: Sociodemographic and job profile of the health-care providers (n=253)

S. No.	Variable	Frequency (n)	Percentage
1	Age-group (in years)		
	<30	148	58.5
	>30	105	41.5
2	Gender		
	Female	157	62.06
	Male	96	37.94
3	Education		
	Intermediate/ diploma	32	12.65
	Graduation	17	6.72
	Postgraduation	204	80.63
4	Designation		
	Junior residents	128	50.59
	Nursing staffs	105	41.50
	Senior Residents	20	7.91
5	Work experience (in years)		
	1–5	177	69.96
	6–10	48	18.97
	11–16	28	11.07

(M±SD). As per Table 1, it was noted that majority of them belonged to age group of <30 years with female predominance. It was observed that maximum of them were educated till postgraduation with majority Junior Residents and least as Graduation. It was noted that majority had work-experience of 1–5 years with least 11–16 years.

It was noted that as per Figure 1, 227 (89.72%) of the health-care providers experienced violence, among them majority, that is, 167 (66.01 %) experienced verbal type.

In this study, it was noted that the health-care providers those experienced violence, 48 (18.9%) were posted in medicine department, 38 (15%) in pediatrics, 36 (14.2%) in obstetrics and gynecology, 30 (11.8%) in surgery, 25 (9.8%) in casualty, 18 (7.1%) in orthopedics, 10 (3.9%) in ear, nose throat, 8 (3.1%) both in anesthesia and pulmonary medicine, 4 (1.9%) in psychiatry and 2 (0.8%) in ophthalmology, the result is found out to be highly significant, at P=0.001.

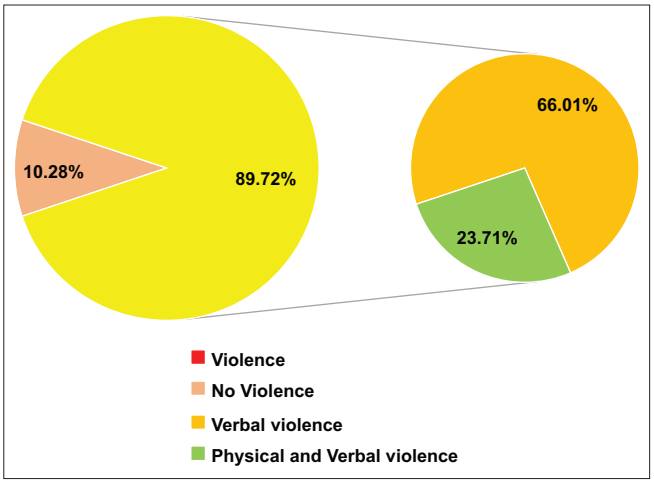

Figure 1: Percentage of violence with different types experienced by the healthcare providers (n=253)

As per Table 2, all the age-group of the health-care providers maximally experienced verbal violence with majority among age group of <30 years, the result was found to be significant. It was found that maximally verbal violence was experienced among female health-care providers while among males, verbal and both form of violence was experienced in equal percentage, the result was found out to be highly significant. It was noted that nursing staffs maximally experienced verbal violence while both senior residents and nursing staffs have experienced both form of violence in least percentage, the result was found out to be highly significant. It was noted that majority of the participants with work experience of 1–5 years, experienced verbal form of violence maximally while those working for 11–16 years experienced both form of violence in least percentage, the result is found to be highly significant.

In this study, majority of the violence occurred during evening shifts (52.5%) followed by night (29.4%), while least in morning (7.9%). Most of the participants experienced violence in ward 36.4%, followed by casualty 18%, in intensive care unit (ICU) 13% while 11.4% in outpatient department (OPD) premises.

In this study as per Table 3, it was noted that majority of the health-care providers experienced verbal form of violence due to excessive crowd of attendant, that is, 123 (73.65%), with no association and insignificant result. It was noted that majority of them experienced both, that is, physical and verbal form of violence due to under the influence of substance abuse from attendant, that is, 44 (73.33%), with strong association and significant result, aOR=2.24 (1.17–4.28) and P=0.013. The factors such as not attending patient for a long time and lacunae of empathy towards patient/attendant have strong association with significant result for violence toward health-care

Table 2: Distribution of sociodemographic and workplace-related variables (n=253)

S. No	Variables	Physical and verbal n (%) (n=60) (%)	Verbal n (%) (n=167) (%)	No violence n (%) (n=26) (%)	P-value
1	Age-group (in years)				
	<30	30 (11.8)	96 (37.9)	22 (8.6)	0.01*
	>30	30 (11.8)	71 (28.06)	4 (1.5)	
2	Gender				
	Male	44 (17.4)	44 (17.4)	8 (3.2)	0.001*
	Female	16 (6.3)	123 (48.6)	18 (7.1)	
3	Designation				
	Junior Residents	48 (18.9)	62 (24.5)	18 (7.1)	0.001*
	Senior Residents	6 (2.3)	14 (5.5)	0 (0.00)	
	Nursing staff	6 (2.3)	91 (36)	8 (3.1)	
4	Work experience (in years)				
	1–5	40 (15.8)	113 (44.6)	24 (9.4)	0.001*
	6–10	14 (5.5)	32 (12.6)	2 (0.7)	
	11–16	6 (2.3)	22 (8.6)	0 (0.00)	

*P-value is significant at P<0.05

Table 3: The various factors associated with type of WPV among the health-care providers (n=227)[#]

S. No	Factors for violence	Physical and verbal n (%) (n=60) (%)	Verbal n (%) (n=167) (%)	Chi-square Value	aOR (adjusted odds ratio) at 95% confidence interval	P-value
1.	Unexpected death of the patient					
	Yes	20 (33.33)	75 (44.91)	2.43	0.61 (0.33–1.13)	0.119
	No	40 (66.67)	92 (55.09)			
2.	Complication of the patient					
	Yes	18 (30)	81 (48.50)	6.15	0.45 (0.24–0.85)	**0.013****
	No	42 (70)	86 (51.50)			
3.	Not explaining critical condition of the patient to attenders		10 (5.99)			
	Yes	2 (3.33)	157 (94.01)	0.62	0.54 (0.11–2.54)	0.43
	No	58 (96.67)				
4.	Not explaining extended stay at the hospital to attenders					
	Yes	16 (26.67)	36 (21.56)	0.65	**1.32 (0.67–2.61)***	0.42
	No	44 (73.33)	131 (78.44)			
5.	Not attending patient for a long time.					
	Yes	16 (26.67)	12 (7.19)	15.5	**4.69 (2.06–10.66)***	**0.001****
	No	44 (73.33)	155 (92.81)			
6.	Lacunae of empathy towards patient/ attendant.					
	Yes	6 (10)	4 (2.40)	6.06	**4.52 (1.23–16.65)***	**0.014****
	No	54 (90)	163 (97.60)			
7.	Political pressure associated with the patient/ attendant.					
	Yes	26 (29.21)	63 (37.72)	0.58	**1.26 (0.69–2.29)***	0.445
	No	34 (56.67)	104 (62.28)			
8.	Under influence of any substance abuse from attendant.					
	Yes	44 (73.33)	92 (55.09)	6.11	**2.24 (1.17–4.28)***	**0.013****
	No	16 (26.67)	75 (44.91)			
9.	Excessive attendant crowd					
	Yes	40 (66.67)	123 (73.65)	1.06	0.71 (0.37–1.35)	0.302
	No	20 (33.33)	44 (26.35)			
10.	Absence of proper security at hospital premises.					0.938
	Yes	42 (70)	116 (69.46)	0.006	**1.02 (0.54–1.95)***	
	No	18 (30)	51 (30.54)			
11.	Absence of senior consultant					
	Yes	38 (63.33)	80 (47.90)	4.21	**1.87 (1.02–3.44)***	**0.04****
	No	22 (36.67)	87 (52.10)			
12.	Unavailability of bed in IPD	28 (46.67)	87 (52.10)	0.52	0.80 (0.45–1.45)	0.47
	Yes	32 (53.33)	80 (47.90)			
	No					
13.	Unhygienic condition of bed sheet/hospital premises					
	Yes	10 (16.67)	38 (22.75)	0.98	0.68 (0.31–1.46)	0.322
	No	50 (83.33)	129 (77.25)			
14.	Critical condition/death among certain age group of patients[##]					
	Yes	16 (26.67)	56 (33.53)	0.96	0.72 (0.37–1.39)	0.327
	No	44 (73.33)	111 (66.47)			

[#]Multiple responses were given by the participants, [##]Age - group of patients denote infant age group, pediatric age-group, adolescent age-group, reproductive-age group, and geriatric age-group, *Strong association of odds ratio, **P-value is found to be significant (P<0.05), WPV: Workplace violence

providers, aOR=4.69 (2.06–10.66) with P=0.001 and aOR=4.52 (1.23–16.65) with P=0.014, respectively.

DISCUSSION

This study conducted in a tertiary care hospital among nursing staffs and residents, it was observed that 89.7% of the health-care providers experienced workplace violence. The prevalence of the present study was observed to be much more than that of study done by Anand et al., conducted in Delhi, where 40.8% of the health-care providers experienced at least one form of violence during their residency period. The reason may be due to different factors involved in WPV and difference in the location of

city between the two studies.[8] However, the findings of our study are quite similar with the study conducted by Davey et al., in India where 81.4% of healthcare providers experienced at least one form of violence.[9] In this study, verbal abuse was the most common type of violence experienced by the healthcare providers which is similar to the other studies conducted in other places of India.

In our study, 17.4% were of male health-care providers and 6.3% of the females encountered physical violence, which is similar to studies done by Kitaneh and Hamdam in Palestine and Hasan et al., where male health-care providers experienced more physical violence while females experienced more of verbal type.[10,11] Dissimilar results were observed by Anand et al., and Tawiah et al., where female health-care providers experienced more violence, that is, 51%, 82.21%; than that of males, that is, 45% and 17.79%, respectively.[8,12] In our study, it was observed that health-care providers with work experience of 1–5 years experienced more WPV than that of those with experience of 11–16 years, which may be due to relatively less experience in clinical acumen, communication skill, pressure handling, conflict management and also relatively lower trust upon them from the patient attenders. Similar results were noted in studies done by Xiao et al., Wang et al., and Tawiah et al.[12-14]

In this study, it was observed that majority of the healthcare providers experienced violence from medicine department (18.9%), pediatrics (15%), obstetrics and gynecology (14.2%), and then from surgery (11.8%). This may be due to the fact that majority of the patient load and referral from peripheral health-care facilities come to medicine, obstetrics and gynecology department rather than other departments due to which these departments are overcrowded leading to violence and also the vulnerability of the patients provoking such incidents. Dissimilar results were noted in study done by Xiao et al., where majority of health-care providers experienced violence working in medicine department (26.6%), followed by surgery (20.7%) and then in emergency department (11.8%).[13] Another study done by Arimatsu et al., showed that psychiatrists, emergency physicians and anesthesiologists followed by surgeons were often victims of violence.[15]

In the present study, majority of violence occurred during evening shifts (52.5%) followed by night (29.4%). This may be because during evening and night time; there are relatively small number of senior residents and consultants so managing of serious and critical patients in an over-crowded area sometimes become difficult leading to conflicts ultimately erupting into violence. Similar results were observed in studies done by Alenezi and Magnavita and Heponiemi, while dissimilar result was noted in study done by Hasan et al., in Bangladesh, where majority of the violence occurred during morning hours (59.6%).[11,16,17]

It was noted that majority of the health-care providers experienced verbal form of violence due to excessive crowd due to attendant, that is, 123 (73.65%). It was noted that majority of them experienced both, that is, physical and verbal form of violence under the influence of substance abuse from attendant, that is, 44 (73.33%), with strong association and significant result. The other factors responsible for violence such as not attending patient for a long time and lacunae of empathy towards patient/attendant have strong association with significant result. The reason behind these findings may be due to multiple factors, such as study setting being a tertiary care setup, often there are large patient load and sometimes serious/critical ones leading to lack of patience and frustration, long duty hours among the resident doctors and nursing staffs leading to lacunae of proper rest among health-care providers. These factors lead to grudge among attenders against the health-care providers. However, dissimilar results were noted in studies done by Iluz et al., in Israel, Koukia et al., in Greece and Anand et al., where the most common cause of violence were due to long waiting time among patients, that is, 46.2%, 86.4%, and 73.5%; dissatisfaction with treatment and health-care providers, that is, 15.4%, 41%, and 45.6%; and disagreement with health-care providers, that is, 10.3% and 41%, respectively.[8,18,19]

This study conducted in Government Tertiary care government hospital where all type of patients ranging from minor to critical illness patients visiting with their family members leading to overcrowded condition in hospital premises. Moreover, this study was of short duration and this study was conducted only in one tertiary care hospital, while study from the other health sectors and other hospitals were missing. Therefore, the study findings could not be generalized, whereas a study done by Hong et al., was conducted among Nursing staffs of two countries such as South Korea and China.[20] In the present study, the psychological impact or mental health impact on health-care providers post-WPV were not evaluated in the study, whereas mental effect on health-care providers such as level of stress, anxiety, depression, and post-traumatic stress disorder post-WPV were evaluated in the studies by Tawiah et al., and Zhong et al.[12,21]

Limitations of the study

The results of the present study was based only upon a single tertiary care government teaching hospital. The findings of the other health sectors and hospitals' are missing. Therefore, the study findings could not be generalized. In this study the impact upon mental health such as level of stress, anxiety, depression and post-

traumatic stress disorder post Workplace violence among the healthcare providers were not evaluated.

CONCLUSION

This study of WPV among health-care providers revealed that majority of junior residents and nursing staffs experienced verbal type of violence because they deal with patients and their attenders for maximum time in a day during their duty hours, less experience in management of patients and their attenders and communication-gap to some extent due to contributing factors such as not attending patient for a long time, lacunae of empathy toward patient/attendant from their side, under the influence of substance abuse from the attenders' side, absence of security personnel at hospital premises, and absence of any senior consultant during the incident.

RECOMMENDATIONS

The health-care providers should get protection against any type of violence. There should be provision of CCTV surveillance in every corner of the hospital with more recruitment of security personnel in different wards, ICUs and at OPDs to deal with incidents of violence. The patients' attenders under the influence of any substance abuse should be prohibited from the hospital premises. There should be stringent measures of not involving any political body in hospital premises and involvement of them during services by health-care providers. There must be CMEs, training regarding doctor-patient, and nurse patient relationship among medical and nursing students. There must be hospital staffs available in every department for counseling and communication procedure regarding patient treatment, diagnosis, prognosis, and breaking bad news to the attenders with collaboration with health-care providers.

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AS- Definition of intellectual content, prepared first draft of manuscript, and implementation of study protocol; **SP-** Editing and manuscript revision; **AsM-** Design of study, statistical analysis, and interpretation; **AsM-** Concept, design, manuscript preparation, literature survey and preparation of figures, data collection, and data analysis; **ArM-** Coordination, manuscript revision, and submission of article.

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