

Original Article

The Impacts of Nursing Staff Education on Perceived Abuse among Hospitalized Elderly People: A Field Trial

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ABSTRACT

Background: Growing elderly population has increased the number of hospitalized older adults and heightened concerns over elder abuse during hospitalization. **Objectives:** This study sought to examine the impacts of a nursing staff education program on hospitalized older adults' perceived abuse. **Methods:** This field trial was conducted in 2017 in the Internal Medicine Wards of a University Hospital in Kashan, Iran. Initially, 431 older adults with discharge order were conveniently recruited during 2 months to complete the study questionnaires. Then, all 88 nurses in the study setting were provided with educations about elder abuse. After that, another 310 older adults were consecutively recruited to complete the study questionnaires. Data were collected using an elder abuse questionnaire. Higher mean scores showed lower levels of elder abuse. The Mann-Whitney U, the Chi-square, and the Fisher's exact tests were conducted for data analysis. **Results:** Before the intervention, the mean scores of the physical, psychological, and neglect subscales of elder abuse were 4.34 ± 0.71 , 3.84 ± 0.60 , and 3.31 ± 0.72 , respectively. After the intervention, these scores significantly increased to 4.56 ± 0.66 , 4.67 ± 0.53 , and 4.19 ± 0.67 , respectively ($P = 0.001$). The total score before the intervention was 3.79 ± 0.54 that significantly increased to 4.45 ± 0.56 after the intervention too ($P = 0.001$). **Conclusion:** Nursing staff education is effective in significantly reducing perceived abuse among hospitalized older adults. Therefore, developing and implementing regular abuse-related education programs for nurses are recommended.

KEYWORDS: Abuse, Education, Nurse, Older adults

INTRODUCTION

The global elderly population is progressively increasing due to improved health conditions in different countries.^[1] Subsequently, the number of older adults who are hospitalized for diagnostic and medical services is also increasing. Statistics show that in Iran, around 60% of health-care costs, 35% of hospital discharges, and 47% of hospitalization days are related to older adults.^[2]

Older adults are very vulnerable, have a wide variety of care-related needs, and hence, need specific care services.^[3] Their physical and mental disabilities put them at great risk for abuse.^[4,5] According to the World Health Organization, elder abuse is “a single, or repeated

act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person.”^[6]


Studies show that older adults who are hospitalized in hospital settings experience different types of abuse^[3,7] such as punishments, inattention, inadequate care, and words or actions which cause fear, anxiety, humiliation, or offense.^[3] The rates of physical, psychological, and financial elder abuse and neglect in Iranian hospital

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How to cite this article: Dianati M, Azizi-Fini I, Oghalae Z, Gilasi H, Savari F. The impacts of nursing staff education on perceived abuse among hospitalized elderly people: A field trial. *Nurs Midwifery Stud* 2019;8:149-54.

Access this article online	
Quick Response Code: 	Website: www.nmsjournal.com
	DOI: 10.4103/nms.nms_40_18

settings were reported to be 11.8%, 9.68%, 5.08%, and 21.17%, respectively.^[3] A study in 165 nursing homes in Swiss also showed that the rates of emotional and physical elder abuse and neglect were 50.8%, 1.40%, and 23.7%, respectively.^[8]

Elder abuse may have different negative outcomes for elderly people, such as emotional distress, depression, anxiety, social isolation, and loss of financial resources.^[9-11] Therefore, health-care providers, particularly nurses, need to have adequate information about instances of abuse and strategies for its prevention and management.^[12] Yet, studies show that nurses have limited knowledge about elder abuse and its diagnosis, reporting, and management.^[13-15] Therefore, they need to receive educations about elder abuse.^[14,16] Some previous studies reported that education can improve nurses' knowledge and awareness of elder abuse.^[17,18] Nonetheless, most of these studies were on elder abuse in nursing home settings^[8,16] and none of them assessed the effects of the interventions from the perspectives of the hospitalized older adults.

Objectives

The present study sought to examine the impacts of a nursing staff education program on perceived abuse among hospitalized older adults.

METHODS

Study design and participants

This field trial was conducted in 2017 (from 22 May to 22 October) in the Internal Medicine Wards of a University Hospital in Kashan, Iran. A total of 741 older adults with discharge order were included in the study through consecutive sampling. The sample size was calculated using the formula for the comparison of two independent means and the findings of an earlier study.^[16] According to this report, the elder abuse mean scores before and after intervention were 29.16 ± 6.02 and 32.62 ± 5.84 , respectively. Thus, with a Type I error of 0.01 and a Type II error of 0.1, the minimum sample size was determined to be 88. However, the researchers decided to study all the eligible patients during 2-month periods, that is, before and after the intervention. During the study, 1193 older adults were hospitalized in the study setting, 741 of them were eligible. Accordingly, 431 and 310 eligible older adults were recruited and assessed for elder abuse before and after the intervention, respectively. Eligibility criteria were age over 60 years, and ability to communicate in Persian. Exclusion criteria were death or hospital discharge at personal request before physician order.

Instrument

A demographic questionnaire and a researcher made self-report elder abuse questionnaire were used for

data collection. The demographic questionnaire had items on participants' age, gender, marital status, living status (i.e., alone, with spouse, or with children), and need for help in doing activities. The elder abuse questionnaire was a researcher-made one, included 39 items on the instances of psychological elder abuse (12 items), physical elder abuse (12 items), and neglect (15 items). Items were scored on a five-point Likert-type measurement scale as the following: "Always = 5," "Often = 4," "Sometimes = 3," "Rarely = 2," and "Never = 1." Therefore, the maximum possible scores of the three subscales of the questionnaire were 60, 60, and 75, respectively. The total mean score of each subscale was divided by the number of its items to produce a subscale mean score of 1–5. Higher subscale mean scores showed lower levels of elder abuse. Its content validity was confirmed by ten faculty members affiliated to Kashan University of Medical Sciences, Kashan, Iran. Then, content validity ratio and content validity index were calculated which were equal to 0.63 and 0.84, respectively. Reliability was also assessed through the test-retest method with a reliability coefficient of 0.87. For older adults, who were unable to read or write, the questionnaire was filled out through face-to-face interview held by the second author.

Intervention

This study was conducted in the following three phases:

The first phase: Initially, 431 eligible hospitalized older adults were consecutively recruited during 2 months from 22 May 2017 to 22 July 2017. They were provided with information about the study aim and then, were asked to complete the study questionnaires. In this phase, the nursing staffs of the study setting were unaware of the study aims.

The second phase: All 88 nurses who worked in the study setting were recruited to the study through the census method and provided with information about the study aim. Then, they were offered an educational program on elder abuse from 22 July 2017 to 22 August 2017. The program included the provision of educational pamphlets as well as internet-based educations through the Telegram application. The pamphlets contained information about the definition, diagnosis, prevention, etiology, examples, and legal considerations of elder abuse. Pamphlets were provided to nurses on a weekly basis. The contents of the education provided through the Telegram application were the same as the education provided in the written pamphlets. In other words, the application was used to review the contents of the pamphlets. Moreover, images on elder abuse were sent to nurses over the application [Table 1]. Telegram

Table 1: The outline of nursing staff education program about elder abuse

Education through pamphlet	Education through the Telegram application
<p>First week</p> <p>Definition, etiology, diagnosis, manifestations, and prevention of elder abuse</p>	<p>Study aim, invitation to the study, religious instructions about the importance of elderly people, epidemiology, and consequences of elder abuse</p>
<p>Second week</p> <p>Examples of neglect-related abuse among elderly people</p>	<p>Visual examples of neglect-related abuse among elderly people; 24 h availability for answering nurses' questions</p>
<p>Third week</p> <p>Examples of physical and psychological abuse among elderly people</p>	<p>Visual examples of physical and psychological abuse among elderly people; 24 h availability for answering nurses' questions</p>
<p>Fourth week</p> <p>Legal considerations of elder abuse</p>	<p>Legal considerations of elder abuse; examples of elder abuse and its legal aftermath</p>

messages were sent daily to all nurses for 1 whole month.

The third phase: After the end of the educational program for nurses, we referred (from 22, August 2017 to 22 October 2017) to the study setting, recruited 310 eligible elderly people, informed them about the study aim, and asked them to complete the study questionnaires [Figure 1].

Data analysis

Data analysis was carried out using the Statistical Package for the Social Sciences for Windows version. 16.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics measures (such as frequency distribution tables, mean, and standard deviation) were used for the description of the findings. Moreover, the Chi-square and the Fisher's exact tests were carried out to compare the groups, respecting categorical demographic characteristics such as age, marital status, living status, and need for help in doing activities. The Kolmogorov–Smirnov test was run to test the normality of the scores of the elder abuse questionnaire. Its result showed that the scores did not have normal distribution. Therefore, the Mann–Whitney U nonparametric test was used to compare the groups respecting the mean scores of elder abuse. The results of the statistical tests were considered statistically significant if $P < 0.05$.

Ethical considerations

This study was approved by the Ethics Committee of Kashan University of Medical Sciences, Kashan,

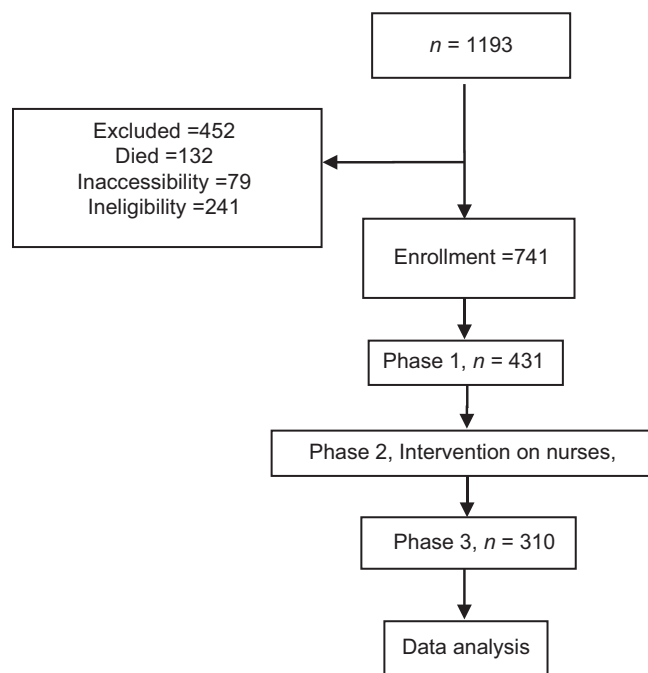


Figure 1: Flow diagram of the study

Iran (Approval code: IR.KAUMS. REC. 1396.5) and registered in the Iranian Registry of Clinical Trials (Registration code: IRCT201705243146N3). Necessary arrangements were made with the administrators of the study setting. Moreover, all participants were informed about the aim of the study, were assured that their data would be managed confidentiality, and were asked to provide written informed consent for participation. Participation in this study charged participants no cost. Participants' rights were protected according to the principles of the Helsinki Ethical Declaration.

RESULTS

The means of participants' age were 71.68 ± 9.64 years before the intervention and 73.33 ± 10.65 years after the intervention. There were no statistically significant differences between the groups, respecting participants' gender, marital status, living status, and need for help in doing activities [$P > 0.05$; Table 2]. The highest subscale mean score both before and after the intervention was related to the neglect subscale. The results of the Mann–Whitney U-test illustrated that the posttest mean scores of all three subscales of the elder abuse questionnaire were significantly greater than the corresponding pretest mean scores [$P = 0.001$; Table 3].

DISCUSSION

Findings indicated that nursing staff education significantly reduced perceived abuse among hospitalized older adults. Most previous studies in this area had dealt with the incidence, and the prevalence of elder

Table 2: Demographic characteristics of the older adults participated in the study

Characteristics	Before, n (%)	After, n (%)	P
Gender			
Male	183 (42.5)	128 (41.3)	0.76 ^a
Female	248 (57.5)	182 (58.7)	
Living status			
Alone	80 (18.6)	65 (21.0)	0.25 ^b
With spouse	288 (66.8)	206 (66.5)	
With children	63 (14.6)	39 (12.5)	
Marital status			
Married	295 (68.4)	210 (67.7)	0.14 ^b
Widowed	117 (27.2)	96 (31.0)	
Single	19 (4.4)	4 (1.3)	
Need for help in doing activities			
No	274 (63.6)	212 (68.4)	0.18 ^a
Yes	157 (36.4)	98 (31.6)	

^aFisher's exact test, ^bChi-square test**Table 3: Elder abuse scores before and after the intervention**

Subscales	Elder abuse score ^a		P
	Before	After	
Psychological	4.34 ± 0.71	4.56 ± 0.66	<0.001
Physical	3.84 ± 0.60	4.67 ± 0.53	<0.001
Neglect	3.31 ± 0.72	4.19 ± 0.67	<0.001
Total mean	3.79 ± 0.54	4.45 ± 0.56	<0.001

^aData presented as mean ± SD. SD: Standard deviation

abuse^[3,5,19] and no study had been conducted yet, to the best of knowledge, to assess the effectiveness of staff education in reducing elder abuse. Yet, a study reported that education significantly improved nurses' knowledge about diagnosing, documenting, and reporting abuse against older adults who referred to different health-care settings; however, that study did not evaluate the effects of education on the rate of elder abuse.^[20]

Findings illustrated that before the intervention, the highest subscale score for the elder abuse questionnaire (i.e. the lowest level of abuse) was related to the psychological abuse subscale. Another study on hospitalized older adults in Iran also reported that psychological abuse was less common than physical abuse and neglect.^[3] However, studies in nursing homes and community settings in other countries showed that psychological abuse was more common than the other types of abuse.^[21-23] This difference may be due to the context of the study and a better understanding of hospital nurses about the emotional and psychological needs of hospitalized patients. Furthermore, it can be said that with regard to Iranian culture and traditional training of respecting for the older adults in Islam,

nurses may behave in such a way to satisfy the elderly patients. Similarly, an earlier study in our study setting reported that hospitalized patients were highly satisfied with professional nursing care which included the fulfillment of patients' psychological needs.^[24]

Findings also showed the effect of the intervention on the reduction of perceived psychological abuse as one of the three common abuses among hospitalized older adults. Similarly, previous studies reported that counseling and social work interventions significantly alleviated psychological abuse among community-dwelling older adults.^[25,26] Another study also found the effectiveness of caregiver education in reducing their negative-psychological behaviors toward older adults.^[16] These findings can be attributed to the fact that improved knowledge can modify nurses'/caregivers' beliefs about care, and enhance their motivation for modifying their behaviors toward older adults.^[26]

Before our intervention, the mean of neglect subscale was lower in comparison with other types of elder abuse. This is in line with the findings of studies in other countries.^[27-29] Moreover, earlier studies in Iran reported that the prevalence of neglect was 21%,^[3] 60%,^[22] and 32%.^[30] An explanation for this finding may be the subjectivity of some aspects of neglect, which causes nurses not to consider them as abuse. Moreover, some aspects of neglect are due to organizational factors which are out of the control of nurses. For instance, organizational factors such as nursing staff shortage, nurses' heavy workload, and inappropriate physical structure of hospital wards can contribute to neglect.^[31-34] An earlier study reported that health-care providers' workload is directly correlated with abuse rate so that abuse is more prevalent in case of heavy workload.^[35] Our findings showed that nursing staff education can significantly reduce neglect-related elder abuse.

We also found that the mean of physical abuse subscale was higher than the neglect subscale, but it was less than the psychological abuse subscale. This is in line with the findings of an earlier study in Iran.^[3] This finding may be due to the more objectivity of physical abuse and its greater likelihood of being prosecuted, both of which require nurses to pay special attention to it and adopt strategies for its prevention. Our findings also showed that nursing staff education significantly reduced physical elder abuse. Contrarily, some studies reported the ineffectiveness of social work and psychoeducational interventions in reducing physical abuse among community-dwelling elderly people.^[25,36] This discrepancy can be attributed to the fact that nurses are more sensitive to their practice due to their professional accountability and hence, they

have greater motivation for knowledge acquisition and behavioral modification compared with family members.

Mobile-based education has been used for training of nurses in several earlier studies, but most of them did not report any significant effect of such type on intervention in health-care providers.^[37,38] However, in this study, this type of intervention was effective and could reduce the mean perceived abuse among hospitalized older adults. This effect might be attributed to the fact that we used this method in combination with other means of education and this approach might have increased its effectiveness. On the other hand, social networking methods such as Telegram application facilitate efficient interactions between the health professionals without needing physical attending in educational sessions. It makes possible for health-care providers not only to use of the educational materials, but to share their opinions and experiences and encourage them to participate in group discussions, and all of these might increase the usefulness and the effectiveness of this method in the present study.

One of the study limitations was participants' lack of knowledge about all instances of elder abuse. The other limitation was related to the nonrandomized, nonblind, field trial design of the study, and the inequality of the groups. Of course, we attempted to minimize the negative effects of this limitation through selecting a large sample. Moreover, some participants might have refrained from precisely rating elder abuse in the study setting due to their fear over its probable negative consequences for them. In addition, some of them might not have read our messages or pamphlets though we made daily reminder contacts with them. In the present study, we did not assess the older adults' education and financial status, but these variables may affect the nurses' conduct with older adults. Such variables are recommended to be considered in future studies.

CONCLUSION

This study indicates that nursing staff education about elder abuse may reduce the perceived abuse among hospitalized elderly people. Therefore, nursing managers are recommended to pay greater attention to abuse-related education programs for nurses. This study can be replicated in other hospital settings such as Intensive Care Units and emergency rooms. In-service training programs are also recommended to continuously remind nurses of appropriate conduct toward hospitalized elderly people.

Acknowledgment

The authors gratefully thank the nurses and patients who participated in the study.

Financial support and sponsorship

This study was supported by Kashan University of Medical Sciences. This article was derived from a thesis research project.

Conflicts of interest

There are no conflicts of interest.

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