How to Cite:
AL-Mamoori, H. M. K., Washi, G. A., AL-Tameemi, N. M. A., & Mansour, H. K. (2022). Assessment of nurses' knowledge toward myocardial infraction at coronary unit in Al-Imam Al-Sadiq Teaching Hospital, Babylon Province, Iraq. *International Journal of Health Sciences*, *6*(S2), 2538–2544. https://doi.org/10.53730/ijhs.v6nS2.5576

Assessment of nurses' knowledge toward myocardial infraction at coronary unit in Al-Imam Al-Sadiq Teaching Hospital, Babylon Province, Iraq

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***Abstract*---**Background: Acute myocardial infarction (MI) remains a leading cause of morbidity and mortality worldwide. The world health organization has defined Ischemic heart disease as myocardial function impairment due to imbalance between coronary blood flow and myocardial requirement the most common cause being atherosclerosis. The aim of the Study: The aims of this study was to assess nurses' knowledge toward myocardial function, and to assess their socio-demographic characteristics in relation to knowledge. Methodology:: A descriptive design study was conducted to accomplish the objectives. Which study was conducted at coronary unit in Al- Imam Al-Sadiq Teaching Hospital, Babylon province, Iraq. Purposive - non-probability sample were selected . In order to collect the data, the researcher prepared specific questionnaire to assess the nurses' knowledge toward myocardial function, and to assess their socio-demographic characteristics in relation to knowledge after reviewing of relevant literature and studies.Results: the majority of the study participants were male who accounted for (60%) of the total participants. Regarding age (58%) were from the age group (40- 49 years); (40%) of the nurses were experience in nursing at period ranging (1- 5 years). Conclusion: The study has confirmed that (28%)

International Journal of Health Sciences ISSN 2550-6978 E-ISSN 2550-696X © 2022.
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Manuscript submitted: 27 Jan 2022, Manuscript revised: 18 Feb 2022, Accepted for publication: 09 March 2022

the sample have good level of knowledge about myocardial infarction. Present findings there is a high significantly relationship between the nurses' knowledge and their demographic data(age, gender and level of education). Recommendation: Special training programs should be designed and constructed for nurses in cardiac care unit to reinforce their skills and promote their experiences.

Keywords---assessment, nurses' knowledge, myocardial infarction, coronary unit.

Introduction

Acute myocardial infarction (MI) remains a leading cause of morbidity and mortality worldwide. The world health organization has defined Ischemic heart disease as myocardial function impairment due to imbalance between coronary blood flow and myocardial requirement the most common cause being atherosclerosis (WHO, 2013).

Myocardial infarction (MI) or acute myocardial infarction (AMI), commonly known as heart attack, occurs when blood flow stops to a part of the heart causing damage to the heart muscle. The most common symptom is chest pain or discomfort, which may travel into the shoulder, arm, back, neck, or jaw. Often it's in the center or left side of the chest and lasts for more than a few minutes. The discomfort may occasionally feel like heart burn. Other symptoms may include shortness, nausea, feeling faint, a cold, or feeling tired (Ibanez et al., 2017).

About 30% of people have atypical symptoms, with women more likely than men to present atypically. In Iraq the risk of death in those who have had an Segment Elevation Myocardial infarction is about 10%. Rates of myocardial infarction for a given age have decreased globally between 1990 and 2010. About one million people have an myocardial infarction each year in the United States. Among those over 75 years old, about 5% have had an myocardial infarction with little or no history of symptoms. A myocardial infarction may cause heart failure, an irregular heartbeat, or cardiac arrest (Valaker et al., 2017).

Today, in many countries, non-communicable diseases including cardiovascular disease is increasing. Nurses have provided health education to patients and families, but the education has not been based on health education modules or health education guidelines, which are lacking. No records of health education have been provided so that health education provided at subsequent levels of care is not a continuation of previous health education (Kotseva et al., 2016)

Complications that can occur after acute MI may well be caused by the damage that occurs to the myocardium and to the conduction system from reduced coronary blood flow. Because these complications can be life-threatening, close monitoring for and early identification of their signs and symptoms be critical (Piepoli et al., 2016).

Nurses monitor the patients closely for changes in cardiac rate and rhythm, heart sounds, blood pressure, chest pain, respiratory status, urinary output, skin color and temperature, ECG changes, and laboratory values. It is essential to report promptly any changes in the patient's state to the physician, and institute emergency measures when necessary (Piepoli et al., 2016). The nurse caring from the patient with myocardial infarction or at risk for infarction must understand the underlying mechanisms of infarction and recognize its subtle as well as more obvious signs. Rapid assessment and rapid response are essentially to recovery(Marilyn et al.,2007).

Methodology

Design of the study

A descriptive study was conducted in Al- Imam Al-Sadiq Teaching Hospital; it was carried throughout the present investigation and collection data started from the period of 1st November 2020 to 4th May 2021.

Setting and sample of the study

At the at Al- Imam Al-Sadiq Teaching Hospital in Babylon Governorate. Non probability (purposive) sampling method was used to collect the sample. The study population consisted of (50) nurses working at the hospital. Oral consent was taken from each nurse before to interview, after a brief explanation on the study and its objectives.

The study instruments:

A structured interview questionnaire that was developed by the researchers according to literature review. It divided into two parts. Part I: Demographic Information Sheet (7 questions). Part II: This part of the questionnaire includes the knowledge about the myocardial infraction: it consists of (15) items scale of knowledge, the formulation of items is based on the extensive review of related literature and consultation the panel of experts.

Statistical analysis

Data was analyzed by using the (SPSS) version 21 such as analysis was performed by, descriptive statistical used in order to analyzed and assess the result of this study which is frequency, percentage and chi-square.

Resluts and Discussion

(Table1): The results of the study showed that the majority of the study participants were male who accounted for (60%) of the total participants. Most of the study participants (58%) were between ages (40 – 49) years old. This result is disagree with study of (Ibanez et al., 2017). About (38%) of the participants were years of experience ranging (1-5 years). This result is agree with the result obtained by (Valaker et al., 2017) who found that about half of the participants had working experience of 5 years or less. The majority of the participants were

(46%) had from an secondary group, (80%) of them were had no share activities about myocardial infraction. (42%) of them were source of their information from study or work. Unfortunately there is no results compatible with present study.

(Figure1): The findings of this study showed that there was a low in nurses' knowledge about myocardial infraction were (42%). These findings agree with study of Ibanez et al., 2017 work on compliance of nurses with infection control polices concluded that participants had low-level of knowledge about myocardial infraction, and near with result study of (Al-Ftlawy, 2014) it was shown the level of knowledge show low about (42.1%) of study samples.

(Table2): In the present findings there is a high significantly relationship between the nurses' knowledge and their demographic data(age, gender and level of education). This result agree with study of ((Al-Ftlawy, 2014)) relationship between the level of knowledge years of experience, this result means that the experience has a great effect on the nurses level of knowledge and the nurses can be develop their knowledge through the experience and that there is a significant relationship between the nurses level of knowledge and level of education. Another study done by Al-Mansory (2005) in Baghdad hospitals which demonstrated that there is a significant association between level of education and the nurses' knowledge.

Conclusions

1. The study has confirmed that (28%) the sample have good level of knowledge about myocardial infarction.
2. The majority of nurses' knowledge was poor and unsatisfactory concerning myocardial infarction.

Recommendations

1. Special training programs should be designed and constructed for nurses in cardiac care unit to reinforce their skills and promote their experiences.
2. Increase the number of professional nurses' graduating from colleges of nursing and institutes nursing assigned to employment in CCU.
3. Providing opportunity for nurses to pursue their education to gain a better educational level for junior nurses and those who need high educational level to improve their practice and knowledge related to nursing care of patients with acute myocardial infarction.

Table (1): Distribution of study sample according to their Socio-demographic characteristics

Demographic characteristics	(F) frequency	(%) percent
Gender		
Male	**30**	**60%**
Female	20	40%
Age in years		

20 – 29	9	18%
30 – 39	11	22%
40 – 49	**29**	**58%**
50 and more	1	2%
Years of experience		
1-5 years	**20**	**40%**
6-10 years	16	32%
11 – 15 years	14	28%
16 and more	0	0%
Level of education		
Secondary	**23**	**46%**
Institute	17	34%
College	10	20%
Post graduate	0	0%
Share in Activities Training or orientation about myocardial infraction		
No share	**40**	**80%**
Once	7	14%
More than one	3	6%
Source of Information		
From study or work	**44**	**88%**
TV or Internet	4	8%
Share in seminars or conferences	2	4%

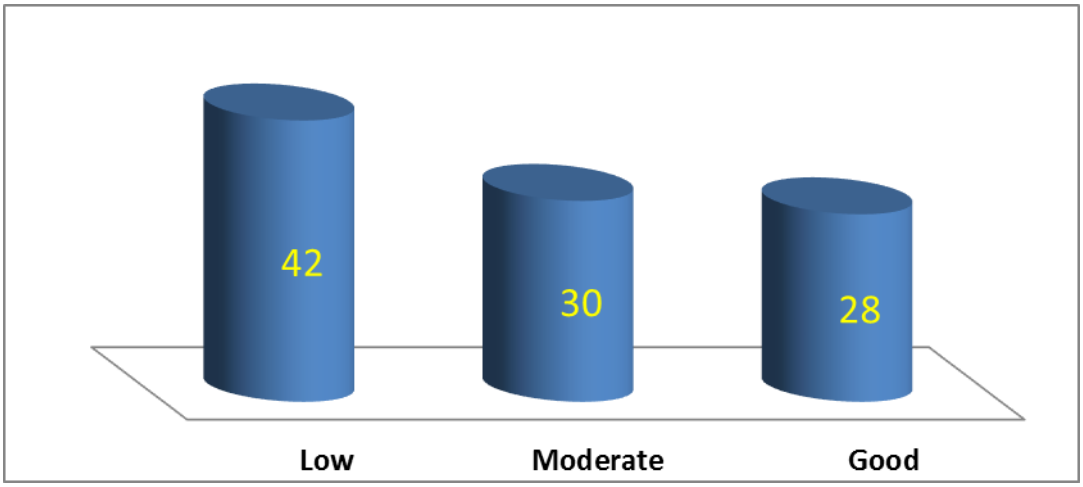

Figure 1: Distribution of the sample regarding their Knowledge about myocardial infraction

Table (2): Association between Knowledge about myocardial infraction and socio-demographic characteristics of the sample

Demographics		Levels of Knowledge								P value
		Low		Intermediate		Good		Total		
		N 21	% 42	N 15	% 30	N 14	% 28	N 50	% 100	
Gender	Male	4	8.0	12	24.0	14	28.0	30	60.0	0.001
	Female	17	34.0	3	6.0	0	0.0	20	40.0	
Age (Years)	20 – 29	4	8.0	2	4.0	3	6.0	9	18.0	0.001
	30 – 39	0	0.0	0	0.0	11	22.0	11	22.0	
	40 – 49	17	34.0	12	24.0	0	0.0	29	58.0	
	50 and more	0	0.0	1	2.0	0	0.0	1	2.0	
Years of Employment	1 – 5	4	8.0	13	26.0	3	6.0	20	40.0	0.001
	6 – 10	5	10.0	0	0.0	11	22.0	16	32.0	
	11 – 15	12	24.0	2	4.0	0	0.0	14	28.0	
	16 and more	0	0.0	0	0.0	0	0.0	0	0.0	
Level of education	Secondary	4	8.0	5	10.0	14	28.0	23	46.0	0.001
	Institute	7	14.0	10	20.0	0	0.0	17	34.0	
	College	10	20.0	0	0.0	0	0.0	10	20.0	
	Post-graduate	0	0.0	0	0.0	0	0.0	0	0.0	
Based on Chi-squire test: Highly Sig. At P<0.01; Sig. At 0.01>P> 0.05; and Non Sig. At P>0.05										

Acknowledgment

Grateful thanks and gratitude are extended to Al-Mustaqbal University College for the provided support. The authors would like to express our special thanks to the faculty members at Nursing Department.

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