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Effect of Workplace Violence Management Program on the Incidence

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Abstract

Introduction: Emergency nurses are at higher risk of workplace violence than other health care personnel; therefore, a Workplace Violence Management Program is crucial to prevent violence. The purpose of the present study was to explore the effect of a Workplace Violence Management Program on the incidence of workplace violence against nurses at hospital emergency departments.

Methods: The present study was quasi-experimental using control groups and pre- and post-tests. The research units included 48 nurses working at the emergency departments of Farabi Hospital and Amir Alam Hospital of Tehran. The intervention included the use of a program featuring management undertakings, such as ventilation, using closed-circuit television cameras, modifying lightings, employing a security guard for the night shift, and training. The training, entitled "Management and Prevention of Workplace Violence," was implemented as a two-day workshop using training programs. The data collection tool was the "Workplace Violence in the Health Sector" questionnaire. Chi-square test and t-test were used to test the hypotheses. The data were analyzed using SPSS version 23.

Results: The results of the study showed that the frequency of violence with its different physical, psychological, sexual, and racial forms decreased after the intervention, yet this decrease was not statistically significant.

Conclusions: The findings of the present study revealed that although Workplace Violence Management Program with its sub-categories, such as training, security, physical environment, policies, and procedures, can reduce the incidence of violence; this decrease is not significant, which probably results from the low sample size and the short follow-up period (i.e. one month). Therefore, it is recommended for this study to be carried out on a larger population over a longer follow-up period.

INTRODUCTION

Violence has been considered as an acute social problem, which can be observed in all geographic regions, among all religious and racial groups, and at all educational, occupational, economical, and social levels [1]. Although there are many operational concepts and definitions for the term "violence", the World Health

Organization defines violence as: "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation" [2]. Considering the psychological and physical consequences for employees, irreversible monetary loss for organizations, and adverse effects on the quality of treatment, violence has been of interest to many researchers [3-6]; it has become a matter of concern in policy making and is considered as one of the most important and complex issues in the healthcare system [7]. Obviously, violence exists in all workplaces [8-10], yet the characteristics of the healthcare system are such that they have a significant effect on the occurrence of workplace violence [6]. According to the American Labor Office, two million non-fatal workplace violence events occur annually [2]. Being at the forefront of healthcare providers, nurses are at the highest risk of violence [6, 11, 12]. In the meantime, the emergency department, as one of the most stressful occupational environments, is full of abnormal behaviors, including violent behavior [4, 13]. Several studies have been conducted in Iran addressing the incidence of workplace violence against health care personnel. In a systematic review by Najafi et al. (2013), the rate of violence was reported at 90.5% in 19 descriptive studies [5]. Another study by Rafati Rahimzadeh et al. (2011) revealed that 72.5% of nurses working at hospitals affiliated to Babol University of Medical Sciences were subjected to workplace violence during their work period [14]. Due to the high prevalence of workplace violence, the Emergency Nursing Association launched a statement in 2010 on violence in the emergency care settings, stating that "Health care organizations have the responsibility to provide a safe and secure environment for both their employees and the public" [15]. Among the most important factors of violence against nurses are demographic characteristics, such as age and gender, low economic and social status, major psychiatric disorders, refusal of treatment, history of domestic violence, and availability of weapons. The most significant cases of violence have been observed in intensive care units and psychiatry and emergency departments [2, 4, 16]. It is critical to recognize and understand the causes of workplace violence in order to prevent the occurrence of violence against health care personnel when they are in high-risk situations [17]. The approach taken by Gerdtz to reduce and prevent workplace violence is the use of Haddon Matrix for behavioral and administrative interventions to prevent workplace violence. This involves training the staff in conflict resolution and effective communication strategies with patients, training managers in building proper relationships with employees susceptible to violence, regularly assessing employee performance and allowing them to state their dissatisfactions, training patients, and identifying the patients prone to violence. The results were satisfying [18]. Workplace violence is a management problem that can affect the organization's performance and create an insecure and hostile workplace. It also has a negative impact on employee performance as well as their professional communication and patient care. Awareness of the Workplace Violence Management Program can help shape people's attitude and their understanding of the nature of violence among patients, raise the nurses' tolerance of violence, reduce their negative emotions in the face of patients' violence and, finally, reduce the occurrence of violent behaviors [6, 13, 18-20]. Although all the staff of a hospital are exposed to common types of physical and verbal violence, nurses, more often, face violence due to their direct contact with patients and patients' relatives [9, 21-24]. In the meantime, the emergency department, as one of the most stressful workplaces, is full of abnormal behaviors, including violent behaviors [4, 6]. The main focus of the workplace violence management program is to reduce the violence caused by patients and their relatives. Therefore, regarding the high incidence of violence at emergency departments and the importance of its management, the present study was conducted to investigate the effect of workplace violence management program on workplace violence against nurses at emergency departments of selected hospitals of Tehran.

METHODS

The present study was a quasi-experiment with the pre- and post-test design and a one-month follow-up, which was carried out on two intervention and control groups. The study population consisted of all the nurses working at the emergency departments of Farabi and Amir Alam hospitals of Tehran, of which 27 nurses worked at the emergency department of Farabi Hospital (intervention group) and 26 worked at the emergency department of Amir Alam Hospital (control group). Three nurses from the intervention group and two nurses from the control group were excluded from the study due to their non-cooperation and finally 24 nurses in each group were evaluated. For the inclusion criteria, the nurses had to have at least a bachelor's degree and one year of work experience at the emergency department. Total population sampling and purposive sampling methods were used. The data gathering tool in this study was the Workplace Violence in the Health Sector questionnaire developed by the International Labour Office (ILO), the International Council of Nurses (ICN), and the World Health Organization (WHO). The questionnaire had 58 questions in four subscales: physical violence (18 questions), psychological violence (12 questions), sexual violence (12 questions), and racial violence (12 questions). At the end of the questionnaire, there were eight closed-ended questions, addressing "reaction to violence," "report of workplace

violence", "handling of violent action", "opinion on contributing factors to physical violence", and "opinion on most important measures that would reduce violence", which included the following questions: "What did you do when you faced violence at your workplace?", "What are the contributing factors to violence in your work setting", and "How can workplace violence be prevented in the wards?". This questionnaire has been used in various studies and in most countries and has been translated and used in Iran by various scholars. Fallahi (2012) was the first in Iran to translate this questionnaire and to confirm its validity and reliability in a study entitled "Investigating Workplace Violence Status, Contributing and Preventive Factors among Nurses Working in Psychiatric Wards" [2]. The content validity of the questionnaire was confirmed by 11 specialists, including four nurses, two psychologists, two psychiatrists, a social worker, and two occupational therapists. The questionnaire validity was obtained by distributing it among 20 nurses from the research population at two intervals of 15 days apart. The correlation coefficient of r = 0.73 confirmed the reliability of this scale.

The Workplace Violence Prevention Management Program included training and certain management affairs, such as ventilation, closed-circuit television cameras, modification of lightings, and employing a security guard for the night shift. The training included a management program for the prevention of workplace violence. After completing such steps as going through the administrative procedures, coordinating with the nursing management, research supervisor, and head nurse of the emergency department to schedule the program and announce the place of the workshop and also to inform the nurses to participate in the workshop, the researchers prepared the training package of the workplace violence prevention program and managed to obtain the privilege of the workshop from the University of Welfare and Rehabilitation Sciences to retrain the participants. Eventually, the researchers held a two-day workshop for two consecutive days in the conference hall of Farabi Hospital with audio and visual equipment and desks and chairs; they provided necessary training materials, such as material on stress management, anger management, conflict management and resolution, and communication skills in the work environment through discussions, lectures, and question and answer sessions. The researchers examined the environment of emergency departments in order to implement the above-mentioned intervention. There were some problems, such as faulty light bulbs, insufficient lighting, five faulty CCTV cameras out of ten cameras, and inefficient ventilation systems. Accordingly, a written request was made to the hospitals' management for resolving the problems. After a month of follow-up by the researchers, the cases were dealt with by the hospitals' maintenance workers upon the permission of the hospitals' management. Since the security of the intervention hospital was extremely poor, the researchers proceeded to improve the nurses' security system by convincing the hospitals' management to employ more security guards for the night shift regarding the otherwise lacking manpower. The purpose of this intervention was to feel secure and free from anxieties and worries caused by violence at the workplace. In fact, with the help of security guards in front of the emergency department, it was possible to increase the performance of two- or three-person night duty shifts, the reporting system of workplace violence, and employee's security. All ethical standards, such as obtaining permission from the Ethics Committee of the University of Welfare and Rehabilitation Sciences and the approval of the hospitals' presidents and the nursing managers were maintained. After explaining and ensuring the participants of the confidentiality of the questionnaires' information, their consent was orally received. Then, after coordinating with the intervention group, the workplace violence prevention and management program pack was given to them, and immediately after training, the incidence rate of workplace violence was measured. The process was followed up for one month. After this period, the incidence of workplace violence of the intervention and control groups was measured again and then the results of the intervention and control groups before and after the training were compared with each other. Finally, all of the training items provided to the intervention group were given as a one-day workshop to the control group. The data were analyzed through descriptive statistics and chi-square test using SPSS version 23. The significance level was considered at 5%.

RESULTS

The findings showed that the two intervention and control groups were matched in terms of marital status, age, and work experience. In addition, the frequency of workplace violence was different given its physical, psychological, sexual, and racial type, where psychological violence with a frequency of 62.5% had the highest incidence compared to other forms of violence. Moreover, violence had mostly occurred on the part of the patient him/herself. In descending order, the frequency of psychological and physical violence was respectively 62.5% and 41.7% in the intervention group and 75% and 25% in the control group. No sexual or racial violence was reported. As for the place of violence, the highest psychological violence in the intervention group occurred in the clinic yet the same in the control group occurred at the time of admission to the emergency department. Chi-square test in the intervention and control groups showed that there was a significant difference between the two groups regarding the place of psychological attacks ($P < 0.001$). In both intervention and control groups, the highest violence in both groups was observed during the days and the morning shift. Chi-square test was used to check

the relationship between the time of occurrence of violence and the type of group, which showed that there was no significant relationship between the two groups regarding the time of violence (Table 1).

As shown in Table 1, psychological violence was reported the most commonly in all three steps and in both intervention and control groups. The results of chi-square test showed that the distribution of physical violence and psychological violence in various steps of the study was similar in both groups and no significant differences were observed (P > 0.05). Moreover, the chi-square test showed that the two groups were different in terms of racial violence before the intervention (P = 0.034). However, after the intervention, there was no report of the incidence of this violence. McNemar's test was used to compare the frequency of violence before and after the intervention. Considering the probability value of 70%, it was concluded that the frequency difference of different forms of violence among the participants before and after the intervention was not significant in the intervention and control groups (Table 2).

As given in Table 3, the probability value of 0.004 indicates a significant difference in the forms of violence among the participants before and one month after the intervention in the intervention group.

DISCUSSION

In the present study, the two groups were homogeneous in terms of variables, such as age (P = 0.663), marital status (P = 0.35), and work experience (P = 0.967). In other words, the two groups were statistically homogeneous and similar in terms of underlying and intervening variables, which could affect the results of the study.

Table 1: Comparison of the Frequency Distribution of Forms of Workplace Violence in Both the Intervention and Control Groups

Study Steps	Intervention Group		Control Group		X^2	P value
	No.	Percentage	No.	Percentage		
Physical violence						
Before intervention	10	41.7	6	25	1.00	0.317
After intervention	6	25	6	25	0.000	1
During follow-up	4	16.7	6	25	0.273	0.527
Psychological violence						
Before intervention	15	62.5	18	75	0.273	0.602
After intervention	13	54.17	17	70.83	0.532	0.465
During follow-up	10	41.67	11	45.83	0.048	0.827
Racial violence**						
Before intervention	0	0	6	25	4.5	0.034
After intervention	0	0	0	0	0	0
During follow-up	0	0	0	0	0	0

* No sexual violence was reported.

** Considering that no racial violence was reported in the intervention group, a frequency was added to the two groups for analysis and based on it, the probability was calculated.

Table 2: Comparison of the Frequency of Forms of Violence against Nurses working at Farabi and Amir Alam Hospitals of Tehran before and after the Intervention in the Intervention and Control Groups during Year 2016

	After intervention					P value
	No		Yes		Total	
	No.	Percentage	No.	Percentage		
Intervention Group						P = 0.070
Before intervention						
No	3	12.5	1	4.17	4	
Yes	7	29.17	13	54.17	20	
Total	10	41.67	14	58.34	24	
Control Group						-
After intervention						
No	0	0	0	0	0	
Yes	7	29.17	17	70.83	24	
Total	7	29.17	17	70.83	24	

Table 3: Comparison of the Frequency of Forms of Violence against Nurses working at Farabi and Amir Alam Hospitals of Tehran before and one Month after the Intervention in the Intervention and Control Groups

	One month after the intervention					P value
	No		Yes		Total	
	No.	Percentage	No.	Percentage		
Intervention Group						P = 0.004
Before intervention						
No	2	8.33	2	8.33	4	
Yes	14	58.33	6	25	20	
Total	16	66.66	8	33.33	24	
Control Group						-
Before intervention						
No	0	0	0	0	0	
Yes	7	29.17	17	70.83	24	
Total	7	29.17	17	70.83	24	

In a study conducted at the emergency department of Imam Reza hospital of Mashhad, Esmaeili and others reported that the mean age of the participants in the study was 33.17 ± 5.95; 64.6% of the participants were married, and the mean of work experience was 8.7 ± 3.51 years [6]. In a study by Fallahi et al., psychological and physical violence had the highest incidence with a frequency of 93.43% and 71.6%, respectively and racial and sexual violence had the lowest incidence in the study departments with a frequency of 19.1% and 5.5%, respectively. Similarly, most cases of violence had taken place on the part of patients. In a descending order, the frequency of sexual, physical, psychological, and racial violence was 100%, 93.9%, 79.5%, and 65.7%, respectively [2]. According to Zamanzadeh et al. [25], most cases of verbal and physical violence were on the part of patients, while doctors and nurses constituted the highest number of aggressors in racial and sexual violence. Similarly, the results of the study by Yousefi et al. [26] showed that the patient him/herself was responsible for 25% of cases of violence and the rest were committed by his/her relatives, which is consistent with the results of the present study. Likewise, the results of the present study agreed with those by Çelik [27], Kamchuchat [28], Shoghi et al., and Rafati Rahimzadeh et al. [14]) in that the most important factor of workplace violence was the patients and their relatives, according to the nurses. The researcher believes that patients' relatives are among the potential factors in the incidence of violence against nurses. Therefore, it is necessary to take certain measures to control the entry and exit to the patients' care departments and to establish laws in this regard to reduce the incidence of violence in Iran's health care centers.

Based on the findings of the present study, the emergency department was reported to have the highest incidence of violence against nurses. According to Najafi et al. [5] and Moeini et al. [9], the highest rate of verbal violence occurred in emergency, internal, and surgical wards, and the lowest rate occurred in special wards, which was consistent with the results of the present study. The results of the study by Qodsbin et al. also showed that the highest frequency of verbal violence was ascribable to emergency and internal wards. The study of place and time of violence by Najafi et al. [5] showed that the highest rate of verbal violence was reported in emergency and internal and surgical wards, and the lowest rate was reported in special sectors. The highest incidence of violence was also observed in the night shift, on holidays and at the time of admission, which is consistent with the present study. Although the implementation of the Workplace Violence Management Program helped reduce the frequency of violence, the reduction was not statistically significant. In this regard, the results of the present study are consistent with those of the study by Heckemann, as he showed that education did not reduce the incidence of violence, yet any reduced incidence of violence should be investigated at an organizational level. Contrarily, the present study was not consistent with that by Gillespie et al., because the program had reduced the frequency of workplace violence in their study. Perhaps the reason for the discrepancy between the results of these two studies is the difference between the designs of the two studies and the amount of time allotted to evaluate the use of the program [15].

CONCLUSIONS

The results of the present study confirmed that emergency department nurses were permanently exposed to psychological violence; thus, the findings of the present study indicated that the workplace violence management program, as a training and managerial method, could reduce the frequency of different forms of violence. Due to a lack of legal centers, institutions, and mechanisms for reporting, recording, and prosecuting cases of workplace violence against nurses, it is recommended for the relevant authorities to pass new laws and establish centers at the hospitals for reporting, recording, and prosecuting cases of workplace violence against nurses, staff, and other health care groups. The researcher believes that this can

reduce workplace violence against nurses. Furthermore, if the competent authorities take action against cases of violence, they can improve nurses' working morale, enhance job satisfaction and job preservation, reduce fear and worry at the workplace setting, and reduce the physical and psychological complications of nurses.

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Ethical Consideration

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Author's Contribution

All authors participated in the study design, literature review, data collection, analysis, and editing of the manuscript.

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The findings of the present study revealed that although workplace Violence Management Program with its sub-categories, such as training, security, physical environment, policies, and procedures, can reduce the incidence of violence; this decrease is not significant, which probably results from the low sample size and the short follow-up period (i.e. one month). Therefore, it is recommended for this study to be carried out on a larger population over a longer follow-up period.

Conflicts of Interest

There was no conflict of interest to be declared.

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