

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge and Practice regarding Emergency Management of Myocardial Infarction Patients among Staff Nurses Working in Selected Hospital at Jaipur City

Satish Kumar Sharma

Nursing Officer, SDMH Hospital, Jaipur

Corresponding Author : Satish Kumar Sharma, Nursing Officer, SDMH Hospital, Jaipur

Corresponding Email : sks6271@gmail.com

Abstract

Introduction : Myocardial Infarction is a killer disease and required treatment immediately the symptoms have been established. The term "myocardial infarction" focuses on the myocardium (the heart muscle) and the changes that occur in it due to the sudden deprivation of circulating blood, hence limited oxygen supply. The main change is necrosis (death) of myocardial tissue.

Methodology : Evaluative research approach used in this study with A quasi experimental one group pre test post test research design is best suitable. This study was conducted in Eternal Heart Care Center, Jaipur. The Sample Size will be 60 staff nurses which were selected by random sampling technique.

Results : There was significant association between the level of knowledge with previous knowledge regarding emergency management of myocardial infarction at 0.05 level of significance.

Conclusions : The knowledge of the staff nurses can be further improved by providing structured teaching programme.

Keyword : Assess; Effectiveness; Structured Teaching Programme; Management of Myocardial Infarction

How to cite this article : Sharma SK. A study to assess the effectiveness of structured teaching programme on knowledge and practice regarding emergency management of myocardial infarction patients among staff nurses working in selected hospital at jaipur city. Glob. Nurs. J. India 2023; 6:1:508-512.

Submitted : 15/04/2023, Modification : 17/04/2023, Accepted : 24/04/2023, Published : 05/05/2023

Introduction

The patients suffering from AMI usually experience several problems during treatment period, including mental reactions related to the illness. Most of the patients with AMI always fear about the treatment and the outcomes since this is a serious disease that may even lead to death. Coping is a technique that human beings use to keep away from stress and the stressing environments by tending to ignore all the stressors. Some people tend to minimize the stress by seeking support socially and also having a positive thinking despite of the situation.¹

Myocardial infarction is also known as heart attack. It occurs when blood flow decreases or stops to a part of the heart

causing damage to the heart muscles. The heart requires a balance between oxygen supply and demand in order to function properly. The integrity of the coronary artery is an important determinant of oxygen supply to the heart muscles. Any disorder that reduces the size of lumen of coronary arteries may cause a decrease in blood flow and oxygen delivery to the myocardium which is life threatening condition characterized by the formation of local necrotic areas within the myocardium. Acute Myocardial Infarction usually follows the sudden occlusion of a coronary artery and the abrupt cessation of blood and oxygen flow to the heart muscles. Because the heart muscle must function continuously, blockage of blood to the muscle leads to development of necrotic areas which can be lethal.²

Cardiovascular disease is the commonest cause of death globally and account for approximately 12 million deaths annually. Coronary artery disease (CAD) among Asian Indians have been found to be more severe, diffuse, and associated with severe complications and increasing mortality at a young age. Developing countries account for 80% of the burden.³

Despite impressive strides in diagnosis and management over the last three decades, acute myocardial infarction (AMI) continues to be major public health problem in the industrialized world. Although the death rate of AMI has declined by about 30% over last decade, its development is still a fatal event in approximately one third of the patients.⁴

Many of these deaths are attributed to the development of Arrhythmias during periods of Myocardial Infarction. A substantial number of patients with acute myocardial infarction have some cardiac rhythm abnormality, and approximately twenty-five percent have cardiac conduction disturbance within 48 hours following infarct onset. Almost any rhythm disturbance can be associated with Acute Myocardial Infarction, including Bradarrhythmias, Supra Ventricular Tachy arrhythmias, Ventricular Arrhythmias, and Atrioventricularblock.⁴

Cardiac Arrhythmias & particularly Ventricular Tachy arrhythmias is a common complication of acute myocardial infarction (AMI). It is estimated that serious Ventricular Tachy-arrhythmias are responsible for death in 50% of patients of cardio vascular disease(CVD) patients.³

Treatment of an MI is time critical. Aspirin is an appropriate immediate treatment for a suspected MI. Nitroglycerin or opioids may be used to help with chest pain; however, they do not improve overall outcomes. Supplemental oxygen should be used in those with low oxygen levels or shortness of breath. In a STEMI, treatments attempt to restore blood flow to the heart, and include percutaneous coronary intervention (PCI), where the arteries are pushed open and may be stented, or thrombolytic, where the block age is removed using medications. People who have a non-ST elevation myocardial infarction (NSTEMI) are often managed with the blood thinner heparin, with the additional use of PCI in those at high risk. In people with blockages of multiple coronary arteries and diabetes, coronary artery bypass surgery (CABG) may be recommended rather than angioplasty. After an MI, lifestyle modifications, along with long term treatment with aspirin, beta blockers and statins are typically recommended.⁵

Worldwide, about 15.9 million myocardial infarctions occurred in 2015. More than 3 million people had an ST elevation MI and more than 4 million had an NSTEMI. STEMI occur about twice as often in men as women. About one million people have an MI each year in the United States. In the developed world the risk of death in those who have had an STEMI is about 10%.⁵

Objectives of the Study

- ✓ To assess the knowledge and practice level of staff nurses regarding emergency management of myocardial infarction patients before administration of structured teaching programme.
- ✓ To assess the knowledge and practice level of staff nurses regarding emergency management of myocardial infarction patients after administration of structured teaching programme.
- ✓ To find the correlation between knowledge and practices of staff nurses regarding emergency management of myocardial infarction.
- ✓ To evaluate the effectiveness of structured teaching programme regarding emergency management of myocardial infarction for staff nurses.
- ✓ To find out the association between pre-test knowledge of staff nurses their selected demographic variables.

Hypotheses

- ✓ **H₁** : The mean of post test score may be higher than mean of pretest score regarding emergency management of myocardial infarction patients among staff nurses.
- ✓ **H₂** : There will be a significant association between knowledge level with the selected demographic variables.

Methodology :

Research approach : In view of the nature of the problem selected for the study, an evaluative approach was found appropriate.

Research design : A quasi experimental one group pre test post test research design is best suitable.

Setting of the study : This study was conducted in Eternal Heart Care Center, Jaipur.

Population : The target population in the present study includes staff nurses who are working in Eternal Heart Care Center, Jaipur.

Sample and sampling technique : The Sample Size will be 60 staff nurses which were selected by random sampling technique.

Results

Part I : Description of demographic variables of the staff nurses.

Part II : Comparison of pre test and post test level of knowledge regarding emergency management of myocardial infarction patients of staff nurses.

Part III : Evaluate the effectiveness of structured teaching

programme by comparing pre test and post test knowledge score of staff nurses regarding emergency management of myocardial infarction patients.

Part IV : Correlation between knowledge and practices of staff nurses regarding emergency management of myocardial infarction.

Part V : Association level of knowledge regarding emergency management of myocardial infarction patients with selected demographic variables.

Part I : Description of demographic variables of the staff nurses

S.No.	Demographic Variables	Frequency	Percentage (%)
1.	Age (in year)		
	20 - 25	15	25%
	26 - 30	25	41.66%
	31 - 35	15	25%
	36 and Above	05	8.33%
2.	Gender		
	Male	36	60%
	Female	24	40%
3.	Professional Qualification		
	G.N.M.	24	40%
	B.Sc. Nursing	18	30%
	PBB.Sc. Nursing	14	23.33%
	M.Sc. Nursing	04	06.66%
4.	Working Experiences		
	0-5Year	30	50%
	6-10years	14	23.33%
	11-15years	10	16.66%
	More than 15 years	6	10%
5.	Area of work		
	Medical Unit	15	25%
	Surgical Unit	16	26.66%
	Intensive care Unit	20	33.33%
	Emergency Department	9	15%
6.	Previous Knowledge		
	Yes	18	30%
	No	42	70%

Part II: Comparison of pre test and post test level of knowledge regarding emergency management of myocardial infarction patients of staff nurses

Table-3: Comparison of Pre Test And Post Test Level Knowledge

S.No.	Level of Knowledge	Pre-test		Post-test	
		F	%	F	%
1.	Poor (<50%)	30	50%	05	08.33%
2.	Average (50 to 65%)	10	16.66%	08	13.33%
3.	Good (>65%)	20	33.33%	47	78.33%

Part III : Evaluate the effectiveness of structured teaching programme by comparing pre test and post test knowledge score of staff nurses regarding emergency management of myocardial infarction patients.

Table-7:Mean,Median,SD,Mean Difference And t Test Value

S. No.	Aspect of Knowledge	Pre-test			Post-test			Mean Difference	t Value
		Mean	Median	SD	Mean	Median	SD		
1.	Questions related to introduction of MI	4.16	4	0.77	4.86	5	0.97	0.7	11.94
2.	Questions related to causes and clinical manifestations of MI	5.75	6	1.28	7.33	8	1.54	1.58	12.80
3.	Questions related to management and prevention of MI	10.08	10	1.39	12.08	12	2.09	2	13.28
	Total	20	20	2.17	24.28	25	3.66	4.28	20.46

Part IV : Correlation between knowledge and practices of staff nurses regarding emergency management of myocardial infarction.

Table-9:Correlation Between Knowledge And Practices

S.No.	Mean	Pretest		Posttest		Correlation
		SD	Mean	SD		
	Knowledge level	20	2.17	24.28	3.66	0.11
	Practice level	9.83	1.46	13.75	3.34	

Part V : Association level of knowledge regarding emergency management of myocardial infarction patients with selected demographic variables.

Table - 10: Association Level of Knowledge Regarding Emergency Management of Myocardial Infarction With Selected Demographic Variables

S.No.	Variables	Df	Tabulated Value	Calculated Value	Remarks
1.	Age	6	12.59	4.50	NS
2.	Gender	2	5.99	6.52	S
3.	Professional qualification	6	12.59	13.48	S
4.	Working experience	6	12.59	17.69	S
5.	Area of work	6	12.59	4.26	NS
6.	Previous Knowledge	2	5.99	6.30	S

The above table represents the association with the level of knowledge with their selected demographic variables. There was no significant association of level of knowledge with the age ($X^2=4.50$) and area of work ($X^2=4.26$); because here the calculated value is less than tabulated value. The level of knowledge is show the significant association with gender ($X^2=6.52$), professional qualification ($X^2=13.48$), working experience ($X^2=17.69$), and previous knowledge ($X^2=6.30$); because here the calculated value is more than tabulated value.

Discussion

Most of samples 25 (41.66%) were from age group of 26 - 30, followed by 15 (25%) from each age group of 20 - 25 and 31 - 35 years of age, and remaining 05 (8.33%) from age group of 36 and above.

Most of samples 36 (60%) were male and remaining 24 (40%) samples were female.

Most of samples 24 (40%) have done G.N.M. followed by 18 (30%) were have done B.Sc. Nursing some of them 14 (23.33%) have done PB B.Sc. Nursing and remaining 4 (6.66%) have done M.Sc. Nursing.

Most of samples 30 (50%) have 0 - 5 years experience followed by 14 (23.33%) have 6 - 10 years experience some of them 10 (16.66%) have 11-15 years of experience and remaining 6 (10%) have more than 15 years experience.

Most of samples 20 (33.33%) were work in Intensive care unit, some 16 (26.66%) were work in surgical unit and 15 (25%) work in medical unit and remaining 9 (15%) worked in emergency department.

Most of samples 42 (70%) have not previous knowledge regarding myocardial infarction and remaining 18 (30%) have previous knowledge regarding emergency management of myocardial infarction.

Conclusions

From the findings of the present study, it is concluded that the level of knowledge and practice regarding emergency management of myocardial infarction patients among staff

nurses was adequate. Therefore the knowledge of the staff nurses can be further improved by providing structured teaching programme.

Recommendations

On the basis of finding, the study recommendations are as follows

- ✓ A similar study can be replicated on large sample in order to generalize the findings.
- ✓ An experimental study can be conducted with control group for the effective comparison of the results.
- ✓ A similar study can be conducted with different research design.
- ✓ A study can be conducted to evaluate the efficiency of various teaching strategies like self instruction module, pamphlets, leaflets; computer assisted instruction slideshows on myocardial infarction.
- ✓ A study can be conducted to other samples like knowledge among nursing students, doctors etc.

References

1. Suzanne C Smletzer, Brenda G. Bare "Brunner and Siddarth's textbook of Medical-Surgical Nursing", 11TH edition, 2014, page no. 424 to 426.
2. Joyce M. Black, Jane Hokanson hawks.TEXT BOOK OFMEDICALSURGICAL NURSING, Philadelphia: Nursing Elsevier company, 9th edition, 1701 and 07, 2002.
3. Sushma Shrestha and Valentine Kuria; acute myocardial infarction as a life situation from patients perspective Year : 2012 Health Care and Social Work.
4. Jorund Langorgen; hospitalization for myocardial infarction; 2014; department of Clinical Science and Department of Heart Disease, Haukel and University Hospital.
5. www.nhlbi.nih.gov. December 17, 2013. Archived from the original on 24 February 2015. Retrieved 24 February 2015.