EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON CARDIAC REHABILITATION IN ASSESSING KNOWLEDGE AND PERCEPTION AMONG POST MYOCARDIAL INFARCTION PATIENTS

Usha Esther R*[1] and J. Jeya Thanga Selvi[2]

[1]*Department of Medical Surgical Nursing, Ganga College of Nursing, Coimbatore, Tamilnadu, India.
[2]C.S.I Jeyaraj Annapakiyam College of Nursing, Madurai, Tamil Nadu, India.

ABSTRACT

Quantitative approach was used for this study. Quasi Experimental pre-test post-test design with control group was adopted for this study. The Conceptual framework for the study was based on Daniel L. Stufflebeam (1971) CIPP (context, Input, Process and Product) model. The study was done at Pandian Heart Institute in Madurai. 60 samples (30 experimental and 30 Control) were selected through Non-probability Convenience sampling technique. The tool used were a questionnaire examining demographic and clinical data, structured knowledge questionnaire and perception scale. The scores of the video assisted teaching programme were compared between the two groups by unpaired 't' test is said to be significant. There was a significant correlation between the knowledge and perception of post myocardial infarction patients was 'r' = 0.5. The study findings showed that there is a significant association between the level of knowledge and demographic and clinical variables such as dietary pattern $\chi2 = 6.67$ ($p<0.05$), percentage of arterial blocks $\chi2 = 4.53$ ($p<0.05$) in the experimental group. Hence research hypothesis (H_4) was accepted. Whereas, in contrast, there is no association between the level of perception with their demographic and clinical variables.

KEYWORDS

Effectiveness, Assess, Knowledge, Perception, Cardiac rehabilitation and Post-myocardial infarction patients.

Author for Correspondence:

Usha Esther R,
Department of Medical Surgical Nursing,
Ganga College of Nursing, Coimbatore, Tamilnadu, India.

Email: ushaesther13@gmail.com

INTRODUCTION
Myocardial infarction
(MI) colloquially known as a heart attack, results from interruption of myocardial blood flow and resultant ischemia which often elicit physiological distress and impact their quality of life and is a leading cause of death worldwide.

Cardiac rehabilitation

Cardiac rehabilitation is the process by which patients with cardiac disease, in partnership with a multidisciplinary team of health professionals are encouraged to support and achieve and maintain optimal physical and psychosocial health.

Statement

A Quasi experimental study to evaluate the effectiveness of video assisted teaching programme on cardiac rehabilitation in assessing knowledge and perception among post myocardial infarction patients admitted at selected hospitals, in Madurai 2021.

Objectives

To assess the pre-test and post-test level of knowledge and perception on cardiac rehabilitation among post myocardial infarction patients in the control and experimental group.

To evaluate the effectiveness of video assisted teaching programme on cardiac rehabilitation in the experimental group.

To find out the correlation between knowledge and perception on cardiac rehabilitation among post myocardial infarction patients in the control and experimental groups.

To find out the association between the pre-test level of knowledge and perception on cardiac rehabilitation with their demographic and clinical variables in the control and experimental group.

Hypothesis

H_1: The mean post test level of knowledge and perception on cardiac rehabilitation is significantly higher than the mean pre-test level of knowledge and perception.

H_2: The mean post-test level of knowledge and perception in experimental group is significantly higher than the mean post-test level of knowledge and perception in the control group.

H_3: There is a significant correlation between the knowledge and perception of cardiac rehabilitation among post myocardial patients in the control and experimental group.

H_4: There will be a significant association between the pre-test levels of knowledge and perception on cardiac rehabilitation with their demographic and clinical variables in the control and experimental group.

METHODOLOGY

Research design: Quasi experimental pre-test post-test control group design

Population

Target population - All the myocardial infarction patients at all hospital in Madurai district.

Accessible Population - Post myocardial infarction patients from selected hospitals in Madurai district.

Sample Size - 60

Control group   -   30
Experimental group   -   30

Sampling Technique – Convenience sampling technique

Inclusion Criteria

Patients who were:
Adults age group between 30-60 years
Suffered from first Myocardial Infarction
Willing to participate in the study
Present during the period of data collection
Able to read the Tamil or English

Exclusion Criteria

Patients who were:
Having another cardiac disease along with myocardial infarction
exposed to cardiac rehabilitation
Impending with surgical procedures like coronary artery bypass graft etc.
Critically ill.
Less than 30 years and more than 60 years with myocardial infarction

DESCRIPTION OF THE TOOL

The tool was developed by the investigator with the guidance of the expert's opinion, various resources and review of literature. The tool used for the present study is a questionnaire to assess the knowledge and checklist on the perception of cardiac rehabilitation.
The Tool comprised of three sections:

Part - I

Section A - Demographic Variables
Section B - Clinical Profile.

Part - II
Self-Structured Questionnaire to assess the Knowledge
Part - III
3 – point Likert Scale to assess the Perception.

METHOD OF DATA COLLECTION
The data was collected among patients who were post myocardial infarction patients at Pandian Heart Institute, in Madurai. Written permission was sought and obtained from the authorities concerned. The period of data collection was 6 weeks. A brief introduction about the study was given to the samples. Data was collected through structured questionnaire to assess knowledge and 3 point likert scale to assess the perception of cardiac rehabilitation.
Plan for data analysis
The data were analysed by using both the descriptive and inferential statistics.

RESULTS AND DISCUSSION
The first objective of this study was to assess the pre-test and post-test knowledge and perception level regarding cardiac rehabilitation among post myocardial infarction patients in both control and experimental groups.
The second objective of the study was to evaluate the effectiveness of video assisted teaching programme on knowledge and perception among post myocardial infarction patients by comparing pre-test and post-test scores between and within the control and experimental groups depicts that the paired 't' test score on perception within the experimental group 't' value 24.44 was less than the tabulated value at $p<0.001$, which indicates that difference is considered to be highly significant.Hence (H_2) was accepted.
Hence it reveals that there is improvement in the post-test mean score in the experimental group after the introduction of video assisted teaching programme.

The third objective of this study was to find out the correlation between knowledge and perception regarding cardiac rehabilitation among post myocardial infarction patients.
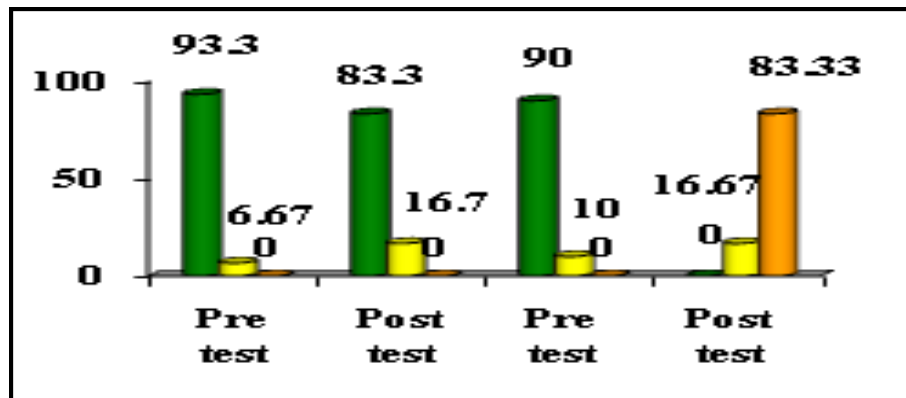Shows that, in the control group both pre and post-test correlation ('r' = -0.102) and ('r' = 0.02) respectively. It reveals statistically no positive correlation between the variables.
Similarly in the experimental group, pre-test correlation shows that there is no positive relationship between knowledge and perception. Whereas, very interesting result found that there is a positive correlation between knowledge and perception in the post-test score 'r' = 0.531, which reveals that when the knowledge increases, the perception also increased. Hence the research hypothesis (H_3) was accepted.
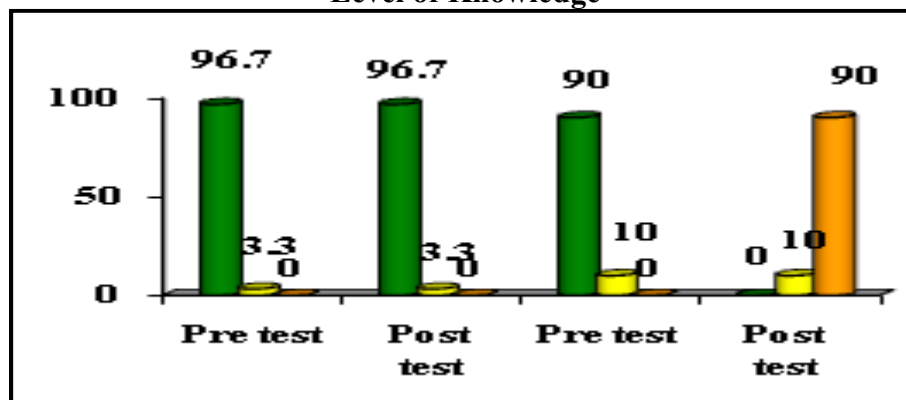**The fourth objective of this study was to associate the knowledge and perception level among post myocardial infarction patients with their demographic and clinical variables in both control and experimental groups.**
The findings of the study revealed the association between pre-test level of knowledge and perception among post myocardial infarction patients with demographic and clinical variables in both control and experimental groups.
The study findings showed that there is a significant association between level of knowledge and demographic variables such as dietary pattern $\chi2 = 6.67$ ($p<0.05$), percentage of arterial blocks $\chi2 = 4.53$ ($p<0.05$) in the experimental group**.** In the control group, Hence research hypothesis (H_4) is accepted. Whereas, in contrast, there is no association between the level of perception with their demographic and clinical variables.

Level of Knowledge

Level of Perception

IMPLICATIONS

Implications in nursing education

This study has provided an important tool for improving the knowledge and perception regarding cardiac rehabilitation through the video assisted teaching programme.

Implications in nursing practice

The findings of the study help the nurse to create awareness among post myocardial infarction patients with the help of the video assisted teaching programme to the patients.**Implications in nursing administration**

The present study helps the nursing administrative authority to recognize the need for developing an appropriate education programme for college students.

Implications in nursing research

The findings of the study help to expand the scientific body of professional knowledge for further research.

CONCLUSION

The main conclusion of this study shows that health education plays an important role in bringing changes in knowledge and perception among post myocardial infarction patients. The investigator assures that every patient who has been taking part in this study will have adequate knowledge and high values of perception regarding cardiac rehabilitation. Cardiac Rehabilitation is feasible and effective as it potentially improved health in patients who have experienced Myocardial infarction in hospital. Barriers may be recognized which might hinder participation in Cardiac Rehabilitation (CR) in settings.

ACKNOWLEDGEMENT

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

BIBLIOGRAPHY

1. Basavanthappa B T. Medical and surgical nursing, *Jaypee Brothers Medical Publishers (P) Ltd, New Delhi,* 1st Edition, 2003.
2. Basavanthappa B T. Nursing research, *Jaypee Brothers Medical Publishers, New Delhi,* 2nd Edition, 2007, 164-168.
3. Black M. Joyce, Jane Hokanson Hawks *et al*. Medical surgical nursing clinical management for positive outcomes, *Elsevier India Private Ltd, New Delhi,* 1, 7th Edition, 2004, 2512.
4. Brunner and Suddarth's. Textbook of medical surgical nursing, *Wolters Kluwer,* 1.
5. https://:www.americanheart.org.com.
6. Ying Y H, *et al*. Related factors and incidence risks of acute myocardial infarction (AMI), *Journal of Research in Development Disabilities,* 36, 2015, 366-375.
7. Tabei B S M, *et al*. Non-modifiable factors of coronary artery stenosis, *Journal of Cardiovascular and Thoracic Research,* 6(1), 2014, 51-55.
8. Fallavollita L, Marsili B, *et al*. A 5 weeks comprehensive cardiac rehabilitation program after first time myocardial infarction, *Journal of Sports Medicine Physical Fitness,* 40, 2015, 125-127.
9. Acer R D, *et al*. Effects of cardiac rehabilitation (CR) on left atrial functions in patients with acute myocardial infarction, *Journal of Ann Physical Rehabilitation Medicine,* 57(2), 2014, 105-113.
10. www.bmj.com.
11. www.ncbi.nlm.nih.com.
12. www.biomedcentral.com.
13. www.pubmed.com.
14. www.medicalchannel.com.
15. www.heartfoundation.com.
16. www.webmed.com.
17. www.mayoclinic.com.
18. www.heart.org.
19. www.heartkinetics.com.
20. www.cscr.org.
21. https://:www.americanheart.org.com.
22. https://:www.escardio.org.
23. https://:www.cardiac.rehab.