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**ASSESSMENT OF KNOWLEDGE OF CCU NURSES ABOUT PAIN MANAGEMENT IN
PATIENTS WITH MYOCARDIAL INFARCTION**

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ABSTRACT

Objective: The aim of this study was to determine nurses' knowledge about pain management for patients with myocardial infarction. **Background:** Pain is a common problem of hospital treatment. Awareness of health care providers (nurses) to the physiology of pain is very important. Pain management is an important part of the role of nurses in the care of patients with myocardial infarction. **Methods:** This study was a cross-sectional study that was performed in Torfeh and Modares hospitals affiliated with the Shahid Beheshti University. In this study, 200 nurses participated and the data collection was based on a questionnaire that included two parts: demographic information and knowledge questionnaire that was validated by 10 members of the faculty of Medical Sciences. The questionnaire was distributed among nurses in morning, afternoon, and evening shifts while response duration was 20 minutes for each nurse and after data collection, statistical tests were analyzed by independent t-test using SPSS version 21. **Results:** The majority of nurses' knowledge about the

management of pain associated with myocardial infarction patients was high. (Mean \pm SD "47.76 \pm 10.59"). **Conclusion:** The results showed that nurses have sufficient knowledge in the field of pain management and seems nurses' knowledge about pain management can be increased by annual training.

Keywords: Knowledge, nurses, pain management, myocardial infarction

INTRODUCTION

Diagnosis and treatment of pain is one of the oldest sciences that human continuously and tirelessly tries in studying and completing it, and also this try follow the amazing achievements of life. Pain is a global health problem that exists from birth to death and the fear of its presence suffers the human [1]. Based on the description of the International Association for the Study of Pain, pain is an unpleasant sensory and emotional experience associated with an active or potential tissue damage and exists whenever a person expresses it [2] and [3]. Whatever the experiencing person says it is, existing whenever the experiencing person says it does, this is perhaps one of the most famous phrases that appear in the books of the nurses about pain and highlighted the fact [4]. Since that, according to the World Health Organization, cardiovascular disease is the leading cause of mortality in the world and 82% of these deaths occur in developing countries [5], cardiovascular diseases is considered as the most common diseases in developed countries so that it is responsible for 34.2% of death in America. heart and vascular diseases are the

most common causes of death in the world, as predicted by the American Heart Association by 2020 this disease is known as the first cause of mortality [6, 7]. Myocardial infarction is defined as heart muscle death due to lack of oxygen-rich blood flow that is associated with various symptoms [2], although in patients with heart failure signs and symptoms, including shortness of many esteem, anxiety, restlessness, cold clammy skin, increased heart rate and respiratory rate may occur, however, chest pain is one of the most important symptoms of this disease that is considered as an important sign in early detection and treatment and is the most common complaint in the heart disease [3]. This pain covers central part of the chest or epigastric pain and sometimes arms and accompanies by malaise, sweating, nausea, vomiting and anxiety and a sense of the death [8]. The nurse is a person who spent the most time with the patient that is responsible for palliative measures such as the delivery of analgesics and evaluation of these measures for insurance from receipt of an acceptable level of pain relief [9]. In fact, nurses' knowledge is the most important factors

in controlling pain. Any fault in knowledge and awareness can prevent optimal management of pain, so they should have a strong knowledge base for pain management [10] research shows that for effective treatment, nursing should have higher knowledge and attitude in patients with myocardial infarction and increasing the nurses knowledge will provide better service to patients and has positive effect on their healing trends. [11] One of the main obstacles of pain management is insufficient education and skills of nursing staffs. The nursing goal is the pain control and comfort care. Nurses can optimize the pain control of patients using pain assessment [12].

MATERIALS AND METHODS

This cross-sectional study was performed on 200 nurses in CCU section of Torfeh and Modares hospitals affiliated with the Shahid Beheshti University. Research units were available for nurses with specific inclusion criteria that include working in CCU, completed their projects, and be volunteers to participate in this research. Exclusion criteria included who want to leave study during the study and who do not respond to the questionnaire. The collection data method had two sections: the first section was demographic data and the second one was the questionnaire awareness of pain management that included 30 questions that 11 questions was in relation to the nature of pain, 6

questions in relation to pain, 12 questions were in connection with relief pain management while each question had 4 options. Knowledge scored from 1 to 4 based on points earned for multi-item Likert and the overall scale is designed 20 to 60. The right questions were 2 whereas the wrong or responded questions were considered 0 so that score of 1-20 was considered low scored, 21-40 were average scores and 41-60 were classified into high scored responses. The researcher after obtaining written justification from research ethics committee of officials of Shahid Beheshti University referred to medical centers and after obtaining the consent of management and matron of the hospital entered study units and introduced himself to the authorities of units and explained to them objectives of the study. The nurses' consent was obtained from who had the inclusion criteria. The questionnaires were distributed among nurses in all shifts: morning, afternoon, evening. Each nurses responded to the questions in 20 minutes. After collecting the data, descriptive statistics was used for the data categorization that includes absolute and relative frequency tables and then to achieve specific objectives, inferential statistics and independent t-test was used and SPSS version 21 was used to analyze the data.

FINDINGS

Characteristics of studied units and average frequency percentage of nurses based on age, gender, place of employment, education, work experience, type of employment and companies listed in the workshop are shown in table 1. The most staffs' ages are between 25-35 years with the average of 33.81 and a standard deviation of 7.04 while 60.6% of participants were female and 65.2% were working in Modares hospitals.

It also observed that most of the nurses i.e. 90.1% are at the undergraduate level, with an average work experience of 10.43 and the standard deviation of 7.37 and also their average work experience in mentioned hospitals is about 7.43 years with the standard deviation of 5.48% in which 57.8% of the subjects had not participated in the workshop. This means that nurses need training to improve their attitudes.

Table 1: The frequency of the participants units in 2015

Characteristics	Frequency	Average
Age		
Less than 25 years	11.2	33.81
25 to 35 years	50.8	
35 to 45 years	31.0	
More than 45 years	7.1	
Gender		
Male	39.4	193 persons
Female	60.6	
Working area		
Torfeh hospital	34.8	200 persons
Modares hospital	65.2	
Education		
BS	90.1	192 persons
master degree	9.9	
Work Experience		
5 years or less	32.3	10.43
5 to 10 years	26.3	
10 to 15 years	14.6	
More than 15 years	26.8	
Years of service		
5 years or less	48.4	7.43
5 to 10 years	27.6	
10 to 15 years	14.1	
More than 15 years	9.9	
Employment Type		
Official	48.7	199 persons
Contractual	13.6	
Projective	13.6	
Contractual	24.1	
Workshop		
Yes	42.2	192 persons
No	57.8	

Table 2. Determination of the nurses attitude about pain management in patients with myocardial infarction

Awareness	frequency	Percent
Low	2	1.0
Average	46	22.9
High	153	76.1
Mean±SD	47.76±10.59	

The results showed that the majority of the nurses i.e. 76.1 % had high awareness, 22.9% had average awareness and only 1 % had low awareness and also 99% of nurses use morphine for pain relief given the patient's condition.

DISCUSSION

The aim of this study was to determine nurses' knowledge about pain management for patients with myocardial infarction. Nurses play key role in the assessment and management of pain during hospitalization and pain relief. They are constantly required to make decisions about managing pain that the decision includes the level of pain and the need for analgesics. Therefore, effective management is the forecast decision-making process that spreads through awareness [13]. According to nursing standards, the comfort and pain relief is a priority. Everyone has the right to be relief from pain and a nurse serves to help the well-being by the clinical services with acceptable standards. In a care plan, it is important to pay attention to three things: 1) changes in factors affecting the sensory nature of pain and behavioral responses. 2) Determination of the appropriate responses to patient behaviors and attitudes about pain. 3.) Selection the appropriate objectives for the implementation of nursing interventions [14]. Nurse knowledge about nature of the pain and facts about pain shows that the quality of nursing care have a significant effect on the

frequency and severity of the patient's pain and nurses as members of the care team have important role in pain relief, thereby, with a high awareness of the pain, they can take an effective step in nursing care .Lack of awareness and inadequate knowledge are considered as reasons for the failure to take the necessary measures for patients. According to the results of this study about the pain, it was found that the knowledge and awareness about pain and nursing cares plays important role in patients' relief who suffer from pain [15]. Therefore, the one of the responsibility of nurses is the controlling of the effects of drug therapy as PRN. Myocardial infarction pain management is a challenging work, because the its pain experience is variable and depends on factors like the type of infarction, severity and duration of pain, analgesic, type of paregoric, nurses awareness, various techniques for pain control, and patient characteristics such as age, gender, underlying disease and mental condition [16] Salvador in a study showed that nurses who had more knowledge about pain, will have higher awareness of the pain that leads to better pain management [17]. Enskär study showed that Swedish nurses not only are more awareness about pain management, but also have knowledge about the pain that can lead to better pain relief [18]. He studied understanding and opinions of nurses' about the study of pain.

The majority of nurses believed that pain assessment tool in the relationship between patients and nurses is very useful and will lead to better pain relief [19], Liu et al in Taiwan also suggested that knowledge of nurses about pain showed the need for more training in pain management features and found that these training can have positive impact on knowledge of nurses [20]. Martin et al. study about the Tasmanian nurses' knowledge and awareness about pain also showed that knowledge of nurses was in average level and especially nurses had less knowledge about new information about pain medications [21]. In a study that is consistent with this research, it was found that nurses have a high awareness level about the patients pain and are empowered so that they can manage pain. In another study, that was inconsistent with this study and was performed by Hekmat pour in 2013, it was found that the nurses' knowledge of pain management are not appropriate and the level of patient satisfaction about pain management will increase by increasing nurses knowledge about pain management [22,23].

CONCLUSION

The results of this study showed that nurses' awareness about pain in patients with myocardial infarction is high and increases the level of efficiency and quality of nursing services. Since this was a descriptive study and

was conducted among nurses, it seems that the generalization of the results to all nurses and other medical personnel need to larger study with a larger sample size. Therefore, it is recommended that the study to be performed in other training centers and its results be compared with this study results. This study could be a starting point for further research in other fields of medical science in palliative patients.

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