A Study To Assess The Effectiveness The Structured Teaching Program On Knowledge Regarding Emergency Management Of Myocardial Infarction Patients Among Staff Nurses Working In Selected Hospital In Jaipur

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Abstract - Heart diseases greatly affect the individual and the health care budget of a developing country like India. **Objectives –** 1. To evaluate the effectiveness of structured teaching programme regarding emergency management of myocardial infarction for staff nurses.2.To find out the association between pre-test knowledge of staff nurses their selected demographic variables. **Methodology-** Evaluative approach with quasi experimental research design was used. Data was collected from 200 staff nurses with the help of structured knowledge questionnaire. Data was analysed with inferential and descriptive statistics. **Results-** The overall mean of pre test score is 20.81 whereas the mean of post test score is 26.06 with 5.25 mean differences. The median of pre test score is 21 and the mean of post test score is 26 and the standard deviation of pre test was 2.25 whereas in post test the standard deviation was 2.95. The t value is 20.46. **Summery-** structure teaching programme was effective regarding emergency management of myocardial infarction patients among staff nurses

Keyword – assess, effectiveness, structured teaching program, knowledge, myocardial infarction, patients , staff nurses,

Introduction-

Cardio vascular diseases, currently is a leading causes of death in India atherosclerotic changes begin in the early ages and progress to great extent during adolescence. Myocardial infarction is a life threatening heart disease and a major public health problem all over the world.[1]

The term "myocardial infarction" focuses on the myocardium and the changes that occur in it due to the sudden deprivation of circulating blood, hence limited oxygen supply. The main change is necrosis of myocardial tissue. 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.[2]

In this 21st century human life become sophisticated with technology. Even though we enjoy the fruit of civilized world, the same leads to the stressful mechanical life style, which in turn leads to many heart problems like Myocardial infarction. Heart diseases greatly affect the individual and the health care budget of a developing country like India. Costs of heart diseases include disability, hospital stay and out patients follow up which are expected to occupy a major part of budget for health care

Need of Study-

- 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.[3]

- It is well known that nowadays myocardial infarction is one of the most important mortality factors. In Hungary some 25000 people suffer acute myocardial infarction

- The Global Burden of Disease study estimate of age-standardized CVD death rate of 272 per 100000 population in India is higher than the global average of 235 per 100000 population.[4]

- WHO estimated that globally 29 per cent of deaths were due to cardiovascular diseases and among them, 25-28 per cent of deaths were due to Myocardial Infarction.[5]

- The incidence of MI in India is 64.37/1000 people in men aged 29-69 years, alcohol intake led to 30% lower CHD incidence. Smoking is known to cause arterial thrombosis and MI, and is known to cause endothelial dysfunction. More than 80% of the cases of cardiovascular disease are in developing countries however studies on risk factors are mostly conducted in developed countries[.6]

- The population based surveys conducted in India shows that there is an increase in the prevalence rate of Ischemic heart disease from 1-4 per cent to 10 per cent. Every year 25,000 coronary bypass operations and 12,000 Percutaneous coronary Angioplasties (PTCAs) are carried out. It is estimated that cardiovascular

diseases in USA Cost $274 billion each year, including the health expenditures and productivity.. [7]

Objectives -

- To assess the knowledge level of staff nurses regarding emergency management of myocardial infarction patients before administration of structured teaching program
- To assess the knowledge level of staff nurses regarding emergency management of myocardial infarction patients after administration of structured teaching program
- 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:** There will be significant difference between pre-test and post-test knowledge score regarding emergency management of patients with myocardial infarction among staff nurses.
- **H2:** There will be a significant association between knowledge level with selected demographic variables.

Review of Literature-

The Review of literature is a written summary of the state of existing knowledge on a research problem. For the present study the review of literature categorized as under follow:-

1. Studies related to knowledge and practice of myocardial infarction (21)
2. Studies related to effectiveness of intervention (17)

Methodology-

Methodology is the systematic, theoretical analysis of the methods applied to field of study. It comprises the theoretical analysis of the body of method and principles associated with a branch of knowledge.[8]

Research Approach- an evaluative approach was found appropriate and Evaluation research was applied for research study to assess the knowledge regarding emergency management of patients with myocardial infarction among staff nurses.

Research Design-A quasi experimental research design is best suitable, as it is used to examine characters of a single sample.

Variables- There are three types of variables were identified in the study. Independent variable it refers to structured teaching programme regarding emergency management of patients with myocardial infarction. Dependent variable it refers to the knowledge of staff nurses regarding emergency management of patients with myocardial infarction. Demographic variables selected for this study are age, gender, professional qualification, working experience, area of work, and previous knowledge.

Study Setting- This study was conducted in Narayani Hospital, Jaipur, Liberty Hospital Jaipur, IBS hospital, Jaipur, and RBH hospital, Jaipur.

Population- The target population in the present study includes staff nurses who are working in Liberty Hospital Jaipur, IBS hospital, Jaipur, and RBH hospital, Jaipur.

Sample &Sampling Technique- The Sample Size will be 200 staff nurses which was selected by random sampling technique.

Data Collection tool - A structured knowledge questionnaire regarding emergency management of patients with myocardial infarction was selected as appropriate method of data collection for the study.

Description of Tool- The Structured questionnaire of final tool consists of two sections:
Section I: This section is the first section seeking information on demographic background of staff nurses i.e. age, gender, professional qualification, working experience, area of work and previous knowledge regarding myocardial infarction.
Section II: This section is the second part of structured knowledge questionnaire, which consists of questions related to 32 questions related to myocardial infarction.

Content Validity- In order to measure the content validity the tool was given to 11 experts in the field of nursing and bio statistics. After the scrutiny, they were found to be adequate and relevant.

Reliability- Karl Pearsons Product moment correlation co-efficient value ‗r' was 0.93. The tool was found to be valid reliable and feasible.

Data Collection- After obtaining the permission from the medical superintendent of the Liberty Hospital Jaipur, IBS hospital, Jaipur, and RBH hospital, Jaipur From 07/06/2019 to 26/07/2019 the investigator started the data collection procedure.

Ethical Consideration- Permission was obtained from medical superintendent of Narayani Hospital, Jaipur for pilot study and Liberty Hospital Jaipur, IBS hospital, Jaipur, and RBH hospital, Jaipur for main study.

Result –The data was analyzed, interpreted and presented in the table and graph. Both descriptive and inferential statistics was used for data analysis.

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- Part I: Description of demographic variables of the staff nurses.
- Part II: Comparison of pre test and post test level of knowledge of staff nurses regarding emergency management of patients with myocardial infarction
- 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 patients with myocardial infarction
- Part IV: Association level of knowledge regarding emergency management of patients with myocardial infarction with selected demographic variables

Part I: Description of demographic variables of the staff nurses.- Most of samples 80 (40%) were from age group of 26 – 30, Most of samples 130 (65%) were male, Most of samples 90 (45%) have done G.N.M. , Most of samples 75 (37.5%) have 5 – 10 years experience. , Most of samples 80 (40%) were work in CCU, Most of samples 110 (55%) have not previous knowledge regarding myocardial infarction.

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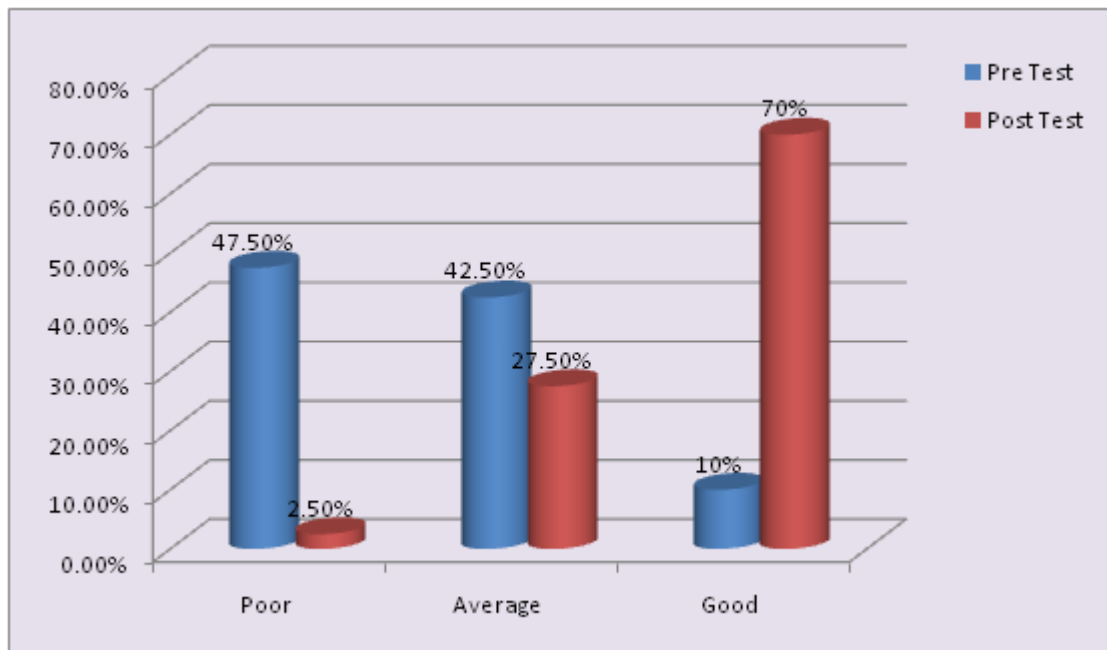

Figure 1 Pre Test And Post Test Level Of Knowledge

In pre test 95 (47.5%) staff nurses had poor knowledge, 85 (42.5%) had average knowledge and 20 (10%) staff nurses had good knowledge regarding emergency management of patients with myocardial infarction while during post test 05 (2.5%) staff nurses had poor knowledge, 55 (27.5%) staff nurses had average knowledge and 140 (70%) staff nurses had good knowledge regarding emergency management of patients with myocardial infarction.

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 patients with myocardial infarction-

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	3.7	4	1.07	4.91	5	0.93	1.21	11.94
2.	Questions related to causes and clinical manifestations of MI	5.75	6	1.33	7.49	8	1.28	1.74	12.80
3.	Questions related to management and prevention of MI	11.33	11	1.56	13.64	14	1.96	2.31	13.28
Total		20.81	21	2.25	26.06	26	2.95	5.25	20.46

The pre tests mean of part I is 3.7 while post test mean is 4.91 with 1.21 meanbdifference. The pre test median is 4 while post test median is 5. The SD for pre test isb1.07 whereas post test SD is 0.93. The t value is the 11.94.

The pre tests mean of part II is 5.75 while post test mean is 7.49 with 1.74bmean difference. The pre test median is 6 while post test median is 8. The SD for prebtest is 1.33 whereas post test SD is 1.28. The t value is the 12.80.

The pre tests mean of part III is 11.33 while post test mean is 13.64 with 2.31 mean difference. The pre test median is 11 while post test median is 14. The SD for pre test is 1.56 whereas post test SD is 1.96. The t value is the 13.28.

The overall mean of pre test score is 20.81 whereas the mean of post test score is 26.06 with 5.25 mean differences. The median of pre test score is 21 and the mean of post test score is 26 and the standard deviation of pre test was 2.25 whereas in post test the standard deviation was 2.95. The t value is 20.46.

The tabulated value of _t‘ is 1.96 at the 0.05 level of significance on 199 degree of freedom.

The calculated value is higher than the tabulated value in all aspects of knowledge so we can say that the structured teaching programme regarding emergency management of patients with

myocardial infarction can enhance the knowledge of staff nurses. It means that the structured teaching programme regarding emergency management of patients with myocardial infarction is effective to improve the knowledge of staff nurses.

The hypothesis H1 that was significant relationship between pre test and post test knowledge score is accepted.

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

The calculated chi square value was more than tabulated value for professional qualification, working experience, area of work and previous knowledge. So there was significant association between the level of knowledge and above mention variable.

Remaining variable had less chi square value than tabulated value. That means there was no significant association.

Discussion - The overall mean of pre test score is 20.81 whereas the mean of post test score is 26.06 with 5.25 mean differences. The median of pre test score is 21 and the mean of post test score is 26 and the standard deviation of pre test was 2.25 whereas in post test the standard deviation was 2.95. The t value is 20.46. The tabulated value of _t' is 1.96 at the 0.05 level of significance on 199 degree of freedom. The hypothesis H_1 that was significant relationship between pre test and post test knowledge score is accepted.

Nursing Implication-The finding of the study has implication for nursing education, community health practice, nursing practice and nursing research.

NURSING EDUCATION-The nursing curriculum should consist of increased depth, content and activities which help to develop knowledge for emergency management of patients with myocardial infarction. As a nurse educator, there are abundant opportunities for nursing professionals to educate staff nurses regarding emergency management of patients with myocardial infarction.

NURSING PRACTICE-An implication of nursing practice derived from the study is that, in modern times, health care delivery system has changed from a care-oriented approach to promotion of health and prevention of illness oriented approach. Health education can be

imparted through mass media, i.e. through radio, television, documentary films, pamphlets, leaflets. This will help the diabetic patients to move towards the goal of providing holistic care.

NURSING ADMINISTRATION- The nurse administrator can take part in developing protocols, standing orders related to design of the health education programme to update nursing personnel's knowledge regarding emergency management of myocardial infarction so that they can improve the knowledge of the staff nurse. The nurse administrator can mobilize the available resource personnel towards the health education to the staff nurse regarding emergency management of patients with myocardial infarction.

NURSING RESEARCH-The study helps the nurse researchers to develop appropriate health education tools for educating the staff nurses regarding emergency management of patients with myocardial infarction.

Recommendations-

- 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 slide shows on myocardial infarction.
- A study can be conducted to other samples like knowledge among nursing students, doctors etc.

Conflict of interest- nil

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