

KNOWLEDGE ABOUT PAIN EVALUATION AND CONTROL IN OLDER ADULTS: A STUDY AMONG CRITICAL CARE NURSES IN IRAN

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Received - 01.09.2017; Reviewed and accepted -21.09.2017

ABSTRACT

Aim: Pain is common among patients admitted to critical care units. Intensive care nurses have an indispensable role in pain evaluation and control in critically ill older adult's patients. Present study was performed to examine knowledge regards pain evaluation and control in old patients among one group of Iranian critical care nurses. **Methods:** Design of present study is descriptive cross sectional. In present study, knowledge of 112 nurses who work in critical care units (ICU, CCU, emergency) was examined with using "older adult's pain questionnaire". All nurses worked in hospitals affiliated to Qazvin University of Medical Science were invited. Sample selection performed with using convenience sampling method. Data analysis performed by using SPSS software. **Results:** Of 112 nurses in the present study, 96 nurses were women. The mean age of participants in the present study was 30.7± 5.9 years. The average score of all 14 items of the questionnaire was 7.1. About 87% of nurses reported that needs to education about pain management. Ninety eight percent of nurses in the present study reported that pain management is a very important issue for them. **Conclusion:** Although critical care nurses in our study reported that pain evaluation and control is a priority for them, however knowledge of them about pain management and assessment in elderly patients were low. Critical care nurses' need to further education regards pain evaluation and control in elderly patients.

Keywords: Elderly, pain, pain evaluation, ICU, CCU, emergency, nurses

INTRODUCTION

Most patients who are admitted to the intensive care units experienced some level of pain [1, 2, 3, 4]. Procedures such as blood sample obtaining, venous and arterial line insertion and removal, tracheal suctioning, regular change position, wound dressing, chest tube insertion and removal in intensive care units are mostly very painful [4, 5, 6]. Pain assessment, detection, and management in intensive care units are a very important issue. If critically ill patients pain not relieved well, several complications such as increase length of intensive care units stay, delay in mechanical ventilation weaning, decrease arterial blood oxygen, cardio-pulmonary complications, self and other injuries, line and tubes removal, fight with mechanical ventilation, decreasing power of immune system, agitation, delirium, sleep disturbance, and chronic pain may be developed [4, 7].

In recent years, the number of older adult's admission to intensive care units increased entire the world, mainly due to the increasingly aged population [8, 9]. Similar to adults in intensive care units, elderly critically ill patients experienced a high level of pain that affect patients, their family and society negatively [10, 11, 12]. Intensive care nurses have an indispensable role in pain detection and management in intensive care units [13]. Pain detection and management are basic critically ill patient rights, and in time of caring of critically ill patients in intensive care units, nurses should pay especial attention to this important issue [14]. For this reason, nurses should be knowledgeable regards pain assessments and management in intensive care units.

In recent years some study conducted with this aim that examined knowledge of critical care nurses regards pain issue. In one study in 2010, Wang & Tsai examined knowledge of intensive care nurses about pain assessment and management. According to the finding of Wang & Tsai study, critical care nurses have not enough knowledge about pain assessment and management [15]. In another study in this regards, Issa and colleagues examined intensive care units nurse's knowledge and attitudes about pain in Saudi Arabia. Similar to the finding of Wang & Tsai, results of Issa and colleague study revealed that knowledge about pain is poor among intensive care units nurses in Saudi Arabia [14].

Although few studies examined intensive care units nurses knowledge about pain evaluation and control, however to our knowledge study about intensive care nurses about pain evaluation and control in elderly patients not exist. The present study was performed to examine Iranian critical care nurses knowledge regards pain evaluation and control in elderly patients.

METHODS

Design of present study is descriptive cross-sectional. A study conducted in three hospitals (Shahid Rajaei, Boalisina, and velayat) in Qazvin, Iran. Sample selection performed with using convenience sampling method. All nurses who work in intensive care units and have at least 6 month work experience in intensive care units were invited to participate in our study.

For data collection, demographics checklist (includes age, sex, years of experience, level of education) and older adult's pain questionnaire used. Older adult's pain questionnaire developed by Solomon and colleague in 2001 [16]. This questionnaire has 14 items with yes or no responses. In one study in Iran in 2014, Rafiei and colleague translated this questionnaire to Persian language. Validity and reliability of this questionnaire determined in good level in Rafiei and colleague study [17].

List of nurses who work in intensive care units obtained from nursing management departments in each hospital. Questionnaires were distributed to the nurses by researchers in the hospital during the work shift. Nurses requested to complete the questionnaire during 1 hour and returned it to the reviewer. Before this, nurses received information about study aims. Participant assured that gathered data remind confidentially. Participation was voluntary, and all nurses in our study requested to the signed consent form. The study also received ethics code from ethic committee of the Qazvin University of Medical Science.

Data analysis performed by researchers with using the SPSS16 software after data collection. Descriptive statistics, independent t test, and Pierson correlation test were used for data analysis.

RESULTS

Totally 112 nurses participate in the present study. Of them, 96 nurses were women and the rest were men. The mean age of participants in the present study was 30.7± 5.9 (range 23-53) years. The mean of nursing experience was 7.6±5.6 years. Of the 112 nurses that investigated in the present study, 66 worked in Rajaei hospital, 45 worked in Boali Sina hospital, and 1 worked in velayat hospital. Most participants were registered nurses (106 nurses).

Of 112 nurses in our study, only 17 nurses have previous experience of participation in the pain management related educational program. About 87% of nurses reported that needs to education about pain management. More than half of nurses were familiar with pain management protocols. Ninety-eight percent of nurses in the present study reported that pain management is very important issue for them.

The average score of all 14 items of the questionnaire was 7.1. Table 1 showed the seven questions that responded by more than 70% of nurses correctly. The average score of all 14 items was different between nurses in different hospitals (p= 0.001). The average score of all 14 items were 7.2 and 7.1 in men and women respectively (p= 0.870). Pierson correlation test showed the positive and non-significant relationship between nurses age and obtained a score from all 14 items (P=0.185, rr=0.126).

Table1: Seven questions that responded by more than 70% of nurses correctly.

Item	True(N)	False(N)
It is better to administer opioid analgesia on a PRN basis rather than as a fixed schedule (T)	86	26
Cultural factors influence the expression of pain symptoms (T)	84	28
The duration of a given analgesic medication is greater in an elderly person than in a young adult (F)	81	31
It is best to avoid giving strong opioids for pain to frail elderly patients because it can cause respiratory depression (F)	76	36
Pain is a natural accompaniment of the aging process (F)	71	41
The potency of the pain relief measure selected for the patient should be based on the source of the pain rather than on the patient's report of pain intensity (F)	71	41
Elderly people report pain more often than young adults (F)	70	42

DISCUSSION

Awareness about critical care nurses knowledge regards pain evaluation and control in elderly patients help nursing educators and management for better planning. The present study conducted to examine knowledge of critical care nurses about pain evaluation and control in elderly patients. Results of our study revealed that knowledge of nurses about pain evaluation and control in elderly patients were low.

In some texts, pain is mentioned as fifth vital signs after pulses rate, respiratory rate, blood pressure and temperature. Pain evaluation and control is an important issue in critical care units. High level of knowledge about pain evaluation and control in critically ill elderly patients is necessary for delivering a high level of care to them; however finding of present study not showed this. Studies about critical care nurses knowledge about pain evaluation and control in older adults is very limited. In one study in this regards Furjanic and colleagues investigated acute care nurses knowledge about pain elderly patients. Similar to finding of present study, findings of Furjanic and colleagues study revealed that acute care nurses knowledge about pain evaluation and control in old patients is poor [18].

Studies about hospital nurse's knowledge regards pain evaluation and control in other health care setting also showed similar

finding. In one study in Australia, Sloman and colleague examined registered nurses knowledge about pain control in elderly person. They selected their sample from different hospitals wards such as critical care unit, acute medical and surgical unit, mental unit, oncology unit, general unit, nursing homes unit, and end of life care unit. Questionnaire in Sloman and colleague study were similar with a questionnaire in our study. Results of Sloman and colleague study revealed a knowledge deficit among nurses in all health care setting [16]. In another study in this regards in Iran, Rafiei and colleagues examined knowledge of one group of Iranian nurses who are working in hospitals affiliated to Kerman and Shahrekord University of Medical Sciences about pain evaluation and treatment in elderly people. A sample of their study were 518 nurses. Similar to the finding of the present study, results of Rafiei and colleagues study showed that nurses in Iran have not enough knowledge about pain evaluation and treatment in elderly people [17]. In another study in China, with using the similar instrument, Yu and colleagues examined knowledge about pain in elderly people among 621 nurses. Yu and colleagues study revealed that significant knowledge deficit exists among nurses in China regards elderly pain [19].

CONCLUSION

The findings of the present study and most previous studies indicated that knowledge about elderly pain evaluation and control is poor among nurses in all hospital wards. Nurses' lack of knowledge may be a barrier to relieving older adults' patient's pain in intensive care units. Nurses' educators and managers should be aware of this and planned suitable program for improving intensive care unit nurses knowledge and awareness about pain evaluation and control in elderly persons. Intervention such as adding more content related to older adults pain evaluation and control in nursing curriculum, holding educational workshops related to older adults pain evaluation and control for nursing student and critical care nurses, adding the pain assessment scale to the patient records and assessed patient's pain on a regular basis, developing critically ill older adults pain evaluation and control guideline in intensive care units and encouraging critical care nurses to active participation in pain evaluation and control program may be useful in this regards. With regards to lack of study about critical care nurses knowledge about pain evaluation and control in older adults, further research in this regards recommended. Also, further studies need to examine other health care team member's, and nursing student's knowledge regards pain evaluation and control in older adults.

Conflict of interest

No

Acknowledgment

This study approved and granted by Qazvin University of Medical Sciences (Nursing student research committee). The authors thank Dr. Fatemeh Mohammadi (research administrator of Qazvin school of Nursing and Midwifery), Akram Shahrokhi (supervisor of this study) and Farzaneh Izadi Moghadam.

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