International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

A Study to Asses the Knowledge of Sedentary Workers on Myocardial Infarction in Selected Areas of Bangalore with a View to Develop Health Education Module

Nirmala Mushtoori

Goldfinch College of Nursing

INTRODUCTION

Back ground of the study

Human life is the gift of God; it is precious, but short. WHO has drawn attention to increase the life expectancy and decrease the mortality rate? Among the many health predictions for the new millennium, some of the chronic non-communicable diseases are increasing in the population in both developed and developing countries. The most alarming is that of cardiovascular diseases; at present the leading cause of death in developed countries. The impact of cardiovascular disease on the lives of the people is serious when measures in terms of loss of life, disability, poverty and economic loss to country.

The term Angina Pectoris was used to describe chest pain was coined by William Heber den in 1732, in that time little was known about the disease mechanism. As a disease entity, Myocardial Infarction was described in full by James Herrick in 1912. He is credited as the originator of the "thrombogenic theory" i.e. the Myocardial Infarction is due to thrombosis in the coronary artery, subsequently, atherosclerosis and plaque rupture were discovered as underlying mechanism.

Medicine has approached heart disease as an evil threat created by one cause after another, at first it was fat, then smoking, then stress, then cholesterol and most recently inflammation. This line of thinking begs for a "heroic" solution like surgery or medication to the day.

Doctors began diagnosing men with symptoms of cardiovascular disease as early as the 1930's. After World War II, our cultural evolution from a farm based society to an urban/ Industrial society was complete with a distinct shift to a life of relative wealth. The new stressors of urban life multiplied, as did the pollution in environment, some people arteries reacted by creating sticky plaque that constricted blood flow to the heart and other organs and weakened them.

By the late 1940's, heart disease was officially proclaimed the number one killer even though statistics on women from that time don't exist. Doctors blame the condition as an overly rich diet because a majority of the men who had it were overweight.

Doctors learned in the 1050 were that smoking was a huge risk factor, but cigarette makers kept this knowledge from gaining public recognition. A major breakthrough in the identification of risk factors was the 1956 British doctor's study, which showed an increase risk of Myocardial Infarction in heavy smokers.

Since 1951, one of the best known large prospective studies, the Framingham study, has played a major role in establishing the nature of coronary heart disease risk factors and there relative importance. The major risk of CHD is elevated serum cholesterol, smoking, hypertension and sedentary habits. Accordingly, the four main possibilities of interventions in CHD prevention are reducing of serum cholesterol, the cessation of smoking, control of hypertension and promotion of physical activity.

Twenty years later, deaths from heart disease were still rising and the government got involved, huge amount of funding went towards finding causes and cure. In 1971, the US public health service undertaken the land mark of Framingham heart study. This ongoing study, the first to include women, is the basis for much of what we know about heart disease today and for the first time ever it verified beyond a doubt, the link between cardiovascular disease and habits.

From that point, the hunt was on to find the cause. New information in the 1970's fingered stress and the Type- A personality: By the 1980's, doctors discovered the link with saturated fat and cholesterol.

In the year 1997, WHO estimated that globally 29 per cent of deaths occurred from cardiovascular disease and among that 25-28 per cent of the deaths were due to Myocardial Infarction?

Myocardial Infarction is the leading cause of death in America. Every year approximately 15, 00,000 Americans fall victim to heart attacks. Heart attack will cause an estimate 5, 00,000 deaths each year. Approximately 3, 00,000 clients die each year before they reach the hospital. Studies indicate that, unfortunately, half of all heart attack victims wait more than 2 hours before getting help. On the basis of data from the Framingham study approximately 45 per cent of all heart attack clients are under the age of65 years and 5 per cent under the age 40 years.

In India an estimated 2.27 million people died due to CVD during 1990. According to projections the number of deaths due to CHD was to increase from 1.17 million in 1990 to 1.59 million persons in 2000 and 2.03 million by 2010.

The prevalence of CHD among adults was estimated at 96.7 per 1000 population in urban and 27.1 per 1000 population in rural areas.

Acute Myocardial infarction otherwise known as Coronary Artery Occlusion and Heart Attack is a life threatening situation of localized necrotised areas within the myocardium. It occurs when a portion of cardiac muscle is deprived of an adequate supply of arterial blood, with its oxygen and nutrients for a long time, leading to death of tissue in that area. The most common site for MI is anterior wall of the left ventricle near the apex.

Padmavathi et al., in 1960's and Gupta et al., in 1970's performed comparison of CHD risk factors prevalence in urban and rural population in Delhi and Haryana respectively. CHD prevalence in urban subject was twice that of the rural. According to those studies, the prevalence was found to be 65.4 and 47.8 per 1000 males and female respectively in urban areas. In rural area, the prevalence was 22.8 and 17.3 per 1000 males and females respectively.

Coronary risk factors that are greater among urban Indians were:

a. Sedentary lifestyle
b. Hypertension
c. Obesity
d. Hypercholesterolemia
e. Insulin resistance

The typical manifestation of Myocardial infarction is crushing type of chest pain; other associated symptoms of Myocardial Infarction are cold and clammy skin, rise of temperature within 24 hours, tachycardia, cyanosis, Nausea and vomiting, Liguria, dyspnoea and anxiety.

WHO Expert Committee has specified the following strategies for Prevention of CHD:

a) Population strategy
   i. Prevention in whole population
   ii. Primordial prevention
b) High risk strategy
c) Secondary prevention

Risk Reduction Strategies for High risk Indian subjects

a. Smoking: Complete cessation
b. Lipid management: Primary goal: LDL<100 mg/dl
   Secondary goal: HDC>35 mg/dl
   Triglycerides<200 mg/dl

Physical activity

Minimum physical activity is>30 minutes of moderate intensity 3-4 times per week (walking, jogging, cycling)

Weight management

Maintain < 120 per cent of ideal weight for height.

Maintain waist: hip ratio: <0.90 in men and <0.08 in women.

Blood pressure:

Goal: <140/90 mm of Hg.

Initiate life style modification in all patients with hypertension.

Drug therapy when required.

A study was conducted to determine whether lowering of serum lipids and cessation of smoking would reduce the incidence of first attack of CHD in males aged 40-50 in 1973 at Norwegia. 16,202 healthy men and 1,232 healthy normotensive men at risk (Total serum cholesterol 290-379 mg/dl, smoking) of CHD were selected for a 5 years randomized trial. The intervention group underwent techniques designed to lower serum cholesterol level through dietary mean (e.g.: a polyunsaturated fat diet) and to decrease or eliminate smoking. At the end of 5 years the incident of Myocardial Infarction was lower by 4 per cent in the intervention group than in the control group. With this study primary prevention of CHD entered in the practical field of preventive medicine in an impressive manner.

SIGNIFICANCE OF THE PROBLEM

"Healthy life style arrives out of knowledge

Knowledge arrives out of health education"

Myocardial Infarction is a life threatening disease with which approximately 3, 00,000 people die every year before they reach the hospital.

In developing countries like India, Myocardial Infarction is one of the leading causes of death. The prevalence of Myocardial Infarction has increased from 40 per 1000 in 1968 to nearly 110 per 1000 in 2001. In India the prevalence of Coronary Heart disease in urban population was increased from 3.5 per cent in 1960's to 9.5 per cent in 1990's. In rural areas it has been increased from 2 per cent in 1970's to 4 per cent in 1990's.

The risk factors of the Myocardial Infarction are divided into two categories: modifiable risk factors and non modifiable risk factors.

Modifiable risk factors

Cigarette smoking, Hypertension, High serum cholesterol, Diabetes mellitus, Obesity, Less Physical activity, Psychological tension.

Non- Modifiable risk factor

Family history, Gender, Age

Risk factors were more among urban Indians: sedentary lifestyle, hypertension, obesity, Hypercholesterolemia, and insulin resistance.

All the clients either literates or illiterates who are suffering from the Myocardial Infarction may not be known about the occurrence of the signs and symptoms of Myocardial Infarction.

A study was conducted in Karnataka and results shown that 91 percent of young adults below 40 years developed acute Myocardial Infarction has one or the other risk factors and smoking was top in the list.

Most of the people even after having particular signs and symptoms of Myocardial Infarction like chest pain, dyspnoea, nausea, vomiting, restlessness , anxiety and others like ECG changes are unaware of those signs and symptoms. They usually feel those are due to stress, indigestion or some other factors.

A study conducted on British men had shown that maintaining or taking up light or moderate physical activity reduces mortality of heart attack in older men with or without diagnosed as cardiovascular disease, study results supported the public health recommendations for elder sedentary people to increase physical activity and for active middle aged people to continue their activity up to old age.

WHO had defined primary prevention of coronary heart disease as prevention of its first events beginning early in childhood and continuing throughout childhood, youth and adult life.

WHO recommends changes in attitudes, behaviour and social values for primordial prevention of coronary heart disease; these are encouraged of positive health behaviour, prevention of adopting risk behaviour, elimination of established risk behaviours and promotion of the concept of health as a social value. Established principles and practices of health and general education should be including in public health programme.

The decisive role of health education in schools and other public places for focus grouping is to be stressed through new social and behavioural values.

Promotion of dietary restriction, physical active life style and avoidance of tobacco use beginning from childhood is important for primordial prevention. All adults has to know their blood pressure and blood cholesterol levels, has to avoid smoking, has to monitor their salt and fat intake and engage in at least moderate exercise.

A descriptive study was conducted at Christian medical college and hospital, Vellore, to determine the components of pre hospital delay in acute Myocardial Infarction. The results of the study shown that clients misinterpretation of symptoms was the most important reason for delay in hospital presentation. The study has recommended that there is a need to increase the awareness if individuals regarding risk factors and signs and symptoms of Myocardial Infarction.

A field experiment was undertaken to determine whether community health education can reduce the risk of cardiovascular diseases in 1972 in three Northern California towns, with population varying between 12,000 and 15,000. In two of those towns, intensive mass education campaigns were

conducted against cardiovascular risk factors over the period of 2 years. The third community served as a control. People from each community were interviewed and examined before the campaign began and one and two years afterwards to assess knowledge and behaviour related to cardiovascular diseases and also physiological indicators of risk were measured. In the control community the risk of cardiovascular disease increased over the two years. But in the intervention community there was a substantial and sustained decrease in risk. The net difference in estimated, total risk between control and intervention sample was 23- 28 per cent.

If people are aware of the Myocardial Infarction in detail, they can take efforts for the prevention and control of Myocardial Infarction by having periodical health check-ups, by keeping their weight normal along with their other routine activities; they can do simple exercises for their physical fitness. Assessment of knowledge of the sedentary workers regarding Myocardial Infarction will help the health care professionals to plan to plan and carry out knowledge of public in general and sedentary workers in specific, so that occurrence of Myocardial Infarction can be prevented and primitive measures can be implemented. Hence, the investigator felt the need to conduct a study with a view to develop the health education module related to Myocardial Infarction, which will be helpful for the sedentary workers and also general public to adopt healthy life style pattern.

Objectives

1. To assess the knowledge of sedentary workers regarding Myocardial Infarction
2. To identify the relationship between the knowledge of sedentary workers regarding Myocardial Infarction with selected socio-demographic variables
3. To develop health education module regarding Myocardial Infarction.

Selected variables:

Variable is an attribute of a person or object that varies, that takes on different values.

Dependent variable:

The dependent variables are the conditions or characteristics that appear, disappear or change as the experimenter introduces removes or changes independent variable

In this study knowledge of sedentary workers regarding Myocardial Infarction was the dependent variable

Independent Variable:

The independent variables are the conditions or characteristics that the experiment manipulates or controls in his or her attempt to ascertain their relationship to observed phenomena.

In this study, it refers to age, gender, education, religion, occupation, family monthly income, and type of family, any family history of heart disease, dietary pattern and habits.

Age, Gender, Education, Religion, Occupation, Family Monthly Income, Type of family, any family History of heart disease, Dietary pattern, Habits.

Assumptions

1. Sedentary workers will have same knowledge regarding Myocardial infarction
2. Tool employed for the study would be adequate and sufficient for gaining information about knowledge of sedentary works regarding Myocardial Infarction.
3. Sedentary workers will extent co-operation in providing factual information
4. Health Education module will help the sedentary workers to improve their knowledge related to Myocardial Infarction.

Delimitations

1. The study was limited to both the male and female sedentary workers who were living in Narayanapura area of Bangalore.
2. The study was limited to the sedentary workers who were willing to participate in the study.
3. The study was limited to the sedentary workers who were available at the time of data collection period.
4. The study was limited to the sedentary workers who could understand English, Hindi, Kannada and Telugu.

Hypothesis

H_1- There will be significant association between the knowledge of the sedentary workers with selected socio demographic variables (Age, Gender, Education, Religion, Occupation, Family Monthly Income, Type of Family and habits)

H_2- The mean knowledge score will be higher than the table value

METHODLOGY

The selection of research design is an important and essential step in research process as it is concerned with over all frame work of conducting the study by giving a plan, structure and strategy of investigation.

This chapter deals in detail with the methodology selected for the study which includes research approach, research design, setting of the study, population, sampling technique, selection of the sample, criteria for sample selection, method of data collection, development of tool, description of the tool, ethical consideration, validity of tool, pilot study, reliability of tool, data collection procedure and plan for data analysis.

Research Approach

"Survey almost in variably served descriptive function" for the present study a descriptive survey is considered to be an appropriate.

Research Design

"Overall all plans of obtaining answers to the research questions or for testing the hypothesis is referred to as research design, the research design spell out the basic strategies that the researcher adopts to develop information that is accurate and interpretable".

The research design guides the researcher in planning and implementing the study in the way that is most likely to achieve the intended goal.

Setting of the study

Study is conducted on Narayanapura area at Hegdenagar, Yelanka, North.

Population

It is an aggregate or totality of all subjects that poses a set of specifications. The target population is the group of population that the researcher aims to study and to whom the study findings will e generalized.

Population of the present study was sedentary workers who were living in Narayanapura area of Bangalore.

Sample and sampling technique

"A sample consists of a subset of the unit that comprises the population".

"Sampling is a process of selecting a portion of the population to obtain data regarding a problem".

"Purposive sampling is based on the belief that a researcher's knowledge about the population can be used to hand pick the cases to be included in the sample"

In this study purposive sampling techniques was used to select the sample, sample size is 60 sedentary workers who was residing in Narayapura area, Bangalore.

Inclusion Criteria

1. Both male and female sedentary workers who were residing in Narayanapura area of Bangalore.
2. Sedentary workers who were willing to participate in the study.
3. Sedentary workers who were available at the time of data collection period.
4. Sedentary workers who were able to understand the languages like English and Kannada.

Exclusion Criteria

1. Sedentary workers who were not residing in Narayapura area of Bangalore.
2. Sedentary workers who were not willing to participate in the study.
3. Sedentary workers who were not available at the time of data collection period.
4. Sedentary workers who cannot understand English and Kannada.

Method of data collection

The technique used for collection of information was structured interviews schedule. Interview technique provides greater opportunity to probe questions and clarify doubts and this in turn result in nearly the complete data from the subjects.

It was felt that face to face contact would encourage the sedentary workers to give free and frank information about the Myocardial Infarction, It allowed for uniformity in Asking questions and objectivity in recording the responses.

After assessing the knowledge of sedentary workers, the investigator will prepare the health education module in order to enhance sedentary workers knowledge.

Development of the tool

"Interview schedule contains a set of questions to be asked by the interviewer"

The instrument was developed with the help of many resources like literature, Consultation with the experts in the field of Medical Surgical Nursing, Medicine, Surgery and Cardiology. The tool was finalized based on the response during pilot study and suggestions from experts.

Description of the tool

The structured interview schedule was comprised of two parts

Part A: It consists of items describing the demographic variables of sedentary workers. (Age, Sex, Education, Occupation, Religion, Type of Family, Family Monthly income, Family history f heart diseases, dietary pattern and Habits).

Part B: This part consists of closed ended question, item regarding meaning, causes, risk factor, clinical features, diagnostic evaluation, treatment, prevention and complications of Myocardial Infarction. The content area has been described into 38 items in multiple choice question formats. Each question has one possible correct response and each possible correct response was 38 and giving rise to a maximum score of 38.

Ethical consideration

1. Permission has been obtained from institution ethical committee, Sofia College of Nursing, Bangalore.
2. Consent has been obtained from all the participants.

Validity of the tool

In the preliminary phase, content validity was obtained from experts in the field of Medical Surgical Nursing and Cardiology Specialities. Modifications were made based on experts suggestions and the responses were obtained from the sample during the pilot study and the difficulties encountered by the Investigators at the time of data collection. The tool was found to be practicable and feasible to collect the data.

Pilot study

It refers to the preliminary research conducted to test the elements of the design before the actual study begins. The objectives of the pilot study were to test the clarity, applicability and feasibility of questions. The pilot study was conducted in Bangalore area on 6 sedentary workers from 19th May to 23rd June 2006. It took 10 minutes for introduction and 30 minutes for interviewing each subject. The pilot study proved that the tool was found to be practicable, feasible and applicable to collect the data. The sample included for the pilot study was not considered for the final study.

Reliability of the tool

The reliability of the measuring instrument is a major criterion for assessing its quality and adequacy.

Test- retest method was done in order to assess the reliability by administering the tool twice to the sample of 6 sedentary workers in the pilot study each subject first score was compared with the same subject's second score with the help of Pearson's product movement co-efficient correlation. For the structures it seems on the knowledge about Myocardial Infarction in part B, the two sets of scores of 6 sedentary workers showed positive correlation (n=0.90). The items were found to be highly reliable and suitable.

Data collection procedure

Prior to actual data collection, attempts were made to build the rapport with the people residing in ward 17, Narayanapura area, Bangalore.

The Investigator explained the purpose of the study to the subjects to gain confidence and co-operation and it facilitated to gather the necessary information.

The subjects were interviewed from 9 am to 5 pm depending upon the availability of the sample from 1st July to 31st July 2016 whenever needed, questions were clarified by explaining in simple local terms for answering the questions, and no suggestions were given to the respondents by the Investigators during the data collection.

Reponses were simultaneously recorded during the interview; it took ten minutes for introduction and rapport building and 30 minutes for interviewing each subject.

Plan for data analysis

The data were analyzed by using descriptive and inferential statistics. Descriptive statics serve two major functions. Firstly it condenses the data in frequencies and percentages. Secondly, descriptive methods are used to communicate the information in detail so that the reader can make his own interpretations of the data independently and can draw his own conclusion if he so desires.

With expert's guidance, the following plan was made. The data on sample characteristics were described in the form of frequency and percentages. The data has been represented in the form of graphical representation wherever it is applicable.

Testing the level of significant of hypothesis was done with the help of inferential statistics such as chi-square test was used to identify the relationship between knowledge of sedentary workers, regarding Myocardial Infarction with the selected variables.

RESULTS

Analysis is a research technique used for systematic, objectives and quantitative description of content of research procured though various means of research investigations.

This chapter deals with the analysis of data, collection from 60 sedentary workers. A structured interview schedule was used for data collection and analysis was done with the help of descriptive and inferential statistics.

The present study was aimed at gathering information related to knowledge of sedentary workers regarding Myocardial Infarction and based on their responses, the Investigator was interested to develop health education module on Myocardial Infarction.

The objectives of the study were

1. To assess the knowledge of sedentary workers regarding Myocardial Infarction.
2. To identify the relationship between the knowledge of sedentary workers regarding Myocardial Infarction with the selected variables.
3. To develop health education module regarding Myocardial Infarction

Hypothesis

H_1- There will be significant association between the knowledge of the sedentary workers with selected socio demographic variables (Age, Gender, Education, Religion, Occupation, Family Monthly Income, Type of Family and habits)

H_2- The mean knowledge score will be higher than the table value

Organization of study findings:

The data collection was coded and entered in master sheet. Compiling and categorizing the data done to organise the information meaningfully and systematically.

Based on the findings of the study, the results were organised into three sections.

a) Sample description.

b) Knowledge of sedentary workers regarding Myocardial Infarction.

c) Association between knowledge of sedentary workers about Myocardial Infarction with selected variables.

SECTION-A:

The total numbers of primary informants (i.e. sedentary workers) were 60 in the selected study area (K. Narayanapura) of Bangalore. The sample characteristics included in the present study were: age, gender, education, religion, occupation, monthly family income, and type of family, family history of any heart disease, dietary pattern and habits.

The information on sample characteristics was gained from verbal responses of sedentary workers.

The above Table describes the percentage distribution of sedentary workers by their age. More than one third of sedentary workers were fallen in the age group pf 31-40 years (30%) followed by 41-50 years (38.3%), 20-30 years (16.6%) and 51 & above years (15%).

Concerning to the percentage distribution of sedentary workers by their gender. Both sexes are equally distributed in the sample.

In the type of education distribution of sedentary workers by their education. Nearly half of the sedentary workers were graduates (25%). One fourth of the sedentary workers were post graduates (33.3%), followed by middle school education (16.6), high school and PUC (20%), only two members were studied primary school (3.33%) and only one member was not studied (1.66%).

Regarding the percentage distribution of sedentary workers by their religion. Among 60 sedentary workers nearly half of the sedentary workers were belonging to Hindu religion (50%), followed by Muslims (33.3%) and Christians (16.06%).

Most of the sedentary workers by their occupation. More than half of the sedentary workers were government and private sectors (40%). More than one fifth of sedentary workers were doing Business (21.6%). One sixth of sedentary workers were House wives (255), following by Executives (10%) and Tailors (3.35%).

Pertaining to their family monthly income. 28.3% of sedentary workers had family monthly income of Rs. 4001- 5000 and Rs. 5001 & above, followed by Rs. 3001 – 4000 (25%) and 20% of sedentary workers had family monthly income of Rs. < 3000.

Concerning the sedentary workers according to their family monthly income. 28.3% of sedentary workers had family monthly income of Rs. 4001- 5000 and Rs. 5001 & above, followed by Rs. 3001 – 4000 (25%) and 20% of sedentary workers had family monthly income of Rs. < 3000.

The percentage distribution of sedentary workers according to their type of family. Nearly two third of the sedentary workers were belonging to Nuclear family (50%), followed by joint family (33.3%) Negligible percentage of sedentary workers was belonging to extended family (16.6%). It shows that Joint family system was disintegrating in the study area.

SECTION B

Section B was dealt with percentage distribution of sedentary workers knowledge on Myocardial Infarction. The knowledge of sedentary workers was measured in the content area of part 2 of the tool which was divided into 38 items. Each item had one correct response and for each correct response one mark was allotted & the total score in the tool was 38.

In this study categorization of knowledge level was done through quartile deviation method in order to classify the sedentary workers knowledge in to three groups.

Knowledge level	**Score**	
Low	0-19	0-50
Average	20-29	51-75
High	Above 29	Above 76

DISCUSSION

This section deals with discussion about the findings. The discussion of the findings is a much more subjective section of research report than the presentation of the findings. The discussion of the findings section of the study allows the researcher to make interpretations about the findings.

The study was designed to assess the knowledge of sedentary workers on Myocardial Infarction. This study was descriptive in nature which was conducted from 01-07-06 to 31-07-06. Data was collected from 150 sedentary workers in Narayanapura area of Bangalore. The data collection instrument consist of

Section A: Demographic data

Section B: Items related to knowledge level assessment of Myocardial Infarction

The findings of the study have been discussed in relation to the objectives and hypothesis.

Objective 1: To assess the knowledge of sedentary workers regarding Myocardial Infarction.

One sixth of the sedentary workers had high knowledge (16%) nearly two third of the sedentary workers had average knowledge (61.33%) more than one fifth of the sedentary workers had low knowledge (22.66%). Nearly three fourth of the sample knows the synonym for Myocardial Infarction i.e. heart attack (74%). Two third sedentary workers identified the organ which will be affected in Myocardial Infarction as heart (67.3%) 70 percentages of sedentary workers explained that the function of the heart is pumping of the blood 62% of sedentary workers responded correctly as myocardium is a layer of the heart. More than half of the sample told that infarction means death of the tissue of an organ (59.3%). Nearly three fourth of the sample narrated that chest pain was a typical manifestation of myocardial Infarction(71%). Nearly two third of the sample were able to express the crushing type of pain will be there during an attack of M.I.(65.3%). More than half of the sample responded that pain radiated from retro sterna region to shoulders and arms (58.6 %). More than one third of the sample knew that chest pain stays more than 30 minutes to few hours (34.6%). More than half of the sample narrated that skin appears cold and clammy during an attack of M.I (55.3%). 46 percent of sample said that body temperature raises within 24 hours after an attack of M.I and raised temperature will be there about 3 to 7 days was expresses by 35 percentage of the sample.

Objective 2: To identify the relationship between the knowledge of sedentary workers regarding Myocardial Infarction with selected socio-demographic variables

One third of the sedentary workers were fallen in the age group of 31-40 years (30%) followed by 41-50 years (38), 20-30 years 916.6%) and 51 years and above (15%)**.** Both sexes were equally distributed in the sample. Nearly half of the sedentary workers were graduated (25%) one fourth of the sedentary workers were post graduates (33.3%) followed by middle school education (14%) high school and PUC (3.5%) only one member was not studied (1.66%). Nearly half of the sedentary workers were belonging to Hindu religion (50%) followed by Muslims (33.3%) and Christians (16%). More than half of the sedentary workers were employees in Govt and Private sectors (40%) more than one fifth of sedentary workers were doing business (21.6), one sixth of sedentary workers wee house wives (25%) followed by executives (10%) and tailors (3.3%). 28.3% of sedentary workers had family monthly income of Rs. 4001-5000 and 5001 and above, followed by Rs. 3001-4000 (25%) and 20% of sedentary workers had family monthly income of Rs. < 3000. Nearly two third of the sedentary workers were belonging to nuclear family (50%0, followed by joint family (33.3%), Negligible percentage of sedentary workers were belonging to extended family (16.6%). It shows that joint family systems were disintegrating in the study area. Majority of the sedentary workers were not having any family history of heart disease (83.3) only 5% of the samples were having family history of heart disease i.e. either heart attack (8.3%) and hypertension (3.33%).

Objective 3: To develop health education module regarding Myocardial Infarction.

Two third of sample responded that dyspnoea was associated manifestation of M.I (66.6%). More than one third of the sample told that dyspnoea occurs due to excess fluid in the lungs (34.6%). 60 percent of sample narrated that client appears severe restless with distress during an attack of M.I. Findings of the study related to signs and symptoms supported the study done by Dracup. F. Et. Al, in 2010. Conducted a study, more than 95 percent of sample know typical symptoms of AMI, such as. Chest pain, shortness of breath, Arm or shoulder pain and sweating. Less than 75% knew that symptoms such as neck pain, chest pain, nausea, vomiting, back pain and heart burn. Nearly two third of the sample were aware that the common diagnostic measure used for M.I was ECG (62.6%). More than one third of the sample expressed that shock will occur as a complication after an attack of M.I (38.6%) more than half of the sample responded that early hospitalization with effective treatment will be necessary to prevent the complication (55.3%). Nearly one fourth of the sample told that client has to be ambulated within 3 to 7 days (24.6%). 40.6% percentage of sample responded that client has to avoid strenuous activity after an attack of M.I to prevent complications.

CONCLUSION

The study conclusions are the researches attempt to show what knowledge has been gained by the researchers during the study and also an attempt to generalize the findings.

- One third of the sedentary workers were fallen in the age group of 31-40 years (30%) followed by 41-50 years (38), 20-30 years 916.6%) and 51 years and above (15%)**.**
- Both sexes were equally distributed in the sample.
- Nearly half of the sedentary workers were graduated (25%) one fourth of the sedentary workers were post graduates (33.3%) followed by middle school education (14%) high school and PUC (3.5%) only one member was not studied (1.66%).
- Nearly half of the sedentary workers were belonging to Hindu religion (50%) followed by Muslims (33.3%) and Christians (16%).
- More than half of the sedentary workers were employees in Govt and Private sectors (40%) more than one fifth of sedentary workers were doing business (21.6), one sixth of sedentary workers wee house wives (25%) followed by executives (10%) and tailors (3.3%).
- 28.3% of sedentary workers had family monthly income of Rs. 4001-5000 and 5001 and above, followed by Rs. 3001-4000 (25%) and 20% of sedentary workers had family monthly income of Rs. < 3000.
- Nearly two third of the sedentary workers were belonging to nuclear family (50%0, followed by joint family (33.3%), Negligible percentage of sedentary workers were belonging to extended family (16.6%). It shows that joint family systems were disintegrating in the study area.
- Majority of the sedentary workers were not having any family history of heart disease (83.3) only 5% of the samples were having family history of heart disease i.e. either heart attack (8.3%) and hypertension (3.33%).
- The flowing conclusions were drawn on the basis of the present study. One sixth of the sedentary workers had high knowledge (16%) nearly two third of the sedentary works had average knowledge (61.33%) and more than one fifth of the sedentary workers had low knowledge (22.6%)
- Significant association was found between the knowledge of sedentary workers on Myocardial Infarction with their education, occupation and habits.
- Significant association was not found between the knowledge of sedentary workers o myocardial Infarction with their age, gender, religion, family monthly income and type of family.

IMPLICATION

The findings of the study have several implications for Nursing Practice, Nursing Administration, Nursing Education and Nursing Research.

NURSING PRACTICE

Nursing can create a better awareness n Myocardial Infarction among focus group like sedentary workers. Varity of audiovisual aids can be used to impart adequate knowledge. The present study had proved that the nurses have to take intensive efforts to organise education campaigns to enhance the knowledge of General public and vulnerable group regarding Myocardial Infarction.

Nurses can conduct research studies to identify the causes and plan and implement intervention measures, follow up services preventive and primitive services.

NURSING ADMINISTRATION

Nursing and health administration has to conduct the public awareness campaigns about Myocardial infarction**.** In-service education and continuing Nursing Education Training Programmers has to be initiated for nurses to update the knowledge regarding Myocardial Infarction. The Nursing administrators motivated the health care professionals to organise the awareness campaigns to the clients and public. More information can be given by preparing variety of materials like booklets, pamphlets, handouts, posters and compact discs for M.I client as well as to general public to enhance their knowledge and enrich adequate information related to MI.

NURSING EDUCATION

The knowledge of health professionals can be improved by conducting in service education training programmes to update the nurses knowledge.The nurse educator plays a vital role in organising health education campaigns regarding Myocardial Infarction. Learning experiences has to be provided for the students and an opportunity has to be provided to conducted health education campaigns. The nurse educators can plan for varied teaching methodologies in conducting health education campaigns e.g. - Role play, street plays and different assignment to the nursing students regarding M.I.

NURSING RESEARCH

A more extensive study on a large sample may be conducted to arrive/ to draw generalizations regarding Myocardial Infarction**.** An experimental study can be conducted on various aspect of M.I**.** Studies be conducted to assess the knowledge about Myocardial Infarction cases and to plan for the campaigns**.** Nurses- play a vital role in care of M.I client, research can be conducted to assess the knowledge of nurses on care of the client with M.I

LIMITATIONS

The present study has following limitations

- The study have sampling constraints
- Only sixty sedentary workers were selected as sample
- Purposive sampling techniques were used so that sample may not be the true representation of the population
- Study was conducted only in urban community at Narayanapura. Hence generalization is possible only to the selected settings

SUGGESTIONS

The finding of the study suggests:

- The medical surgical nurse should improve knowledge of staffs through education programs
- Adequate knowledge regarding managing of Myocardial infarction will help staff nurses to prevent further complications

RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are proposed for future researchers.

- A more extensive study on a large sample can be conducted to arrive / to draw generalization regarding M.I
- The studies can be conducted in the different settings like hospitals, rural area and industrial areas.

- An experimental study can be carried out by using different teaching method to know the effectiveness of teaching methods on M.I awareness among the clients and gnarl public.
- The teaching and demonstrative materials can be videotaped, encouraged to exhibit in the outpatient departments ad wards of the hospitals.
- Individual teaching can be given during counselling
- Health information regarding M.I can be given to others through

SUMMARY

A descriptive study was conducted to assess the knowledge of sedentary workers on myocardial Infarction in ward 17, Narayanapura are of Bangalore.

Myocardial Infarction is the leading cause of death in America. Every year approximately 15, 00,000 Americans fall victim to heart attacks. Heart attack will cause an estimate 5, 00,000 deaths each year. Approximately 3, 00,000 clients die each year before they reach the hospital. Studies indicate that, unfortunately, half of all heart attack victims wait more than 2 hours before getting help. On the basis of data from the Framingham study approximately 45 per cent of all heart attack clients are under the age of65 years and 5 per cent under the age 40 years.

In India an estimated 2.27 million people died due to CVD during 1990. According to projections the number of deaths due to CHD was to increase from 1.17 million in 1990 to 1.59 million persons in 2000 and 2.03 million by 2010.

The prevalence of CHD among adults was estimated at 96.7 per 1000 population in urban and 27.1 per 1000 population in rural areas.

Acute Myocardial infarction otherwise known as Coronary Artery Occlusion and Heart Attack is a life threatening situation of localized necrotised areas within the myocardium. It occurs when a portion of cardiac muscle is deprived of an adequate supply of arterial blood, with its oxygen and nutrients for a long time, leading to death of tissue in that area. The most common site for MI is anterior wall of the left ventricle near the apex.

Padmavathi et al., in 1960's and Gupta et al., in 1970's performed comparison of CHD risk factors prevalence in urban and rural population in Delhi and Haryana respectively. CHD prevalence in urban subject was twice that of the rural. According to those studies, the prevalence was found to be 65.4 and 47.8 per 1000 males and female respectively in urban areas. In rural area, the prevalence was 22.8 and 17.3 per 1000 males and females respectively.

The objectives of the study are:

- To assess the knowledge of sedentary workers on myocardial Infarction
- To identify the relationship between the knowledge of sedentary workers on myocardial Infarction with selected socio-demographic variables.
- To develop health education module on Myocardial Infarction. The conceptual frame work of study was based on general system. Theory by Ludwig Vonbertalanffly. The main study was conducted from 1-05-2017 to 31-05-2017 in Narayanapura. A total of 60 sedentary workers from Narayanapura who met all inclusion criteria were selected as sample by using purposive sampling technique.

Structured interview schedule was used for data connection. It consists of 2 parts; part A- socio demographic data and part B- consists of knowledge items regarding Myocardial Infarction. Content validity of the tool was obtained on the basis of expert's suggestion and the appropriateness of the item in the tool. Pilot study was conducted prior to the actual investigation in the same setting of finding out disability of the tool in the study. The sample included for pilot study was not considerable for the final study. In order to establish the reliability knowledge items test retest method was used (0.90) and the tool was found highly reliable.

The collection data were analyzed under three sections i.e. sample description, item wise analysis, association between the knowledge of sedentary workers about MI with selected variables. Descriptive and Inferential statistics were used to analyze the data.

BIBLIOGRAPHY

1. Umadevi. Cardiovascular risk factors in Bavi district. Journal of nursing research.2005; 52(7); 3-6.
2. Park. k. Textbox of preventive and social medicine, jabipur, M/S Banarasidas Bhaton, 18th edition, 2005; 285-292.
3. WHO recommended, prevention of heart diseases, Geneava, 2005
4. Tall Mann D.F Dire up k. knowledge of heart attack symptoms in older men and women at risk for acute M.I journal of cardiopulmonary rehabilitation. 2005; 25 (2); 40-45
5. Goya wannamethee. Changes in physical activity mortality and incidence of coronary artery disease in older men. The lancet. 1998; 351 (5); 1603-1608.
6. Luckmann and Sorenson. Medical surgical Nursing, Philadelphia, W.B Saunders Company. 5th edition, 2002; 1150-1170.

7. Josmy Jose myocardial infarction. The nursing journal of India. New Delhi, 2002; LxxxxIII (2); 29-30.

8. Chandy ST. Components of pre-hospital delay in acute myocardial infarction. Indian heart journal. 2002:54:483.

9. Green Land. K.J. Public recognition of major Symptoms of heart attack "American Heart Journal, 2004:147 (6):1010-1016

10. Santos, Herique Borros. Leisure time verses full day energy expenditure. BMC Health, 2005; 5 (6): 1186-1471.

11. Shepherd J. Alculde, international comparison of awareness and attitude towards coronary risk factors. Journal of cardiovascular risk factors. 1997; 4 (5-6); 373-84.

12. Predergent H.M. knowledge of heart disease among women in an urban emergency setting. Internal medicine 2001; 96(8); 1027-31.

13. Momtaham k. Patient understanding of coronary risk factors journal of cardiovascular nursing 2004; 19 (1); 13-20

14. Assisri as knowledge about coronary artery disease among patients admitted to asset central hospital with M.I journal of cardiovascular nursing. 2003; 22 (4); 314-317.