

Effectiveness of Structured Teaching Programme Regarding Immediate Management of Myocardial Infarction on Level of Knowledge Among Hypertensive Patients at Selected Tertiary Care Hospitals, Coimbatore

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ABSTRACT

Myocardial infarction is the irreversible death of heart muscle secondary to prolonged lack of oxygen supply.

Methods: The Pre experimental study was undertaken Knowledge regarding myocardial infarction was assessed among hypertensive patients. Purposive sampling technique was used and data was collected using demographic variables Performa & knowledge Questionnaire. The collected data was entered into Excel sheet and analysed.

Results: The result of the study reveals that pre – test mean score of patients knowledge on immediate management of myocardial infarction was 4.8 ± 2 and post – test mean score was 12.9 ± 3 . The mean difference score was 8.1. The calculated paired t-test value was $t=18.23$, was found to be statistically significant at $P < 0.05$ level. **Conclusion:** The study concluded that there was significant improvement in the level of knowledge regarding myocardial infarction among hypertensive patients after intervention of structured teaching programme.

Key words:

Effectiveness, Knowledge, Myocardial infarction, Hypertensive patients, Structured teachingprogramme.

INTRODUCTION

Heart is the "Seat of the soul and the control of voluntary movement ". We see and hear about heart everywhere. A Long time ago, people even thought that their emotions came from their hearts, maybe because the heart beats faster when a person is scared or excited. Now we know that emotions come from the brain, and in this case, the brain tells the heart to speeds up. So what's the heart up to then? The heart is really the muscle located a little left to the middle of the chest about the size of your fist. The heart is the sort of like a pump which maintains the circulation all over the body. **Steven Dowshen, MD(2019)**

Despite the increasing awareness of healthy habits and changing lifestyles, Blood pressure control keeps its importance for modern humans. Globally hypertension is one of the most important preventable causes of death. It accounts more than 12.8% of all deaths per year. BP is a continuous variable that fluctuates constantly in response to various changes. It shows spontaneous oscillations over short- and long-term periods. There is strong evidence to confirm that increased BP variability is independently associated with higher risk of target organ damage, cardiovascular events and mortality. **Aiseseda Artis (2018)**

Hypertension is a major public health problem and an established major risk factor for developing myocardial infarction (MI), however majority of the population with hypertension does not have sufficient knowledge regarding immediate treatment of Myocardial infarction which causes delay in seeking treatment. **Mandeepkaur (2016)**

One of the most leading causes of death in the world is myocardial infarction. Acute myocardial infarction occurs when the blood supply to any part of heart is interrupted. This is most commonly due to occlusion of coronary

artery following the rupture of vulnerable atherosclerotic plaque, resulting in ischemic and oxygen shortage. If this condition is left untreated for a sufficient period of time, it can cause damage and death of heart muscles. **Lele Pallavi Pradeep (2014)**

NEED FOR THE STUDY

Myocardial infarction results in enormous burden of increased mortality and morbidity experience of a serious illness, particularly if it is a sudden and life-threatening event, only for spouse and wider family. These events threaten the patient's stability, security, adaptability, beliefs and assumption towards his normal healthy life. In 2016, WHO and the United States centres for disease Control and prevention launched the Global hearts Initiative to support governments to prevent and treat cardiovascular diseases. **(WHO 2017)**

Myocardial infarction is one of the most common life-threatening diagnosis and survival is markedly reduced. Globally acute coronary syndrome in the form of myocardial infarction is responsible for almost half of all deaths related to cardiovascular disease. **(WHO 2019)**

Hypertension is the independent risk factor for myocardial infarction and the risk is markedly increased when in association with modifiable life style such as obesity, smoking and high blood cholesterol level. Patients with these risk factors are more likely to develop complications and have high mortality rate. **(J Cardiovasc Dev 2019)**

An estimated 1.13 billion people worldwide have hypertension, most (two thirds) living in low- and middle-income countries. In 2015 1 in 4 men and 1 in 5 women had hypertension and fewer than 1 in 5 people with hypertension have the problem under control. One of the global targets for non-communicable diseases is to reduce the prevalence of hypertension by 25% by 2025. **(WHO 2021)**

A cross sectional study was conducted in India to determine coronary risk factors in 310 acute myocardial infarction patients. It was found that over all incidence of myocardial infarction was 56%. The incidence of risk factors in order to decreasing frequency was hypertension 26%. **(WHO 2021)**

Studies shows that people are unaware about the risk factors, signs and symptoms of myocardial infarction and immediate response to attack which further increase the mortality and complications. Though the risk of developing myocardial infarction is higher among hypertensive patients, awareness is relatively low. A healthy lifestyle includes simple steps to reduce the modifiable risk factors for myocardial infarction in hypertensive patients. Hence this project is designed to find out the knowledge regarding myocardial infarction and its management among hypertensive patients.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching programme regarding immediate management of myocardial infarction on level of knowledge among hypertensive patients admitted in selected hospitals, Coimbatore.

OBJECTIVES

- To assess the knowledge regarding immediate management of myocardial infarction among hypertensive patients.
- To evaluate the effectiveness of structured teaching program regarding immediate management of myocardial infarction among hypertensive patients.
- To find out the association between the pre-test knowledge score on immediate management of myocardial infarction with selected demographic variables among hypertensive patients.

HYPOTHESES

H₁: There will be a significant difference between pre-test and post-test level of knowledge on immediate management of myocardial infarction among hypertensive patients.

H₂: There will be a significant association between pre-test levels of knowledge score on immediate management of myocardial infarction with selected background variables among hypertensive patients

METHODOLOGY

A quantitative research approach and Pre-experimental one group pre-test and post-test design was adopted in this study. The study was conducted in cardiology ward and medical ward at PSG super speciality hospitals, Coimbatore. Purposive sampling technique was used in this study. The sample consist of 30 hypertensive patient. Pre assessment of knowledge on immediate management of myocardial infarction. Structured teaching programme on immediate management of myocardial infarction. Post assessment of knowledge on immediate management of myocardial infarction.

RESULTS

4.1 COMPARISON OF PRE TEST AND POST TEST REGARDING IMMEDIATE MANAGEMENT OF MYOCARDIAL INFARCTION ON LEVEL OF KNOWLEDGE AMONG HYPERTENSIVE PATIENTS BY USING PAIRED ‘t’ TEST.

Table 4.3.1 Mean, SD and Paired ‘t’ test on level of knowledge among hypertensive patients

n = 30

Level of knowledge on immediate management of myocardial infarction among hypertensive patients	Mean \pm SD	Paired t- test
Pre – test	4.8 \pm 2	t = 18.3
Post – test	12.9 \pm 3	p < 0.05 S***

Table 4.3.1 shows that the mean and standard deviation of pre-test was 4.8 \pm 2 and the post-test was 12.9 \pm 3. The mean difference score was 8.1. The calculated paired t-test value was 18.43 at p<0.05 level, which was found to be significant. This clearly infers that structured teaching program was found to be effective in enhancing the level of knowledge on immediate management of myocardial infarction among hypertensive patients.

SECTION D

4.2 ASSOCIATION BETWEEN THE PRE-TEST SCORE REGARDING IMMEDIATE MANAGEMENT OF MYOCARDIAL INFARCTION ON LEVEL OF KNOWLEDGE AMONG HYPERTENSIVE PATIENTS WITH SELECTED DEMOGRAPHIC VARIABLES BY USING CHI SQUARE TEST.

n = 30

Demographic data	Level of knowledge			Calculated Value (χ^2)	Tabulated value
	Adequate knowledge	Moderately adequate knowledge	Inadequate knowledge		
Age					
30-40	0	1	0	$\chi^2=7.6378$ df=6 *S	5.35
41-50	1	5	0		
51-60	6	10	0		
61-75	7	0	0		

*S = significant, NS = not significant

The above table 4.5.1 revealed that, the calculated chi square value was higher in age $\chi^2 = 7.6378$ than the tabulated value (5.35) at the level of $p < 0.05$. It reveals that there was a significant association between the selected demographic variable regarding immediate management of myocardial infarction on level of knowledge among hypertensive patients. Hence H_2 was rejected except for the variable age.

A similar study was conducted to assess the knowledge regarding risk factors and prevention about the acute myocardial infarction among the patient admitted in rural tertiary care Hospital in Karad. Total 210 subjects were selected by simple random sampling technique. A structured knowledge questionnaire was used to assess the knowledge of acute myocardial infarction. The study findings revealed that, among 210 subjects, 144 (68.57%) were males while 66 (31.43%) were females. 49% of the patients were having poor level of knowledge. Income was significantly associated with acute myocardial infarction. There is a deficiency of well knowledge among patients admitted with acute myocardial infarction. **Dhirajkumar Mane et al., (2019)**

MAJOR FINDINGS

In demographic variable the significant percentage of the samples were in the age group of 51-60 years 16(53%), majority of them were females 16(53%), most of them completed their primary education 13(43%), most of them were employed 25(83%), majority of them were non- smokers 20(64%) and non -alcoholics 21(62%). Pre-test overall mean score of immediate management of myocardial infarction among hypertensive patients was 4.8 ± 2 and the post-test mean score was 12.9 ± 3 . The mean difference score was 8.1. The calculated paired t-test value was 18.43 at $p < 0.05$ level, which was found to be significant.

There was significant association between the level of knowledge and the demographic variable age ($\chi^2 = 7.6378$)

CONCLUSION

The study aimed at assessing the effectiveness of structure teaching programme regarding immediate management of myocardial infarction on level of knowledge among hypertensive patients. Hence the investigator concluded that there was significant reduction in the knowledge among hypertensive patients after administration of knowledge intervention

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