



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING LIFE STYLE MODIFICATION AMONG MYOCARDIAL INFARCTION CLIENTS IN SELECTED HOSPITALS, STATE OF MADHYA PRADESH.

Dr. Sijumon Thomas

PhD In Nursing, Senior Nurse, Ministry Of Health, State Of Kuwait, Kochuparambil House, Muttambalam Post, Kottayam, Kerala 686004

ABSTRACT India is a country with wide range of socio-economic, geographic and cultural diversity. It has been observed that, India became the world capital for chronic heart disease. A remarkable change in Indians life style is one of the major cause of heart disease. Moreover, it imposes economic burden for the patient and their family. A sudden and life-threatening event of heart attack not only threaten the patient's stability, security, adaptability, beliefs and assumption towards his normal healthy life, but also it threatens global health and economy. Apart from early detection and prompt treatment, a life style modification and cardiac rehabilitations are mandatory in preventing secondary episodes. This study is intended to assess the effectiveness of structured teaching programme on lifestyle modifications of patients with myocardial infarction attending the cardiology out-patient department in selected hospitals in Madhya Pradesh.

KEYWORDS : Myocardial Infarction, Lifestyle Modifications, Structured teaching Program.

“Tochangeyourlife,youhavetochangeyourself.Tochangeyourself,youhavetochangeyourmindset”-Kushandwizdom-

such as diet pattern, regular exercise, physical activity, medication adherence and stress management.

INTRODUCTION

Myocardial infarction is a life – threatening emergency, which need immediate and prompt medical attention to save the life of an individual. A delay of even a few minutes can result in permanent heart damage or death. Myocardial infarction, commonly known as “heart attack” is an extremely dangerous condition that happens due to lack of blood supply to the heart.

A heart attack is also called “the silent killer” because sometime it has no symptoms; mild symptoms or symptoms doesn't connect to heart attack. The risk factors associated with myocardial infarction are mainly classified as Non modifiable and modifiable risk factors. Non modifiable risk factors cannot be controlled by an individual. However, modifiable risk factors can be changed, controlled or modified.

Objectives

1. To assess the pre-test level of knowledge for the myocardial infarction patient regarding life style modification.
2. To develop and administer a structured teaching programme regarding the life style modification such as dietary modification, weight reduction, importance of physical activity, management of stress or emotional trauma and modifying personal habits for maintaining healthy heart among myocardial infarction patients.
3. To assess the effectiveness of structured teaching programme on myocardial infarction client regarding lifestyle modification.
4. To find out the association of pretest level of knowledge with selected demographic variables.

Hypothesis

H1: There will be a significant difference between the pretest and the posttest knowledge Scores on knowledge regarding effectiveness of structured teaching programme on life style modification among post myocardial infarction patients.

H2: There will be a significant association between pretest level of knowledge and selected socio demographic variables of individual patients diagnosed with myocardial infarction.

Methodology

Research Approach: A quantitative evaluative research approach was used for the study.

Research Design: A Quasi experimental design of one pre and post-test group design was selected.

Sample Size: A total 100 samples were selected.

Sampling Technique: by using purposive sampling technique.

Tools For Data Collection: The data was collected with the aid of a semi-structured questionnaire, before and after a structured teaching program regarding myocardial infarction and lifestyle modification

Criteria

Inclusion Criteria:

Myocardial infarction patients who were:

1. More than 30 years of age both gender
2. Available during the time of study.
3. Attending cardiology outpatient department in hospitals.
4. Willing to participate in the study.
5. Able to speak and understand Hindi/English.

Exclusion Criteria

This study excludes myocardial infarction patients who were:

1. Not willing to participate in the study.
2. Medical persons like doctors, nurses and other health care professionals.
3. Myocardial infarction patient with other complications.
4. Clients who are scheduled for any procedure or surgery.

Development Of Tool

The tool was developed by the investigator after reviewing the related literature and guidance from the experts in the field.

Description Of The Instrument

The tool consists of three parts.

Part – I

Demographic data consists of Age, sex, marital status, religion, family income per month, type of family and place of living.

Part – II

Clinical variables such as co-morbid illness, personal habits, dietary habits and regular exercise.

Part – III

The investigator prepared structured Questionnaire tool to identify the level of knowledge among myocardial infarction patients. The Questionnaire consists of 25 items. These items focused on basic knowledge related to myocardial infarction (5 items), management of myocardial infarction (5 items) and life style modification of myocardial infarction patients (15 items). The samples may select anyone option out of four given choices depending upon their knowledge.

Data Analysis

Both descriptive and inferential statistics was used for analysis of data. Descriptive statistics was used to analyze the demographic variables of patients in terms of frequency and percentage, mean and standard deviation. Inferential statistics like t test was used to assess the effectiveness of structured teaching programme on level of knowledge regarding life style modification among myocardial infarction patients and chi square test was used to associate the level of knowledge with the demographic variables.

RESULTS

Table 1 shows that in the pre-test majority of the subjects 95 (95%) had

inadequate knowledge, followed by 5 (5%) had moderate knowledge and none of them had adequate knowledge. In post-test majority of the subjects 77(77%) had adequate knowledge, followed by 23(23%) had moderate knowledge and none of them had inadequate knowledge.

Table 1: Pre-test Knowledge Level Regarding Patient Education On Lifestyle Modification Of Myocardial Infarction Patients. N=100

Range of percentage (%)	Grading of knowledge score	P p	retest retest
Less than 50	Inadequate	95	95.0
51-75	Moderate	5	5.0
More than 75	Adequate	0	0.0

It can be inferred from table 2 that the mean and standard deviation in pre-test and is 8.37 & 24.19 while post- test is 2.32 & 2.57. The calculated 't' value is 3.984 which is greater than the table value, 1.660 at 99 Df. A Significant association was found between the post-test knowledge scores with demographic variables such as age, sex, place of living and dietary habits.

It can be inferred that knowledge score of respondents regarding education on life style modification was inadequate in the pre-test mean (8.37) than in the posttest mean (24.19). Thus, it can be concluded that the structured teaching programme was considerably effective in increasing the knowledge score of the respondents related to life style modification.

Table: 2 Pre-test And Post-test Mean Knowledge Level Regarding Patient Education On Life Style Modification Of Myocardial Infarction Patients

Experimental group	Pre test	Post test	Df	Paired 't' value	Inference
Knowledge score	Mean	8.37	24.19	99	3.984 Significant
	SD	2.32	2.57		

$t_{(99)} = 1.660, p < 0.05$

Table 3 represents the association between pre -test knowledge score and demographic and clinical variables. The chi square value was obtained for age and sex was 9.204 & 8.3004 which was significant at 0.05 level and for religion it was 4.5577 which was not significant at 0.05 level. About marital status and family income, the chi square value was 3.927 & 7.6343 which was not statistically significant.

Regarding type of family and co- morbid illness chi square value was 3.3973 & 2.7746 respectively which was statistically not significant. The chi square value obtained for place of living and dietary habits was 10.879 and 8.03 which was significant at 0.05 level.

Out of several demographic variables, pre-test knowledge score is associated with age, sex, place of living and dietary habits.

Table 3: Association Between Post-test Knowledge Scores On Patient Education On Life Style Modification Of Myocardial Infarction Patients With Demographic Variables

Demographic variables	Respondent			Knowledge level	Chi-square value	Inference
	F	Mode rate	Adequate			
Age (in years)	30-40	16	8	8	9.204*	S
	41-50-	43	10	33		
	51-60	41	5	36		
Sex	Male	75	12	63	8.3004*	S
	Female	25	11	14		
Marital status	Married	86	17	69	3.927	NS
	Unmarried	2	1	1		
	Widow	8	3	5		
	Divorced	4	2	2		
Religion	Hindu	47	12	35	4.5577	NS
	Muslim	27	6	21		
	Christian	20	2	18		
	Others	6	3	3		
Family income per month (in Rupees)	Less than 20000	16	7	9	7.6343	NS
	21000-30,000	51	9	42		
	31000-40000	23	3	20		
	More than 40000	10	4	6		
Type of family	Nuclear	60	10	50	3.3973	NS
	Joint	40	13	27		

Place of living	Urban	60	7	53	10.879*	S
	Rural	40	16	24		
Comorbid illness	Hypertension	45	7	38	2.7746	NS
	Diabetes mellitus	22	7	15		
	Other diseases	10	3	7		
	Nil	23	6	17		
Dietary habits	Vegetarian	22	10	12	8.03*	S
	Nonvegetarian	78	13	65		
Personal habits	Alcohol	38	7	31	2.5217	NS
	Smoking	26	7	19		
	Alcohol and smoking	16	3	13		
	Tobacco chewing	10	4	6		
	Nil	10	2	8		
	Regular exercise	19	6	13	0.9748	NS

Nursing Implications

The findings of the study have implication on the field of nursing education, nursing practice, nursing administration and nursing research.

Nursing Education

Updated education on the causes, risk factors, patho-physiology, and treatments are needed by the health personnel to effectively meet the needs of myocardial infarction patients for their lifestyle modification. Education, along with teaching of identification of signs and symptoms, need for routine healthcare provider follow-up visits, patient education of the condition, and overall self-care interventions are needed to provide effective patient-centered care.

So, there is a clear need to enhance the nursing curriculum in their clinical training.

Nursing Service

- Protocols should be formulated for myocardial infarction management.
- It is necessary to give refresher courses on common and serious problems like myocardial infarction and its complications.

Nursing Administration

There is urgent need to design appropriate strategies to improve the performance of health personnel by enhancing their knowledge and skill, while creating favorable working conditions in health centers. Ongoing continuous competency based in-service training program should be arranged and made compulsory for nursing personnel.

Nursing Research

- Evidence-based standardized studies are needed to assess, and utilize the novel therapeutics which provides an important means by which to improve patient outcomes.
- Studies should be done to identify an existing gap in knowledge and practices among patients and underscores the need to enhance education.

Recommendations

Based on the findings of the study, following recommendations have been suggested:

1. A similar study can be undertaken with a large sample for a wider population.
2. A descriptive study can be conducted to assess the knowledge, attitude and practice regarding life style modification of myocardial infarction patients.
3. A comparative study may be undertaken among rural and urban health centers to determine knowledge level on life style modification of myocardial infarction patients.

CONCLUSION

Cardiovascular disease is one of the major reasons for mortality in low- and middle-income countries such as India. Heart disease is one of the leading causes of death in many countries like ours.

Additionally, heart disease can result in a poor quality of life, disability, and even death. This is a devastating disease that may affect an

individual's physical, mental, social, and spiritual aspects of health.

Stress, an unhealthy lifestyle, and obesity are the major reasons for the same. This rate increase is accelerated due to urbanization, industrialization and related lifestyle changes and is called epidemiological transition. Due to the accelerated prevalence of Myocardial infarction globally, precise attention by people about identification of risk factors, early detection of onset, and its recurrence seems critical.

Thus, predetermining preventive planning and the application of safe treatment methods is crucial. 90% of incidence of myocardial infarction is preventable through education about lifestyle modifications, which also goes a long way in helping patients to improve their quality of life.

REFERENCES

1. Amsterdam EA, Wenger NK, Brindis RG, Casey DE Jr, Ganiats TG, Holmes DR Jr, et al. Guideline for the management of patients with non-ST-elevation acute coronary syndromes: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *Circulation*. 2014. Dec 23; 130(25).
2. Thygesen K, Alpert JS, White HD, Universal definition of myocardial infarction. *Circulation*. 2007 Nov 27; 116(22):2634-53. 3.
3. Ferri FF. Coronary artery disease. In: *Ferri's Clinical Advisor* 2022. Elsevier; 2022. <https://www.clinicalkey.com>. Accessed March 8, 2022 4.
4. Coronary heart disease. National Heart, Lung, and Blood Institute. <https://www.nhlbi.nih.gov/health-topics/coronary-heart-disease>. 2022. March 8
5. American Heart Association. What is a Silent Heart Attack? (<https://www.goredforwomen.org/en/about-heart-disease-in-women/signs-and-symptoms-in-women/silent-heart-attack-symptoms-risks>) Accessed 6/23/2021.
6. Panniyamma kalJeemon and K.S. Reddy. . Social determinants of cardiovascular disease outcomes in Indians. *Indian J Med Res*. 2010 Nov; 132(5): 617–622. doi: 10.4103/0971-5916.73415. 7.
7. Pushpendra Pal singh. Directorate of economics and statistics. Madhya Pradesh Economic survey. 2022-23. 8.
8. World health organization. Cardiovascular diseases (CVDs). 11 June 2021. 929.
9. National Center for Health Statistics. Multiple Cause of Death on CDC Wonder Database. Accessed February 2, 2023.
10. Dorairaj Prabhakaran. Cardiovascular Diseases in India: Current Epidemiology and Future Directions. *Circulation*. 2016. Apr 19; 133(16):1605-20.
11. Salari, Morddarvanjoghi, F. Abdolmaleki, A. et al. The global prevalence of myocardial infarction: a systematic review and meta-analysis. *BMC Cardiovascular Disorder*. 2023.
12. World Health Organization. world health ranking. 2020. 93
13. Mona Shahat Mohamed. HebaAbd- Elkader Ali et al. Effect of Designed Life Style Modification Program on Outcomes among patients with Ischemic Heart Disease. Doi10.21608/JNSBU.2023.310304.
14. Doležel J, Jarošová D. Educational process in patients after myocardial infarction. *Central European Journal of Nursing and Midwifery*. 2019; 10(2):1026-1034. doi: 10.15452/CEJNM.2019.