



Evaluation of violence of patients and their families against emergency nurses

Malihe Hemati Esmaeili¹, Fatemeh Heshmati Nabavi^{1*}, Hamid Reza Reihani²

*1. Mashhad University of Medical Sciences, Mashhad Faculty of Nursing and Midwifery, Ebn-e Sina, Mashhad, Iran

2. Department of Emergency Medicine, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

ARTICLE INFO

Article type:

Original article

Article history:

Received: 14 Mar 2014

Revised: 20 Sep 2014

Accepted: 21 Sep 2014

Key words:

Workplace Violence

Nurse

Emergency Department

ABSTRACT

Aims: Patients and their families' violence is mostly among the most dangerous occupational hazards, which has some consequences for the medical staff and influences quality of patients' care and satisfaction directly or indirectly. The present study is done with the aim of "determining the level of patients and their families' violence against nurses".

Methods: This cross-sectional study was performed through census method on 68 nursing staff working in Central Emergency of Imam Reza hospital in Mashhad in 2012. Data collection tools included a standard questionnaire designed by the collaboration of International Labor Organization, World Health Organization, International Society of Nurses and International Association of Public Service; the questionnaire has been used after its adjustment with the social and environmental criteria. Data analysis was done through SPSS17 software and by using descriptive statistics and Pearson and Spearman correlation test.

Results: All the nurses were exposed to verbal violence at least once during the last year (14.7 percent once, 16.2 percent always and 69.1 percent sometimes) and 22.1 percent of them had experienced physical violence during the last year. The most common cause of violence against nurses was patients' relatives and most of the nurses have not taken any action against them. More than half of the nurses stated that they do not report the incident since they think it's useless to report or talk about it; they also stated that there was no specific action taken by the superior for identifying the cause of violence in the case of their reporting. In addition tracking the reported violence has most often been unsatisfactory.

Conclusions: Despite high prevalence of violence against nurses of emergency departments, lack of reporting mechanisms and tracking violence and nurses' avoidance of reporting violence, hidden aspects of this phenomenon are more than the obvious ones. Since most of the people working in emergency departments have reported that violence can't be prevented, it is necessary to prevent destructive effects of this phenomenon influencing the quality of emergency cares by developing educational programs aimed at empowering nurses in managing violent incidents.

Please cite this paper as:

Hemati Esmaeili M, Heshmati Nabavi F, Reihani HR. Evaluation of violence of patients and their families against emergency nurses. Iran J Crit Care Nurs. 2015;7(4):227-236.

* Correspondence Author: Fatemeh Heshmati Nabavi Nursing Management Department, Nursing and Midwifery School, Mashhad University of Medical Sciences, Mashhad, Iran, Ebn-e Sina, Mashhad, Iran.. Tel: +98 9155002213.
Email: heshmatinf@mums.ac.ir

1. Introduction

Violence in emergency department is a serious phenomenon which is a permanent concern for emergency staff [1]. This department provides very important services for the life threatening conditions and the number of the patients using this department is increasing everyday [2]. Certainly one of the most stressful work environments is hospital emergency department; a place where the staff should do the most accurate action in less time and many dangers threaten their health since they're dealing with patients [3].

Most of the people in contact with emergency cares are suffering from some degrees of physical and also psycho-social problems due to the special nature of this system; emergency cares environment is full of abnormal behaviors such as violent behaviors [4].

The risk of violence incidence against health care staff is 16 times more than other occupational groups in the service sector [5], and nurses as the front-line health care providers are at greater risk of encountering with violence since they are in the closest contact with patients and their relatives [6]. In terms of the risk of encountering violence, nursing is in the first place among 71 evaluated jobs [7]. According to the studies conducted in Iran, the level of occupational violence against nurses has been reported from 68.8 to 98.6 percent, which is a considerable number [8, 10]. International Council of Nurses (ICN) has reported that prevalence of workplace violence against medical staff has been increased to a high extent; so that they consider this problem as a part of their profession [11].

Workplace violence is increasing in the United States of America especially in health care units; so that it is considered a usual issue and assaults is the third cause of death related to occupational damages among all the US staff [12]. Nursing international society stated that 80% of the violence is not reported in the health system [13]. According to the definition of National Institute of Occupational Health and Safety, workplace violence is every kind of

physical fight, threats of violence and aggression, which is done against staff when they're doing their duty [14]. The world health organization divided violence into four categories including: 1. Physical violence: punching, kicking, slapping in the face, pushing, biting, pinching and scotching,

2. Verbal violence: some behaviors such as; insult, humiliation, intimidation, ridicule and vilification,

3. Racial violence: doubtful behavior because of skin color, language, nationality and religion or any other different situation,

4. Sexual violence: any unwanted behavior related to gender, which is considered as an attack to a person and causes threat, insult or shame [15].

The effects of workplace violence are very extensive and costly. The financial cost of workplace violence is billions of dollars per year, which is spent for security, medical and legal expenses, losing job and other financial losses and it is considered as a direct result of workplace violence [13]. For example statistics of Compensation Board of Alberta in Canada during 1997-2003 showed that the number of all the people who claimed compensation was 723 people and its expenditure totaled more than 2524368 dollars [16].

Although financial costs are very high for different kinds of workplace violence, determining the level of emotional costs is more difficult and it is still significant. The considerable effects include; burnout, depression, fear, post-traumatic stress disorder, lack of job satisfaction and leaving job [17], reduced work spirit, anger, loss of confidence, changing job, job stress, decreased productivity and disability [18]. This negative atmosphere influences relationship between patients and staff and causes the nurse to spend less time with a patient and responds to patient's needs less. Similar reactions are experienced by patients and as the result they have little satisfaction of the quality of health cares provided in a negative care atmosphere [10]

and finally it influences patients' care quality and satisfaction directly or indirectly [13].

Considering prevalence and dimensions of this problem, its serious and long-term consequences and considering the importance of Imam Reza hospital, which is one of the biggest hospital of providing health care and education services in eastern part of the country and it has a long history in providing services to patients and their families specially emergency department of this hospital, which has been one of the biggest emergency departments in the eastern part of the country and there was no similar research since the establishment of emergency medicine specialists, it seems necessary to conduct more studies and researches about different dimensions of this problem to develop some programs to reduce it. In addition, despite numerous studies in this regard, most of the studies assessed violence in different units of a hospital and there are less studies to assess emergency department specifically. The above reasons made us to conduct a study about the amount of patients and their relatives' violence against nurses working in central emergency of Imam Reza hospital in Mashhad.

2. Methods

It was a cross-sectional study, which was done in central emergency of Imam Reza hospital in Mashhad in 2012. Population of the study included all the nurses working in central emergency of Imam Reza hospital in Mashhad. Inclusion criteria included; at least bachelor degree in nursing, at least one year of work experience in emergency department and willingness to participate in the study, all the nurses who had the above inclusion criteria were selected as the samples of the study through census method. The number of all the emergency nurses was 80; only 68 of the questionnaires were completed and returned.

Data collection tools of this study included a standard questionnaire designed by the collaboration of International Labor Office, World Health Organization, International

Council of Nurses and Public Service International Society with the title "Workplace violence in the health sector"; this questionnaire was used after its adjustment with environmental and social conditions and it included four parts; the first part was related to demographic information and information related to workplace including 14 questions about age, gender, marital status, education degree, employment record, organizational post, type of employment, work shift, the level of stress regarding violence at work, reporting methods of violence and encouraging employees to report.

The second and the third part is about emergency nurses' experience regarding different kinds of workplace violence during the last year including verbal violence (10 questions) and physical violence (24 questions) in order to collect some information about some issues such as; nature of violence, its times, type of response, the amount of discomfort of the violence, violence consequences, the amount of consent about tracking the incident, strategies and policies for preventing and coping with the incident. The last part included three open questions for collecting nurses' ideas about factors influencing workplace violence and some actions for decreasing violence in the future (some parts related to sexual and racial harassment were excluded from the study since they could cause some sensitivity).

Content validity method was used for evaluating validity of the questionnaire. Ten specialists and lecturers of Tarbiat Modares University in Tehran and Medical Sciences University in Mashhad confirmed the questionnaire. Test-retest method was used for confirming reliability of the tools of the study. The questionnaire was given to ten nurses of emergency department and after two weeks the questionnaire was completed again by them and r was equal to 0.78 ($r=0.78$).

The researcher received an introductory letter from educational deputy of Nursing and Midwifery College of Mashhad and took the permission from hospital administration and

then referred to hospital wards and collected data at different shifts through convenient sampling. The questionnaire was given to the nurses of the study environment after explaining the aims of the study and after achieving their oral satisfaction. Participants of the study were assured that the information of the questionnaire are confidential and after data analysis the information is going to be provided generally. After a while the researcher went to collect questionnaires. Among 80 distributed questionnaires 68 of them were returned. Data analysis was done through SPSS 17 software and by using descriptive and analytic statistic with Pearson and Spearman correlation coefficient test. Significant level was considered 5 percent for all the tests.

3. Results

85.3 percent (58 people) of the participants were female and 14.7 percent (10 people) of them were male; their average age was 28.78 ± 4.16 years old and all of them had bachelor degree in nursing. 57.4 percent (39 people) were married and 75 percent (51) of them had 1 to 4 years of work experience. Regarding type of employment “44.1 percent

(30 people) were contractual”, “35.3 percent (24 people) were Tabsareh (**Probationary employment**; It involves an initial period of employment, usually one to six months, where employers assess whether an employee is capable of fulfilling the requirements of a job)”, “17.6 percent (12 people) were Tarhi (fixed-term; employees are hired for a fixed period of time, for example, for a specific project) ” and “2.9 percent (2 people) were formal (full-time)”. The level of their concerns of violence at their workplace was reported above the average (35.3 percent average, 25.0 percent high and 20.6 percent very high. Fifty percent of the samples of the study stated that there was no method for reporting violence at their workplace and they are not encouraged to report violent cases (table 1). Results showed that all the nurses were encountered with verbal violence at least once in the last year (14.7 percent once, 16.2 percent always and 69.1 percent sometimes) and 22.1 percent of them have experienced physical violence in the last year; 72.1 percent (49 people) of these types of violence was by the patients’ relatives. There was no significant relationship between age, gender and the amount work experience in

Table 1: Demographic features and underlying information about the emergence of violence in nursing experts working in Edalatian emergency of Imam Reza hospital in 2014

	Items	Frequency	Number
Age (Standard deviation \pm average)		28.78 \pm 4.16	68
Gender	Male	58.3	10
	Female	14.7	58
Marital status	Single	42.6	29
	Married	57.4	39
Type of employment	Formal	2.9	2
	Fixed term	17.6	12
	Probationary	35.3	24
	piecework	44.1	30
The amount of concern regarding workplace violence	Never	4.4	3
	A little	14.7	10
	Very much	20.6	14
	A lot	25.0	17
	To some extent	35.3	24
Workplace violence reporting methods	Yes	50.0	34
	No	50.0	34

emergency with experiencing or not experiencing different kinds of violence. 33.8 percent (23 people) of the nurses reported

that they did not take any action against verbal violence and 26.7 percent (4 people) tried to defend themselves against physical violence.

Table 2: The frequency distribution of the nurses working in Edalatian emergency in 2014 according to the amount of violence and type of reaction to violence.

Items		Verbal violence		Physical violence	
		Fre.	Per.	Fre.	Per.
The frequency of being exposed to violence in the previous 12 months	Yes	68	100.0	15	22.1
	No	0	0	53	77.9
The cause of violence	Relatives	49	72.1	11	73.3
	Patient	15	22.1	4	26.7
	Public people	2	2.9	0	0
	A colleague	2	2.9	0	0
Type of nurses' reaction to violence	No action was done	23	33.8	1	6.7
	I talked about it to my colleagues	15	22.1	1	6.7
	I tried to pretend that nothing was happened	13	19.1	2	13.3
	I reported to the higher authorities	7	10.3	3	20.0
	Other	3	4.4	0	0
	I transferred myself to another part	2	2.9	3	20.0
	I talked about it with my family/friends	2	2.9	0	0
	I tried to defend myself physically	2	2.9	4	26.7
	I wrote a complaint letter	1	1.5	0	0
	I complained compensation	0	0	1	6.7
Believing in preventability of the violent events	No	48	70.6	12	80.0
	Yes	20	29.4	3	20.0
The actions done by the manager for assessing the cause of event	No	45	66.2	9	60.0
	I don't know	14	20.6	3	20.0
	Yes	9	13.2	3	20.0
The violence consequence	Reporting to police	8	42.1	5	33.3
	I don't know	6	31.6	2	20.0
	None of them	4	21.1	5	33.3
	Verbal warning	1	5.3	3	13.3
The way of your manager's behavior with the violent event in terms of consultation	No	63	92.6	10	66.7
	Yes	4	5.9	5	33.3
Specifying a time for talking about it	No	47	69.1	9	60.0
	Yes	20	29.4	6	40.0
Other supports	No	61	89.7	13	92.9
	Yes	4	5.9	1	7.1
The level of nurses' satisfaction regarding following up the event	Completely dissatisfied	26	38.2	4	26.7
	Moderate	19	27.9	2	13.3
	Dissatisfied	15	22.1	4	26.7
	Satisfied	5	7.4	2	13.3
	Completely satisfied	2	2.9	3	20.0
The cause of not reporting violent event or lack of talking about it	It was useless	40	58.8	6	54.5
	It was not important	17	25.0	3	27.3
	I did not know who I should I report to	5	7.4	0	0
	I was afraid	1	1.5	0	0
	I was ashamed	1	1.5	2	18.2

70.6 percent (48 people) regarding verbal violence and 80 percent (12 people) regarding physical violence believed that they could not be prevented.

58.8 percent (40 people) of the nurses stated that they did not report the violence since they thought there is no use in talking about it. More than 60 percent of the nurses were dissatisfied with investigation of the incident by those who are responsible for that; (38.2 percent (26 people) were completely dissatisfied and 22.1 percent (15 people) were dissatisfied).

After violent incidents, 92.6 percent (63 people) of the nurses stated that they did not receive any consultation or any kinds of support from their bosses or supervisors and 69.1 percent (47 people) stated that even there was no chance given to them to talk about the incident.

32.4 percent (22 people) stated that the management does not have any specific policy regarding workplace health and safety and 42.6 percent (29 people) did not have any information about the above policies (table 2).

According to the findings of the study, most of

the nurses reported their discomfort level after a violent incident high and very high; most of them recalled their memories of violent incident and they stated that after the incident they were more careful and more worried about a violent incident (table 3).

4. Discussion

Results of the present study showed that all the nurses of the study that were working in the emergency department were encountered with verbal violence frequently; physical violence was also in a high level. Results of the present study are in consistent with other studies; so that results of the study of Esmail-Pour et al. (2011) showed that the level of emergency nurses' encounter with verbal violence and physical violence were respectively 91.6 percent and 19.7 percent during a working year [9]. Other similar studies confirm it too. Study of Rafati et al. (2011) showed that 72.5 percent of nurses were encountered with violence during their work period [19].

The study of Cheraghi et al. (2012) showed that

Table 3: Problems related to violence

	Items	Verbal violence		Physical violence	
		Fre.	Per.	Fre.	Per.
How much painful was the verbal violence for you?	Never	0	0	0	0
	Very little	5	7.4	0	0
	Moderate	21	30.9	6	40.0
	A lot	26	38.2	2	13.3
	Very much	12	17.6	7	46.7
How much do you remember the bad memories related to your considered violence?	Never	3	4.4	2	13.3
	Very little	11	16.2	0	0
	Moderate	23	33.8	6	40.0
	A lot	23	33.8	2	13.3
	Very much	8	11.8	5	33.3
How much do you avoid talking about the violent event?	Never	5	7.4	1	6.7
	Very little	19	27.9	5	33.3
	Moderate	22	32.4	5	33.3
	A lot	14	20.6	2	13.3
	Very much	8	11.8	2	13.3
How much are you worried about yourself after the event?	Never	3	4.4	1	6.7
	Very little	12	17.6	1	6.7
	Moderate	11	16.2	2	13.3
	A lot	30	44.1	7	46.7
	Very much	12	17.6	4	26.7

totally 74.1 percent of the nurses were encountered with workplace violence including; verbal abuse (64 percent), threats and intimidation (27.93 percent), beating (7 percent) and sexual assault (1.07 percent) [20].

Hosein-Abadi et al. (2013) achieved that most of the types of violence against nurses were verbal violence and the least of them were sexual violence [21].

Fallahi et al. (2013) stated that the amount of violence per year is equal to 71 percent. Psychological and physical violence with respectively 93.4 percent and 71.6 percent had the highest frequency [22]. The results of the study of Ghodsbin et al. (2008) showed that 72.7 percent of the staff experienced verbal violence and 9.1 percent experienced physical violence during the last six months [10]. Also results of the study of Zamanzadeh et al. (2007) showed that verbal violence and sexual violence had respectively the highest and the least frequency against nurses [23]. Results of the study of Mozafari et al. (2013) also showed that 87.7 percent of the participants were encountered with verbal violence by the patient and 89.8 percent were encountered with the verbal violence by the patients' relatives and 23.1 percent of the participants experienced physical violence by the patients and 23.8 percent of them experienced physical violence by the patients' relatives [24].

Results of the study of Shoghi et al. (2008) showed that 87.4 percent and 27.6 percent of the nurses respectively experienced verbal violence and physical violence at least once during the last six months [25].

Results of the study of Gacki et al. (2009) showed that physical violence and verbal violence against nurses were increased respectively 20 times and 200 times during three years [26].

Results of the study of Balamurugan et al. (2012), which was done in one of the hospitals in India showed that 87.2 percent of the nurses were exposed to violence; 57 and 30.2 percent of these nurses respectively experienced slight and moderate violence and 12.8 percent did not

experience any violence at all. The average of verbal and physical violence were respectively 5.40 and 1.55 percent, which show higher amount of verbal violence in compare with physical violence, which is in consistent with the present study [27].

Results of the study of Argon and Karadakovan (2005) in one of the hospitals in Turkey showed that the amount of verbal violence was 98.5 percent, which was significantly higher than physical violence which happened for 19.7% of the nurses [28]. It seems that physical violence is usually along with or after verbal violence; it can be said that verbal violence is one of the signs of physical violence.

Results of the present study showed that violence is mostly happened by the patients' relatives. Results of the study of Esmaeelpour [9], Yousefi [15], Rafati [19], Zamanzadeh [23], Rahmani [11], Fawzi AbuAlRub [29], Cheraghi [20] and their colleagues showed that violence is happened by the patients' relatives and it is in consistent with the results of the present study. Results of the study of Fallahi [22], Kwok [6], Mozafari [24] and Hosein-Abadi [21] showed that patients themselves were mostly the cause of violence. May be it is because of different culture and communication structure between the members of the family.

50.8 percent of the nurses of the present study were worried about the danger and serious injury in their workplace. Also in the study of Ghasemi et al. (2007) 16 percent of the samples of the study were very worried about the incidence of violence in their workplace [18]. It is while results of the study of Cahill et al. (2008) showed that 26 percent of the nurses were very worried about this issue [30]. The cause of difference and high level of concern in the samples of this study can be due to their work environment that is an emergency department, in addition it can be because of that the samples of the study are young and female.

There was no significant relationship between gender and the amount of violence in this study, which is in consistent with the results of the study of Aghili-Nejad [5], Mozafari [24],

Salimi [31], Hosein-Abadi [21] and their colleagues; but the violence against male nurses was more than female nurses in the study of Esmaeel-Pour [9], Ghodsbin [10], Shoghi [25] and Rafati [19] and their colleagues, which are not in consistent with the present study; it can be because of the gender of the participants of the study. It was not possible to assess the relationship between gender and encountering violence statistically since the present study is done through census method and most of the nurses of the emergency ward were female.

Most of the samples of the study have not reported violence; being “useless” and unimportant incident in the nurses’ point of view is the main cause of not reporting the violence. Results of the study of Fallahi [22] and Teimourzadeh [16] also showed that mostly nurses don’t report violence since they think it’s useless, which is in consistent with the present study. In the study of Shoghi et al. [25] also the cause of not reporting the problem was “lack of investigation and tracking the issue”. Lack of reporting violence can be due to lack of receiving appropriate feedback regarding tracking violence cases in the organization and reflecting it in a correct way; from the other side it can be because of lack of clear instruction regarding such problems and it is while according to the emergency nursing association, nurses should be encouraged to report violent incidents and they have to be supported after such incidents [32].

Most of the nurses in the present study believed that they could not prevent the violent incident, which is not in consistent with the study of Esmaeel-pour [9]. The cause of different views regarding preventing violent incidents can be due to different organizational culture; considering that the study of Esmaeel-pour had been done in Tehran, it can be because of the nurses’ information level about strategies of preventing violence or the provided educations in this regard.

In addition, most of the samples of the study believed that there is no instruction about encountering violence in their workplace, even

if they report, there is no special action taken by the supervisor for identifying the cause of violence. In addition more tracking of the reported violence were mostly unsatisfactory. Therefore the results of the present study are in consistent with the study of Zamanzadeh [23] and Fallahi [22].

5. Conclusions

High level of verbal and physical violence against nurses and high concerns of the staff about violent incidents and nurses’ approach that such a violence can’t be prevented indicate the necessity and the importance of performing some programs regarding workplace violence prevention in health environments especially in emergency department. Despite high prevalence of violence against nurses of emergency departments, lack of reporting mechanisms and tracking violence and nurses’ avoidance of reporting violence, hidden aspects of this phenomenon are more than the obvious ones. Considering that in emergency department mostly violence is done by the patients’ families against nurses, it seems necessary to develop some supportive policies regarding entrance and exit of the patients’ relatives.

6. Acknowledgments

This article is taken from a MA thesis approved by Medical Sciences University of Mashhad, Midwifery and Nursing University with 921006 code. Researchers thank and appreciate Vice Chancellor of research because of its financial support and also all the nurses participating in the study and also emergency department nursing manager of Imam Reza hospital because of their support in conducting this study.

References

1. Jacqui BC Lau BHSc (Nursing) MBSR, Judy Magarey, CritCareCert. Review of research methods used to investigate violence in the emergency department. 2006.
2. Hanem F M, Al Nasser S, Al Safwani F, Enzi F, Al Mutari S. Survey of Patient’s Expectations,

- Satisfaction and Willing to Return to Emergency Department at King Fahd Hospital College of nursing, King Saud Bin Abdul Aziz University for Health Science, Riyadh, 2014.
3. Mahmoudi H, Ebadi A, Salimi S, Najafi M, Mokhtari NJ, Shokrollahi F. Effect of nurse communication with patients on anxiety, depression and stress level of emergency ward patients. *Journal of Nursing Critical Care*. 2008;3(1):7-12.
 4. Rahmani A, Roshangar F, Dadashzadeh A, Namdar H, Akbari M, Nabiollahi L. Verbal Violence against the Paramedics Working in Tabriz University of Medical Sciences and Related Cities Nursing and Midwifery. *Journal of Tabriz University* 2010;14:33-9.
 5. Aghilinejad M, Nojomi M, Seyed Mehdi s. Study of prevalence of violence against nurses and related factors. *Razi Journal of Medical Sciences*. 2011;18(86):49-58.
 6. Kwok R, Law Y, Li K, Ng Y, Cheung M, Fung V, et al. Prevalence of workplace violence against nurses in Hong Kong. *Hong Kong Medical Journal*. 2006;12(1):6-9.
 7. Manon Mireille LeBlanc. Predictors and outcomes of workplace violence: The University of Guelph; 2000.
 8. Rahmani A, Hassankhani H, Mills J, Dadashzadeh A. Exposure of Iranian emergency medical technicians to workplace violence: a cross-sectional analysis. *Emergency Medicine Australasia*. 2012;24:105-10.
 9. Esmaeilpour M, Salsali M, Ahmadi F. Workplace violence against Iranian nurses working in emergency departments. *International nursing review*. 2011.
 10. Ghodsbin F, dehbozorgi Z, tayari N. Prevalence of violence against nurses. *Bimonthly Scientific Journal*. *Journal of Medical Research / University of witness*. 2007;78:45-52.
 11. Rahamani A, AllahBakhshiyani A, Dadashzadeh A, Namdar H, Akbari M. Physical violence in working environments: Viewpoints of EMT' personnel in East Azerbaijan Province. *Nursing Research*. 2008:33-41.
 12. Kowalenko T, Cunningham R, Sachs CJ, Gore R, Barata IA, Gates D, et al. Workplace violence in emergency medicine: current knowledge and future directions. *The Journal of emergency medicine*. 2012 Sep;43(3):523-31. PubMed PMID: 22633755.
 13. Chuolau B. Violence in the emergency department: an ethnographic study. Australia: Adelaide. 2009.
 14. Esmaeilpour Bandboni M. Violence against emergency nurses, prevalence and prevention. 2011.
 15. Yousefi p, Salehi B, Sanginan T. The types and contributing factors of aggression toward physicians and students of medicine in hospitals of Arak in 1387. *Arak Medical University Journal*. 2009;13(2):155-64.
 16. Teimoorzadeh E, Rashidian A, Arab M, Ghasemi M. Measuring nurses' exposure to violence in a large educational hospital in Tehran. *Journal of School Health & Health Research Institute*. 2010;7(2):41-9.
 17. Taylor JL, Rew L. A systematic review of the literature: workplace violence in the emergency department. *J Clin Nurs*. 2011 Apr;20(7-8):1072-85. PubMed PMID: ISI:000288166500019. English.
 18. Ghasemi M, rezaei M, Fathi M, Mirzaei P, Joneidi N. Nurses exposed to physical violence in the university hospital's baghiatallah. *Journal of Military Medicine*. 2005;9(2):113-21.
 19. Rafati M, Zabihi A, hoseini S. Verbal and Physical Violence on Nurses in hospitals of Babol University of Medical Sciences. *Journal of Faculty of Nursing and Midwifery Tehran University of Medical Science*. 2011;17(2):5-11.
 20. Cheraghi M, noghan N, Moghimbeygi A, Bikmoradi A. Analysis of Intensive Care Nurses' Workplace Violence. *Iran J Crit Care Nurs*. 2012;5(2):87-94.
 21. HosseinAbadi R, Biranvand S, Anbari K, Heidari H. Workplace Violence against nurses working in khorramabad educational hospitals and their confronting behaviors in violent events *Journal of Urmia Nursing and Midwifery Faculty*. 2013;11(5):351-62.
 22. Fallahi Khoshknab M, Tamizi Z, Ghazanfari N. Workplace violence status, vulnerable and preventive factors among nurses working in psychiatric wards. *Archive of SID*. 2013;2(3):7-16.
 23. Zamanzadeh V, Soleimannezhad N, Abdollahzadeh F. The nature of violence towards nurses working in hospitals in East Azerbaijan Province. *Medical Journal of Tabriz University of Medical Sciences*. 2007;29(2):61-6.
 24. Mozafari M, Tavan H. Survey of Violence Against Nursing in The Ilam Training Hospitals at 2012. *Scientific Journal of Ilam University of Medical Sciences*. 2013;21(2):152-60.
 25. Shoghi M, Mirzai G, Salemi S, Sanjari M, Heidari S, Shirazi F. Verbal abuse against nurses in hospitals in Iran. *Journal of Semnan University of Medical Sciences*. *Journal of Semnan University of Medical Sciences*. 2008;9(4):273-8.
 26. Gacki SJ, Juarez A, Boyett L, Homeyer C, Robinson L, MacLean S. Violence against nurses working in US emergency departments. *Journal of healthcare protection management : publication of the International Association for Hospital Security*. 2009.
 27. Balamurugan G, Treesa Joseb T, Nandakumar. Patients' violence towards nurses: A questionnaire survey. *International Journal of Nursing*. 2012;1(1):1-7.
 28. Ergün F, Karadavok. Violence towards nursing staff in emergency departments in one Turkish city. *International nursing review*. 2005;52(2):154-60.

29. Fawzi AbuAlRub R, Khalifa M, BH. Workplace Violence Among Iraqi Hospital Nurses. *Journal of Nursing Scholarship*. 2007;39(3):281-8.
30. Cahill D. Effect of ACT-SMART on Nurses' Perceived Level of Confidence Toward Managing the Aggressive and Violent Patient. *Advanced Emergency Nursing Journal*. 2008;30(3):252-68.
31. Salimi J, Ezazi L, Karbakhsh M. Violence against nurses in emergency departments, non-psychiatrist. *Journal of Forensic Medicine*. 2006;12(4):202-9.
32. Kamchuchat C, Chongsuvivatwong V, Oncheunjit S, Yip T. Workplace violence directed at nursing staff at a general hospital in southern Thailand. *Journal of Occupational Health*. 2008;50(2):201-7.