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VIOLENCE AGAINST HEALTH CARE WORKERS IN EMERGENCY HOSPITAL, TANTA UNIVERSITY, EGYPT

By

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Abstract

Introduction: Workplace violence (WPV) among the healthcare workers is an alarming phenomenon worldwide. Personnel at Emergency departments are particularly at risk and are more exposed to violence in their workplace from patients and their relatives or friends compared with other departments. **Aim of work:** To identify the prevalence of workplace violence at Tanta University Emergency Hospital and its impact on affected workers. **Materials and methods:** A cross sectional study was conducted at Tanta University Emergency Hospital during the period from September 2017 to April 2018. The total sample size was 340 physicians and nurses. Data were collected using a structured questionnaire. **Results:** Physical violence was reported by 30.6% while verbal violence by 76.5% and 16 participants reported sexual violence (4.7%). Exposure to more than one type of violence was declared by 28.8%. The main perpetrators were patients' relatives (85.6%) while 50% of sexual violence was by unknown visitors to the hospital. Nearly one quarter of victims of physical and sexual violence need vacation after the assault while only 6.9% of victims of verbal violence asked for vacation. Psychological, work and physical troubles were reported by victims. **Conclusion:** verbal violence came first followed by physical and sexual violence. The victims suffered from psychological, work related and physical effects.

Key words: Violence (verbal, physical and sexual), Health care workers, Tanta University and Emergency hospital.

Introduction

Workplace violence (WPV) among the healthcare workers is an alarming phenomenon worldwide (Ferri et al., 2016). Personnel at Emergency Departments (EDs) are particularly at risk and are exposed to violence from patients and their relatives or friends compared with other departments (Hamdan and Hamra, 2015). The International Labor Organization defines WPV as "incidents where staff are abused, threatened or assaulted in circumstances related to their work". Violence includes any form of verbal, physical and sexual harassment or violence (ILO, ICN, WHO and PSI 2003).

Physical violence is defined as "the use of physical force against a worker in a workplace that results in physical or psychological harm". It includes beating, kicking, slapping, stabbing, shooting, pushing, biting and pinching or use of an object as weapon. (Alameddine et al., 2011 and Paraskevas et al., 2015). While, sexual harassment is any unwanted, unreciprocated and unwelcome behavior of a sexual nature that is offensive to the person involved, and causes that person to feel threatened, humiliated or embarrassed (ILO, ICN, WHO and PSI 2003). There is a wide variation in the reported incidence of verbal abuse and physical violence in healthcare settings. Yet, most studies agree that nurses are the most vulnerable group (Alameddine et al., 2011).

EDs workers frequently have to deal with patients under the effect of severe illness or pain seeking services especially in the afternoons and during nights and also visitors who are usually highly worried about their patients (Nolan et al., 2001). In some EDs, nurses experience violence on a weekly basis placing the ED on top of the list of the most violent hospital departments (Gerberich et al.,2001; Lyneham ,2008 ; Magnavita and Heponiemi, 2018). Violence may be expressed in repeated small incidents which together create severe harm (Gillespie et al., 2013).

Evidence suggests that nursing and health care staff frequently exposed to violence suffer from impairment of physical and mental well-being, and other several negative outcomes leading to longer periods of absenteeism or work inefficiency (Alameddine et al., 2011 and Basilua et al., 2015). Exposure to WPV may lead to impaired job performance, decreased job satisfaction, burnout and turnover. The end results

will be deterioration in the quality of the services provided for the patients and the entire organization (Pich et al., 2010 and Basilua et al., 2015).This situation contributes to the growing problem of shortage of HCWs that most countries are facing. So, Violence can negatively affect quality of care and treatment in hospitals (Basilua et al., 2015).

Aim of work

The aim of this study is to identify the prevalence of workplace violence at Tanta University Emergency Hospital and its impact on affected workers.

Materials and methods

- Study design: It is a cross sectional survey study.

- Place and duration of the study: The study was conducted at Tanta University Emergency Hospital during the period from September 2017 to April, 2018. The hospital is affiliated with 450 beds and accommodates 950 health care workers; it received cases of emergencies from the governorates of the Nile delta with an average population of 10 millions. The hospital lies near the agricultural road of transportation from the capital city Cairo to the main port at Alexandria. Accidents occurring along this road are mainly getting medical services at this hospital.

- Study sample: The target population of this study was health care workers at Tanta University Emergency Hospital namely; physicians and nurses. The sample size was calculated at 95% confidence limit and expected prevalence of violence ranging between 25-30 % and was found to be 288. The study sample was increases by 20% to compensate for non-response. The study participants were recruited from the main list of hospital workers using systematic sampling technique. The total sample size was 340 physicians and nurses. All nurses and physicians were selected form workers having at least 6 months of experience at work.

- Study methods:

The authors used structured questionnaire sheet created by The International Labor Office, International Council of Nurses, World Health Organization and Public Service International for data collection (ILO, ICN, WHO and PSI ,2003). The questionnaire included socio-demographic data and information related to occurrence of physical, verbal and sexual violence at the work place and the effect of the accident on the victims. The data collectors interviewed

the participants at their place of work. Participants answered the questionnaire and delivered it to data collectors in the same session.

Consent

Verbal consent was obtained before data collection. Data were collected anonymously. No pressures of any kind were applied on health care workers to participate. The collected data were used for the study purpose only.

Ethical approval

Approval from the Institutional Review Board (IRB) for Medical Research Ethics, Faculty of Medicine, Tanta University, was obtained prior to implementation of the study. An official permission from Faculty of Medicine, Tanta University, was taken to Tanta University Emergency Hospital. The title and objectives of this study was explained to them to ensure their cooperation.

Data management

The collected data was organized, tabulated and statistically analyzed using Statistical Package for Social Studies (SPSS) version 19 created by IBM Chicago, Illinois, USA. Numerical variables were presented as mean and standard deviation. Categorical variables were presented as number and percentage and chi square was used for testing for statistical significance of differences in the subcategories. The level of significance was adopted at $p<0.05$.

Results

Table 1: Socio-demographic characteristics of the studied health care workers.

Variables	(No =340)	%
Age in years:		
20-	179	52.6
30-	98	28.8
40-	52	15.3
50-60	11	3.1
Mean ± SD	31.21±7.95	
Gender :		
Male	112	32.9
Female	228	67.1
Marital status:		
Married	219	64.4
Single	112	32.9
Widow	4	1.2
Divorced	5	1.5
Job:		
Physicians	131	38.5
Nurses	209	61.5
Years of experience:		
<1	5	1.5
1-	156	45.9
5-	58	17.1
10-	29	8.5
15-	44	12.9
20±	48	14.1
Median	5.0	
Mean ± SD	8.78±8.23	
Working in shifts	286	84.1
Working in night shifts		
Regularly	63	18.5
Sometimes	197	57.9
NO	80	23.5
Worried to be exposed to violence		
Unworried	30	8.8
Mildly worried	52	15.3
Moderately worried	113	33.2
Extremely worried	145	42.7

Table (1) showed that 81.4% of the studied group aged below 40 years with a mean age of 31.21+7.95. Females represented 67.1% and the majority of participants and 64.4% were married. Nurses represented 61.5% while physicians represented 38.5% of participants. About 45% of participants had 1-5 years of experience at work , while those with work experience 10 years or more represented 35.5%. The majority worked in shifts (84.1%), where 18.5% regularly had night shifts and 57.9% occasionally worked in night shifts. Concerning worries to be exposed to violence during work, 75.9% were moderately to extremely worry.

Table 2: Distribution of the studied group in relation to exposure to violence during work.

Type of violence	Physicians (No =131)		Nurses (No =209)		Total (No =340)		X^2	p
	No	%	No	%	No	%		
Physical	41	31.1	63	30.1	104	30.6	0.051	0.822
Verbal	95	72.5	165	78.9	260	76.5	1.849	0.174
Sexual	2	1.5	14	6.7	16	4.7	4.803	**0.028***

*Significant

Table (2) showed that the prevalence of physical violence was 31.1% among physicians and 30.1%among nurses with non-significant differences. The prevalence of verbal violence was 76.5% (72.5% among physicians and 78.9% among nurses without significant difference). Only 16 participants reported sexual violence representing 1.5% among physicians and 6.7% among nurses with statistically significant difference (p=0.028).

Table 3: Circumstances of violence incidents according to type of violence among the studied HCWs.

Variables	Physical (No =104)		Verbal (No =260)		Sexual (No =16)	
	No	%	No	%	No	%
Frequency of occurrence:						
<5	58	55.8	94	36.2	13	81.3
5-	8	7.7	30	11.5	3	18.7
10-	2	1.9	13	5.0	0	0.0
15±	36	34.6	123	47.3	0	0.0
Types of perpetrators:						
Patients	5	4.8	23	8.8	1	6.2
Patients' relatives	89	85.6	224	86.2	4	25.0
Colleagues	1	1.0	7	2.7	3	18.8
Unknown visitors	9	8.6	6	2.3	8	50.0
Shift of violence occurrence:						
Morning shifts	33	31.7	64	24.6	3	18.8
Evening shifts	35	33.7	86	33.1	7	43.7
Night shifts	30	28.8	62	23.8	6	37.5
Different shifts	6	5.8	48	18.5	0	0.0
Reaction to the violence act:#						
Did nothing	10	9.6	90	34.6	5	31.3
Asked for help	33	31.7	57	21.9	3	18.8
Self-defense	32	30.8	50	19.2	8	50.0
Called Police	35	33.7	34	13.1	0	0.0
Reported hospital administration	45	43.3	92	35.4	3	18.8
Asked to change place of work	10	9.6	22	8.5	0	0.0
Need vacation after assault	29	27.9	18	6.9	4	25.0

#: More than one reaction was reported

Table (3) showed that those who were exposed to violence for less than 5 times lifetime represented 55.8% for physical violence, 36.2% for verbal violence and 81.3% for sexual violence. Exposure to violence for more than 10 times in lifetime was reported by 36.5% of those exposed to physical violence, 52.3% of victims of verbal violence and none among those exposed to sexual violence. The main perpetrators for physical and verbal violence were patients' relatives (85.6%, and 86.2%, respectively). Physical violence was mainly inflicted by unknown hospital visitors (50.0%). WPV occurred mainly in evening and night shifts as shown among 62.5% of physical violence, 56.9% in verbal violence and 81.2% of cases of sexual violence. In cases of verbal violence and sexual violence, negative reaction of doing nothing was reported among nearly one third of cases (34.6% and 31.3%, respectively). Calling the police or reporting to hospital administration was high in physical violence (77%). Nearly one quarter of cases with physical violence and sexual violence needed a vacation after the assault (27.9% and 25.0%, respectively).

Table 4: Distribution of the studied health care workers by the effects of violence accidents.

Violence effects	None		A little		Frequently		Often		Total	
	No	%	No	%	No	%	No	%	No	%
Psychological effects:										
-Remembering the accident	64	22.9	111	39.6	60	21.4	45	16.1	280	100
-Don›t want to talk about and want to forget	83	29.6	94	33.6	63	22.5	40	14.3	280	100
-Feeling afraid and worried from people	64	22.9	98	35.0	53	18.9	65	23.2	280	100
Work effects:										
-Having job dissatisfaction due to violence	81	29.0	114	40.7	51	18.2	34	12.1	280	100
-Want to change job or move to other place	77	27.5	84	30.0	60	21.4	59	21.1	280	100
-Don›t want to go to work and take vacations	93	33.2	120	42.9	35	12.5	32	11.4	280	100
Physical effects:										
-Sleep disorders	105	37.5	120	42.9	37	13.2	18	6.4	280	100
-Recurrent headache	100	35.7	104	37.1	46	16.5	30	10.7	280	100
-Irritable colon	107	38.2	119	42.5	33	11.8	21	7.5	280	100
-Vertigo	112	40.0	121	43.2	30	10.7	17	6.1	280	100
-Weight change	113	40.4	128	45.7	32	11.4	7	2.5	280	100

Table (4) showed that 37.5% frequently or often had the bad memory of the accident, 36.8% don't want to talk about and want to forget the incident and 42.1% frequently or often feel afraid and worried from people. Having feeling of job dissatisfaction is frequently or often thought by 30.1% while 42.5% want to change job or move to other place. Escaping by having vacations was frequently or often done by 23.9% of victims. Physical effects frequently or often associated with exposure to violence were sleeping disorder (19.6%), recurrent headache (27.2%), and also irritable colon (19.3%), vertigo (16.8%) and weight change (13.9%).

Discussion

This study showed a high prevalence of work place violence (WPV) among health care workers in Tanta Emergency Hospital. This high prevalence may be due to the fact that Emergency departments deal with the most serious patients in complex situations, such as traffic accidents victims and food poisoning. If health care workers do not have positive attitude, high communication skills and share information with patients and their relatives; unnecessary conflicts may emerge .This agrees with another similar study done in Egypt in Mansoura University hospitals (Abou-El-Wafa et al., 2015) and in Jordan (Albashtawy, 2013) . Arab countries nearly share in some culture, social, environmental and behavioral risk factors. A study done in one of Palestinian hospitals reported higher prevalence of physical violence (35.6%) and sexual harassments (8.6%) compared to our study which is 30.6% and 4.7% respectively (Table2). This may be due to the stress of war and conflicts between Palestine and Israel which is reflected on patients, their relatives and health care workers. Worried relatives have limited options for treatment places in Emergency departments with limited recourses in hospitals which add more stress (Hamdan and Abu Hamra, 2015).

Also, a study done in Pakistan reported higher prevalence of physical violence (53.4%) and sexual harassments (26.9%) among health care workers. This higher rates than our study may be due to the fact that this study was done on female nurses only and excluding male nurses. Female nurses are more prone to physical and sexual violence than males (Jafree, 2017).

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especially females, would feel shy to respond positively to questions regarding sexual harassment due to cultural sensitivity of this issue and fear of being stigmatized. Also, other international studies support the finding that WPV is more frequent in Emergency departments (ED) in all hospitals but differs in some aspects in various countries. In Ethiopia Verbal abuse was the most common (89.6%) form of violence followed by physical violence (18.8%), and sexual harassment (13%) (Fute et al., 2015). This may be due to the fact that the majority of participants were female (62.9%) and females had higher odds of being exposed to workplace violence than males; they were of young age 22-25y. Young nurses had higher odds of experiencing workplace violence compared to older nurses .They were also, of short work experience .All these factors are positively associated with high workplace violence.

In South Korea a survey study was conducted at a university hospital in Seoul. The prevalence of verbal abuse was high (63.8%) followed by physical violence (22.3%), and sexual harassment (19.7%) The main perpetrators were patients and patients' families (Park et al., 2015). The findings of sexual harassment in a South Korean study were higher than in our study because the studied nurses were all females (970 female nurses) they were working in EDs departments and other departments as (ICUs), operating rooms which are more quite than EDs departments increasing the chance of sexual harassment.

In Germany a study was done to assess violence experienced by nursing and healthcare personnel in different settings. It was found that 56% of respondents had experienced physical violence and 78% verbal aggression, which is higher than the findings in our study (30.6%, 76.5% for physical and verbal violence respectively (Table 2). This difference may be due to the difference in work sector inside the hospital. The highest frequency of physical violence in the study done in Germany was in inpatient geriatric care (63%) (Schablon et al., 2012). These differences in the previous studies reflect different preventive and control strategies in each country and patients' relatives' behavior in stressful conditions.

A cross-sectional study on the prevalence of WPV against Chinese

nurses detected that the prevalence for verbal violence was (64.9%), physical violence was (11.8%) and sexual harassment accounted for 3.9% of participants in emergency department; which is lower compared to the findings of the present study. This may reflect better control strategies in hospitals in China on patients and patients' relatives, positive attitude, patience, tolerance and high communication skills of nurses in china (Lei et al., 2017).

The present study showed that perpetrators of physical and verbal violence were mainly patient relatives (Table 3). In Egypt patient relatives are often (against regulations) present inside the hospital during patient's treatment. Other previous studies confirmed the same findings that relatives or friends of the patient were the majority of perpetrators (Erkol et al., 2007 and Zafar et al., 2013).

The current study showed that physical and verbal violence incidents occur in all shifts while sexual violence is more prevalent in evening (43.7 %) and night shifts (37.5%) (Table 3). This could be attributed to defective security measures in these shifts. Moreover, decreased number of personnel in the hospital environment gives the perpetrators the chance to attack in absence of witnesses. Also, health care workers at night shifts are usually junior staff with less experience to deal with violent situations. Our findings are in line with previous researches which identified that more than 50% of violent incidents occurred in weekend and during the evening or night shifts. Most of the participants (72%) said that there were no other people around at the time of the incident (Hilliar, 2008 and Zampieron et al., 2010). Opposite to our findings is a study done in China which declared that most sexual violence against nurses occurred during the day shift (Lei et al., 2017).

In our study about one third of nurses responded to physical violence by calling Police (33.7%), other third reacted by asking for help from other colleagues (31.7%) and by self-defense (30.8%) (Table 3) . In contrary to response of nurses in other studies where more than 60% of the victims responded with tolerance, patience and understanding (Alameddine et al.,2011 and Lei et al., 2017). The difference in the reaction between our study and other studies may be attributed to lack of work experience and stress management programs on communication skills

and how to absorb stress of patients and their relatives. Moreover, cultural differences with lack of anger control especially when dealing with patients or relatives increase the possibility of WPV. Also nurses need to practice skills and control their temper to decrease the odds of making mistakes.

Underreporting of violence is still a common problem in the current study (Table 3) and in previous studies (Gerberich et al., 2001, Gates et al., 2006, Institute for Emergency Nursing Research, 2011 and Zafar et al., 2013). The most common cause of underreporting all types of violence as shown in other studies is the lack of confidence that reporting will have any benefit for the reporters, beliefs that workplace violence is part of the workplace hazards and they have to be handled personally. Staffs often have the belief that little would be done following making a report .Also; lack of knowledge of the reporting procedure plays an important role. Of the investigated incidents, no action was taken in many cases or even the reporters did not know the results of investigation. Shyness and fear of stigma can also contribute to under reporting of sexual violence.

Our findings showed that violence resulted in psychological effects like feeling afraid and worried from people; worry to talk about the incidents .Some want to forget and others always remember the events affecting mental health, psychological welfare and well-being of the exposed healthcare workers. In addition, they took many vacations, had ideas of changing job and job dissatisfaction (Table 4). These negative consequences were also reported in other similar studies (Kowalenko et al., 2005, Ryan et al., 2008 , Eker et al., 2012, and De Puyet al.,2014). These consequences have negative impact on quality of medical service and can lead to rapid turnover of ED staff.

Conclusion and recommendations

The current study showed that violence against HCWs was high and occupational safety measures are insufficient. Verbal violence came first followed by physical and sexual violence. The victims suffered psychological and physical effects. Thus, ED staff should be provided by social and psychological support to cope with the negative mental and physical effects and negative attitudes towards work after violence incidents. Education

programs can be recommended as an effective strategy to train ED staff to deal with aggressive personnel and protect themselves against violence. In addition, counseling to Emergency patients and their companions can help them to cope with their anxiety and stress.

Conflicts of interest

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