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A Study to Evaluate the Effectiveness of Self Instructional Module (SIM) on Cardiac Rehabilitation (CR) among post Myocardial Infarction (Ml) Patients Attending Cardiac Outpatient Department in Selected Hospitals in Udaipur

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Abstract: ***Cardiac rehabilitation (CR) is an established form of treatment for patients with acute myocardial infarction that is designed to provide a range of lifestyle and medical interventions to reduce cardiac mortality and morbidity through the promotion of a healthy lifestyle and reduction in coronary artery disease risk factors. Another important objective of CR is improvement in health - related quality of life (HRQOL) and several studies have reported on the HRQOL of patients with coexisting acute myocardial infarction, cardiac surgery, and heart failure.***

Keywords: cardiac rehabilitation, heart attack treatment, healthy lifestyle, coronary artery disease, quality of life

1. Background of study

"I believe every person has a heart, and if you can reach it, you can make a difference".

Cardio vascular disease is the leading cause of death in the majority of the industrialized countries. In United Kingdom nearly 1, 70, 000 patients are admitted to hospital with acute myocardial infarction, so that by the age of 65 in men and 75 in women more than 10% have experienced Myocardial Infarction.

The beneficial effects of cardiac rehabilitation (CR) have been challenged in recent years and there is now a need to investigate whether current CR programmers, delivered in the context of modern cardiology.

A study says that Indians generally fall prey to heart attacks around 50 years of age. It also seems that the risk of heart attack in young adults, in 3rd and 4th decades of life is rising in India. Myocardial Infarction (Ml) refers to the process by which myocardial tissue is destroyed in regions of the heart that are deprived of an adequate blood supply of a reduced coronary blood flow.

A study reports that, on screening of persons over the age of 30 years by a 12 lead ECG in Chandigarh, India (Urban population) the prevalence of coronary heart disease was found to be 65.4 and 47.8 per 1000 males and females respectively. In a village in Haryana the prevalence was 22.8 and 17.8 per 1000 males and females respectively. The pattern of coronary heart disease in India has been reported to be as follows. Coronary heart disease appears a decade earlier compared with the age incidence in developed countries. The peak period is attained between 51 - 60 years. Males are affected more than the females. Hypertension and diabetes mellitus account for about 40 of all cases: heavy smoking is responsible etiologically in a good number of cases.

2. Need for the study

Myocardial Infarction results in enormous burden of increased mortality and morbidity. The experience of a serious illness, particularly if it is a sudden and life threatening event is a crisis not only for the individual sufferer but also for the spouse and wider family. These events threaten the patient's stability, security, adaptability, belief and assumptions.

After myocardial infarction, many patients led miserable unproductive lives, they were frightened to return to work and unnecessarily become cardiac invalids. Recognizing the importance of patients to run to 'normal' cardiac rehabilitation has emerged it becomes part of total patient's care. It is an active process and individual taking part must assure responsibility for their own health, wellbeing and quality of life. It is increasingly being recognized that post infarct care of life is more effective only if delivered with proper rehabilitation back - up to enhance the speed of recovery and quality of life. Recognizing the needs and action priorities in cardiac rehabilitation and secondary prevention, World Health Organization (WHO) suggested a new definition, which reflects the aims of modern cardiac rehabilitation. "The rehabilitation of cardiac patients is the sum of activities required to influence favorably the underlying cause of the disease, as well as to ensure the patients best possible physical, social and mental conditions, so that they may by their own efforts, preserve or resume when lost, as normal a place as possible in the life of the

community".

Objectives of the study

- To assess the pre - test knowledge score about cardiac rehabilitation among post, myocardial infarction patients.
- To administer Self Instructional Module on cardiac rehabilitation for myocardial infarction.
- To assess the post - test knowledge score about cardiac rehabilitation among post myocardial infarction patients after implementation of SIM.
- To assess the effectiveness of pre - test and post - test knowledge scores on cardiac rehabilitation.
- To find association between mean pre - test knowledge score and the selected demographic variables such as age, gender, type of work, dietary pattern, type of family, and personal habits.

3. Research Methodology

This chapter deals with the description of research methodology adopted by the investigator for the present study. The methodology of research indicates the general pattern of an organized procedure for gathering valid and reliable data form the purpose of investigations. The steps undertaken for gathering and organizing the data collected were: research design, setting, sampling techniques, development and description of tools, data collection procedures, pilot study and plan for data analysis.

4. Conceptual Framework

Conceptual framework is a group of related ideas, statements, or concepts which deals with concept that are assembled by the virtue of their relevance to a common them Conceptualization refers to the process of developing and refining abstract. A conceptual modal provides logical thinking for systematic observation and interpreting the observation data. The modal also gives direction for relevant questions on phenomena and point out solution to practical problem.

5. Analysis

Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis can be tested.

Kerlinger (1995) defines analysis as the categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions. The purpose of analysis is to reduce the data into interpretable form so that relations of research problem can be studied and tested.

Area wise Mean pre - test knowledge scores on cardiac rehabilitation among the subjects, **N=60**

S. NO	Areas of knowledge	Maximum possible score	Pre - test knowledge score			Mean score %
			Mean	SD	Range	
1	Structure and functions of heart	5	1.97	1.582	0 - 5	39.4
2	Myocardial infarction	6	4.52	1.302	2 - 6	75.3
3	Physiological rehabilitation	10	6.65	1.858	3 - 10	66.5
4	Psychological rehabilitation	5	3.00	1.289	0 - 5	60.0
5	Vocational rehabilitation	5	3.50	1.066	1 - 5	70.0
6	Genderual rehabilitation	5	1.22	1.151	0 - 4	24.4
		36	**20.85**	**5.931**	**12 - 33**	**57.9**

represents that the mean score percentage of knowledge on ‘structure and functions of heart’ in pre - test was 39.4%, on ‘Myocardial infarction’ 75.3%, on ‘Physiological rehabilitation’ 66.5%, on ‘Psychological rehabilitation’ 60.0%, on ‘Vocational rehabilitation’ 70.0%, and on ‘Genderual rehabilitation’ was 24.4%.

The mean score of overall areas of knowledge in pre - test was 20.85 with SD of 5.931 which ranged between 12 - 33 with mean score percentage of 57.9%.

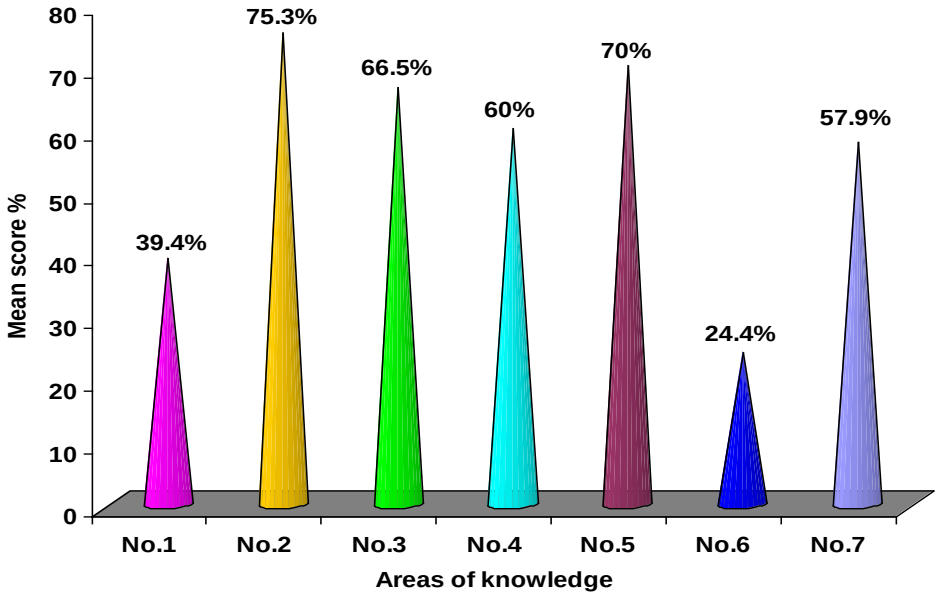

Figure: 9 Diagrame showing the Mean pre-test knowledge scores of the subjects

***Area wise Mean post - test knowledge scores on cardiac rehabilitation among the subjects*, N=60**

S. No	Areas of knowledge	Maximum possible score	Post - test knowledge score			Mean score %
			Mean	SD	Range	
1	Structure and functions of heart	5	3.45	1.268	0 - 5	69.0
2	Myocardial infarction	6	5.42	0.850	3 - 6	90.3
3	Physiological rehabilitation	10	9.10	1.362	5 - 10	91.0
4	Psychological rehabilitation	5	3.83	1.060	1 - 5	76.6
5	Vocational rehabilitation	5	4.08	0.889	2 - 5	81.6
6	Genderual rehabilitation	5	4.32	1.033	1 - 5	86.4
		36	**30.20**	**3.944**	**20 - 36**	**83.8**

The table 4 represents that the mean score percentage of knowledge on 'structure and functions of heart' in post - test was 69%, on 'Myocardial infarction' 90.3%, on 'Physiological rehabilitation' 91%, on 'Psychological rehabilitation' 70.6%, on 'Vocational rehabilitation' 81.6%, and on 'Genderual rehabilitation' was 86.4%.

The mean score of overall areas of knowledge in post - test was 30.20 with SD of 3.944 which ranged between 20 - 36 with mean score percentage of 83.8%.

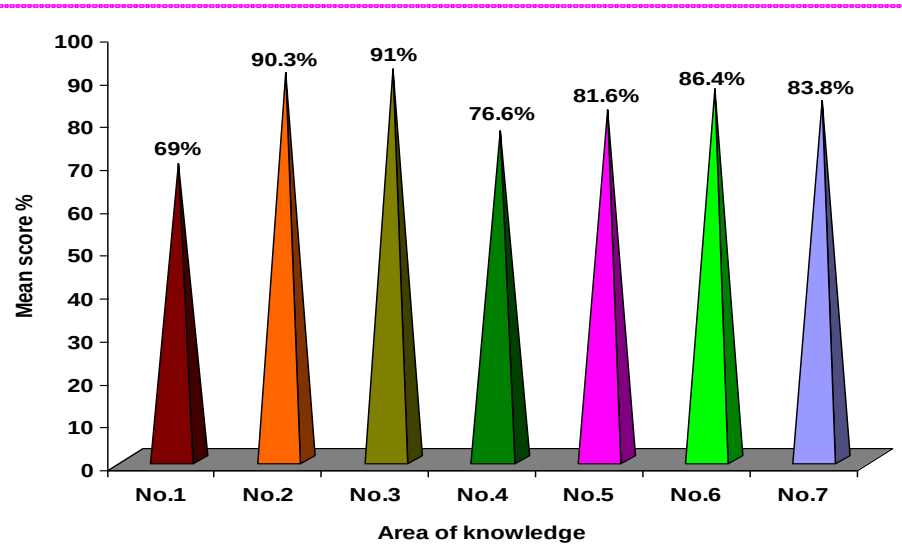

Figure: 10 Diegrame representing the post-test knowledge scores of the subjects

6. Conclusion and Discussion

This chapter deals with the discussions in accordance with the objectives of the study and hypothesis. The present study has been undertaken to assess the effectiveness of Self Instructional Module (SIM) on knowledge regarding Cardiac Rehabilitation (CR) among post Myocardial Infarction (Ml) patients attending cardiac outpatient department in selected hospitals in Udaipur

Data collected from 60 selected respondents were tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the formulated objective of the study.

The major findings of the study

1) Majority (50.0%) of the respondents was in the age group of above 60 years
2) Majority (75%) of the respondents were men.
3) Majority (50%) of the respondents has a moderate worker.
4) Majority (85%) of the respondents were non - vegetarians and rest 9 (15%) were vegetarian.
5) Majority of respondents (33.33%) had a smoking habits and 07 (11.7 %) only had the habit of coffee intake.
6) The association between demographic variables and pre - test knowledge score are Age (χ^2 = 13.303), Type of work (χ^2 = 11.742), and type of family (χ^2 = 10.259) was greater than the table value P >0.05 (3.84) which indicates that there was significant association and Sex (χ^2 = 0.090), Dietary pattern (χ^2 = 2.348), and Personal habits (χ^2 = 0.136) was lesser than the table value P >0.05 (3.84), which indicates that there was no significant association between pre - test knowledge score and Demographic variables.

7. Implications of the Study

The findings of the study have various implications in different areas of nursing that is Nursing Education, Nursing Administration, Nursing Practice, and Nursing Research.

8. Recommendations

Based on the findings of the present study few recommendations are offered for the further study.

1) A descriptive, exploratory study can be done by taking a large sample for generalization.
2) A study can be conducted among professional to assess the knowledge and practice regarding cardiac rehabilitation for myocardial infarction.
3) Special health education programme can be developed and implemented to rural and urban area in relation of myocardial infarction.

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