Research Article

Workplace Violence against Female Physician at a University Hospital

Shimaa A. Emam*, Eptesam I. Hassen*, Sara refai* and Aymen S. El-Khateeb**
* Department of Public Health and Preventive Medicine,
** Department of Public health and Occupational Health, Minia Faculty of Medicine, Minia, Egypt.

Abstract
Introduction: Workplace violence (WPV) in the healthcare system occurs four times more often than in all private-sector industries combined. **Aim of work**: To assess the prevalence of external (patient initiated) and internal (initiated by staff members) violence against female physicians and associated factors such as perpetrators, attitude of nurses following aggression incidents and consequences. **Materials and Methods:** A cross-sectional study included all female physicians (115) at Minia University hospital. Well-structured questionnaire covered four main domains; socio-demographics, lifetime working experience of violence, external and internal violence and its effects on work, the perpetrators of violence. **Results:** The majority of physicians (92.2%) were exposed to workplace violence during their working lifetime. Who was experiencing external violence during the last year was significantly higher (78.3%) than the internal type (13.9%). Verbal violence was the most common type of violence that female doctors were exposed, reaching about 58.2%, followed by physical type 29.2%, and finally, sexual 13.3%. **Conclusion:** Violence against female doctors working in Minia University Hospital was prevalent and has a significant impact on nurses and their work.
Key words: Violence, Female, Physicians and Hospital**.**

Introduction
Workplace violence (WPV) in the healthcare system occurs four times more often than in all private-sector industries combined (Gillespie and Gordon, 2008). It was defined by the National Institute for Occupational Safety and Health as: violent acts, including physical assaults, directed towards a person at work or on duty (Pai and Lee, 2011; Abou-Elwafa et al., 2015).

Verbal abuse through words, manner or tone, leaves the recipient feeling personally or professionally humiliated, attacked or devalued. Verbal abuse leaves no visible scars, but the emotional damage can be devastating (Oweis and Diabat, 2005).

Occupational injuries indicated that of all women who die on the job, 39% were the victims of assault, whereas only 18% of all male fatalities were murdered at work .Kasai et al., 2018,on their survey of workplace violence against physicians in the hospitals, Myanmar, detected that of the female homicides, over three-fourths were acts of random criminal violence. Experiencing violence at work has many negative impacts both at the organi-zational and individual level, such as increase the perceptions of burnout,
decreased job performance and job satisfaction, poor mental health, creating a hostile work climate and results in the suboptimal care to patients (Abodunrin et al., 2014 and AL Bashtawy and Aljezawi, 2016)**.**

The prevalence of workplace violence varies and different studies were conducted in many countries to find out the prevalence of workplace violence and identify the factors associated with it among health care workers. In Egypt, the prevalence of verbal abuse and physical abuse among females was 69.5% and 9.3% respectively (Abbas et al., 2010)**.** Ewis and Arafa 2014 reported that 92.8% of females were exposed to workplace violence. In Saudi hospitals, more than two-thirds (67.4%) of HCWs reported that they were victims of violence (Algwaiz et al., 2012).

In Jordon, 75% of HCW staff in emergency departments was complaining of some form of violence (AL Bashtawy et al., 2016). In Palestinian public hospitals, the majority of HCW (80.4%) reported exposure to violence in the previous 12 months; 20.8% physical and 59.6% non-physical (Kitaneh, 2012). In Turkish, 72.3% (141/195) of emergency staff had experienced some form of violence (Boz et al., 2006).

Some studies have reported that the cause of violence was due to factors relating to personal characteristics, such as being under the age of 30 (Pai et al., 2011 and Kitaneh, 2012). Other studies found that work-related factors, including: lack of communication, waiting time, lack of resources, medication error and lack of hospital policy against violence (Angland et al., 2014 and El Ghaziri et al., 2014).

Although WPV become a rising phenomenon especially among health care workers (HCWs) (Zafar et al., 2013 and Abou-Elwafa et al., 2015), the studies showed that 80% of the affected persons didn't report it (Gacki et al., 2009). Some gave reasons as fear of lack of support from the hospital authority or the absence of institutional reporting policies (Pinar et al., 2010), the perception that violence is a part of the job and reporting will not benefit them (Gates et al., 2006). Other beliefs that assaults may be viewed as worker negligence or poor job performance (Gacki et al., 2009).

Along with the physical and emotional suffering, the economic cost of violence against women are considerable, and affects job performance and leads to lateness, decreased job retention and career advancement. Victims of gender discrimination lose motivation and morale necessary to perform their jobs effectively (Ilo, 2007).

Aim of work: To assess the prevalence of external (patient initiated) and internal (initiated by staff members) violence against female doctors and associated factors such as perpe-trators, attitude of female doctors following aggression incidents and conse-quences.

Materials and Methods

Study design: It is a hospital based cross-sectional study.

Place and duration of the study: At Minia University hospital during the duration from January to April 2019.

Study methods: Face-to-face interviewing questionnaire was used for data collection. The WHO of workplace violence questionnaire covered four main domains; socio-demographics, lifetime working experience of violence, external and internal violence and its effects on work and attitude of female physicians following violence incidents. The study included all female physicians (115).

Data management: Data were analyzed using the software, Statistical Package for Social Science, (SPSS) version 19. Qualitative data were presented as frequency distribution and quantitative data were presented as mean and standard deviation. Chi-square, Z test and Fisher Exact test were done. P values of less than 0.05 were considered as cutoff for significant.

Consent

Informed consent was obtained from the female physicians. Confidentiality of the data was strictly maintained through a code number on the questionnaire.

Ethical approval

The study protocol was approved by the Ethics Committee of the Faculty of Medicine , Minia University.

Results

Table (1): Distribution of the studied female physicians according to their demographic and professional characteristics.

Variables		Total =115
Age	**Range** **Mean ±SD**	24-28 25.4±1.1
Marital status	**Single** **Married**	82(71.3%) 33(28.7%)
Work position	**Staff** **Resident physician**	6(5.2%) 109(94.8%)
Experience duration	**Less than one year** **1-5 years**	80(69.6%) 35(30.4%)

Table 1 showed that the age of the studied physicians ranged from 24-28 years with a mean of 25.4±1.1 years. Approximately 28.7% of the participants were married. Only 5.2% of the sample was staff members and 94.8% were resident physicians. Regarding the duration of working experience the category of less than one year was the most prevalent (69.6%).

Table (2): Female physicians' exposure to external and internal violence during the last year (No: 115):

Variables	External	Internal	Total	P
Prevalence	90(78.3%)	16(13.9%)	106(92.2%)	Z=5.1 P=0.001*
Type of violence Physical Verbal Sexual	**90** 24(26.7%) 55(61.1%) 11(12.2%)	**16** 7(43.8%) 7(43.8%) 2(12.4%)	**106(100%)** 31(29.2%) 62(58.2%) 13(13.3%)	Fisher exact=2.1 P= 0.3
Time of violence Day shift Night shift	**90** 19(21.1%) 71(78.9%)	**16** 4(25%) 12(75%)	**106(100%)** 23(21.7%) 83(78.3%)	χ^2=0.12 P= 0.7
Action taken at time of violence: No action Neglect it Verbal warning Request support of colleagues	**90** 15(16.7%) 10(11.1%) 17(18.9%) 48(53.3%)	**16** 3(18.8%) 3(18.8%) 3(18.8%) 7(43.8%)	**106(100%)** 18(17%) 13(12.3%) 55(51.9%) 20(18.9%)	χ^2=0.9 P= 0.8

*: Statistically significant.

Table 2 showed that the majority of physicians (92.2%) were exposed to workplace violence during the last year. There was a statistically significant difference in the prevalence of violence being higher due to external causes during the last year (78.3%).Verbal violence was the most common type of violence that female physicians were exposed to, reaching about 58.2%, followed by physical type 29.2%, and finally, sexual 13.3%. During the last year the commonest reported external aggression was the verbal type representing (61.1%), followed by physical (26.7%) and sexual (12.2%). About 43.8% of the reported internal violence incidents for physician were of verbal and physical type, 12.4% for sexual. About 78.9% and 75% of those who experienced external and internal violence respectively faced it during night shift work. Regarding female physician action at time of attack nearly half (51.9%) gave verbal warning to perpetrator.

Table (3): Frequency of reporting of external and internal violence against female physicians (No=106):

Response	External No. 90	Internal No.16	Total No.106	P
Reporting	18(20%)	3(18.8%)	21(19.8%)	χ^2=0.01
Non reporting	72(80%)	13(81.2%)	85(80.2%)	P=0.9
Reported and complaining	18	**3**	**21**	Fisher exact=0.1
Reported to manager	5(27.8%)	1(33.3%)	6(28.6%)	P=0.7
Complaining to friends	13(72.2%)	2(66.7%)	15(71.4%)	
Cause of non reporting	72	13	**85**	χ^2=14.6
Reporting has no effect and useless	15(22.8%)	7(53.8%)	22(25.9%)	P=0.001*
Felt ashamed	33(45.8%)	5(38.5%)	38(44.7%)	
Fear of negative consequences	0	1(7.7%)	1(1.2%)	
Don't know reporting to whom	24(33.3%)	0	24(28.2%)	

*: Statistically significant.

Table 3 showed that reporting violence incidents were done by only 19.8% of female physicians. Who were exposed to external violence reported their incidents to the administration (27.8%) and colleagues (72.2%); whereas, who faced internal violence reported the incidents to the administration (33.3%) and colleagues (66.7%). Regarding causes of non reporting, 45.8% and 38.5% of physicians said that they felt ashamed followed by 22.8% and 53.8% of them declared that there was no effect from reporting.

Table (4): Consequences of violence on female physicians.

Variables	External No. 90	Internal No.16	Total No.106
Avoid thinking about the attack			
NO	5(5.6%)	4(25%)	9(8.5%)
Yes	85(94.4%)	12(75%)	97(91.5%)
Being super alert			
NO	1(1.1%)	0	1(0.9%)
Yes	89(98.9%)	16(100%)	105(99.1%)
Dissatisfied, pored and stressed	50(55.5%)	8(50%)	58(54.7%)
Fear from another attack	90(100%)	16(100%)	106(100%)

Table 4 showed that the most reported consequences of violence were fear (100%) being super alert (99.1%) and dissatisfied, pored and stressed (54.7%)**.**

Discussion

Workplace violence affects every professional group including the health sector. All categories of healthcare workers are at risk of violence though at different degrees. (Abodunrin et al., 2014). This work was done to assess the prevalence of external and internal violence against female physicians. The total number of female physicians participated in this study were 115; their mean age was (25.4±1.1), resident physicians represented (94.8%) and (71.3%) were married (Table 1).

A significant proportion of female physicians (92.2%) at Minia University hospital reported that they were experiencing abuse at work (Table 2**).** Verbal violence was the most common type of violence that female physicians were exposed, reaching about 58.2%, followed by physical type 29.2%, and finally, sexual 13.3% (Table 2). This study is comparable to previous reports by Keyvanara et al., 2015 who stated that verbal abuse is the dominant form of violence reported. Another study carried out in Japan found that 84.8% of

the physicians have experienced violence during their work and about 72.1% were verbally assaulted (Nagata-Kobayashi et al., 2009).

A study from Pakistan also indicated that verbal abuse is the most common type of violence faced by the physicians from the patients or their relatives (Ahmed et al., 2018). But this is not in concordance with a study done in the Myanmar, and detected that the percentages of physicians who have faced verbal abuse and those who have faced physical violence are extremely low (8.7 and 1.0%, respectively) (Kasai et al., 2018). Factors associated with health system organization and socioeconomic conditions of the population are the most important reasons of patient's violence (Dimitrova et al., 2011)**.** The perpetrators were usually uneducated, belonging to middle age group and mostly of the male gender (Ahmed et al., 2018).

Regarding female physician action at time of attack nearly half (51.9%) gave verbal warning to perpetrators (Table 2). This is in contrary to a study by (Alameddine et al., 2011) at six tertiary hospitals in Lebanon where more than 60% of the victims responded with patience and understanding The difference in the reaction may be due to lack of work experience and stress management programs on communication skills consistent with lack of anger control.

Reporting violence incidents were done by only 19.8% of female physicians (Table3). This is in concordance with a Turkish study, in which more than half of the participants stated that they had never reported an attack of violence (Talas et al., 2011)**.** Also it is in agreement with a study in Egypt where more than 70% never reported violence incidents to the hospital authority (Abbas et al., 2010). Many literatures stated that work place violence was under-reported (Talas et al., 2011; Samir et al., 2012).

It has been found that feeling shame of reporting, ignorance are the most common reasons of lack of action taken against violence. Lack of reporting system of violence in hospitals, was due to that the majority of the physicians stated that reports will not going to be considered (Table 3), this coincides with a study by (Judith et al., 2015) in an American hospital system comprised of seven hospitals as (77%) didn't report violence as administrators may not be willing to admit that violence occurs on their units.

The most reported consequences of violence were fear (100%) whereas being super alert represented by 99.1% and dissatisfied, pored and stressed (54. 7%) (Table 4).Violence has been considered to have a bad impact on the physician's psychology in the form of being irritable and helpless (Hinsenkamp et al., 2013). Many literatures have reported the psychological and physical consequences of violence on physicians (Jones et al., 2001; Crilly et al., 2004) such as depression, anxiety and fatal outcomes such as suicide (Mahin, 2016). Violence has been associated with recurrent pain problems, acute infections, cardiovascular diseases and skin diseases (Friborg et al., 2019).

Conclusion:

The results of this study revealed that violence against female in Minia University Hospital was widespread. Safety training programs for violence prevention and to help doctors to understand violence related reasons and risk factors, warning signs, procedures for its avoidance, prevention and management and reporting should be well organized in hospitals. Policies and legislation targeting violence acts should be instituted and developed.

Conflict of interest:

The authors declared no conflicts of interest exist.

Funding:

No sources of fund.

Acknowledgment:

We are grateful to all physicians for their participation in the study. Also we would like to thank the hospital administrators for their help.

References

1. Abbas MA, Fiala LA and Abdel Rahman AG **(2010):** Epidemiology of workplace violence against nursing staff in Ismailia Governorate, Egypt. J Egypt Public Health Assoc; 85(1-2):29-43.

2. Abou-Elwafa HS, El-Gilany A-H and Abd-El-Raouf SE (2015): Workplace violence against emergency versus non-emergency nurses in Mansoura university hospitals, Egypt. J Interpers Violence; 30(5):857-72.
3. Abodunrin OL, Adeoye OA and Adeomi AA (2014): Prevalence and forms of violence against health care professionals in a South-Western city, Nigeria. Sky J Med Med Sci; 2(8):67-72.
4. Ahmed F, Khizar Memon M and Memon S (2018): Violence against doctors, a serious concern for healthcare organizations to ponder about. Annals of Medicine and Surgery; 25; 3–5.
5. AlBashtawy M and Aljezawi M (2016): Emergency nurses' perspective of workplace violence in Jordanian hospitals: A national survey.Int Emerg Nurs;24:61-5.
6. Algwaiz WM and Alghanim SA (2012): Violence exposure among health care professionals in Saudi public hospitals: a preliminary investigation. Saudi Med J; 33(1):76-82.
7. Alameddine M, Kazzi A, El-Jardali F, Dimassi H and Maalouf S (2011): Occupational violence at Lebanese emergency departments: prevalence, characteristics and associated factors. J Occup Health; 53:455–64.
8. Angland S, Dowling M and Casey D (2014): Nurses' perceptions of the factors which cause violence and aggression in the emergency department: a qualitative study. Int Emerg Nurs; 22(3):134-9.
9. Boz B, Acar K and Ergin A (2006): Violence toward health care workers in emergency departments in Denizli, Turkey. Adv Ther; 23(2):364-9.
10. Crilly J, Chaboyer─W, and Creedy D (2004): Violence towards emergency department nurses by patients. Accident and Emergency Nursing; 12, 67e73.
11. Dimitrova D, Kyrov L and Ivanova N (2011): Violence towards doctors in Bulgaria – pilot results on general practitioners' views, Folia Med. Plovdiv; 53(4): 66–73.
12. El Ghaziri M, Zhu S and Lipscomb J (2014): Work Schedule and Client Characteristics Associated with Workplace Violence Experience Among Nurses and Midwives in Sub-Saharan Africa. J Assoc Nurses AIDS Care; 25(1): S79-89.
13. Ewis AA and arafa AE (2014): Violence against nurses: an epidemiological study for nurses in municipal, health insurance and university hospitals of Beni Suef governorate, Egypt. Egyptian Journal of Occupational Medicine; 38 (1): 1-22.
14. Friborg O, Emaus N, Rosenvinge JH, Bilden U and Olsen JA (2019): Violence Affects Physical and Mental Health Differently: The General Population Based Tromsø Study. PLOS ONE; 14(1): e0210822.
15. Gacki-Smith J, Juarez AM, and Boyett L (2009): Violence Against Nurses Working in US Emergency Departments. JONA J Nurs Adm; 26(7/8):81-99.
16. Gates DM, Ross CS, and McQueen L (2006): Violence against emergency department workers. J Emerg Med; 31(3):331-7.
17. Gillespie and Gordon L (2008): Violence against healthcare workers in a pediatric emergency department, University of Cincinnati, ProQuest Dissertations Publishing. 3323845.
18. Hinsenkamp M (2013): Violence against healthcare workers: Int Orthop; 37(12): 2321-2.
19. ILO (2007): Equality at Work: Tackling the Challenges. Global Report under the Follow-up to the ILO Declaration on Fundamental Principles and Rights at Work, Report of the Director-General, International Labour Organization, Geneva 2007.
20. Jones J and Lyneham J (2001): Violence Part of the job for Australian nurses? Aust J Adv Nurs; 18(2):27-32.
21. Judith E, Lydia Hamblin, Joel Ager, Mark Luborsky, Jim Russell and Lynnette Essenmacher (2015): Underreporting of Workplace Violence
22. Comparison of Self-Report and Actual Documentation of Hospital Incidents. Workplace Health Saf; 63(5): 200–10.
23. Kasai Y, Mizuno T, Sakakibara T, Thu S, Kyaw TA, and Htun KA (2018): A survey of workplace violence against physicians in the hospitals, Myanmar. BMC Res Notes; 11(1):133.
24. Kitaneh M and Hamdan M (2012): Workplace violence against physicians and

nurses in Palestinian public hospitals: a cross-sectional study. BMC Health Serv Res; 12(1):1-9.
25. Keyvanara M, Maracy MR, and Ziari NB (2015): A study conducted on the demographic factors of victims of violence in support and administrative departments of hospital in 2013. J Educ Health Promot;4: 35.
26. Mahin Delara (2016): Mental Health Consequences and Risk Factors of Physical Intimate Partner Violence. Mental Health in Family Medicine Journal;12:119-125.
27. Oweis A and Diabat KM (2005): Jordanian nurses' perception of physicians' verbal abuse: Findings from a questionnaire survey. Int J Nurs Stud; 42(8):881-8.
28. Pai HC and Lee S (2011): Risk factors for workplace violence in clinical registered nurses in Taiwan. J Clin Nurs;20(9-10): 1405-12.
29. Pinar R and Ucmak F (2010): Verbal and physical violence in emergency departments: a survey of nurses in Istanbul, Turkey. J Clin Nurs; 20: 510-7.
30. Nagata-Kobayashi S, Maeno T, Yoshizu M, and Shimbo T (2009): Universal problems during residency: abuse and harassment. Med. Educ; 43 (7) 628–36.
31. Samir N, Mohamed R, and Moustafa E (2012): Abou Saif H. Nurses' attitudes and reactions to workplace violence in obstetrics and gynaecology departments in Cairo hospitals. East Mediterr Health J; 18(3):198-204.
32. Talas MS, Kocaöz S, and Akgüç S (2011): A survey of violence against staff working in the emergency department in Ankara, Turkey. Asian Nurs Res (Korean Soc Nurs Sci); 5(4):197-203.
33. Zafar W, Mph M, and Mbbs ES (2013): Violence: Recognition, Management and Prevention health care personnel and workplace violence in the emergency departments of a volatile metropolis, results from karachi. J Emerg Med; 45(5): 761-72.