Turkish Journal of Health Science and Life

Factors Associated with Reasons, Characteristics and Frequency of Workplace Violence Towards Emergency Department Staff

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ARTICLE INFO

RESEARCH ARTICLE

Article history:

Received: 7 April 2023

Accepted: 20 November 2023

Available : 31 December 2023

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Turkish Journal of Health Science and Life

2023, Vol.6, No.3, 161-167.

DOI: https://doi.org/10.56150/tjhsl.1279296

ABSTRACT

Introduction: As in almost all medical institutions providing health care service, violence is also one of the serious and vital challenges in emergency deparments (EDs). Researches and reports show that prevalence of violence in EDs is increasing day by day. The aim of this study is to determine reasons, frequency and types of violence applied by patients and their relatives against healthcare professionals and to discuss the possible measures that may be taken.

Material and Method: The health professionals working in EDs of our hospitalwere asked for filling out surveys voluntarily by talking face to face. Chi-square test was used so as to compare the categorical variables between two groups. Results were presented as mean ±SS or frequency (percent). In 95 %percent confidence interval, $p < 0.05$ was accepted as significant.

Results: A total of343 volunteers participated in our study; % 44.3 of them were female (n=152) and %55.7 of them were male (n=191). Mean age was 30.30 ± 7.67 years. Most of the participants were nurses and midwives (n=91, % 26.5). It was realized that %77.6 of staff have been at least one time exposed to violence during their working hours, mostly male patients resorted to the violence (% 83.8) and predominantly they were average of 30-41 age (% 76.7). The most common type of violence was emotional/ verbal violence (%84.2). When the violence has been examined according to days and hours, they were mostly exposed to violence every week day (% 26.7); between the hours of 18:00 and 24.00 (% 71.4). Suggestions of the participants to reduce workplace violence in the ED were constitution of heavy punishments, increasing the number of security personnel and making legal arrangements, respectively.

Conclusion: Besides being a deep trouble worsening day by day all over the world, the violence in emergency services has also been turning out anunignorable problem in our EDs. Efficient studies that may be useful and embrace permanent solutions should be carried out so as to prevent violence exposed by health professionals having to work under heavy conditions and to care for a great number of patients.

Keywords:

Emergency Department, violence, workers

1. INTRODUCTION

Workplace violence (WPV) is defined as "Incidents in which an employee is abused, sexually harassed orassaulted in circumstances related to their work, involving an explicitor implicit challenge to their safety, well-being or health" (1,2). The frequency and severity of violence tend toincrease over time and it effects nurses, physicians and other staff both physically and emotionally. Emergency departments (EDs) are places where the highest rateof violence in the hospitals are reported (2). WPV is not only a challenge to the ED staff, since it may effect other patients by disturbing thedepartmental workflow and impacting patient safety. Potential personal outcomes of WPV are known to be stress, increased rates of missed workdays, burnout, job dissatisfaction, high consumption of alcohol or drugs, relationship breakdown, and post-traumatic stress disorder (3).Overcrowding in EDs due to prolonged length of stay (LOS) in the ED, inadequate healthcare personnel appointment, delayedresponse to ED consultations, repeated and/or inappropriate ED visits, and hospital-specifc factors may also create a perception of unconcernedness in patients and accompanies, and

thus, contribute to undesired conditions resulting in WPV (4).In this study, our aim was to clarify frequency, characteristics andreasons of WPVby obtaining surveys from ED staff.

Materials and Methods

After ethical approval from Local Ethics Comitee and authorization from Kayseri Health Administration, we applied a survey to ED staff in Kayseri Education and Research Hospital, Erciyes University Hospital and 10 private hospitals between December 26th 2015 andMarch 25th 2016. A total of 343 subjects were involved in this survey-dependent, sectional study, voluntarily. A survey of 26 questions was conducted in order to investigate socio-demographic features of the participants, characteristics of the violence exposed and behavioural features of the personnel. Academicians, specialists, practitioners, residents, nurses, midvives, paramedics, health officers, radiology and laboratory technicians, medical secretaries and other personnel were involved into the study.

The survey was applied face to face on a voluntary basis in working hours in order to maintain data security. The participants were ensured that their IDs would be hidden and the results of the study would only be used for scientific purposes.

For statistical analyses, Statistical Package for the Social Sciences© (SPSS) 21 programme was used. Chi -square was used in descriptive analyses (frequency, percentage, distribution) and comparison of cathegorical variables between two groups. Data were given as numbers and percentages and $p < 0,05$ was considered statistically significant in confidental interval of 95%.

Results

Of 343 participants, 55.7% were male and 44.3% were female. Mean age was 30.30 ± 7.67 years ranging from 18 to 55. When marital status of the participants were investigated, it was determined that 52.8% were married, 45.2% were single and 2% were divorced. Of 343 volunteers, 19.5% were working for 1-11 months, 45.8% were working for 12-60 months, 25.1% were working for 61-120 months and 9.6% were working for 121-266 months in the ED. Nurses and midvives was the largest group in the study (n=91, 26.5%) followed by paramedics (n=48, 14.0%) and medical secretaries (n=23, 6.7%). When working hours per week was investigated, 84.6% were working for 33-55 hours a week. Additionally, 76.7%(n=263) of the participants were on shift work. The most frequent answer given to the question "Which day of the week is the busiest day?" was "Everyday"(27.1%, n=93), followed by "Monday" (20.7%, n=71).

The most frequent period of a work day was between 18:00 and 24:00 (64.7% , n=222). The most unfrequent period of the work day was between 24:00 and 06:00 (2.6%, n=9).

In 24 hours 26.8% (n=92) of the participants serves to less than 100 patients, 48.7% (n=167) serves between 101 and 500 patients, 6.4% (n=22) serves between 1001 and 1500 patients. The ratio of those who serve more than 1501 patients was 6.1% (n=21).

When WPV frequency was investigated, it was determined that 77.6% (n=266) was exposed to WPV at least once in their business life. On the other side, 22.4% (n=77) stated that they have never been exposed to WPV. Characteristics of the participants are summarized in Table 1.

Of the perpetrators, 83.3% (n=223) were male and 7.9% (n=21) were female. In 8.3% (n=22), perpetrators were both male and female. Age interval of the perpetrators was 30-41 years in 76.7% and 54-65 years in 1.9%. In majority of the cases, the source of the violence was the relatives of the patients (91.7%, n=244), followed by patients (0.8%, n=2).

Verbal/emotional attacks were the most common type of violence (84.2%, n=224), followed by a combination of verbal/emotional and physical attacks (10.9%, n=29) and a combination of verbal/ emotional, physical and economical attacks (1.7%, n=6). While isolated physical attacks consisted a proportion of 1.5% (n=4), sexual attacks were observed in 0.8% (n=2) of the cases.

Frequency of violence in a lifetime was between 1 and 100 in 90.2% (n=240), 101 and 500 in 5.3% (n=14) and more than 501 in 4.5% (n=12).

The staff was exposed to violence more frequently in Thursdays when compared to other days of the

Table 1: Basic characteristics of the participants

Gender	n	%
Males	191	55.7
Females	152	44.3
Years		
18-26	125	36.4
27-36	145	43.2
36-46	63	18.4
47-55	10	2.9
Marital Status		
Married	181	52.8
Single	155	45.2
Others *	7	2.0
*:widow,divorced,live apart		
Duration of working in emergency service		
1-11 months	67	19.5
12-60 months	157	45.8
61-120 months	86	25.1
121-266 months	33	9.6
Mission on emergency service		
Lecturer	3	0.9
Specialist doctor	7	2.0
Student of specialist	12	3.5
General practitioner	24	7.0
Nurse,midwife	91	26.5
Emergency medical technician,paramedic	48	14.0
Health officer	18	5.2
Radiology technician	38	11.1
Laboratory technician	32	9.3
Medical secretary	47	13.7
Others*	23	6.7
*:security personal,hostess,counseling staff		
Weekly working hours		
10-32 hours	7	2.0
33-55 hours	290	84.6
56-78 hours	31	9.0
79-96 hours	15	4.4
Working style		
Full day	80	23.3
Only at nights	17	5.0
Only at mornings	43	12.5
Daytime rotation	203	59.2
Average number of patients per day		
0-100	92	26.8
101-500	167	48.7
501-1000	41	12.0
1001-1500	22	6.4
1500 and over	21	6.1

week. The majority of the violent attacks occured between 18:00-24:00 hours (71.4%, n=190).

According to staff, reasons for violence were more than one. Isolated reasons were lack of education (2.3%), prolonged waiting times (1.9 %), unstisfaction (0.4%), alcohol/drug abuse (0.4%), etc.

Methods to deal with violence were variable and the most common methods were determined to be passive methods such as leaving the scene (63.9%), and ignorance (44%). The rate of active methods such as white code call (23.3%), call for police (20.7%) and call for help from administrators (12.4%) were lower.

It was also determined that the staff did not make a complaint about the violent acts in 75.6% (n=201) of the cases. In 27.7% of the cases, the perpetrators got punishment.

When measures to take against violence were asked to the staff, 76.7% (n=263) reported that legal arrangements had to be done. Of the staff, 62.1% (n=213) indicated that there was a need for improvements in health care system politics.

When some characteristics of the health care providers were invistigated, it was determined that exposure to violence was associated with marital status and working years in the ED.

When staff was categorized according to social status, it was determined that 66.7% of the educational staff, 100% of the specialists, 100% of the residents, 91.7% of the practitioners, 81.3% of the nurses and midwives, 79.2% of the technicians and paramedics, 65.8% of the radiology technicians, 72.3% of the medical secretaries and 73.9% of the other staff faced violence at least once.

When frequency of violence exposure was investigated in respect to gender, it was determined male personnel was more likely to expose to all violence types, instead of sexual attacks.

In busy hours (between 18:00 and 24:00) more violent acts occured. Characteristics of perpetrators and violent acts are summarized in Table 2.

It was also determined that punishment rates were higher in violent acts against doctors when compared to other staff.

Discussion

Professionals in healthcare system are 16 times more likely to experience WPV (5). The most common departments WPV occur are known to be emergency, geriatric, psychiatry departments and intensive care units (6). In our study, of the 343 personnel, rate of WPV experience was 77.6%. In a

Table 2: Characteristics of perpetraors and violent acts

	n	**%**
Gender of perpetrators		
Men	223	83.8
Women	22	7.9
Men and women	21	8.3
Age interval of perpetraors		
18-29	32	12.0
30-41	204	76.7
42-53	25	9.4
54-65	5	1.9
Number of violent acts in a lifetime		
1-100	240	90.2
101-500	14	5.3
501 and over	12	4.5
Period of time		
06.00-12.00	30	11.3
12.00-18.00	37	13.9
18.00-24.00	190	71.4
24.00-06.00	9	3.4
Reasons for violence		**n**
Long waiting time		162
Dislike treatment examination		96
Effect of drug,alchol or medicine		113
Inadequacy of education		170
Inadequacy of staff		102
Inadequacy of medicine,tools or place		29
Unmet requests		173
Unexpected news about the patient		42
News about the violence		92
Others*		31
*:the egos of the relatives of the patient,small vision of the health staff		

study by Çamcı et al., it was reported that the rate of exposure to WPV in healthcare professionals was 72.6% (7). Reasons for high rate of WPV in EDs may be related to overcrowding and stressfull work environment (2,4).

Our study revealed that staff working for 1-5 years in the ED were more likely to expose to WPV. In a study, accordingly, it was reported that the first 5 years of work-life was more risky in respect to WPV (8). It is well-known that as the staff gets experienced, the rate of WPV decreases. Since experienced nurses are assigned to wards in which relatively stable patients are followed-up and have less contact with risky patients, the rate of WPV may decrease (9-14). Additionally, this result may be related to the fact that experienced professionals can recognize people with the potential of violence and take measures before unwanted events occur. This problem can be solved by educating the staff about human relationship and communication in the beginning of profession.

When types of professions were investigated, our study revealed that residents, practitioners and nurses were more likely to face WPV. Similar results may be obtained when the literature is reviewed. In a study; practitioners, nurses and educational staff were the most common professions that were exposed to WPV (15). In another study, it was reported that nurses faced WPV with a rate of 82.1% (7). Alçelik et al. also reported that nurses experience WPV 3-fold more when compared to other staff (16). The characteristics of WPV towards professions may vary according to socio-economical and cultural ststus of the geographical location.

In our study, the most common type of violence was determined to be verbal/emotional followed by a combination of verbal/emotional and physical. In a study, similarly, the most common type of WPV was reported to be verbal assault with a rate of 73% (17). Boz et al. determined in their study that 88.6% of the ED staff were exposed to verbal violence and 49.4 were exposed to physical assault (18). In another study rate of exposure to verbal or physical assault was found to be 58.7% (19). Winstanley et al., in a study involving 375 EDs, reported that 68% of the staff were exposed to verbal assaults at least (20). The reason for high rate of verbal assault may be linked to its easy-to-do nature and perception of the staff that it is a part of their jobs.The rate of sexual assaults seems to be low, however, due to cultural and religious reasons, it is possible that the participants could not have been expressed the sexual assaults against them.

In our study, unsuprisingly, WPV commonly occur in the busiest work hours (18:00-24:00) of the day. Accordingly, Brookes et al. reported that WPV was observed more in this period. In a study by Crilliy et al., this period was reported to be 15:00-23:00 (21). In this time period, after work, people prefer to visit EDs in the search for health care. As the number of patients increase, workload in the ED increases and thus waiting time increases. This vicious circle may result in dissatisfaction and WPV. Increasing the number of personnel in this period and apllying a functional triage system may solve the overcrowding problem.

Another important finding of our study was that majority of the perpetrators were relatives of the patients. In the literature, there are various studies that report patients as the leading cause of violence (22,23,24,25). There are also studies in corcordance with our results. This discrepancy may be related to strict politics of other facilities that keep patients' relatives away from examination areas. Stressful moods and enhanced expectations of the patients' relatives may be the reason for their tendency to violence. Also, a sense of responsibility to the patient may lead these people to aggressive behaviours. Additionally, majority of the perpetrators were male in our study. Similar findings have been reported previously(20,26,27). Physical characteristics and tendency of males may be reason for this finding.

Studies suggest that drug and alcohol abusemay result in self-harm and violent acts in ED (21, 24,28). In a study by Boz et al., it was reported that the most common causes of violence were determined to be drug/alcohol abuse and long waiting times (18). Even

though our study revealed that reason for WPV is multi-factorial, the most common cause was found to be unanswered demands of the patients. In places where alcohol and drug abuse is common, the prevalance of violence related to these substances rises. Isolated rooms in EDs for such patients may prevent WPV.

Other causes for WPV were lack of number of personnel and long waiting times.It was reported that working alone in late hours of shift was the most common cause WPV towards nurses (14,29). The number of personnel, particularly in busy hours may be increased. Additionally, in a study with 177 health care workers, long waiting times was the leading cause of WPV (30). It is suggested to inform patients about the treatment planning and reduce time of waiting times (31). Emergency Departments in our country are more overcrowded when compared to other countries. So, waiting time is longer which is a significant cause for WPV. Appropriate triage application may reduce waiting times and hence reduce WPV in EDs.

Our study revealed that majority of the staff, particularly females, did not report WPV to authorities. Similarly, Aydın et al. reproted that 60 % of the staff have not reported violent events. It was also revealed that reason for underreporting was mistrust to administrators (32). In another study by Günaydın et al, this proprtion was found to be 96.6%. However, as a developed country in Canada, 67% of the employees have reported WPV (22). Higher rates of underreporting in our country is related to non-deterrent punishments, prolonged judicial processes, male-dominated society structure and a perception of staff as if WPV is a part of their job. Perpetrators must get required punishments and punishments must be publicized to reduce WPV.

The most common method to deal with the violence in our study was leaving the scene. In a study, it was reported that the reaction of staff against WPV may vary from screaming to physical response. WPV affects physical, psychological and social well-being of staff. Stress, anxiety, withdrawal from social life and insomnia may be observed (33,34). The staff experienced WPV must get psychological support and use permission for a certain period.

Measures that can be taken against WPV are increasing number of security personnel, camera system installation, taking entrance and exit areas under control and setting up lighting systems (10,35,36,37). Viewpoint of administrators to the problem is important, too (29,38). Compatible with the literature, our results reveale dthat the staff request the number of security personnel increased. Perpetrators tend to give up violent acts when they face with force.

Limitations: Due to overcrowding in the ED, some members of the staff refused to fulfill the survey. So, we had difficulties to reach all personnel and this may affect the results of our study.

Conclusion: Our study revealed that 77.6% of the staff experiences WPV at least once in a work-life. Majority of the perpetrators is relatives of the patients. The busiest hours are the times when WPV occur frequently. Verbal/emotional violence is the most common type of WPV. The participants mostly requested from policy makers to increase punishments. Inexperienced and young male staff expose to WPV more frequently. Educations for communication must be encouraged and the number of personnel, particularly in busy hours, must be increased. Rational use of policlinics and family physicians may also reduce overcrowding resulting in WPV in EDs. Additionally, number of security personnel should be increased and a public consciousness on “real emergencies” should be created.

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