"A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CARDIAC REHABILITATION AMONG POST MYOCARDIAL INFARCTION PATIENTS ADMITTED IN CARDIAC INPATIENT DEPARTMENT AT SELECTED CARDIAC HOSPITAL, ERODE (DT)."

By

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## VIVEKANANDHA COLLEGE OF NURSING

(Affiliated to the Tamil Nadu Dr.M.G.R. Medical University, Chennai-32)

ELAYAMPALAYAM, TIRUCHENGODU, PIN-637 205

TAMIL NADU

**OCTOBER - 2015** 

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HOSPITAL, ERODE (DT)."

**RESEARCH ADVISOR** :

**PROF. R. NIRMALA KRISHNAN, M.Sc (N)., (Ph.D).** PRINCIPAL, VIVEKANANDHA COLLEGE OF NURSING, ELAYAMPALAYAM, TIRUCHENGODU- 637 205.

CLINICAL SPECIALITY GUIDE: \_\_\_\_

MRS. R.RADHA, M.Sc (N). ASSOCIATE PROFESSOR, DEPARTMENT OF MEDICAL SURGICAL NURSING, VIVEKANANDHA COLLEGE OF NURSING, ELAYAMPALAYAM, TIRUCHENGODU- 637 205.

VIVA VOCE:

## 1. INTERNAL EXAMINER

## 2. EXTERNAL EXAMINER

Submitted in partial fulfillment of the requirements for the

**DEGREE OF MASTER OF SCIENCE (NURSING)** 

The Tamil Nadu Dr. M.G.R. Medical University, Chennai-3

**OCTOBER- 2015** 



VIVEKANANDHA COLLEGE OF NURSING

(Affiliated to the Tamilnadu Dr. M.G.R. Medical University)

Elayampalayam, Tiruchengode – 637 205, Tamilnadu Phone: 04288 – 234561

## CERTIFICATE

This is to certify that, this thesis, "A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CARDIAC REHABILITATION AMONG POST MYOCARDIAL INFARCTION PATIENTS ADMITTED IN CARDIAC INPATIENT DEPARTMENT AT SELECTED CARDIAC HOSPITAL, ERODE (DT)" submitted by Ms. MAHALAKSHMI.G, M.Sc. Nursing (2013-2015 Batch) Vivekanandha College of Nursing in partial fulfillment of the requirement of the Degree in Master of Science (Nursing) from the Tamil Nadu Dr. M.G.R Medical University is her original work carried out under our guidance.

This thesis or any part of it has not been previously submitted for any other Degree or Diploma.

# PROF. R. NIRMALA KRISHNAN, M.Sc (N)., (Ph.D) PRINCIPAL

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#### DECLARATION

I hereby declare that this thesis entitled "A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CARDIAC REHABILITATION AMONG POST MYOCARDIAL INFARCTION PATIENTS ADMITTED IN CARDIAC INPATIENT DEPARTMENT AT SELECTED CARDIAC HOSPITAL, ERODE (DT)" is the outcome of the original research work undertaken and carried out by me under the guidance and direct supervision of research advisor, PROF. R. NIRMALA KRISHNAN, M.Sc(N)., (Ph.D) Principal and clinical speciality guide MRS. R. RADHA, M.Sc(N), Associate professor, Department of Medical Surgical Nursing, Vivekanandha college of nursing, (Sponsored by Angammal Educational Trust), Elayampalayam, Tiruchengode, Namakkal District.

I also declare that the material of this thesis has not formed in any way the basis for award of any other Degree, Diploma or Associate fellowship previously of the Tamil Nadu Dr. M. G. R Medical University.

#### Ms. MAHALAKSHMI.G

II year M.Sc nursing,

Vivekanandha College of Nursing,

Elayampalayam, Tiruchengode.

Place: Elayampalayam Date:

#### ACKNOWLEDGEMENT

Praise and glory to the **god** almighty who is the source, strength and inspiration in every work of my life. I thank God for all the wisdom, knowledge, strength and guidance which lead to the completion of this work.

Several hands and hearts have moulded this work to its final shape and I would like to express my gratitude to all of them.

I extend my heartfelt thanks and gratitude to Vidya Rathana, Rashtriya Rathana, Hindu Rathana Prof. Dr. M. Karunanithi, B.Pharm, M.S., Ph.D., D.Litt., the chairman and secretary of Vivekanandha educational institutions for providing opportunity to undertake M.Sc. Nursing Programme in this esteemed institution.

It's my privilege to extent my heartful thanks to **Mrs.Krishnaveni Karunanithi, M.A**, chairperson, vivekanandha group of institutions for providing opportunity to undertaken M.Sc Nursing.

I express my sincere thanks to **Dr. S. Arthanareeswaran, M.B.B.S., MD,** Executive Director, Vivekanandha educational Institutions & Vivekanandha Medical Care Hospital.

I extend my thanks to **Dr. K. Sreeraganithi Arthanareeswaran, M.B.B.S., M.S** (**Opthal**), Director, Vivekanandha Educational Institutions & Vivekanandha Medical Care Hospital.

Nursing is a noble profession and the teacher who teach are equally on the same pedestal. It is initiation and well-wishers who have strengthened my career at all levels.

It is my pleasure and privilege to express my deep sense of gratitude to my esteemed principal **Prof. R. Nirmala Krishnan, M.Sc (N)., (Ph.D),** Vivekanandha College of Nursing, Elayampalayam, who firmly but patiently guided me at every step of this work. Her valuable suggestions, constant guidance throughout my study is truly immeasurable.

It is a great privilege to express my sincere thanks and deep sense of gratitude to my clinical specialty guide **Mrs. R. Radha, M.Sc (N),** Associate professor, Head of the department of Medical Surgical Nursing, Vivekanandha college of Nursing, for her selfless guidance during every step of my study. Her timely help and encouragement supported me a lot throughout my study.

I am very grateful and thankful to **Mrs. D. Shankari, M.Sc (N),** Lecturer, Medical surgical nursing, Vivekanandha College of Nursing, for her valuable suggestion,

constructive criticism, encouragement and profound understanding which contributed towards completion of this study.

I sincerely express my heartfelt thanks to my class coordinator **Mrs. A. Sujatha M.Sc(N)**, Associate professor, Vivekanandha college of nursing for her encouragement, timely motivation, valuable guidance and suggestions in the completion of the study.

I wish to express my heartfelt gratitude for all **PG Faculty Members** Vivekanandha College of Nursing for their valuable guidance and suggestions in the completion of the study.

My sincere thanks to all **Subject Experts** who spent their valuable time for validating my tool, editing my study and making it a meaningful one.

My sincere thanks to **Mr. Sudharsanam, M.Sc., M.Phil (Statistics)**, Associate professor, Vivekanandha College of Nursing for his support and guidance in statistical analysis and interpretation of the data.

I feel a deep sense of gratitude to the **Tamil** and **English** teachers for sharing their valuable time in translating the tool and editing the thesis.

I express my sincere thanks to Dr. Sudhakar, Medical director, Sudha cardiac hospital, Erode to give permission to conduct this study and my special thanks to Dr. B. Amirtha Ganesh, M. D., D.N.B (cardiology) for his expert guidance and valuable advice through out my study.

I am also thankful to the **Librarians** of Vivekanandha College of Nursing Elayampalayam, for helping me with the review and for providing all library facilities throughout the study.

*I express my heartfelt thanks to all the Patients who enthusiastically participated in this study and without their co-operation the study would have remained a dream.* 

I feel a deep sense of gratitude for the staff of **Sriyas computers** for sharing their valuable time in translating the tool and editing the thesis.

*I indebted express my heartfelt thanks to my lovable mother Mrs. G. Devaki who is in the form of god for her precious blessings.* 

True love is rare, and it's the only thing that gives life real meaning. We are whatweare with the blessing and love of our dear and near one. It would not havebeen possible forme to complete this work without the love and support of myfather Mr. E. Govindan,my loving and caring sisters Mrs. G. Vidhya, Mrs. G.Vijaya, Mrs. G. Valli, Mrs. G. Thilaga and Mrs. G. Bhuvaneshwari who initiated me to

take up this noble profession and also for their prayers, support and inspiration throughout the course of my study.

A special note of thanks to my dear friends **Prabha**. **P** and **Poornalakshmi**. **S** for their constant support and help throughout the study.

*I render my deep sense of gratitude to all my dear friends and my seniors for their constant help throughout the study.* 

I thank all the unknown hands that helped me in shaping this dissertation work.

Ms. Mahalakshmi.G

## ABSTRACT

A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients admitted in cardiac inpatient department at selected cardiac hospital, Erode (Dt).

#### **OBJECTIVES**

- ✤ To assess the,
  - Knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.
  - knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.
- To find out the effectiveness of video assisted teaching programme in terms of gain in knowledge by comparing the mean pre test and post test scores.
- ✤ To find out the association between the pre test knowledge scores with selected demographic variables.

#### METHOD

The pre experimental one group pretest and posttest design was conducted using one group pre-test and post-test design at sudha cardiac hospital, Erode district from 1/06/2015 to 30/06/2015.The conceptual framework utilized in this study was Stufflebeam's evaluation model. A semi structured questionnaire method was used to assess the pre test level of knowledge regarding cardiac rehabilitation among fifty post myocardial infarction patients by adopting non –probability purposive sampling technique. Immediately after pre test video assisted teaching programme was implemented. After 7 days post test was conducted by using same questionnaire method. The results were analysed.

#### RESULTS

#### Major findings of the study,

- Most of the post myocardial infarction patients 46(92%) were between the age group of 51-60 years.
- Most of the post myocardial infarction patients 48(96%) are males.
- Majority of post myocardial infarction patients 46(92%) are Hindus.
- According to the education out of 50 post myocardial infarction patients 43(86%) have primary school.
- Among 50 post myocardial infarction patients 12(24%) were farmer.

• Among the post myocardial infarction patients 24(48%) had income of less than Rs.5000.

of myocardial infarction.

- Majority of post myocardial infarction patients 43(86%) are non-vegetarian.
- Most of post myocardial infarction patients 41(82%) were have the personal habits.
- Most of the post myocardial infarction patients 46(92%) were not doing exercise regularly.
- Most of the post myocardial infarction patients 45(90%) were not having family history of myocardial infarction, 5(10%) were having the family history of myocardial infarction.
- Majority of post myocardial infarction patients 27(54%) were not having associated disease.

Before implementation of video assisted teaching programme the knowledge level of post myocardial infarction patients, 46(92%) had inadequate knowledge, 4(8%) had moderate knowledge and none of them had adequate knowledge regarding cardiac rehabilitation and the pre test mean knowledge score was 8.58. After implementation of video assisted teaching programme post myocardial infarction patients knowledge level, 13(26%) had moderate level of knowledge, 37(74%) had adequate level of knowledge and none of them had inadequate knowledge regarding cardiac rehabilitation and post test mean knowledge score was 26.5.

The posttest mean score percentage (82.81%) of knowledge on cardiac rehabilitation were comparatively more than their pretest mean knowledge score (26.81%). It confirms that, there was increase in knowledge after the administration of video assisted teaching programme.

The paired 't' test was worked out the 't' value was 24.8 and it implies that the difference in the pre test and post test knowledge score found to be statistically significant at 5% level. This result evidently supported the effectiveness of video assisted teaching programme in promoting the knowledge on cardiac rehabilitation .Chi square was used to find out the association between the socio demographic variables with the pretest knowledge score. The present study reveals that, there is an association between pre test knowledge with age, sex, education, dietary pattern, personal habits, family history of myocardial infarction.

#### CONCLUSION

The mean pre-test knowledge of post myocardial infarction patients was found inadequate and moderately adequate knowledge level. After implementation of video assisted teaching programme on cardiac rehabilitation the mean post test knowledge was found most of the patients having adequate and moderately adequate knowledge level. The finding of this study revealed that video assisted teaching programme was found effective among post myocardial infarction patients.

#### RECOMMENTATIONS

- ✤ The experimental study can be undertaken with control group.
- The study can be replicated on larger samples, thereby findings can be generalized to a larger population.
- Similar study can be conducted among family members regarding cardiac rehabilitation who are taking care of patient with cardiac problems.
- The study can be conducted including attitude and beliefs with regard to cardiac rehabilitation among post myocardial infarction patients.
- A correlative study can be conducted on knowledge and practice of post myocardial infarction patients.
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#### **CHAPTER-I**

### **INTRODUCTION**

#### "Hear your heart, heart your health".

#### - Faith seehill.

We all know the popular saying "Health is Wealth". By health we do not mean the absence of physical troubles only. But it is a state of complete physical, mental and social well-being. The loss of health is a loss of all happiness. **Mahatma Gandhi** also says, "*It is health which is real wealth, and not pieces of gold and silver*".

The heart is an astoundingly faithful creation of nature. Its gentle thumping accompanies us for the duration of our lives, and it is so central to human existence that for much of recorded history, it has served as a symbol of not only life but also love, emotion, intelligence, and reason.

At one time, philosophers even believed that the heart, rather than the brain, was the organ of consciousness. **Aristotle** himself considered it the organ of vitality, and still today the heart is emblematic of the human soul.

The defining characteristic of the human heart is its tireless beating, a constant rhythmic contraction to life that serves the all-important purpose of circulating blood through our bodies.

"Heart beat represents life and lack of it pronounces death". Myocardial infarction is the technical name for a heart attack. Nowadays heart attack threatens to occur more frequently as the disease has reached alarming proportions in the developed countries. Developing countries also showing greater incidence of the disease.

Myocardial infarction is the irreversible necrosis of heart muscle secondary to prolonged ischemia. This usually results from an imbalance in oxygen supply and demand, which is most often caused by plaque rupture with thrombus formation in a coronary vessel, resulting in an acute reduction of blood supply to a portion of the myocardium. (National heart lung blood institute, 2011).

Myocardial infarction increases with age; however, the actual incidence is dependent on predisposing risk factors for atherosclerosis. Approximately 50% of all Myocardial infarctions in the United States occur in people younger than 65 years. (The Cleveland Clinic Foundation, 2014).

Acute myocardial infarction is associated with a 30% mortality rate; half of the deaths occur prior to arrival at the hospital. An additional 5-10% of survivors die within the first year after their myocardial infarction. Approximately half of all patients with a myocardial infarction are re-hospitalized within 1 year of their index event. (American heart association, 2012).

The heart diseases like coronary heart disease, specifically those following an acute coronary syndrome like acute myocardial infarction or unstable angina are the most leading cause of morbidity and needs management and rehabilitation of patient. (Sutter health, 2014).

Rehabilitation may be defined as the process of helping the patient adjust to a disability by teaching integration of all resources and concentration more on existing abilities than on permanent disabilities. (Heart research centre, 2011).

WHO defined Cardiac Rehabilitation as 'sum of activities required to influence favorably the underlying causes of disease as well as to ensure patients the best possible, social and mental conditions, so that they may by their own efforts preserve, resume as normal as possible in the life of the community'. (Heart research centre, 2011).

Cardiac rehabilitation program are categorized into four phases. Phase I: (In hospital): Cardiac rehabilitation immediately after surgery or a cardiac event. Phase I begins during first day of hospitalization provides the patient information about role of diet, exercise and stress play in controlling heart disease. (Thompson health, 2012).

Phase II (outpatient exercise training): The patient attends three times a week for 4-6 weeks but may continue for as long as 6 months. The heart-monitored, physical conditioning program usually begins a few weeks following hospital discharge with a low level training program that gradually progresses in intensity and duration.

Phase III (maintenance period): Long term outpatient program that focuses on cardiovascular stability and long term conditioning. The patient is usually self-directed during this phase and does not required a supervised program. (Brunner and suddarth's, 2010).

Phase IV (long term maintenance): In order to be effective, physical activity and changes in lifestyle need to be maintained for long term. (Scottish Intercollegiate Guidelines Network (SIGN), 2012).

Times of India the famous magazine says that, "The science of cardiac rehab not only helps you get back on your feet and into your normal life in the quickest time, but also reduces risk of future cardiovascular episodes. (Article TNN, Feb 11, 2012).

The goals of cardiac rehabilitation are medical, psychological, social, sexual, and vocational rehabilitation. The overall objective of cardiac rehabilitation is to resume the patient back to the normal activities of daily living and make the patient become psychologically stable that leads to improvement in quality of life of the patients.

#### **NEED FOR STUDY:**

Ischemic heart disease is the leading cause of death worldwide. Cardiovascular diseases cause 12 million deaths throughout the world each year, according to the third monitoring report of the World Health Organization, 1991-93 ischemic heart disease and myocardial infarction are expected to sharply increase in developing countries, especially such countries in Eastern Europe, Asia and parts of Latin America. (Heart research centre, 2011).

Every 29 seconds an American suffers a coronary event and approximately every 1 minute someone dies of a coronary event. About 2,50,000 people a year die before they reach the hospital. Studies indicate that half of all acute myocardial victims wait more than 2 hours before getting help. (Joyce M. Black, 2012).

Fragmingham study, that results revealed about 45% all acute myocardial infarctions occur in people younger than age 65 years and 5% occur in those younger than age 40.85% of people who die of acute myocardial infarction are 65 years of age or older. (Joyce M. Black, 2012).

The British heart foundation (BHF) a comparison of relevant UK studies which indicates that about half of people who have a myocardial infarction die within 28 days. (Richard hatchett, 2007).

In India 31.7% deaths occur due to myocardial infarction. Incidence of cardiovascular diseases was about 7% in 1970 and increased up to 32% in 2011 in India. (International journal of biomedical research, 2012).

India is also experiencing a large rise in chronic diseases, especially heart disease, stroke and diabetes. Cardiovascular disease will be the largest cause of death and disability by 2020 in India. It has been forecasted that 2.6 million people will die from coronary heart disease, which constitutes 54% of all cardiovascular disease deaths. Approximately half of these deaths will occur in young and middle aged individuals, making the impact to society and the economy even more significant. (Original article, 2012).

The patient with an myocardial infarction is free of symptoms, an active rehabilitation programme is initiated. Cardiac rehabilitation is an important continuing care program for patients with coronary artery disease that target risk reduction by means of education, individual and group support and physical activity. (Thomas ,king ,lui et al., 2007).

Benefits of cardiac rehabilitation are reduced hospital admission, reduced angina, improved lipid profiles (cholesterol), improved blood pressure, improved functional capacity (function of the heart), improved lifestyle modifications, reduced anxiety and depression, increased confidence and well-being, improved return to work and leisure activities, improved health education of families and friends. (BACPR, 2012).

Ahyana et Al ., (2013) conducted a experimental study to review and identify interventions that enhance cardiac rehabilitation behaviors among myocardial infarction patients. Cardiac rehabilitation programs involved interventions that enhance cardiac rehabilitation behaviors including training exercise, behavioural change, education and psychological support and life style changing strategies. This study results revealed that cardiac rehabilitation program has been improve quality of life and decrease mortality in myocardial infarction patients. (Nurse media journal of nursing, 2013).

Shannon M. Dunlay et al., (2014) conducted a study regarding participation in cardiac rehabilitation, readmission and death. After acute myocardial infarction patients 1569(52.5%) patients participated in cardiac rehabilitation after hospital discharge .This study

results revealed that cardiac rehabilitation participation is associated with a markedly reduced risk of readmission and death after myocardial infarction. (**PubMed, 2014**).

The investigator posted in life line hospital, has observed that most of the patients with myocardial infarction who were admitted intensive care unit were around 30 - 60 years and above and maximum of them with second heart attack and they were found to be psychologically, physiologically, vocationally handicapped. The investigator also believes that with good rehabilitative support and care by nurses to myocardial infarction patients will help to restore the optimum level of health of the patient and prevent the recurrent attack also. Hence by, seeing the burden of disease and understanding that the mortality can be prevented by improving knowledge of the patients, the investigator was interested to conduct this study.

#### STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients admitted in cardiac inpatient department at selected cardiac hospital, Erode (Dt).

#### **OBJECTIVES OF THE STUDY:**

- To assess the,
  - Knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.
  - Knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.
- To find out the effectiveness of video assisted teaching programme in terms of gain in knowledge by comparing the mean pre test and post test scores.
- ✤ To find out the association between the pre test knowledge scores with selected demographic variables.

#### **OPERATIONAL DEFINITIONS**

#### Evaluate

Statistical measurement of the knowledge regarding cardiac rehabilitation among post myocardial infarction patients as observed from scores based on semi structured questionnaire with multiple choice questions.

#### Effectiveness

In this study effectiveness refers to the significant gain in knowledge as determined by significant difference in mean pretest and mean posttest scores.

#### Video assisted teaching programme:

Audio visual aid on cardiac rehabilitation is developed to impart the knowledge regarding cardiac rehabilitation.

#### Knowledge

Defined as the correct responses of the post myocardial infarction patients to the knowledge items regarding cardiac rehabilitation in the semi structured questionnaire.

#### **Cardiac rehabilitation**

Cardiac rehabilitation refers to that helps to improve the health and return back to normal life activity of post myocardial infarction patients. In this study cardiac rehabilitation includes that, physical rehabilitation, psychological rehabilitation, vocational rehabilitation, sexual rehabilitation.

#### Post myocardial infarction patients

In this study post myocardial infarction patients refers to patients who are admitted in the cardiac hospital and diagnosed as myocardial infarction ( include the patients receiving with medication treatment & invasive procedures).

#### HYPOTHESIS

- ✤ H₁: There will be significant difference between pretest and post test knowledge scores of post myocardial infarction patients regarding cardiac rehabilitation.
- H<sub>2</sub>: There will be significant association between the mean pre test knowledge score with selected demographic variables.

#### ASSUMPTIONS

- Video assisted teaching will be effective for gaining awareness and knowledge on cardiac rehabilitation among post myocardial infarction patients.
- Developing positive attitude is essential for the adaption of healthy behavior and leading healthy life.

♦ Video assisted teaching will be useful in preventing second heart attack.

#### **DELIMITATIONS:**

The study was limited to the post myocardial infarction patients who:

- $\bullet$  were in the age group 30-60.
- ✤ were suffered from first heart attack.
- were diagnosed as myocardial infarction admitted in ward.
- Were receiving medical treatment, invasive procedures like percutaneous coronary intervention.
- ✤ Were present during the period of data collection.
- ✤ Were willing to participate in the study.

#### **CONCEPTUAL FRAMEWORK**

A conceptual framework is a precursor of a theory. It is a group of concepts and a set of proportions that spells out of the relationship between them. Conceptual framework plays several interrelated roles in the progress of the science. The overall purpose is to make a scientific findings meaningful and generalizable.

According to polit and hungler (2010), a computed frame work is correlated concepts on a instruction that are assembled together in some rational scheme by virtue of other relevance to a common theme. It is a advice help to stimulate the research and a extension of knowledge by providing both direction and impetus. A frame work may serve as a spring board for a scientific advancement.

# STUFFLEBEAM'S (CIPP) EVALUATION MODEL CONSISTS OF THE FOLLOWING STEPS,

- Context evaluation (goals)
- Input evaluation (plan)
- Process evaluation (action)
- Product evaluation (outcome)

#### **Context evaluation**

Context evaluation describes the plan for identifying the problem and developing the objective and it's rational. The present study is carried out to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation programme such as physical, psychological, vocational, sexual rehabilitation.

#### Input evaluation

It serves the basis for studying decisions. It specifies resources, strategies and designs to meet programme goals and objectives. Here in the present study, the input refers to,

- Development of video assisted teaching programme on cardiac rehabilitation.
- Development of semi structured questionnaire schedule to assess the knowledge of cardiac rehabilitation.
- Validation of the tool by experts opinion.
- Establishment of reliability of tool by test re test method.
- Selection of sample.
- ✤ Frame a research design.

#### **Process evaluation**

It describes, how the decisions implemented based on the limitations by means of establishing validity and reliability of the developed tool and relevant literature in the present study it refers to,

- Assessing knowledge of participants, before administration of video assisted teaching programme .
- \* Administering video assisted teaching programme .
- Assessing knowledge of participants, after administration of video assisted teaching programme

#### **Product evaluation**

The input and process enables to achieve the objectives of the investigation which is identified with the product evaluation .It refers to the valid reliable tool development. The video assisted teaching programme regarding knowledge on cardiac rehabilitation among post myocardial rehabilitation patients will show gain in knowledge by the participants in most of the areas which is identified with statistical computation.

The investigator found that this conceptual framework is very useful to evaluate the gain knowledge of post myocardial infarction patients as administration of video assisted teaching programme on cardiac rehabilitation.

## SUMMARY

This chapter dealt with introduction, need for study, statement of the problem, objectives, operational definitions, research hypothesis, delimitations and conceptual framework.

FIGURE: 1.1 STUFFLE BEAM'S (CIPP) EVALUATION MODEL



## **CHAPTER - II**

## **REVIEW OF LITERATURE**

A review of literature was conducted to generate a picture of what is known and not known about a particular situation. Relevant literatures refers to those sources that are important in providing in depth knowledge needed to make the changes in practice or to study a selected problem. It also provides the readers with a background for understanding current knowledge on a topic and illuminates the significance of the new study.

A critical summary of research on a topic, often prepared to put a research problem in context or to summarize existing evidence. (Denise F. Polit, 2009, p. 258).

Review of literature was done from published articles, textbooks, and reports. For the present study the researcher was reviewed and organized the of related literature under the following headings,

- Definition of myocardial infarction
- Incidence of myocardial infarction
- Risk factors of myocardial infarction
- Diagnostic evaluation of myocardial infarction
- Management of myocardial infarction
- Cardiac rehabilitation
- Cardiac rehabilitation for myocardial infarction

#### **Definition of myocardial infarction**

If the blood flow to the myocardium is severely impaired for more than 20 minutes, then a growing area of cell necrosis develops in the affected part of the muscle. (Richard hatchett, 2007, p. 225).

Myocardial infarction reflects death of cardiac muscle cells (myocytes) caused by prolonged ischemia. (Richard hatchett, 2007, p. 226).

#### **Incidence of myocardial infarction**

Cardiovascular diseases currently causes 17.3 million deaths every year, with 80 percent of this occurring in low and middle income countries, making it the world's number one killer. The good news is that the majority of cardio vascular disease is caused by risk factors that can be controlled, treated or modified. (Nightingale nursing times, 2013, p. 65).

194 countries that made a commitment to reduce premature death from cardiovascular disease by 25 percent by the year 2025. However the government cannot do this alone, as you get older your risk of cardiovascular disease begins to rise and continues increasing with age but you can take steps to reduce it. Learn how you can make you heart healthy, because healthy adults leads to healthy families and communities. (Nightingale nursing times, 2013, p. 65).

#### **Risk factors of myocardial infarction**

The most common cause of myocardial infarction is Atherosclerosis. Some risk factors responsible for atherosclerosis are age, sex, family history, smoking, diabetes mellitus, hypertension, exercise, and psychological stress. (Joyce M. Block, 2012, p. 1410).

#### Signs and symptoms of myocardial infarction

Myocardial infarction having symptoms are Chest pain, dyspnea, epigastric discomfort with or without nausea and vomiting, diaphoresis, Syncope, impairment of cognitive function. (Joyce M.Black,2012, p. 1412).

#### Diagnostic evaluation of myocardial infarction

Myocardial infarction occurs, three ECG changes are usually observed. ST segment elevation, T wave inversion and an abnormal Q wave (wider than 0.04 seconds or more than one third the height of the QRS complex). (Donna D.Ignatavicius, 1999, p. 907).

#### Management of myocardial infarction

Management of myocardial infarction have number of medical interventions (thrombolytic therapy) and percutaneous coronary intervention (PCI) or coronary artery bypass graft(CABG) surgery. (Brunner and Suddarth's, 2010, p. 1380).

#### Cardiac rehabilitation

The first attempt at cardiac rehabilitation was probably made by the greek physician Asclepiades of Bithynia in 1124 BC. There have been various reports through the centuries by others such as William Stokes in 1854 who advocated early mobilization and walking for patients with heart disease. (Fuster,2011, p. 1514).

Concurrent with gradual changes from sedentary convalescence to early mobilization, the importance of risk factors and life styles in the genesis of coronary disease was realized, and the concept of cardiac rehabilitation was born. The first structured rehabilitation program was pioneered in Israel in 1955. (Fuster , 2011, p. 1514).

Systematic individualized rehabilitation and secondary prevention needs to be offered for all patients diagnosed with coronary heart disease. (DOH 2000a, p. 257).

Prevention rather than treatment is the goal with regard to coronary heart disease modification of risk factors can significantly improve prognosis even after an acute coronary event. Recent findings indicate reducing risk factors may limit and even prevent the progression of coronary heart disease. (Joyce M.Black, 2012, p. 1417).

#### **Definition of cardiac rehabilitation**

Cardiac rehabilitation is defined by the WHO (1993) as 'The sum of activities required to influence favorably the underlying cause of the disease, as well as to ensure the patients the best possible physical, mental and social 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. Rehabilitation cannot be regarded as an isolated form of therapy, but must be integrated with the whole treatment, of which it forms only one fact'. (Fuster, 2011, p. 1514).

In 1995, the US department of health and human services, public health service, agency for health care policy and research used guidelines that are still widely used, describing cardiac rehabilitation as : comprehensive long term programs involving medical evaluation, prescribed exercise, cardiac risk factor modification, education and counseling, designed to limit the physiological and psychological effect of cardiac illness, reduce the risk of sudden death or reinfarction, control cardiac symptoms and enhance the psychological and vocational status of the individual patient. (Fuster, 2011, p. 1515).

#### Goals of cardiac rehabilitation

Some medical goals of cardiac rehabilitation summarized by the World Health Organization as (1) the prevention of cardiac death (2) a decrease in cardiac morbidity (3) the relief of symptoms such as angina and breathlessness. (Fuster, 2011, p. 1514).

#### Cardiac rehabilitation team

Comprehensive rehabilitation involves a multidisciplinary team compressing the following: physician, nurse co-ordinator, cardiovascular nurses, physiotherapist, sports therapist, dietician, pharmacist, social worker, clinical psychologist, vocational advisor, occupational therapist, and many other professionals as are available and relevant to the needs and goals of that particular program. (Fuster, 2011, p. 1513).

#### Indications for cardiac rehabilitation

Some indications for cardiac rehabilitation are (1) medically stable myocardial infarction (2) stable angina (3) CABG (4) percutaneous transluminal coronary angioplasty or other trans catheter procedure (5) congestive cardiac failure (6) cardiomyopathy (7) heart or other organ transplantation (8) other cardiac surgery including valvular and pacemaker insertion (9) peripheral arterial vascular disease (10) End-stage renal disease (11) At risk for coronary artery disease, with diagnosis of diabetes mellitus, hyperlipidemia, hypertension etc. (Fuster, 2011, p.1516).

#### Contraindications for cardiac rehabilitation

Before initiating cardiac rehabilitation should be considered the contra indications:(1) Unstable angina (2) Resting systolic blood pressure >200 mmHg or diastolic >110 mmHg (3) Orthostatic blood pressure decrease of >20 mmHg with symptoms (4) Critical aortic stenosis (5) Acute systemic illness or fever (6) Uncontrolled atrial or ventricular arrhythmias (7) Uncontrolled sinus tachycardia (>120 beats /min ) (8) Third degree heart block (without pacemaker) (9) Recent embolism (10) Resting ST displacement (>2mm) (11) uncontrolled diabetes with ketones present (12) Orthopedic problems prohibiting exercise (13) Other metabolic conditions such as acute thyroiditis, hypokalemia or hyperkalemia, hypovolemia etc. (Fuster, 2011, p. 1517).

#### Cardiac rehabilitation for myocardial infarction

In- hospital rehabilitation begins immediately after a myocardial event is to counteract the negative effects of deconditioning rather than to promote training adaptations. It also provides an ideal time to begin education and psychological support. (cardiac nursing , 2005, p. 922).

Cardiac rehabilitation facilitates behavioral change through exercise prescription, educational sessions, medication advice, healthy eating guidelines, stress management and relaxation, behavioral change, smoking cessation and vocational counseling by incorporating life style management, the intention is to reduce the possibility of a subsequent cardiac event, slow or stop the progression of cardiovascular disease and improve quality of life. (Fuster, 2011, p. 1516).

Education for a healthier lifestyle is an important part of each phase of cardiac rehabilitation, the emphasis in phase-I is on the identification and modification of reversible risk factors to prevent further deleterious cardiac events. (Joyce M. Black, 2012, p. 1429).

Worldwide cardiac rehabilitation structured in different ways. The term is used to describe the varying time frames following a cardiac event. There are four phases of cardiac rehabilitation in both Europe and United states. (Fuster, 2011, p. 1518).

Phase-I: (In patient phase of rehabilitation) Rehabilitation may begin in the cardiac care unit or cardiac ward with education and some passive range -of -motion exercises, progressing to increased activity as soon as possible. The rate of progression from passive to more active and resistive exercises is dependent on the patients status. Phase–I prepare the patient for living at home with as little as possible assistance after discharge. (Fuster, 2011, p. 1522).

Aims of phase - II: (a) To make the patient to return back to early physical activity (b) To perform the activities of daily living (c)To prevent deep vein thrombosis (d)To prevent the

effects of bed rest (e)To relive from anxiety and depression (f) To educate patient and family (g) To reduce the risk factors. (GB Madhuri, 2008, p. 239).

Plans of phase-I : (a) Breathing exercise (b) Ankle and food exercise (C)Walking (d) Activities of daily living training (e) Nutritional management with diet plan (f) Life style modifications (g) Vocational information like type of work, numbers of hours of work per week and work related pressure (h)Increased ambulation (i)Stair climbing (j) Exercise sessions include warm up, endurance aerobic activity and cool down session. (**GB Madhuri, 2008, pp. 239 - 240**).

Phase-II: Multifacted safe physical activity to improve conditioning with continued behavior modification aimed at smoking cessation, weight loss, healthy eating and other factor to reduce disease risk. (Fuster, 2011, p. 1517).

Aimes of phase –II: (a) To improve the aerobic endurance (b) To encourage positive life style changes (c)To promote return to normal activities (d)To improve the functional capacity (e)To educate the patient. (GB Madhuri, 2008, p. 242).

Phase III: Usually consists of an 8-12 week program of structured or supervised exercise and education. (Fuster, 2008, p. 1518).

Aims of phase III: (a) To maintain the function (b) To educate on risk factors modification (c)To become perfect with the exercise programme. (**GB Madhuri, 2008, p. 243**).

Phase IV: This phase is commitment towards the cardiac care exercises, diet and behavioural modification. (GB Madhuri, 2008, p. 244).

The program is to help heart patients recover quickly and improve their overall physical, mental and social functioning. The goal is to stabilize, slow or even reverse the risk of heart disease, another cardiac event or death. (Good health concept, 2010).

Patients attending cardiac rehabilitation have been shown to have increased perceived control over their illness, more confidence in their illness, more confidence in their ability to change unhealthy behavior and decreased anxiety and depression. (Michie et al, 2005, p. 49)

Early and progressive ambulation of patients after an myocardial infarction is now considered routine care. Despite many new therapies in cardio vascular medicine, cardiac rehabilitation maintains an important place in reducing morbidity and mortality rates. (Elliott M. Antman, 2013, p. 50).

# EFFECTIVENESS OF CARDIAC REHABILITATION FOR POST MYOCARDIAL INFARCTION PATIENTS

**Fallavollita L et al., (2015)** conducted a prospective single-center interventional cohort study to evaluate the effects of a 5 weeks comprehensive cardiac rehabilitation program in terms of exercise capacity, quality of life, echo cardiographic findings and autonomic modulation after first-time myocardial infarction in Italy. Selected sample of 37 consecutive post-myocardial infarction patients (mean age 66 years) began an 5-week cardiac rehabilitation supervised training. At baseline and after training program analyzed using the Psychological General Well-Being Inventory (PGWBI) questionnaire. This study suggest that a cardiac rehabilitation program in post myocardial infarction improves exercise capacity, quality of life and autonomic modulation.

**Huang YY et al., (2015)** conducted a retrospective cohort study regarding related factors and incidence risks of acute myocardial infarction among the people with disability in Taiwan. The sample 798,328 people with disability who were aged 35 and above selected for this study .This study results revealed that the people with disability who were male, aged 65 and above, married, indigenous, with physical disabilities, with high co-morbidity, or with high disability levels had relatively higher acute myocardial infarction risks than other people with disability.

Acar RD et al., (2014), describe a observational study to analyze the effects of cardiac rehabilitation on the left atrial function of patients with acute myocardial infarction with revascularized through percutaneous coronary intervention in Istanbul, Turkey. Selected sample 42 myocardial infarction patients for this study. Assessments were performed before and after 6 weeks of cardiac rehabilitation. This study results revealed that for post-acute myocardial infarction, cardiac rehabilitation and revascularization by percutaneous coronary intervention might have favorable effects on left atrium function.

**Brannstrom M et al., (2014)** a descriptive study to assess sexual knowledge among patients with a myocardial infarction and their partner in Sweden. A total of 115 patients with a first myocardial infarction and their partners answered the sex after myocardial infarction knowledge was tested by questionnaire 1 month after the myocardial infarction and 1 year after the event. This study results revealed that for first myocardial infarction patients and their partners had limited knowledge about sexual health and sexual activity.

**Urbinati S et al., (2014)** done a study regarding to describe drug adherence and treatment goals, and to identify the independent predictors of smoking persistence and unsatisfactory lifestyle habits six months after an acute myocardial infarction in Italy. Selected sample of 11,706 patients with acute myocardial infarction. This study results revealed that healthy lifestyles improved after discharge, but the rate of those with regular exercise habits and adequate fish intake could be further improved. Knowledge of the variables associated with specific lifestyle changes may help in tailoring secondary prevention programmes.

Singh SS et al., (2013) describe a study to assessment of left ventricular ejection fraction in patients undergoing cardiac rehabilitation following acute myocardial infarction in Christian Medical College, Ludhiana, Punjab, India. The sample of 100 patients selected for this study. Group I (study group) patients were administered secondary prevention advice and were started on the cardiac rehabilitation exercise protocol, Group II (control group) patients were administered secondary prevention advice only. After 10 weeks results analyzed. This study results revealed that of significant improvement in left ventricular ejection fraction in patients who had been engaged in cardiac rehabilitation program besides the secondary prevention strategies.

Mok VK et al., (2013) in their a study to examine the effectiveness of a nurse follow-up dietary intervention (NFDI) on post-myocardial infarction patients in China. Selected samples of 82 post-myocardial infarction subjects for this study with borderline dyslipidemia and randomly allocated to a control group or an intervention group (IG) (n = 41/group). The effect of the intervention was assessed by a self-report questionnaire and blood tests. This study results found positive changes in dietary behavior and an increase in high-density lipoprotein level from participants who undertook the NFDI (nurse follow-up dietary intervention) for self-management in dietary modification.

Vidhya T, (2013) conducted a study to assess the level of knowledge on lifestyle modifications among patients with acute coronary syndrome at Meenakshi medical college and research institute, Kanchipuram. Selected sample of 60 patients and used the structured multiple choice questionnaire for this study. This study results showed that majority of the respondents had inadequate knowledge. It is essential that health education should be provided on life style modification to the patients and this is most effective way of secondary prevention of acute coronary syndrome.

**Poovaragavan V et al., (2013)** conducted a pre-experimental study to assess effectiveness of video teaching programme on knowledge regarding cardiac rehabilitation among patients with ischemic heart disease in medical ward of Raja Muthiah medical college and hospital in Tiruvannamalai. Selected sample of 50 patients and used semi structured interview schedule for this study. This study results showed that the knowledge on cardiac rehabilitation among patients with ischemic heart disease were inadequate knowledge before video teaching programme and it is significantly increased after video teaching programme.

**Bradt J et al., (2012)** describe a study to examine the effects of music on stress and anxiety reduction in coronary heart disease patients in USA. Included all randomized controlled trials and quasi-randomized trials that compared music interventions and standard care with standard care alone for persons with confirmed coronary heart disease. This study results revealed that listening to music may have a beneficial effect on anxiety in persons with coronary heart disease. Listening to music may have a beneficial effect on systolic blood pressure, heart rate, respiratory rate, quality of sleep and pain in persons with coronary heart disease.

**Lawler RP et al., (2011)** in their a meta - analysis study to evaluate the efficacy of exercise-based cardiac rehabilitation among post-myocardial infarction patients. Identified 34 randomized controlled trials (RCTs) (N = 6,111). Exercise-based cardiac rehabilitation had favorable effects on cardiovascular risk factors, including smoking, blood pressure, body weight, and lipid profile. This study results revealed that exercise-based cardiac rehabilitation is associated with reductions in mortality and re-infarction in post-myocardial infarction patients.

Heran SP et al., (2011) conducted a study to determine the effectiveness of exercisebased cardiac rehabilitation on mortality, morbidity and health-related quality of life of patients with coronary heart disease. This study selected sample of 10,794 patients. This study results revealed that Exercise-based cardiac rehabilitation is effective in reducing total and cardiovascular mortality (in medium to longer term studies) and hospital admissions (in shorter term studies).

White S et al., (2011) conducted a qualitative study regarding cardiac rehabilitation patients' perspectives on making dietary changes in UK. Selected the sample 15 post-myocardial infarction cardiac rehabilitation patients (11 men and four women) who had completed a hospital-based cardiac rehabilitation programme. These study findings suggest that, despite receiving information about eating a balanced diet, cardiac rehabilitation patients may perceive dietary changes in their diet.

**McCorry NK et al., (2009)** did a study regarding perceptions of exercise among people who have not attended cardiac rehabilitation following myocardial infarction in UK. Perceptions of exercise among non - attenders of cardiac rehabilitation were explored using semi-structured interviews. This study results indicated that participants did not recognize the cardiovascular benefits of exercise, and perceived keeping active through daily activities as sufficient for health.

**Giannuzzi P et al., (2008)** conducted a study to assess the effect on quality of care and prognosis of a long-term, relatively intensive rehabilitation strategy after myocardial infarction in Italy. A total of 3241 patients with recent myocardial infarction were randomized to a 3-year multifactorial continued educational and behavioral program (intervention group; n = 1620) or usual care (control group; n = 1621). This study results revealed that continued reinforced intervention up to 3 years after rehabilitation following myocardial infarction is effective in decreasing the risk of several important cardiovascular outcomes, particularly nonfatal myocardial infarction.

**Kardiol pol et al ., (2008)** in their a study to assess the knowledge of cardiovascular risk factors and recommended life style changes in patients after an acute coronary syndrome. This study results showed that after rehabilitation programme the subjects had significant improvement regarding knowledge on recommended life style changes and cardiovascular factors.

**Babu** SA et al., (2007) conducted a non-randomized experimental study regarding protocol-guided phase-1 cardiac rehabilitation in patients with ST-elevation myocardial infarction in a rural hospital Kerala. Sample were selected 15 historical controls and 15 prospectively enrolled patients. The prospectively enrolled patients received the phase-1, exercise-based, protocol-guided cardiac rehabilitation. At discharge, after the 6MWT (minute walk test) the complications were assessed. This study results revealed that Protocol-guided, phase-1 cardiac rehabilitation produces a much faster return of heart rate and blood pressure to baseline following the 6MWT, without producing a great rise in the Borg's Rating of Perceived Exertion (RPE) during the 6MWT, which suggests a training benefit among these patients.

RaihanathulMisiriya KJ et al., (2006) done a retrospective study to determine the clinical characteristics, mortality rate and possible risk factors for high mortality among patients with acute coronary syndrome at Kottayam Medical College Kerala. Sample 1865 patients were selected. Cases were grouped into ST-segment elevation myocardial infarction and non-ST segment elevation myocardial infarction/unstable angina. This study results revealed that subjects with diabetes mellitus, females and elderly individuals had greater mortality rates and are high risk groups.

**Rajendran AJ et al., (2004)** conducted a prospective study to evaluate the effectiveness of structured cardiac rehabilitation program in Indian setup among coronary artery bypass graft patients in Apollo hospitals, Chennai. 74 patients were selected for this study. The follow up was made every fifteen days. The measures were compared for pre and 3 months post- operatively. The results were analyzed for significance using student t-test by SPSS 10.0 for windows. There was a favourable change in functional capacity, resting rate pressure double product, fasting blood sugar, total cholesterol, triglycerides and anthropometric indices. The results suggest an encouraging pattern for effective cardiac rehabilitation program that can also be used for secondary prevention of coronary artery disease in India.

**Meland JG et al, (1987)** conducted a quasi-experimental study regarding the effects of standardized audiovisual educational programme for myocardial infarction patients in 4 hospital departments in university of Bergen, Norway. This study results revealed that patients offered the educational programme were more knowledgeable and had less fear-provoking beliefs about the myocardial infarction and standardized patient teaching during hospitalization is feasible and improves short-term coping behaviour after a myocardial infarction.

## CHAPTER – III

## **METHODOLOGY**

Methodology of research refers to investigation of the way to obtain, organize and analyze data and methodological studies addresses the development, validation and evaluation of research tools (or) methods. (Polit and beck, 2004).

Methodology of present study deals with research approach research design, variables under the study, study setting, population, sample, sample and sampling technique, selection and development of tool, development of video assisted teaching programme, validity of the tool, reliability of the tool, pilot study, data collection procedure and plan for data analysis.

### **RESEARCH APPROACH**

Research approach tells the researchers from whom the data to be collected, how to collect and how to analyze the data. It also suggests the possible conclusion helps the researcher in answering specific research question in the most accurate and efficient way possible. (Celia K.Willis, 2004).

The research approach used for this study was quantitative evaluative approach.

Hence the quantitative evaluative research approach was considered best to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients.

#### **RESEARCH DESIGN**

It is the overall plan for addressing a research question, including strategies for enhancing the study's integrity. (Polit and beck, 2009).

The research design adopted for the present study is

#### > pre experimental –one group pre-test post-test design.

#### $E=0_1 X 0_2$

The sympols used are explained as follows:

 $0_1$  — Pre test assessment of knowledge regarding cardiac rehabilitation before implementation of video assisted teaching programme.

X — Presentation of video assisted teaching programme regarding cardiac rehabilitation.
$0_2$  — Post test assessment of knowledge regarding cardiac rehabilitation after implementation of video assisted teaching programme

E — Effectiveness of video assisted teaching programme.

Group	Pre Test	Treatment	Post Test
Post-myocardial infarction patients admitted in cardiac in patient department	Knowledge level 01	Video assisted teaching programme X	Knowledge level 02



#### **Figure – 3.1 SCHEMATIC REPRESENTATION OF RESEARCH**

#### **Independent variables**

In the present study, the independent variable was video assisted teaching programme on cardiac rehabilitation.

#### **Dependent variables**

In this study, independent variable refers to the knowledge level of post myocardial infarction patients regarding cardiac rehabilitation.

# **Attributed variables**

Attributed or demographic variables are the characteristics of the subjects that are collected to describe the samples. Age, sex, religion, education, type of occupation, monthly income, dietary pattern, personal habits, exercise, family history of myocardial infarction, associated disease.

#### **STUDY SETTING**

Study setting is the physical location and condition in which data collection takes place in the study. (Polit and beck, 2004).

This study was conducted in the inpatient department sudha cardiac hospital, at Erode, Tamilnadu. It is a 250 bedded hospital. It was situated at perundhurai road, Erode district. In this hospital has the all facilities for giving care to the patients. This hospital conducting camp monthly two or three times per month near by the district like Erode,Salem, Namakkal, Karur. 30-40 patients per day getting treatment from cardiac outpatient department. Nearly about 5-7 cardiac patients admitted cardiac in patient department per day. Among them 4-5 patients were with first heart attack patients. The people within and around the Erode utilizes the services provided by this hospital.

#### **TARGET POPULATION**

The population of present study includes both males and females of myocardial infarction patients who are admitted in sudha cardiac hospital at Erode.

#### SAMPLING

#### Sample

Sample is a subset of the population selected to participate in a research study to generalize population characteristics. (Polit and Beck, 2010).

Sample for this study comprised of post myocardial infarction patients who are admitted in sudha cardiac hospital at Erode and fulfilling inclusion criteria.

# Sample size

Sample size was 50 post myocardial infarction patients admitted in sudha cardiac hospital at Erode and fulfilling inclusion criteria.

#### Sampling technique

Sampling techniques refers to the process of selecting a portion of population to represent the entire population. (Polit and Beck, 2011).

In this study non probability purposive sampling technique was adapted. The researcher selected subjects based on the personal judgment which depends on the problem statement and objectives that has to be achieved.

#### **CRITERIA FOR SELECTION OF SAMPLE**

#### Inclusion criteria

Post myocardial infarction patients of both sexes who:

- $\bullet$  were in the age group 30-60.
- ✤ Were suffered from first heart attack.
- were diagnosed as myocardial infarction admitted in ward.
- Were receiving medical treatment, invasive procedures like percutaneous coronary intervention.
- ✤ were willing to participate in the study.
- ✤ were present during the period of data collection.
- ✤ can read the Tamil or English.
- Exclusion criteria
  - ✤ Who have other cardiac disease along with myocardial infarction.
  - ✤ Who are exposed to cardiac rehabilitation.
  - Patients impending with surgical procedures like coronary artery bypass graft etc.
  - Patients who are critically ill.

#### SELECTION AND DEVELOPMENT OF INSTRUMENT

#### Selection of the instrument

The study methods used to collect data are intended to allow the researcher to construct a description of the meaning of the variables under study. (Carol L. Macne, 2010).

Semi structured questionnaire technique was used as a research tool in this study. Since it was considered to be the most appropriate instrument to elicit the response from the patients.

#### **Development of the instrument**

The tool used for the study comprised of:

- > Semi structured questionnaire with multiple choice questions.
- Video assisted teaching programme.

#### Preparation

The steps selected for the preparation of tool was:

- Review of related literature
- Preparation of blue print
- > Consultation with experts

#### **Review of related literature**

Books, journals, articles, periodical published and unpublished studies were reviewed to develop the tool.

#### **Preparation of blue print**

The blue print of the items pertaining to the knowledge of cardiac rehabilitation was prepared as per objectives and the theoretical framework. The blue print included structure and functions of the heart and cardiac rehabilitation that includes physiological, psychological, vocational, sexual rehabilitation.

#### **Consultation with experts**

The content was given to experts in various fields like medical surgical nursing, Interventional cardiologist, physiotherapist and biostatistician. Their opinion and suggestion were taken to modify the content .The research consultant and guide were consulted when finalizing the tool.

#### **DESCRIPTION OF THE INSTRUMENT:**

#### I. Semi structured quiestionnaire

It was prepared to assess the knowledge of post myocardial infarction patients regarding cardiac rehabilitation.

The instrument consists of semi structured questionnaire with two sections.

#### **SECTION-I**

It comprised of 11 items related to the demographic variables of post myocardial infarction patients:

- Age
- Sex
- Religion
- Education
- Type of occupation
- Monthly income
- Dietary pattern
- Personal habits
- Exercise
- Family history of myocardial infarction
- Associated disease.

#### **SECTION-II**

It comprised of 32 items pertaining to the knowledge of post myocardial infarction patients regarding cardiac rehabilitation. Each item was having four options with one most appropriate answer.

• Structure and functions of heart - 5	items
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- Physiological rehabilitation
- Psychological rehabilitation
- Vocational rehabilitation
- Sexual rehabilitation
- 19 items - 3 items

- 3 items

- 2 items

#### SCORING PROCEDURE

There was 32 items pertaining to the knowledge of cardiac rehabilitation. Each items had four options with only one appropriate answer. The maximum score for the correct response to each item was 'one' and for wrong response 'zero'. The level of knowledge was categorized based on the percentage of score obtained.

Table 3.1 Scoring for level of knowledge

Level of knowledge	Actual score	Percentage of score
Inadequate	0-15	< 50 %
Moderate	16-24	50-75 %
Adequate	25-32	>75 %

# VIDEO ASSISTED TEACHING PROGRAMME

The video assisted teaching programme was developed based on the objectives, review of literature, sample size and experts opinion.

Video assisted teaching programme was developed based on the following steps:

- > Refer the related literature regarding cardiac rehabilitation.
- Organization of contents.
- > Establishment of the content validity of the video assisted teaching programme.
- Preparation of final draft.
- > Editing the video assisted teaching programme.

# **Review of literature**

The literature i.e medical surgical nursing books, journals, reports and all articles were referred to prepare the content of the video assisted teaching programme.

# **Organization of the contents**

- ➢ Introduction
- Structure and functions of the heart
- Cardiac rehabilitation
  - Physiological rehabilitation
  - Psychological rehabilitation

- Vocational rehabilitation
- Sexual rehabilitation
- Conclusion

#### VALIDITY AND RELIABILITY OF THE TOOL

#### Validity

The content validity of the tool and video assisted teaching programme was established in consultation with various experts of concerned fields like interventional cardiology, medical surgical nursing, physiotherapy and statistics.

#### Reliability

The reliability of the semi structured questionnaire was tested by implementing the semi structured questionnaire on five post myocardial infarction patients admitted in cardiac inpatient department at Bharathi cardiac hospital, Erode. Test retest method where Karl Pearson's correlation formula was used to find out the reliability of the semi structured questionnaire (r=0.93).

#### **Preparation of final draft**

The final draft of the questionnaire and video assisted teaching programme was prepared after testing reliability and validity.

#### **PILOT STUDY**

Pilot study is a small scale version or trial run designed to test the methods to be used in a larger, more rigorous study. (Polit and Beck, 2011).

After obtaining permission from the concerned authority the pilot study was conducted in the month of May 2015 at Bharathi heart Hospital, Erode. The purpose of the pilot study was to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients, to find out the feasibility of conducting the final study and to determine the method of statistical analysis. Five post myocardial infarction patients were selected by purposive sampling. Semi structured questionnaire was administrated to assess the knowledge of the post myocardial infarction patients before implementation of video assisted teaching programme. Immediately after the pre test, video assisted teaching programme was implemented to the post myocardial infarction patients. The time period was 25-30 minutes. Evaluation of video assisted teaching programme was done by conducting post test, seven days after the presentation of the video assisted teaching programme by using the same semi structured questionnaire. The post test mean knowledge score were higher than the pretest mean knowledge scores. The results of the data revealed that the tool was feasible to conduct the study.

#### **DATA COLLECTION PROCEDURE**

#### **Ethical consideration**

Prior to the collection of data, written permission was obtained from the medical director of sudha cardiac hospital, Erode. The post myocardial infarction patients were assured that anonymity of each individual would maintained and informed consent was obtained from post myocardial infarction patients.

#### Period of data collection

The data was collected from 50 post myocardial infarction patients from 1/6/2015 to 30/6/2015 at sudha cardiac hospital, Erode.

#### Pre test

Pre test was conducted individually for the post myocardial infarction patients who were admitted in cardiac inpatient department in sudha cardiac hospital, Erode by using semi structured questionnaire to assess the knowledge on cardiac rehabilitation. The data collected from 3-4 patients daily for one month.

#### Presentation of video assisted teaching programme

Immediately after the pre test, video assisted teaching programme was presented to the post myocardial infarction patients. The time period was 25-30 minutes.

#### Evaluation of video assisted teaching programme / post test

Evaluation of video assisted teaching programme was done by conducting post test, 7 days after the presentation of the video assisted teaching programme by using the same semi structured questionnaire. The data collected from 3-4 patients /day.

#### PLAN FOR DATA ANALYSIS

The data obtained were analyzed in terms of objectives of the study by using descriptive are inferential statistics. The plan for data analysis as follows

- Data were organized in master sheet.
- The frequencies and percentage was used for analysis of socio demographic variables like age, sex etc.
- Knowledge was assessed by using mean, mean score percentage and standard deviation of pre test and post test scores.
- Paired t-test was used to determine the significant of difference between pre test score and post test score of the study.
- Chi-square analyze was used to determine to association between selected demographic variables with pretest knowledge scores.

#### SUMMARY

This chapter has dealt with the methodology undertaken for the study. It includes research approach, research design, study setting, target population, sampling technique, sample selection and development of video teaching programme, pilot study, data collection method and plan of data analysis.

# CHAPTER – IV

# DATA ANALYSIS, INTERPRETATION AND DISCUSSION

Analysis is the process of organizing and synthesizing data so it helps to answer research questions and test hypothesis. Interpretation is the process of making the sense of results a study and examining their implications. (Denise F. Polit, 2010).

This chapter deals with analysis and interpretation of the data collected from a sample of 50 post myocardial infarction patients regarding cardiac rehabilitation at sudha cardiac hospital, Erode district.

The collected data was coded, organized and interpreted by using descriptive and inferential statistics and was analyzed as per the objectives of the study under following headings:

#### **OBJECTIVES**

- $\bullet$  To assess the,
  - Knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.
  - Knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.
- To find out the effectiveness of video assisted teaching programme in terms of gain in knowledge by comparing the mean pre test and posttest scores.
- To find out the association between the pretest knowledge scores with selected demographic variables.

#### **PRESENTATION OF DATA**

The data analysis contains five major sections:

#### Section-I

• Description of socio demographic variables of post myocardial infarction patients.

### Section -II

 Assessment of the knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.

# Section-III

 Assessment of the knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.

Section-IV: Analysis the effectiveness of video assisted teaching programme.

 Comparison of pretest and posttest knowledge among post myocardial infarction patients regarding cardiac rehabilitation.

# Section-V

Association between pretest knowledge with selected socio demographic variables such as age, sex, religion, education, occupation, income, dietary pattern, personal habits, exercise, family history of myocardial infarction, associated disease.

# **SECTION-I**

# DESCRIPTION OF SOCIO DEMOGRAPHIC VARIABLES OF POST MYOCARDIAL INFARCTION PATIENTS

# Table 4. 1. 1 Distribution of post myocardial infarction patients according to their age.

N=50

S.no	Age in years	Numbers (50)	Percentage (%)
1 2 3	30-40 41-50 51-60	2 2 46	4 % 4 % 92 %
	Total	50	100 %





Table 4.1.2 Distribution of post myocardial infarction patients according to their sex.

N=50

S.no	Sex	Numbers (50)	Percentage (%)
1 2	Male Female	48 2	96 % 4 %
	Total	50	100 %

 
 Table & Figure 4. 1. 2 shows that distribution of patients according to their sex. Among
 patients majority 48(96%) were males and the remaining 2(4%) were females.





Table 4.1.3 Distribution of post myocardial infarction patients according to their religion.

N=50

S. no	Religion	Numbers (50)	Percentage (%)
- 0 m 4	Hindu Christian Muslim Others	94 0 3 1	92 % 6 % 0 %
	Total	50	100 %

Table & Figure 4. 1. 3 shows that out of 50 post myocardial infarction patients 46(92%) belongs to Hindus, 1(2%) belongs to Christians, 3(6%) were Muslims.





Table 4. 1. 4 Distribution of post myocardial infarction patients according to their education.

N=50

S.no	Education	Numbers (50)	Percentage (%)
- 0 m 4	Primary school Higher secondary school Under graduate Post graduate	64 v c 0	86 % 10 % 0 %
	Total	50	100 %

Table & Figure 4. 1. 4 shows that among the post myocardial infarction patients 43(86%) were in primary school, 5(10%) were higher secondary school, 2(4%) were under graduate.



Figure 4.1.4 Distribution of post myocardial infarction patients according to their education.

PERCENTAGE

Table 4. 1. 5 Distribution of post myocardial infarction patients according to their occupation.

N=50

S. no	Occupation	Numbers (50)	Percentage (%)
- 7 x 4 v 9	Shift worker Business Farmer Officer Laborer Unemployed	8 9 1 4 1 0 V	16 % 18 % 8 % 14 %
	Total	50	100 %

Table & Figure 4. 1. 5 shows that among the patients 8(16%) were shift worker, 9(18%) were business, 12(24%) were farmer, 4(8%) were officer, 10(20%) were laborer, 7(14%) were unemployed.





Table 4. 1. 6 Distribution of post myocardial infarction patients according to their monthly income.

N=50

S. no	Income	Numbers (50)	Percentage (%)
- 0 m 4	< 5000 5001-10000 10001-15000 >15000	24 16 3	48 % 32 % 6 %
	Total	50	100 %

Table & Figure 4.1.6 shows that among the patients 24(48%) had income of less than Rs.5000, 16(32%) had an income of Rs.5000-10000, 7(14%) had an income of Rs.10001-15000, remaining 3(6%) had income above Rs.15000.

**PERCENTAGE** 

INCOME

Figure 4. 1. 6 Distribution of post myocardial infarction patients according to their income.

Table 4. 1.7 Distribution of post myocardial infarction patients according to their dietary pattern.

N=50

S. no	Dietary pattern	Numbers (50)	Percentage (%)
7 1	Vegetarian Non vegetarian	7 43	14 % 86 %
	Total	50	100 %

Table & Figure 4.1.7 shows that among the patients 7(14%) were taking vegetarian diet,

43(86%) were taking non-vegetarian diet





Table 4. 1. 8 Distribution of post myocardial infarction patients according to their Personal habits.

N=50

Personal habits	Numbers (50)	Percentage (%)
Yes No	41 9	82 % 18 %
Total	50	100 %

Table & Figure 4. 1. 7 shows that among the patients 41(82%) were have the personal habits, 9(18%) not have the personal habits.





Table 4. 1. 9 Distribution of post myocardial infarction patients according to their exercise.

N=50

S.no	Exercise	Numbers(50)	Percentage (%)
1	Yes No	4 46	8 % 92 %
	Total	50	100 %

Table & Figure 4. 1. 9 shows that among the patients 4(8%) were doing exercise regularly, remaining 46(92%) not doing exercise regularly.



PERCENTAGE



Table 4. 1. 10 Distribution of post myocardial infarction patients according to their family history of myocardial infarction. N=50

Percentage (%)	$\begin{array}{c} 10 \ \% \\ 90 \ \% \end{array}$	100 %
Numbers (50)	5 45	50
Family history of myocardial infarction	Yes No	Total
S.no	7 1	

Table & Figure 4. 1. 10 shows that among the patients 5(10%) were having the family history of myocardial infarction, 45(90%) were found not having family history of myocardial infarction.





Table 4. 1. 11 Distribution of post myocardial infarction patients according to their associated disease.

N=50

S. no	Associated disease	Numbers (50)	Percentage (%)
7 1	Yes No	23 27	46 % 54 %
	Total	50	100 %

Table & Figure 4. 1. 10 shows that among the patients 23(46%) were having associated disease, 27(54%) were not having associated disease.





# **SECTION-II**

cardiac rehabilitation before implementation of video assisted teaching Assessment of knowledge of the post myocardial infarction patients regarding programme. Table 4. 2. 1 Pre test knowledge level of post myocardial infarction patients before video assisted teaching programme.

N=50

ts knowledge	Percentage (%)	92 % 8 % -	100%
Respondent	Numbers	46 -	50 %
Knowledge	)	Inadequate (< 50 %) Moderate (50-75 %) Adequate (>75%)	Total

Table & Figure 4. 2. 1 shows that before implementation of video assisted teaching programme the knowledge level of post myocardial infarction patients, 46(92%) had inadequate knowledge level, 4(8%) had moderate knowledge level and none of them had adequate knowledge level regarding cardiac rehabilitation.


РЕВСЕИТАGE

Figure 4.2.1 Pre test knowledge level of post myocardial infarction patients before video assisted teaching programme.

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vledge	SD	3.85
Respondents knov	Mean %	26.81 %
	Mean	8.58
Max Range score score		3-20
		32
Aspect		Pretest

Table 4.2.2 depicts that the overall pre test mean knowledge score on cardiac rehabilitation among post myocardial infarction patients before video assisted teaching programme. The maximum score 32, the range score 3-20, the mean pre test score 8.58, the mean percentage score was 26.81 and SD was 3.85. Assessment of the knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme. Table 4. 3. 1 Post test knowledge level of post myocardial infarction patients after video assisted teaching programme.

	2
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nowledge uate (< 50 %) ate (50-75 %) ate (>75%)	Respondents mbers (50) 0 13 37	s knowledge Percentage (%) 0 % 74 %
Fotal	50	100%

Table & Figure 4.3.1 shows that after implementation of video assisted teaching programme the knowledge level of post myocardial infarction patients, 13(26%) had moderate level of knowledge, 37(74%) had adequate level of knowledge and none of them had inadequate level knowledge regarding cardiac rehabilitation.





PERCENTAGE

Table 4.3.2 Post test mean knowledge score on cardiac rehabilitation among post myocardial infarction patients after video assisted teaching programme.

dge	SD	3.43
Respondents knowle	Mean %	82.81 %
	Mean	26.5
Range score		18-31
Max Score		32
Aspect		Post test

Table 4. 3. 2 depicts that the overall post test mean knowledge score on cardiac rehabilitation among post myocardial infarction patients after video assisted teaching programme. The maximum score 32, the range score 18-31, the post test mean score 26.5, the mean percentage was 82.81 and SD was 3.43.

# ANALYSIS THE EFFECTIVENESS OF VIDEO ASSISSTED TEACHING **PROGRAMME**

Comparison of pre test and post test level of knowledge among post myocardial infarction patients regarding cardiac rehabilitation. Table 4. 4. 1 Pre test and post test knowledge level on cardiac rehabilitation before and after video assisted teaching programme. N=50

Knowledge	Pre	-test	Pos	t-test
	Number(50)	Percentage(%)	Number (50)	Percentage(%)
Inadequate (< 50 %)	46	92 %	I	ı
Moderate (50-75 %)	4	8 %	13	26 %
Adequate (> 75 %)	ı		37	74 %
Total	50	100 %	50	100 %

Table & figure 4. 4. 1 depicts that respondents knowledge level before and after video test and none showed inadequate level of knowledge in the post test, moderate level of knowledge was 4(8%) in pre test and 13(26%) the post test, none were adequate level of assisted teaching programme 46(92%) of the respondents knowledge level was inadequate in pre knowledge in pretest and in post test adequacy level of knowledge increased up to 37(74%).





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ď		< 0.05 (t-1.98)		
Paired 't' test		24.8		
Respondents knowledge	SD	3.85	3.43	
	Mean %	26.81 %	82.81 %	
	Mean	8.58	26.5	
Range score		3-20	18-31	
Max score		32	32	
Aspect		Pre test	Post test	

Table & figure 4.4.2 shows that over all knowledge score on cardiac rehabilitation in pre test and post test, which reveals the pre test maximum score 32, range score 3-20, mean score 8.58, mean percentage 26.81%, SD 3.85 and post test maximum score was 32, range score 18-31, mean score 26.5, mean percentage 82.81 %, SD 3.43. Paired 't' test was worked out the t value was 24.8 and it implies that the difference in the pre test and post test knowledge score found to be statistically significant at 5 % level.





# **SECTION-V**

# ASSOCIATION BETWEEN THE PRE TEST KNOWLEDGE WITH SOCIO DEMOGRAPHIC VARIABLES.

 Table 4. 5. 1 Association between the pre test knowledge with socio demographic

 variables of post myocardial infarction patients.

S.no	Demographic	Category	Pretest knowledge				Chi-
	variables		Inade	equate	Mod	lerate	- square value
			No (46)	%	No(4)	%	
1.	Age	30-40	1	2 %	1	2 %	9.474*
		41-50	1	2 %	1	2 %	(df-2)
		51-60	44	88 %	2	4 %	(t-5.99)
2.	Sex	Male	45	90 %	3	6 %	4.945*
		Female	1	2 %	1	2 %	(df-1)
							(t-3.84)
3.	Religion	Hindu	42	84 %	4	8 %	7.325
	8	Christian	1	2 %	-	-	(df-3)
		Muslim	3	6 %	-	-	
		Others	-	-	-	-	(t-7.82)
4.	Education	Primary school	42	84 %	1	2 %	13.57*
		Higher secondary school	3	6 %	2	4 %	(df-3)
		Undergraduate	1	2 %	1	2 %	(t-7.82)
		Post graduate	-	-	-	-	
5	Occupation	Shift worker	8	16 %	-	_	6 64
0.	occupation	Business	7	14 %	2	4 %	(df-5)
		Farmer	12	24 %	-	-	(t-11.07)
		Officer	3	6 %	1	2 %	
		Laborer	10	20 %	-	-	
		Unemployed	6	12 %	1	2 %	

6.	Income	< 5000	23	46 %	1	2 %	3.534
		5000-10000	15	30 %	1	2 %	(df-3)
		10001-15000	6	12 %	1	2 %	(t-7.82)
		>15000	2	4 %	1	2 %	
7.	Dietary	Vegetarian	5	10 %	2	4 %	4.66*
	pattern	Non vegetarian	41	82 %	2	4 %	(df-1)
	I	6					(t-3.84)
8.	Personal	Yes	41	82 %	-	_	19.77*
	habits	No	5	10 %	4	8%	(df-1)
	nuono	110	5	10 /0	· ·	0 /0	$(t_{-3} 84)$
							(1 5.01)
0	Evereise	Vac	2	6.0/	1	2.0/	1 705
9.	Exercise		3	0 70		2 70 6 0/	(4f 1)
		INO	43	80 %	5	0 70	(u1-1)
							(1-3.84)
10.	Family	Yes	2	4 %	3	6 %	20.39*
	history of	No	44	88 %	1	2 %	(df-1)
	myocardial						(t-3.84)
	infarction						
11		X7	20	40.0/	2	6.0/	1.47
11.	Associated	Yes	20	40 %	3	6%	1.4/
	disease	No	26	52 %		2 %	(df-1)
							(t-3.84)
1				1		1	1

**Table 4. 5. 1** Presents substantive summary of chi-square analysis it was used to bring out the relationship between the pretest knowledge with the selected demographic variables age, sex, religion, education, occupation, income, diet, personal habits, exercise, history of myocardial infarction, associated disease.

The variables, age, sex, education, diet, personal habits, history of myocardial infarction significantly associated with knowledge level.

The patients who were in the age group of 30-40 years 1(2%) had inadequate knowledge and 1(2%) had moderate knowledge. The patients were in the age group of 41-50 years 1(2%) had inadequate knowledge and 1(2%) had moderate knowledge and patients 51-60 years 44(88%) had inadequate knowledge and 2 (4%) had

70

moderate knowledge. The chi-square test value for association between the age with pretest knowledge level was 9.474 which was significant chi-square (p,0.05, 2 df)=5.99. It was inferred that there was significant association between the age with pre test knowledge level.

- The patients were males 45(90%) had inadequate knowledge and 3(6%) had moderate knowledge. Were females 1(2%) had inadequate knowledge and 1(2%) had moderate knowledge. The chi-square test value for association between the age with pretest knowledge level was 4.945 which was significant chi-square (p, 0.05,1 df)= 3.84. It was inferred that there was significant association between the sex and pre test knowledge level.
- The patients were in primary school 42(84%) had inadequate knowledge and 1(2%) had moderate knowledge. The patients were in higher secondary school 3(6%) had inadequate knowledge and 2(4%) had moderate knowledge. The patients were in under graduate 1(2%) had inadequate knowledge and 1(2%) had moderate knowledge and 1(2%) had moderate knowledge. The chi-square test value for association between the education with pretest knowledge level was 13.57 which was significant chi-square (p, 0.05, 3 df)=7.82. It was inferred that there was significant association between the education and pre test knowledge level.
- The patients were vegetarian 5(10%) had inadequate knowledge and 2(4%) had moderate knowledge. The patients were non-vegetarian 41(82%) had inadequate knowledge and 2(4%) had moderate knowledge. The chi-square test value for association between the diet with pre test knowledge level was 4.66 which was significant chi-square (p,0.05, 1 df)=3.84. It was inferred that there was significant association between the diet and pre test knowledge level.
- The patients were having personal habits 41(82%) had inadequate knowledge and none of them had moderate knowledge. The patients were not having personal habits 5(10%) had inadequate knowledge and 4(8%) had moderate knowledge. The chi-square test value for association between the personal habits with pretest knowledge level was 19.77 which was significant chi-square (p ,0.05, 1 df= 3.84). It was inferred that there was significant association between the personal habits with pre test knowledge level.
- The patients were having family history of myocardial infarction 2(4%) had inadequate knowledge and 3(6%) had moderate knowledge. The patients were not having the family history of myocardial infarction 44(88%) had inadequate knowledge and 1(2%) had moderate knowledge. The chi-square test value for

association between the personal habits and pretest knowledge level was 20.39 which was significant chi-square (p ,0.05,1 df)= 3.84. It was inferred that there was significant association between the family history of myocardial infarction with pre test knowledge level.

Other socio demographic variables such as religion, occupation, income, exercise, associated disease were not significantly associated with the pre test knowledge score. Hence the research hypothesis  $H_2$  was accepted.

#### **TESTING HYPOTHESIS**

In this section the researcher evaluate the effectiveness of video assisted teaching programme on cardiac rehabilitation. The following hypothesis was formulated.

#### **Research hypothesis**

 $H_1$ : There will be significant difference between pretest and posttest knowledge scores of post myocardial infarction patients regarding cardiac rehabilitation.

The 't' test value between pretest and post test score was computed for knowledge on cardiac rehabilitation and presented in table 4.4.2 and figure 4.4.2. Which indicated that there was significantly improvement in score from pretest to post test at 5 % level i.e (p < 0.05, 't' test value=1.98).Hence the research hypothesis (H<sub>1</sub>) was accepted and null hypothesis (H<sub>0</sub>) was rejected.

 $H_2$ : There will be significant association between the mean pretest knowledge scores with selected demographic variables.

Chi-square analysis was used to test the association between the pre test knowledge score with socio demographic variables and presented in table 4.5.1. This indicated that there was significant relationship between the pre test knowledge score with socio demographic variables such as age, sex, education, dietary pattern, personal habits, family history of myocardial infarction. Hence, research hypothesis ( $H_2$ ) was accepted and null hypothesis has been rejected.

#### DISCUSSION

The basic aim of the present study was to evaluate the effectiveness of video assisted teaching programme on cardiac rehabilitation among post myocardial infarction patients and

find out the relationship between pre test knowledge score with selected demographic variables.

#### Discussion about,

- Socio demographic variables
- > Analysis of effectiveness of video assisted teaching programme
- > Association between socio demographic variables with the pretest knowledge score.

# The findings related to socio demographic variables

- Among patients majority 46(92%) were between the age group of 51-60 years, 2(4%) were between the age group of 41-50 years, 2(4%) were between the age group of 30-40 years.
- Most of the patients 48(96%) were males, 2(4%) were females.
- Majority of patients 46(92%) were Hindus, 1(2%) were Christians, 3(6%) were Muslims.
- According to the education out of 50 patients 43(86%) have primary school, 5(10%) have higher secondary school, 2(4%) have under graduate.
- Among 50 patients 8(16%) were shift worker, 9(18%) were business, 12(24%) were farmer, 4(8%) were officer, 10(20%) were laborer, 7(14%) were unemployed.
- Among the patients 24(48%) had income of less than Rs.5000, 16(32%) had income Rs.5000-10000, 7(14%) had income of Rs.10001-15000, 3(6%) had income above Rs.15000.
- Majority of the patients 43(86%) were non-vegetarian, 7(14%) were vegetarian
- Among the patients 41(82%) were having the personal habits, 9(18%) not having the personal habits.
- Most of the patients 46(92%) were not doing exercise regularly,4(8%) were doing exercise regularly.
- Among 50 patients 5(10%) were having the family history of myocardial infarction,
   45(90%) were not having family history of myocardial infarction.
- Among the 50 patients 23(46%) were having associated disease, 27(54%) were not having associated disease.

# Analysis of effectiveness of video assisted teaching programme

The post test mean score percentage (82.81%) of knowledge on cardiac rehabilitation were comparatively more than their pretest knowledge score (26.81%). It confirms that, there was increase in knowledge after the administration of video assisted teaching programme.

The paired 't' test analysis of the pre test and post test knowledge 't' = 24.8 (p, 0.05) was highly significant. This result evidently supported the effectiveness of video assisted teaching programme in promoting the knowledge on cardiac rehabilitation.

#### Association between socio demographic variables with the pretest knowledge score

Chi square was used to find out the association between the socio demographic variables and the pretest score. The present study reveals that, there is an association between pre test knowledge with age, sex, education, dietary pattern, personal habits, family history of myocardial infarction. But there was no association between knowledge with other socio demographic variables such as religion, occupation, income, exercise, associated disease.

#### SUMMARY

This chapter dealt with analysis and their interpretation of the data collected from post myocardial infarction patients on cardiac rehabilitation with before and after administration of video assisted teaching programme. It also dealt with discussion of results.

#### **CHAPTER-V**

# SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMONDATIONS

This chapter deals with summary of the study, its findings and conclusions and recommendations of the study. The implication of video assisted teaching programme for improving knowledge regarding cardiac rehabilitation also stated. Explanations with regard to objectives and findings are presented briefly followed by recommendations.

#### SUMMARY OF THE STUDY

This main aim of the study was to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients.

#### Objectives

- $\bullet$  To assess the,
  - knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.
  - knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.
- To find out the effectiveness of video assisted teaching programme in terms of gain in

knowledge by comparing the mean pre test and post test scores.

✤ To find out the association between the pretest knowledge scores with selected demographic variables.

#### The study attempted to examine the following research hypothesis

- ✤ H₁: There will be significant difference between pretest and post test knowledge scores of post myocardial infarction patients regarding cardiac rehabilitation.
- ✤ H<sub>2</sub>: There will be significant association between the mean pretest knowledge scores with selected demographic variables.

The conceptual framework adopted for the study Stufflebeam's (CIPP) evaluation model, which addresses the implementation of existing research knowledge.

The review of literature helped the investigator to develop conceptual framework, determine the methodology for the study and plan for data analysis of the data in the most effective and efficient way.

The research approach adopted for the study was pre experimental one group pretest and posttest design.

In the present study the investigator test the relationship between independent and dependent variables, the independent variable is video assisted teaching programme on cardiac rehabilitation and dependent variable is knowledge.

The tool used for data collection was semi structured questionnaire technique. The pilot study was conducted in the month of May 2015. The tool was administered to five post myocardial infarction patients at Bharathi heart hospital, Erode district. The reliability of the tool was r=0.9 established by Karl spearson's formula. The tool was found to be reliable to conduct study.

The final study was conducted during 1.6.2015 to 30.6.2015.Non probability purposive sampling was used to select the sample. The sample consists of 50 post myocardial infarction patients. Data was collected from samples by the semi structured questionnaire. The data was gathered, analyzed and interpreted in terms of objectives of the study. Descriptive and inferential statistics were used for data analysis.

#### MAJOR FINDINGS OF THE STUDY

The major findings of the study were summarized as follows

#### Findings related to socio demographic variables

- Most of the post myocardial infarction patients 46(92%) were between the age group of 51-60 years.
- Most of the post myocardial infarction patients 48(96%) are males.
- Majority of post myocardial infarction patients 46(92%) are hindus.
- According to the education out of 50 post myocardial infarction patients 43(86%) have primary school.
- Among 50 post myocardial infarction patients 12(24%) were farmer.
- Among the post myocardial infarction patients 24(48%) had income of less than Rs.5000.

of myocardial infarction.

- Majority of post myocardial infarction patients 43(86%) are non-vegetarian.
- Most of post myocardial infarction patients 41(82%) were have the personal habits.
- Most of the post myocardial infarction patients 46(92%) were not doing exercise regularly.
- Most of the post myocardial infarction patients 45(90%) were not having family history of myocardial infarction.
- Majority of post myocardial infarction patients 27(54%) were not having associated disease.

#### Findings related to effectiveness of video assisted teaching programme

The findings shows that respondents knowledge level before and after video assisted teaching programme 46(92%) of the respondents knowledge level was inadequate in pre test and none showed inadequate levels of knowledge in the post test, moderate level was 4(8%) in pretest and 13(26%) the post test, none were adequate level of knowledge in pre test and in post test adequacy level increased upto 37(74%).

The post test mean score percentage (82.81%) of knowledge on cardiac rehabilitation were comparatively more than their pre test knowledge score (26.81%). It confirms that, there was increase in knowledge after the administration of video assisted teaching programme.

The paired't' test analysis of the pre test and post test knowledge t = 24.8 (p,0.05) was highly significant. This result evidently support the effectiveness of video assisted teaching programme in promoting the knowledge on cardiac rehabilitation.

# Findings related to relationship between the socio demographic variables and pretest knowledge score

The present study reveals that, there is an association between pretest knowledge level with age, sex, education, dietary pattern, personal habits, family history of myocardial infarction. But there was no association between pre test knowledge score with other socio demographic variables such as religion, occupation, income, exercise, associated disease.

#### CONCLUSION

The conclusion drawn from the findings of the study the subjects were having inadequate knowledge on cardiac rehabilitation. The video assisted teaching programme was

found to be effective in improving the knowledge of post myocardial infarction patients regarding cardiac rehabilitation.

#### NURSING IMPLICATIONS

The findings of the study have implications in various areas of nursing profession (i.e) nursing services (nursing education, nursing administration, and nursing research).

#### **Nursing practice**

- The most important role of the nurse in cardiac rehabilitation is two fold to help the client (1) live as full, vital and productive a life as possible and (2) remain within the limits of the heart's ability to respond to increase in activity and stress. The client regarding cardiac rehabilitation and help in maintaining modification of life style changes.
- The study findings will help the nursing personnel to estimate the effectiveness of video assisted teaching programme.
- In clinical practice, the outcome of this study can be utilized by all nurses to assist the patients in empowering them more knowledgeable regarding cardiac rehabilitation.
- This study can necessitate and equip the nursing personnel to motivate and educate the patient about cardiac rehabilitation.
- The video assisted teaching programme can also helpful for the patients to prevent second attack. When awareness is created in early stage, this may avoid future complications.

#### **Nursing education**

- $\clubsuit$  Patient education is more effective when facts are expressed with visual cues.
  - Nursing student should encouraged to prepare video assisted teaching programme.
- The clinical instructors can use the research findings in clinical teaching.
- The effectiveness video assisted teaching programme was much useful to enhance the knowledge level of post myocardial infarction patients and can be used by students in practice.
- Every student should be encouraged in providing information to the clients and the community for which they have to be properly.

#### Nursing research

- ★ The findings can be utilized for conducting research on the effectiveness of video assisted teaching programme on various aspects of cardiac rehabilitation.
- \* Nurse researcher should be motivated to conduct more studies on knowledge regarding cardiac rehabilitation among cardiac patients.
- \* Nurse researcher can be conduct studies need to be concentrated in changing the attitude and promote knowledge to develop good practice in the lifestyle changes cardiac patients

#### Nursing administration

- \* Nursing administration should take care initiation in creating polices and plans in providing education people. Nurse administrator should plan and organize continuing nursing education in conducting programs on home care management of cardiac rehabilitation after myocardial infarction.
- Planning and organization of such programs require efficient team work. Planning men, money, material for successful educational program. The nurse as a administrator also should plan the reach out activity in collaboration with other agencies in imparting normal life to the community.

#### RECOMMONDATIONS

- ✤ The experimental study can be under taken with control group.
- The study can be replicated on larger samples, thereby findings can be generalized to a larger population.
- Similar study can be conducted among family members regarding cardiac rehabilitation who are taking care of patient with cardiac problems,
- ✤ The study can be conducted including attitude and beliefs with regard to cardiac rehabilitation among post myocardial infarction patients.
- ◆ A correlative study can be conducted on knowledge and practice regarding cardiac problems of post myocardial infarction patients.
- ◆ A similar study can be done with use of other teaching methods and teaching aids.
- Similar study can be conducted among patients with coronary artery bypass grafting.

#### **SUMMARY**

This chapter dealt with summary, major findings of the study, conclusion, implications and recommendations.

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# **APPENDIX - A**

# LETTER SEEKING PERMISSION TO CONDUCT THE STUDY

#### From

Ms.Mahalakshmi.G,

II year M.ScNursing , (Speciality–Medical Surgical Nursing), Vivekanandha College of Nursing, Elayampalayam.

То

The managing director, Sudha cardiac Hospital, Perundhurai road, Erode.

# Respected Sir/Madam,

#### Sub : Letter seeking permission to conduct study

I am Ms. Mahalakshmi. G, II year M.Sc Nursing Student (Medical – Surgical Nursing) of Vivekanandha College of Nursing, Elayampalayam. I have undertaken a thesis on the topic, "A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients admitted in cardiac inpatient department at selected cardiac hospital, Erode (Dt)."

#### **OBJECTIVES OF THE STUDY:**

 $\bullet$  To assess the,

- knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.
- knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.
- To find out the effectiveness of video assisted teaching programme in terms of gain in knowledge by comparing the mean pretest and post test scores.
- To find out the association between the pre test knowledge scores and selected demographic variables.

I request you to kindly grant me permission to conduct the study in Sudha cardiac hospital, Erode by collection of necessary information related to the study.

Thanking You,

Place : Tiruchengode

Your's faithfully,

Ms.Mahalakshmi.G

Date:

# **APPENDIX - B**

# LETTER GRANTING PERMISSION TO CONDUCT THE STUDY

#### From

The Managing director, Sudha cardiac Hospital, Erode.

## То

Ms.Mahalakshmi.G, II year M.Sc Nursing, Vivekanandha college of nursing, Elayampalayam.

#### Sub: Letter granting permission to conduct study

With reference to the<br/>Mahalakshmi.G,above<br/>letter,it has been informed that Ms.Mahalakshmi.G,II<sup>nd</sup> year M.Sc. Nursing Student, VivekanandhaCollege of Nursing, Elayampalayam is granted permission to conduct her study in Sudha<br/>cardiac hospital, Erode. In this regard the doctors and staff have been directed to provide full<br/>help and co-operation in facilitating the study.

With Thanks,

Yours Sincerely, The Managing

Place: Sudha cardiac hospital **director,** Date :

Erode.

# **APPENDIX-C**

#### LETTER SEEKING CONSENT FROM THE PARTICIPANTS

#### **Dear participants**

I Ms. Mahalakshmi. G, II year M.Sc Nursing (Medical surgical nursing), Vivekananda college of nursing, Elayampalayam, have undertaken a thesis on the topic "A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients admitted in cardiac inpatient department at selected cardiac hospital, Erode (Dt)."

The information which you are giving will be kept confidential and will be used only for this study. Please participate in this programme by answering my questions honestly and state your willingness to participate in this study.

Thanking you

Place:

Date: Mahalakshmi.G

**CONSENT FROM THE PARTICIPANT** 

I understand the purpose of this study and I am willing to participate in this study.

signatur

Ms.

yours sincerely,

## APPENDIX – D

# LETTER FOR VALIDATION OF THE TOOL

#### From

MS. Mahalakshmi.G II Year M.Sc nursing, Vivekanandha College Of Nursing, Elayampalayam, Tiruchengode.

#### То

#### Through:

Principal, Vivekanandhacollege of nursing Elayampalayam.

#### Subject: Request for the content validation of the tool.

#### Respected Sir/ Madam,

I MS. Mahalakshmi.G, II year M.Sc Nursing Student, Vivekanandha College of Nursing, Elayampalayam, have taken a project on "A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients admitted in cardiac inpatient department at selected cardiac hospital, Erode (Dt)." to be submitted to the Tamilnadu Dr. M.G.R. Medical University as a partial requirement for master degree of Nursing.

#### **OBJECTIVES OF THE STUDY:**

- $\bullet$  To assess the,
  - knowledge of the post myocardial infarction patients regarding cardiac rehabilitation before implementation of video assisted teaching programme.
  - knowledge of the post myocardial infarction patients regarding cardiac rehabilitation after implementation of video assisted teaching programme.
- To find out the effectiveness of video assisted teaching programme in terms of gain in knowledge by comparing the mean pre test and post test scores.
- To find out the association between the pre test knowledge scores with selected demographic variables.

To achieve the above mentioned objectives, I have prepared a semi- structured questionnaire. I humbly request you to give me your valuable suggestions regarding the appropriateness of the tool, which I have enclosed. Kindly validate and certify the tool.

#### Thanking you

Place:

Yours faithfully,

Date:

Ms.Mahalakshmi.G

#### Enclosures

- 1. Semi-structured questionnaire
- 2. Video assisted Teaching Programme
- 3. Score key
- 4. Certification of validation
- 5. Evaluation criteria of check list

## **APPENDIX - E**

# SEMI STRUCTURED QUESTIONNAIRE

#### Instruction to the participants

This questionnaire is regarding cardiac rehabilitation. It has two sections. Section A includes your personal data. Section B includes the knowledge questions regarding cardiac rehabilitation .Each questions has four options, select most appropriate answer and a put a tick mark in the corresponding box. All information provided by you will be kept confidential.

#### Section – A Socio demographic data

1) Age (in years)

- a) 30-40 years
- b) 41-50 years
- c) 51-60 years

# 2) Sex

- a) Male
- b) Female

3) Religion

a) Hindu

- b) Christian
- c) Muslim
- d) Others

#### 4) Education

- a) Primary school
- b) Higher secondary school

- c) Undergraduate
- d) Post graduate
- 5) Type of occupation
  - a) Shift worker
  - b) Business
  - c) Farmer
  - d) Officer
  - e) Laborer
  - f) Unemployed
- 6) Monthly income
  - a) < 5000
  - b) 5001- 10000
  - c) 10001 15000
  - d) > 15000
- 7) Dietary pattern
  - a) Vegetarian
  - b) Non vegetarian
- 8) Do you have any Personal habits?
  - a) Yes
  - b) No

# 8) A. If yes, specify the personal habits?

- a) Smoking
- b) Alcoholism

c) Coffee

d) Tea

- e) Tobacco chewing
- f) More than one, specify
- 9) Do you exercise regularly?
  - a) Yes
  - b) No
- 9) A. If yes, how many minutes you are doing exercise?
  - a) 10 minutes / day
  - b) 20 minutes / day
  - c) 30 minutes /day
- 10) Do you have any family history of myocardial infarction?
  - a) Yes
  - b) No
- 10) A. If yes, mention the relationship
  - a) Father
  - b) Mother
  - c) Grand father
  - d) Grand mother
- 11) Do you have any associated disease?
  - a) Yes
  - b) No
- 11) A. If yes, specify the disease?

- a) Diabetes mellitus
- b) Hypertension
- c) Hypercholestremia

11) B. If yes, how many years are you suffering from the disease?

- a) Below 1 year
- b) 1-3 years
- c) 3-5 years
- d) above 5 years

#### Section – B

#### **Knowledge Questionnaire**

# Structure and functions of the heart

12) Where the heart is located in our body?

- 12.1 Right side of the chest
- 12.2 Left side of the chest
- 12.3 Centre of the thorax
- 12.4 Near the abdomen

13) How many chambers present in the heart?

13.1 Four

13.2 Six

- 13.3 One
- 13.4 Two
- 14) What is the normal heartbeat for adult?

14.1 72 times/ minute
- 14.2 82 times / minute
- 14.3 92 times / minute
- 14.4 102 times / minute
- 15) Which one of the following part carries the purified blood from the heart?
- 15.1 Capillaries
  15.2 Pulmonary artery
  15.3 Veins
  15.4 Aorta
  16) Which artery is supplying blood to the heart?
  - 16.1 Superior vena cava
  - 16.2 Inferior vena cava
  - 16.3 Coronary arteries
  - 16.4 Pulmonary artery

#### **Cardiac rehabilitation**

17) How many aspects present in the cardiac rehabilitation?

17.1 4 17.2 3 17.3 2 17.4 1

18) Which is the following measure helps to prevent the second heart attack?

18.1 Cardiac rehabilitation

18.2 Maintain personal hygiene

18.3 Prey to god

18.4 Following the normal life style

# Exercise

- 19) What is the benefit of exercise?
  - 19.1 Exercise reduces the fear & anxiety
  - 19.2 Exercise reduces the weight and fat level
  - 19.3 Exercise increases the knowledge & confident
  - 19.4 Exercise induces thinking & memory
- 20) Which type of exercise to be done inside the ward?
  - 20.1 Jogging20.2 Cycling20.3 Range of motion20.4 Stair climbing

21) How many times in a day you should do the range of motion exercise?

21.1 2 times / day
21.2 4 times / day
21.3 6 times / day
21.4 8 times / day

22) How many feet are you advised to walk inside the ward?

22.1 200 ft 22.2 150 ft 22.3 100 ft 22.4 75 ft 23) When it is advised to climb the stairs after myocardial infarction?

- 23.1 Fourth day in the ward
- 23.2 Third day in the ward
- 23.3 Second day in the ward
- 23.4 First day in the ward
- 24) Which is the simplest exercise to be performed daily in the home?
  - 24.1 Walking
  - 24.2 Playing cricket
  - 24.3 Weight lifting exercise
  - 24.4 Playing throw ball
- 25) How many days in a week you should carry out the walking exercise?
  - 25.1 1-2 days
    25.2 2-3 days
    25.3 3-4 days
    25.4 3-5days
- 26) What is the purpose for adjusting the seat height during cycling?
  - 26.1 Slight bend in the back
  - 26.2 Slight bend in the hand
  - 26.3 Slight bend in the hip
  - 26.4 Slight bend in the knee
- 27) Which of the following measures you should follow during exercise?
  - 27.1 Check the pulse before and after the exercise
  - 27.2 Check the pulse before the exercise

27.3 Check the pulse after the exercise

27.4 No need to check the pulse

28) What are the signs and symptoms of exercise intolerance?

28.1 Vision loss, hearing loss

- 28.2 Chest pain, shortness of breath
- 28.3 Fever, headache
- 28.4 Blood in the urine, pus in the urine

29) Which is the following measure you should take at the time of exercise intolerance?

- 29.1 Stop the exercise and call the doctor
- 29.2 Stop the exercise and drink more water
- 29.3 Reduce the speed of exercise
- 29.4 Drinking fruit juice

#### Diet

30) Which diet you should avoid?

- 30.1 High cholesterol diet
- 30.2 High protein diet
- 30.3 High fiber diet
- 30.4 Vitamin rich diet

# 31) Which of the following eatables you can take?

31.1 Fish

- 31.2 Bakery products
- 31.3 Mutton

#### 31.4 Preservative food products

- 32) Which of the following diet help to prevent the constipation?
  - 32.1 Fiber rich diet
  - 32.2 Protein rich diet
  - 32.3 Carbohydrate rich diet
  - 32.4 Iron rich diet

#### Smoking

- 33) Which of the following measure help to divert the mind from urge to smoke?
  - 33.1 Going to party
  - 33.2 Reading book
  - 33.3 Taking bakery products
  - 33.4 Eating spicy food
- 34) What are the alternatives to forget the smoking?
  - 34.1 Taking nicotine gum
  - 34.2 Taking chocolates
  - 34.3 Taking ice creams
  - 34.4 Taking colored drinks
- 35) Which of the following measure help to stop the smoking?
  - 35.1 Avoiding friends who is having habit of smoking
  - 35.2 Sitting in the dark room
  - 35.3 Individual counseling
  - 35.4 Reading books

#### **Psychological rehabilitation**

- 36.1 Lack of knowledge
- 36.2 Continuation of treatment
- 36.3 Constipation
- 36.4 Stress
- 37) Which of the following technique will help to reduce the stress?
  - 37.1 Watching movies
  - **37.2** Loneliness
  - 37.3 Meditation
  - 37.4 Eating snacks
- 38) How many hours you should sleep per day?
  - 38.1 3-4 hours sleep / day
  - 38.2 4-5 hours sleep / day
  - 38.3 6-8 hours sleep / day
  - 38.4 10-12 hours sleep / day

#### Vocational rehabilitation

- 39) Why you need regular break in between work time?
  - 39.1 To decrease the work related stress
  - 39.2 To plan the next day work
  - 39.3 To refresh the brain
  - 39.4 To have the entertainment
- 40) Which is the following activity to be avoided in your lifetime?
  - 40.1 Carrying files

- 40.2 Sitting in front of the computer less than one hour
- 40.3 Lifting heavy weight
- 40.4 Supervision of the work

#### Sexual rehabilitation

- 41) When the sexual activity can be resumed after the myocardial infarction?
  - 41.1 3 6 weeks
  - 41.2 8 -10 weeks
  - 41.3 10-12 weeks
  - 41.4 12-14 weeks

42) Which of the following activity should be avoided before sexual activity ?

- 42.1 Restful sleep
- 42.2 After taking regular medicine
- 42.3 Eating heavy meal
- 42.4 Before going to sleep
- 43) Which warning sign you should note during sexual activity?
  - 43.1 Nausea
  - 43.2 Fever
  - 43.3 Chest pain
  - 43.4 Vomiting

#### **APPENDIX-F**

#### **EVALUATION CRITERIA CHECK LIST FOR VALIDATION OF TOOL**

#### Instructions

The expert is requested to go through the content and give your opinion in the column given in the criteria table. If the tool is not meeting the criteria please give your valuable suggestion in the remarks column.

SI. No.	CRITERIA	YES	NO	REMARKS
1.	<b>Baseline Data</b> The items on the baseline data cover all aspects necessary for the study			
2.	<ul> <li>Semi structured questionnaire on knowledge regarding cardiac</li> <li>rehabilitation.</li> <li>✓ Relevant to the topic</li> <li>✓ Content organization</li> <li>✓ Language is simple and easy to understand</li> <li>✓ Clarity of items used</li> <li>✓ Any other suggestions</li> </ul>			

#### **APPENDIX-G**

## **CERTIFICATE OF VALIDATION**

This is to certify that the

Tool : semi structured questionnaire consists of two sections which includes

#### Section A - Socio Demographic variables

#### Section B - Knowledge regarding cardiac rehabilitation

Prepared by **Ms. Mahalakshmi.G**, II Year M.Sc Nursing student (Medical Surgical Nursing), Vivekanandha College of Nursing, Elayampalayam to be used in her study titled "A study to evaluate the effectiveness of video assisted teaching programme on knowledge regarding cardiac rehabilitation among post myocardial infarction patients admitted in cardiac inpatient department at selected cardiac hospital, Erode (Dt)." has been validated by me.

Signature : Name : Designation : Date :

# **APPENDIX - H**

# VIDEO ASSISTED TEACHING PROGRAMME ON CARDIAC REHABILITATION

Name of the teacher	: Ms.Mahalakshmi.G.
Topic	: Cardiac rehabilitation
Group	: Post myocardial patients
Place	: Sudha Cardiac Hospital, Erode .
Duration	: 30 minutes
Medium of instruction	: Tamil
Method of teaching	: Lecture cum discussion
Audio visual aids	: Video assisted teaching programme
Place	: Sudha cardiac hospital, inpatient department.

## **General objectives**

After completion of video assisted teaching programme post myocardial infarction patients will acquire knowledge about cardiac rehabilitation.

## **Specific objectives**

At the end of the teaching programme, the post myocardial infarction patients will able to,

- Explain the structure and functions of the heart
- Define cardiac rehabilitation
- Explain the physiological rehabilitation
- Explain the psychological rehabilitation
- Explain the vocational rehabilitation
- Explain the sexual rehabilitation

Time	Specific objective	Content	Teaching activity	Learn
1	Introduce the	Introduction:	Introducing	Lister
minutes	topic about cardiac	Goodmorning, I am Mahalakshmi. G, II year MSc(N)	the topic	
	rehabilitation	student of vivekanandha college of nursing, Tiruchengode.		
		Cardiac rehabilitation is recommended for most patients		
		after a heart attack. For participation of this cardiac		
3	Explain the	rehabilitation improves your knowledge about life style	Explaining	Listen
minutes	structure and	modification and it helps to preventing second heart attack	and	and
	functions of the heart	and improves the quality of life.	questioning	answe

		Structure and functions of the heart:		
		$\clubsuit$ Heart is located in the Centre of the thorax. In adult		
2	Define	<ul> <li>it beats approximately 72 times per minute.</li> <li>✤ Heart is separated into four chambers by a septum.</li> <li>❖ The heart receives its blood supply from two</li> </ul>	n. two Defining and	
Minutes	cardiac rebabilitation	coronary arteries, the left and right which divide	questioning	Lister
	renaonnation	<ul><li>into branches to supply different areas of the heart.</li><li>After the gas exchange, the purified blood is ejected</li></ul>		answ(
		into the aorta and enters the high-pressure systemic		
		circulation.		
		Cardiac rehabilitation:		
		Rehabilitation:		
		Rehabilitation may be perceived as a means of		
		restoring best possible capacity across a broad spectrum		
		including physical, Psychological and social-economic		
		functions.		
		Cardiac rehabilitation:		
		It is an active process which assists patients with		
		heart attack to achieve and maintain a good physical and		
		mental wellness.		
		Aspects of cardiac rehabilitation:		
		1.Physiological rehabilitation:		
9 minutas	Explain the	Improvement in physical activity like exercising,	Explaining	
minutes	rehabilitation	diet , smoking cessation among heart attack patients	questioning	Lister
		which improves the quality of life.		An
		2.Psychological rehabilitation:		g
		It helps to control the emotional status heart attack		
		patients and helps to reduce cope with tension and to		
		modify their behavior.		
		3. Vocational rehabilitation:		
		This helps to modify the job selection, placement of		
		job, providing vocational training and to overcome stress		
		related jobs heart attack patients.		
		4.Sexual rehabilitation:		

Provides certain guidelines to modify sexual		
activity among heart attack patients.		
<ul> <li>Physiological rehabilitation:</li> <li>Exercise:</li> </ul>		
Exercise will make you physically fit, it helps to		
achieve good health. Fitness / training effect refers to your		
level of conditioning.	Explaining	
The benefits of regular physical activity:	questioning	
1.Improved heart function.		Lister
Exercise helps to improve the heart muscle's ability		answ
to use oxygen ,it results reduced the future symptoms of		g
angina.		
2.Improved body function.		
Your exercising body becomes more efficient at		
extracting oxygen from the blood and using it down at the		
cellular level.		
3.Reduced cardiac risk factors.		
Exercise can help reduce body fat ,reduce the blood		
pressure, improve cholesterol and triglyceride levels,	Explaining	
improve your blood glucose control if you are already	questioning	
been diagnosed.		Liston
4.Reduced risk of second heart attack.		Listen
Exercise can minimize your risk of having a second		
heart attack.		
5.Improved psychological wellbeing.		
Exercise has anti-depressant and anti-anxiety effects		
on the body. It helps you burn off the daily stresses of		
modern living.		
• Inpatient exercise:		
Ward: First day		
<ul> <li>Stretching exercise:</li> </ul>		
<ul> <li>Biceps stretching</li> <li>Triceps stretching</li> </ul>	Explaining and	

<ul> <li>Arm strings</li> <li>Quadriceps</li> <li>Ham-string</li> <li>Calf stretching</li> <li>Range of motion exercise</li> <li>Active exercises: <ul> <li>Shoulder flexion, abduction</li> <li>Elbow flexion &amp; abduction.</li> <li>Knee extension.</li> <li>Toe raises.</li> <li>Ankle exercises (5repetitions each, standing)</li> </ul> </li> </ul>	questioning	Listen
<ul> <li>twice daily.</li> <li>Monitored ambulation of 50 ft inside the ward twice daily with physician approval.</li> <li>Up in the chair as tolerated.</li> </ul>		
Ward: Second day		
<ul> <li>Active exercises:</li> <li>Shoulder flexion, abduction</li> <li>Elbow flexion &amp; abduction.</li> <li>Knee extension.</li> <li>Toe raises.</li> <li>Ankle exercises (5repetitions each, standing) twice daily.</li> <li>Monitored ambulation of 75 ft inside the ward</li> </ul>	Explaining and questioning	
<ul> <li>Wontored annotation of 75 ft inside the ward twice daily with physician approval.</li> <li>The patient goes to the toilet with supervision.</li> </ul>		
Ward: Third day		
Range of motion exercise		
<ul> <li>Active exercises:</li> <li>Shoulder flexion, abduction</li> <li>Elbow flexion &amp; abduction.</li> <li>Knee extension.</li> <li>Toe raises.</li> <li>Ankle exercises (5repetitions</li> </ul>	Explaining	
each, standing) twice daily. Monitored ambulation of 300 ft in ward corridor	and questioning	
<ul><li>twice daily.</li><li>Practice walking few stair steps (2-4 steps).</li></ul>		Listen
Ward: Forth day		
Range of motion exercise		

<ul> <li>Active exercises:         <ul> <li>Shoulder flexion, abduction</li> <li>Elbow flexion &amp; abduction.</li> <li>Knee extension.</li> <li>Toe raises.</li> <li>Ankle exercises (5repetitions each ,standing) twice daily.</li> <li>Stair climbing exercise (4-6 steps).</li> <li>Monitored ambulation of 500 ft in ward corridor twice daily.</li> <li>Bath self with supervision.</li> <li>The patient goes to the toilet.</li> </ul> </li> </ul>		
Ward: Fifth day		
Range of motion exercise	Explaining	
<ul> <li>Active exercises:</li> <li>Shoulder flexion, abduction</li> <li>Elbow flexion &amp; abduction.</li> <li>Knee extension.</li> <li>Toe raises.</li> <li>Ankle exercises (5repetitions each ,standing)</li> </ul>	and questioning	Listen
<ul> <li>twice daily.</li> <li>Stair climbing exercise (6-8 steps).</li> <li>Monitored ambulation of 500 ft in ward corridor</li> </ul>		
<ul><li>Bath self with supervision.</li></ul>		
Continue this exercise and activities until you are		
discharge from the hospital.		
• Out patient exercise after a myocardial infarction		
The following post heart attack exercise		
prescription is appropriate for when you've been	Explaining and	
reevaluated by your cardiologist have been given the all	questioning	
clear to exercise again.		Listen
1.Jogging:		An
Jogging programme begin with short periods of jogging		answo
with equal distances of walking. As you improve		5
gradually increase the time for jogging.		
2 .Walking:		
However your fitness improves you should be able		

			to walk farther and for a longer time. You will walk atleast 3-5 days per week for		
			approximately 9-12 weeks building the duration of		
			your exercise session to 45 minutes or 1 hour		
			continuous activity.(gradually increase walking time		
			adding 5 minutes a week to your daily sessions)		
		3.Stair	· climbing:		
		>	Climbing stairs is a component of most people's		
			daily routines.	Explaining	
			You should progressively increase number of steps	and question	
			per week (25 steps / week).		
		4.cycli	ing:		Listen
			Cycling is enjoyable aerobic activity.		
			Cycling can be performed either on a bicycle		
			outdoors or on a stationary cycle ergometer		
		Þ	indoors. During cycling the seat height should be adjusted		
			to a point that results in a slight bend in the knee		
			when the pedal is at its lowest position.		
4 Minutes	Explain the psychologica	Exerci	se rules:	Explaining and	
	l rehabilitation	* * *	Always warm up and cool down. Avoid extrems of heat and cold. Waiting for 2 hours after a eating full of meal or	questioning	
		*	before you exercise. Check the pulse before and after exercise if it is		Lister and answ
		*	uncontrolled exercise should be stopped. Do not drink coffee or tea atleast 2 hours before		g
		*	exercise (caffeine raises your heart rate) The frequency of exercise sessions is usually 3-5		
			times per week .Each session for 20 -30 minutes to		
		*	be carried out for effective physical fitness. Aware about signs and symptoms of exercise		
			intolerance such as Chest pain, dizziness ,nausea,		
			vomitting, shortness of breath, extreme fatigue. If		
			you have signs and symptoms stop exercising and		
	-				

		call your doctor.		
		Diet:		
		Guide to food choices:		
		(I) Foods allowed:		
2 Minutes	Explain the vocational rehab	<ul> <li>Skimmed milk and products.</li> <li>Coffee, tea.</li> <li>Potatoes, bread, onion.</li> <li>Rice, wheat, biscuits, dhal, whole grains.</li> <li>Fruits, fruit juice and vegetables, green leaf</li> </ul>	Explaining and questioning	
		<ul><li>vegetables.</li><li>Egg yolks, fish (3 times / week).</li></ul>		Lister and answe
		(II) Foods to avoid:		g
3 minutes	Explain sexual rehabilitation	<ul> <li>Whole milk, cream, snacks, bakery products.</li> <li>Soda containing products.</li> <li>Chicken and mutton.</li> <li>Butter and ghee, ground nut.</li> <li>Vanaspathi, palm oil.</li> <li>Pickles, papad, yellow yolk.</li> <li>Preservative food items.</li> </ul>		
	rendomtation	Dietary fibre:		
		Eating more fibre rich foods as many help to keep		
		your weight in control. Eating a diet containing of high		Lister
		fibre foods has been associated with minimizing your risk		answ
		of constipation ,heart disease and obesity.		g
		Tips to increase fibre intake:		
		> Incorporate more grains ,cereals such as whole		
		<ul><li>wheat, ragi ,oats, corn.</li><li>Eat some lentils, legumes and dhals such as green</li></ul>		
		grams every day. ➤ Consume adequate amount of fruits and		
		vegetables .Eat fruits and vegetables with their skin		
	Conclude the	as far as possible.		
	topic	Smoking:		
		Smoking increase the risk of cardiovascular disease		
		in many cases ,because increase the fat deposition ,in the		
		blood that supply the heart and causes block which leads		

to heart attack.		
Steps to help for smoking cessation:		
(1)You set a quit date (quit date should be within 2 weeks).		
(2) Change your environment,		
• Get rid of ALL cigarettes in your home, place of		
<ul><li>work, car.</li><li>Don't let people smoke in your home.</li></ul>		
(3)Get individual or group counselling.		
(5)Try to distract yourself from urges to smoke talk		
someone, go for walk or get busy with a task (read book		
,exercise, hearing music)		
(6)Medications can help you stop smoking and lessen the		
urge to smoke,		
<ul> <li>Bupropion hydrochloride.</li> <li>Nicotine gum.</li> <li>Psychological rehabilitation</li> </ul>		
Stress /mental tension:		
After an heart attack stress is the major cause that		
creates distress. Stress temporarily increases heart rate and		
blood pressure by increasing the release of adrenalin into		
the blood stream.		
Coping to control stress:		
<ul> <li>Eat properly.</li> <li>Do exercise regularly.</li> <li>Sleep 6-8 hours per day.</li> <li>Follow relaxation techniques. (meditation,music ,guided imagery)</li> </ul>		
(i) Meditation:		
• Sit in comfortable position and eves closed. Breath		
<ul><li>easily and normally.</li><li>Don't force your breathing , concentrate your</li></ul>		
<ul><li>breathing rate and rhythm.</li><li>Take deep breath , breath out slowly and easily.</li></ul>		
Take a second breath slowly and breath out.		
	1	1

Time duration is 10 -15 minutes.	
(ii) Music	
Soft flowing music can be used to increase sense of	
relaxation .It also reduce your stress.	
(iii) Guided imagery	
You can select a pleasant scene or experience, such	
as watching ocean or dabbling the feet in a cool stream.	
This technique also reduce stress.	
Vocational rehabilitation	
1.Job modifications to reduce the work demands by	
altering the environmental demands ,changing design of	
work, or changing jobs.	
2.Vocational training to improve the capacity by	
vocational counseling, training or retraining for jobs with	
higher or different skill requirements and lower energy	
demands.	
3. Enhancement of individual's capacity through	
exercise training, psychological and emotional support etc.	
Overcoming work- related stress.	
<ul> <li>Learn to delegate.</li> <li>Estabilish the priorities.</li> <li>Learn to relax.</li> <li>Refuse to accept unrealistic demands.</li> <li>Take regular breaks.</li> <li>Sexual rehabilitation</li> </ul>	
Time of resumption:	
When the patient's condition has become stable and	
a symptomatic, sexual activity may be resumed within 3-6	
weeks.	
Environment:	
Sexual activity in the usual surroundings of one's	
home and comfortable room is advisable. Extreme of air	
temperature, humidity, restrictive clothing and cold bed	
sheets should avoided.	

Positions:	
The patient (both men and women) may assume	
bottom position which may more restful.	
Other precautions:	
Avoid sexual activity after eating a heavy meal and	
after drinking excessive amounts of alcohol.	
Warning signals:	
The patient should recognize and report to the	
physician rapid heart rate and rapid breathing that persist	
for 10-15 minutes after coitus and also chest pain during or	
after coitus.	
Conclusion:	
Cardiac rehabilitation helps to improve the quality of life	
among myocardial infarction patients. Cardiac	
rehabilitation was explained in this video. I hope that this	
video will help you to modify your life style habits and	
prevents from recurrence of further attack	

Neuk;	rpwg;G Nehf;fq;fs;	nghUslf;fk;	fw;gpf;Fk; nray;jpwd;	ftdpf nray;
1 epkplk;	,Uja rPuikg;G gw;wp mwpKfg;gLj;Jjy;	<b>Kd;Diu:</b> fhiy tzf;fk;.ehd; tpNtfhde;jh eh;rpq; <b>fy;Y}hpapy</b> ; ,uz;lhk; Mz;L KJfiy nrtpypag; gbg;G gapYk; khztp. ,e;j cyfpy; khuilg;G Neha; vd;gJ capiuf;nfhy;Yk; Neha;fspy; Kjy; Nehahf cs;sJ. ngUk;ghyhd NehahspfSf;F khuilg;gpw;F gpd; ,Uja rPuikg;G ghpe;Jiu nra;ag;gLfpwJ. ,Uja rPuikg;gpy; gq;F ngWtjhy; ,J jq;fspd; tho;f;if Kiwfs; gw;wpa mwpit mjpfhpf;Fk; NkYk; mJ ,uz;lhtJ khuilg;G tUtijj; jLf;f cjTfpwJ. tho;f;if juj;ijAk; Nkk;gLj;JfpwJ. rpy Kf;fpaj;Jtk; tha;e;j jfty;fs; ,e;j tPbNahtpd; %yk; cq;fSf;F toq;fg;gLfpwJ. mJ jq;fspd; eilKiw tho;f;iff;F kpfTk; gaDs;sjhf ,Uf;Fk;.	,Uja rPuikg;G gw;wp mwpKfg; gLj;jg;gl;lJ.	ftdpj
3 epkplk;	இருதயத்தின் அமைப்பு மற்றும் அதன் செயல்பாடுகள் பற்றி விளக்குதல்	<ul> <li>இருதயத்தின் அமைப்பு மற்றும் அதன்</li> <li>செயல்பாடுகள்இருதயத்தின் அமைப்பு மற்றும்</li> <li>செயல்பாடுகள் பற்றிய தகவல்கள் இந்த வீடியோ பகுதியில் வழங்கப்படுகிறது.</li> <li>&gt; இருதயம் மார்பின் மையப்பகுதியில் அமைந்துள்ளது. சராசரியாக மனிதனின் இருதயம் ஒரு நிமிடத்திற்கு சுமார் 72 முறை துடிக்கிறது.</li> <li>&gt; செப்டம் எனப்படும் பிரிவுசுவரால் இதயம்</li> </ul>	இருதயத்தின் அமைப்பு மற்றும் அதன் செயல்பாடுகள் பற்றி விளக்கப்பட்டது.	ftdpj kw;V tpila

		நான்கு அறைகளாக பிரிக்கப்பட்டுள்ளது. > இடது மற்றும் வலது என்ற இரண்டு கோரோனரி தமனிகள் மூலம் இருதயத்திற்கு இரத்தம் எடுத்துச் செல்லப்படுகிறது.		
		இருதயத்தில் சுத்திகரிக்கப்பட்ட இரத்தம்		
		பெருந்தமனியினுள் செலுத்தப்பட்டு உடலின் பல்வேறு		
2	இருதய சீரமைப்பு	பகுதிகளுக்கும் இரத்தத்தை அனுப்புகிறது <b>இருதய சீரமைப்பு</b>	இருதயசீரமைப்பு	ftdpi
Epkplk;	tiuaiw	சீரமைப்பு:	tiuaWf;fg;gl;lJ	kw;V tpila:
		நோயால் பாதிக்கப்பட்ட அல்லது ஊனமுற்ற		
		ஒருவர் மறுபடியும் உடல், cstpay; kw;Wk;		
		nghUshjhuj;jpy; rhj;jpakhd epiyia mila toptFg;gNj		
		kWtho;T my;yJ சீரமைப்பு என்றழைக்கப்படுகிறது.		
		இருதயச்சீரமைப்பு:		
		இருதயச்சீரமைப்பு என்பது ஒரு செயல்படுத்துகிற		
		செயல்முறை அது மாரடைப்பு நோயாளிகளுக்கு ஒரு		
		நல்ல உடல் மற்றும் மன ஆரோக்கியம் அடையவும்		
		பராமாக்கவும் இதயச்சரமைப்பு உதவுகிறது.		
		இருதயச்சீரமைப்பின் குறிக்கோள்:		
		மாரடைப்பு ஏற்பட்டவர் பழைய நிலையை அடைய வேண்டும்.		
		இருதயச் சீரமைப்பின் தோற்றங்கள்:		
		1) <i>உடலளவில்</i> சீரமைப்பு:		
		மாரடைப்பு நோயாளிகளிடையே		
		உடற்பயிற்சி போன்றவற்றால் உடற்செயல்பாட்டை		
		്രഗ്രാവ്യക്ഷ് പ്രത്യം പ		
		உடல்காள்ளல், மற்றும் புலைகப்படித்தலைல் நிறுத்தல போன்றவை வாம்க்கைக் காக்கை மேம்படிக்க		
		2) மனதளவில் சீரமைப்பு:		

		இது மாரடைப்பு நோயாளிகளுக்கு உணர்ச்சி நிலையைக் கட்டுபடுத்த, பதற்றத்தைக் குறைக்க, சமாளிக்கவும் அவர்களது நடத்தையை மாற்றவும் உதவுகிறது.		
9 epkplq;fs;		3) தொழில்முறை சீரமைப்பு: வேலை மாற்றம், தொழிற்பயிற்சி வழங்குதல் மற்றும் வேலைகள் தொடர்பான மனஅழுத்தத்தை கடக்கவும் மாரடைப்பு நோயாளிகளுக்கு இது உதவுகிறது.		ftdpj kw;V tpila:
	<b>உ</b> டலளவில் rPரமைப்பு பற்றி விளக்குதல்	4) உடலுறவு / பாலுறவு சீரமைப்பு மாரடைப்பு நோயாளிகளிடம் பாலியல் செயல்பாடுகளை மாற்ற சில வழிமுறைகளை இது வழங்குகிறது. உடலளவில் <b>டி பிரைமைப்பு</b> (அ) உடற்பயிற்சி தாங்கள் உடலளவில் தேர்ச்சி பெற உடற்பயிற்சி மிக அவசியம். அது நல்ல உடல் நலத்தை அடைய உதவுகிறது. பெறுக்கமான உடற்செயல்பாட்டின் நன்மைகள்: 1. இதயத்தின் பெறல் பட்டை	<b>உ</b> டலளவில் rPரமைப்புபற்றி விளக்கப்பட்டது	
		மேம்படுத்துகிறது: உடற்பயிற்சி இதயத்தசைகள் ஆக்சிஜனைப் பயன்படுத்தும் திறனை மேம்படுத்துகிறது. அதனால் எதிர்காலத்தில் ஏற்படும் மார்புவலியின் அறிகுறிகள் குறைக்கப்படுகிறது. <b>2. உடல் செயல்பாட்டை மேம்படுத்துகிறது:</b> தங்களின் உடற்பயிற்சியால் உடலில் உள்ள ஆக்சிஜனை இரத்தத்திலிருந்து திறமையாகப் பிரித்தெடுக்கப்பட்டு அது செல்கள் அளவில்		ftdpj kw;V tpila

	т	
பயன்படுத்தப்படுகிறது.		
3. இதய ஆபத்துகாரணிகளை குறைக்கிறது.		
உடற்பயிற்சி உடலின் கொழுப்பை குறைக்கக் இரத்த அழுத்தத்தைக் குறைக்க கொழுப்பு மற்றும் ட்ரைகினிசரைடு அளவுகளை மேம்படுத்த உதவுகிறது. மேலும் தாங்கள் ஏற்கனவே இரத்தச் சர்க்கரை உடையவர் என கண்டறியப்பட்டவர் என்றால்		
உடற்பயிற்சி உங்களின் இரத்தசர்க்கரை		
கட்டுப்பாட்டை அதிகரிக்க உதவுகிறது.		
4. இரண்டாவது மாரடைப்பு ஏற்படும்		
ஆபத்தை குறைக்கிறது. 5. மனதளவில் நன்மைகளை		
மேம்படுத்துகிறது.		
உடற்பயிற்சி மனஅழுத்த எதிர்ப்பு		
மற்றும் கவலை எதிர்ப்பு சக்தியை		
கொண்டுள்ளது. இது தங்களுடைய நவீன		
வாழககைமுறையல் ஏற்படும் மன அழுத்தங்களை நீக்க உதவுகிறது.		
உள்நோயாளிக்கான உடற்பயிற்சிகள்:		
💠 வார்டு: முதல் நாள்		
(அ) தசைநார்களை விரிவுப்படுத்தும் உடற்பயிற்சி:		
<ul> <li>முன்புற மேற்கையின் தசைநார்களை விரிவுப்படுத்துதல்</li> <li>பின்புற மேற்கையின் தசைநார்களை விரிவுப்படுத்துதல்</li> <li>கீழ்கையின் தசைநார்களை விரிவுப்படுத்துதல்</li> <li>முன்தொடை தசைநார்களை விரிவுப்படுத்துதல்</li> <li>பின்தொடை தசைநார்களை விரிவுப்படுத்துதல்</li> <li>பின்தொடை தசைநார்களை விரிவுப்படுத்துதல்</li> <li>காலின் கெண்டை தசைநார்களை விரிவுப்படுத்துதல்</li> <li>காலின் கெண்டை தசைநார்களை விரிவுப்படுத்துதல்</li> <li>காலின் பென் மை தசைநார்களை விரிவுப்படுத்துதல்</li> </ul>		ftdpj kw;V tpila:
ு வைக்கலைய முன்பிற்றாகத் தொக்குதல் நுநிற்ற		

கைகளை வெளிப்புறமாக தூக்குதல். • முழங்கை மடக்கி நீட்டுதல் • முழங்கால் மடக்கி நீட்டுதல் • கால் கட்டை விரலை மேலே தூக்குதல் • கணுக்கால் பயிற்சி	
ஒரு நாளைக்கு இரண்டுமுறை ஒவ்வொன்றையும் 5	
தடவை செய்ய வேண்டும் (நின்றுகொண்டு)	
≻ மற்றவரின் கண்காணிப்புடன் 50 அடிகள் வரை	
அறையினுள்ளே நடக்க வேண்டும். ≻ நாற்காலியில் உட்கார வேண்டும்.	
🕏 வார்டு: இரண்டாம் நாள்: > அசைவுப் பயிற்சிகளைசெய்ய வேண்டும். > மற்றவரின் கண்காணிப்புடன் 75 அடிகள் வரை	
அறையினுள்ளே நடக்க வேண்டும்.	
ഗന്ത്രാം പോഷ്ഡ്ം	ftdpi
ேல்ல் வேண்டும். சீ வார்டு: மூன்றாம் நாள்	kw;V
≻ அசைவுப் பயிற்சிகளைசெய்ய வேண்டும். ≻ மற்றவரின் கண்காணிப்புடன் 300 அடிகள்	tpila:
வரை வராந்தாவில் நடக்க வேண்டும் (2	
முறை காலை மற்றும் மாலை). ≽ படிகள் ஏறும் பயிற்சியை தொடங்குதல் (2–4	
படிகள்). 🗳 வார்டு: நான்காம் நாள் ≽ அசைவுப் பயிற்சிகளைசெய்ய வேண்டும். ≽ படிகள் ஏறும் பயிற்சியை செய்ய வேண்டும்	
(4–6 படிகள்). ≽ மற்றவரின் கண்காணிப்புடன் 500 அடிகள்	
வரை வராந்தாவில் நடக்க வேண்டும் (2	
முறை காலை மற்றும் மாலை). ≻ மற்றவரின் கண்காணிப்புடன் குளியல்	
தொட்டியில் குளியல் எடுக்கலாம். வார்டு: ஐந்தாம் நாள் > அசைவுப் பயிற்சிகளைசெய்ய வேண்டும். > படிகள் ஏறும் பயிற்சியை செய்ய வேண்டும். > மற்றவரின் கண்காணிப்புடன் 500 அடிகள்	ftdpj kw;V tpila:
வரை வராந்தாவில் நடக்க வேண்டும் (2 முறை காலை மற்றும் மாலை). ≻ மற்றவரின் கண்காணிப்புடன் குளியல்	
தொட்டியில் குளியல் எடுக்கலாம்.	

IDI	ரடைப்புக்கு பின்னர் வெளிநோயாளிக்கான	
<u>۹</u>	 டற்பயிற்சி:	
	மாரடைப்புக்கு பின்னர் தங்களின்	
90	நதயநோய் நிபுணர் தங்களை மறுபரிசோதனை	
செ	ய்து தாங்கள் உடற்பயிற்சி செய்ய தகுதியானவர்	
สส	ர்று கூறிய பின்னரே பின்வரும் உடற்பயிற்சிகள்	
து	வகளுக்கு பரிந்துரைக்கப்படும்.	
	<i>1.</i> மெல்லிய ஓட்டப்பயிற்சி:	
	மெல்லிய ஒட்டப்பயிற்சி தொடங்கும்போது	
குடி	றுகிய காலத்திற்கு மெல்லிய ஒட்டப் பயிற்சியும்	
	த்துடன் அதற்குச் சமமான தூரங்களை நடக்கவும்	
செ	ய்ய வேண்டும். தாங்கள் படிப்படியாக மெல்லிய	
୍ର କୁର୍ଯ୍ୟ କୁର୍ଯ୍ୟ	டப்பயிற்சியின் நேரத்தை அதிகரிக்க வேண்டும்.	
	<i>2.</i> நடைப்பயிற்சி:	ftdpj
	தாங்கள் குறைந்தது ஒரு வாரத்திற்கு 3-5	kw;V
ொ	ட்கள் நடக்க வேண்டும். சுமாராக 9-12 வாரங்களில்	tpna:
	ங்கள் உடற்பயிற்சியை 45 நிமிடங்கள் அல்லது 1	
ບດ	னி நேரம் வரை தொடர்ந்து செய்ய வேண்டும்.	
	3. படி ஏறுதல்:	
	🔎 மாடிப்படி ஏறுதல் பெரும்பான்மையான	
	மக்களின் தினசரி நடைமுறைகளில்	
	ஒன்று.	
	🎢 தாங்கள் படிப்படியாக படிகளின்	
	ഞ്ഞ്ഞിക്കകയെ എട്ടിക്കിക്ക	
	வேண்டும். (25 படிகள் / வாரத்திற்கு) <b>4. சைக்கிள் பயிம்சி</b> :	
	<ul> <li>காக்கிள் ஓட்டுதல் ஒரு</li> </ul>	
	சுவாரஸ்யமான செயல்	
	🎤 இதை வீட்டிற்கு வெளிப்புறங்களிலோ	
	அலலது உட்புறத்திலோ	
	பயிற்சிக்கலாம். 🎤 சைக்கிள் பயிற்சியின்போது	
	இருக்கையின் உயரத்தை சரிசெய்ய	
	வேண்டும். (அதனால் முழங்காலில்	ftdpj
	குறைவான வளைவு ஏற்படும்)	tpila:
	🍫 உடற்பயிற்சி விதிகள்:	
	✓ எப்பொழுதும் உடலை உஷ்ணப்படுத்தி	
	பின் குறைக்க வேண்டும். 🖌 அகிக உஷ்ணம் மற்றும் குளிர்ச்சியை	
	தவிர்க்க வேண்டும்.	

	🖌 உணவு உண்டபின் 2 மணிநேரத்திற்கு	
	பின்னா் அல்லது முன்னா் உடற்பயிற்சி	
	செய்ய வேண்டும்.	
	🖌 உடற்பயிற்சிக்கு முன் மற்றும் பின்	
	நாடித்துடிப்பை சரிபார்க்க வேண்டும்.	
	ஒரு வேளை கட்டுப்பாடற்ற	
	நாடித்துடிப்பு இருந்தால்	
	உடற்பயிற்சியை நிறுத்திட வேண்டும் 🖌 உடற்பயிற்சிக்கு குறைந்தது 2மணி	
	நேரத்திற்கு முன் காபி அல்லது டீ	
	குடிக்க வேண்டாம். <b>(கா.்.பீன</b>	ftda:
	தங்கள் இதயத்துடிப்பை	kw:V
	அதிகமாக்குகிறது.) 🖌 பொதுவாக வாரத்திற்கு 3-5 முறை	tpila
	உடற்பயிற்சி செய்ய வேண்டும். me;j	
	பயிற்சி20-30 நிமிடங்கள் செய்யப்பட	
	வேண்டும்.	
	🖌 மார்புவலி, தலைச்சுற்றல்,	
	வாந்தியுணர்வு, வாந்தி, மூச்சுதிணறல்,	
	அதிகச்சோர்வு போன்ற	
	உடற்பயிற்சியை தாங்கிக்கொள்ள	
	முடியாத அறிகுறிகள் பற்றி தெரிந்து	
	வைத்திருக்க வேண்டும்.	
	ஒருவேளை இந்த அறிகுறிகள்	
	தங்களுக்கு இருந்தால்	
	உடற்பயிற்சியை நிறுத்திவிட்டு தங்கள்	
	மருத்துவரை அழைக்க வேண்டும்.	
	(இ) உணவுகள்:	ftdpj
4 enknla.fs	உணவு தேர்வுக்கான வழிகாட்டுதல்:	KW;V
cpnpiq,is,	🖌 சேர்க்க வேண்டிய உணவுகள்:	tpiiu.
	🎤 ஆடை நீக்கப்பட்ட பால் மற்றும்	
	அதில் தயாரிக்கப்பட்ட பொருட்கள்.	
	<ul> <li>காபி, டீ.</li> <li>உருளைக்கிழங்கு, ரொட்டி,</li> </ul>	
	வெங்காயம்.	
	≻ அரிசி, கோதுமை,	
	பிஸ்கட்,முழுதானியங்கள்	
	≻ பழங்கள், பழச்சாறுகள் மற்றும்	
	காய்கறிகள், பச்சைக்கீரைகள்.	
	🗡 முடடையின வெள்ளைக் கரு, மீன்	

	(3(மறை .். வாரம்)	
	🖌 தவிர்க்க வேண்டிய உணவுகள்	
	≻ ஆடைநீக்கப்படாத பால், கிரீம்,	
	நொறுக்குதீனிகள், பேக்கரி	
	பொருட்கள்.	
	🍃 சோடா உப்பு பயன்படுத்தி	
	தயாரிக்கப்பட்ட உணவு பொருட்கள்,	
	மதுபானம் ≻ மாமிச வகைகளான கோழிறைச்சி	
	மந்றும் ஆட்டிறைச்சி 🎤 வெண்ணெய், நெய் மற்றும்	ftdpj kw;V
	நிலக்கடலை > வனஸ்பதி பாமாயில்	tpila
	🌶 ஊறுகாய்கள், அப்பளம், முட்டையின்	
	மஞ்சள் கரு ≻ பதப்படுத்தப்பட்ட உணவு வகைகள்	
2	நார்ச்சத்து உணவு	
epkplq;fs;	நார்ச்சத்துள்ள உணவுகள் உண்ணுவதால்	
	அது தங்களின் எடையை கட்டுப்பாட்டில் வைத்துக்	
	கொள்ள உதவும். அதிக நார்ச்சத்துள்ள	
	உணவுகளை உட்கொள்வதின் மூலம்	
	மலச்சிக்கல், இருதய நோய் மற்றும் உடல்பருமனை	
	கட்டுப்படுத்த முடியும்.	
	நார்ச்சத்துள்ள உணவுப்பொருட்கள்	
	• முழுகோதுமை, கேழ்வரகு, ஓட்ஸ், சோளம்	
	போன்ற தானியங்கள்	
	<ul> <li>ஒவ்வொரு நாளும் பச்சைப்பயிறு போன்ற சில</li> </ul>	
	பயறு, பருப்பு வகைகளை சாப்பிடவும் • போதுமான அளவு பழங்கள் மற்றும்	
<b>.</b>	காய்கறிகளை சாப்பிடவும் முடிந்தவரை	
5	பமங்கள். காய்கரிகள் இவர்ளை கோலோடு	
epkplq;fs;	சேர்த்து உண்ணவும்.	
	புகைப்பிடித்தல்	
	புகைப்பிடித்தல் இரத்தத்தில் கொழுப்புப்	
	படிதலை உண்டாக்கும். அது இருதய நோய் வரும்	ftdpj
	ஆபத்தை அதிகரிக்கும்.	kw;V
	<ul> <li>தாங்கள் புகைப்பிடித்தலை நிறுத்தும்</li> </ul>	
	தேதியை தேர்ந்தெடுக்க வேண்டும். (நிறுத்தும்	
	தேதி 2 வாரங்களுக்குள்ளாக இருத்தல்	

வேண்டும்) ● வீடு வேலையிடம்கார்அகிய		
இடங்களிலிருந்து அனைக்கு		
சிகரெட்டுகளையும் நீக்க வேண்டும்		
<ul> <li>வீட்டிலிருப்பவர்கள்</li> <li>புகைப்பிடிப்பதை</li> </ul>		
அனுமதிக்க வேண்டாம்.		
<ul> <li>தனிநபர் மற்றும் குழு ஆலோசனை பெறவும்</li> <li></li></ul>		
• தங்களுக்கு புகைப்படிக்க தோன்றும் போது		
மனதை துசைதுருப்ப முயற்சிக்கவும்,		ftdpj
		kw;V
பண்மைத் தொடாந்து செய்யவோ வேண்டும		tpna
(വ്യാത്ത് പ്രത്യം), ഇല്വാവത്ത്വം അവാം,		
துசைக்கட்டல்) பகைப்பிடிக்கலை நிறுக்க ப்யளோபியோன்		
ையட்டோகளோடை நிகோமன் பதை		
லஹடரேகளாரைரு, நகொடின் பசை		
உகவியாக இருக்கும்		
மனதளவில் சீரமைப்பு		
மனஅழுத்தம்:		
மாரடைப்பிற்குப் பின் ஏற்படும் மனஅழுத்தம்		
அந்நோயளிக்கு ஒரு துயரத்தை உண்டாக்குகிறது.		
மனஅழுத்தம் இதயத்துடிப்பு மற்றும் இரத்த		
அழுத்தத்தை அதிகரிக்கிறது.		
(அ) மனஅழுத்தத்தை கட்டுப்படுத்த மற்றும்		
சமாளிப்பதற்கான வழிமுறைகள்:		
<ul> <li>சரியாக சாப்பிடுதல்</li> <li>கலாமல் உடல்யில் தி செய்தல்</li> </ul>		
<ul> <li>தன்றாமல் உடற்பபற்சா செய்தல்</li> <li>தளாவு நுட்பங்களை பின்பற்றுதல்</li> </ul>		
(தியானம், இசை, வழிக்காட்டும் பிம்ப		
உருவகம்).		
<i>1.</i> தியானம்:		
<ul> <li>ഖാട്ടായിൽ ത്രാസ്യയ ഇലാണിത്ത്</li> <li>മൽഭതന സംഭിവെന്ന വേൽഡ്</li> </ul>		
ക്കുന്നുന്ന എയ്യായത്ത്ത് പോണ്ണ്. ക്കുന്നുന്ന കുടുന്നത്താനം ക്രാണിയി		
രഖൺവാന നേളന്യം അവണമാല് പ്രാംഗം പ	ഥത്വള്ണഖിര്	
🧳 உங்கள் சுவாசத்தின் விகிதம் மற்றும்	rPரமைப்புபற்றி	
ரிதம் கவனிக்கபட வேண்டும்.	விளக்கப்பட்டது. 	
🥏 ஆழமான மூச்சு எடுத்து பின் மூச்சை		
மெதுவாகவும் மற்றும் சாதாரணமாகவும்		
வெளிவிட வேண்டும். இரண்டாவது		

	மூச்சு எடுத்தல் மற்றும் வெளிவிடுதல் வேண்டும். சே குறைந்தது 10-15 நிமிடங்களாவது செய்ய வேண்டும். 2. இசை கேட்டல்:	
	மென்மையான இசை கேட்பதால் தளர்வு உணர்வு அதிகரிக்க செய்யும். அது மனஅழுத்தத்தை குறைக்க உதவும்.	
	<i>3.</i> வழிக்காட்டும் பிம்ப உருவகம்:	
மனதளவில்	 நீங்கள் கடலை பார்ப்பது அல்லது குளிர்ந்த	
சீரமைப்புபற்றி	நீரோடையில் காலை நனைப்பது போன்ற	
விளக்குதல்	இனிமையான காட்சி அல்லது அனுபவத்தை	
	தேர்ந்தெடுக்க வேண்டும். இது மனஅழுத்தத்தை குளைக்கும்.	
	தொழில்முறை சீரமைப்பு	
	• வேலைமாற்றம் செய்வதன் மூலம்	
	வேலைப்பளுவை குறைக்க முடியும். • வேலைமாற்றத்தால் தேர்ந்தெடுக்கப்பட்ட	
	வேலை வாய்ப்பு குறைவான வேலைப்பளுவை	
	கொண்டிருக்கும். • தங்களை மாற்றி மேம்படுத்திக் கொள்ள	
	வேலைக்கான தொழில் ஆலோசனை மற்றும்	
	பயிற்சி உதவும். அது வெவ்வேறு திறன்	
	தேவைகள் மற்றும் ஆற்றல் கோரிக்கைகளை	
	பூர்த்திச்செய்யும். • ஒருவரின் தனிப்பட்ட திறனை உடற்பயிற்சி,	
	உளவியல் மற்றும் உணர்ச்சி ஆதரவு முதலியவற்றின் மூலம் விரிவாக்க முடியும்.	
	வேலை தொடர்பான மனஅழுத்தத்தை போக்கும்	
	வழிமுறைகள்:	
	🗳 வழக்கமான இடைவேளையை ஒழுங்காக	
	எடுத்துக்கொள்ளுதல்.	தொழில்முறை
	പന്താനവ നോസ്ല	rPரமைப்புபற்றி
	பானும்பு சரலம்படி மீண்டும் அரம்பிப்பகர்கான கோம்:	விளக்கப்பட்டது.
	நோயாளியின் உடல்நிலையில் (மன்னேற்றம்	
	் ஏற்பட்டபின் மற்றும் நோயின் அறிகுறிகள் இல்லாமல்	
	இருந்தால் பாலியல் செயல்பாட்டை மீண்டும் 3-6	
I		

	வாாங்களில் கொடங்கலாம்.	
	சும்றுச்சூமல்:	
	ு சூசு சே ஒரு வீட்டின் வசதியான அறை மர்றும்	
	வழக்கமான சூழலில் பாலியல் செயல்பாடு நடைபெற	
	் ் ்   அறிவுறுத்தப்படுகிறது. அதிக அதிகமான காற்று	
	வெப்பநிலை,ஈரப்பதம், கட்டுப்பாடன ஆடை மற்றும்	
	குளிர்ப்படுக்கை விரிப்புகள் தவிர்க்கப்பட வேண்டும்.	
	நிலைகள்:	
	ு. நோயாளி (ஆண்கள் மற்றும் பெண்கள்)	
	கீழ்நிலையை பயன்படுத்தலாம்.	
	பிறமுன்எச்சரிக்கைகள்:	
	பலமான உணவு சாப்பிட்ட பின்னர் மற்றும்	
	அதிக அளவில் மது அருந்திய பின்னர் பாலுறவு	
	கொள்ள வேண்டாம்.	
	எச்சரிக்கை சமிக்ஞைகள்:	பாலுறவுrPரமைப்புபற்
	பாலுறவு கொண்டபின் விரைவான	றி விளக்கப்பட்டது.
	இதயத்துடிப்பு மற்றும் விரைவான சுவாசம் 10-15	
	நிமிடங்கள் தொடர்ந்து இருந்தாலோ மற்றும்	
	நெஞ்சுவலி பாலுறவின் போது அல்லது பாலுறவுக்கு	
தொழில்முறை	பின்னர் ஏற்பட்டாலோ நோயாளி மருத்துவரிடம்	
	தெரிவிக்கப்பட வேண்டும். பின்னர் பாலுறவு	
சீரமைப்புபற்றி	தவிர்க்கப்பட வேண்டும்.	
விளக்குதல்	முடிவுரை:	
	மாரடைப்பு ஏற்பட்டவரின் வாழ்க்கை தரத்தை	
	அதிகரிக்க இருதய சீரமைப்பு மிகவும் உதவுகிறது.	
	மாரடைப்பினால் பாதிக்கப்பட்டவர் இந்த வீடியோவில்	
	குறிப்பிட்டது போல் பின்பற்றி வந்தால் தங்கள்	
	வாழ்க்கையின் தரம் உயரும், தாங்கள் வாழும்	
	காலம் அதிகரிக்கும். எனவே இந்த வீடியோவை	
	பார்த்தவை மற்றும் கேட்டவையின் மூலம் தாங்கள்	
	பயன்பெற வேண்டும் என்பதை வலியுறுத்தி	
	விடைபெறுகிறேன்.	

பாலுறவு சீரமைப்பு		
சீரமைப்புபற்றி		
விளக்குதல்		

# PHOTOGRAPHS







