Assess The Knowledge Regarding Prevention Of Myocardial Infarction Among Clients With Hypertension At Medical Op, Kgh, And Visakhapatnam

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ABSTRACT

A study was conducted using Descriptive survey method to to assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension at KGH,VSP by Mrs.K.Sridevi Ph.D Nursing Scholar from Mangalayatan University, Aligharh ,U.P

Objectives:- 1. To assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension. 2. To find out the association between the knowledge of clients with Hypertension and their selected demographic variables. 3. To develop and provide self-instructional module on Prevention of Myocardial Infarction among clients with Hypertension. Methods: The research design adopted for the present study is non experimental design and it is a descriptive design for which the population consists of clients with Hypertension. A structured questionnaire was used to assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension. The pilot study was conducted on five clients with Hypertension with the help of structured questionnaire at medical OP, KGH, VSP. A review of literature helped the investigators to gain insight into present study for the development of the tool. The research approach adopted for the study is descriptive design. The population for the study consists of clients with Hypertension at Medical OP, KGH, VSP. The criteria for sample collection were a purposive sampling method and a sample size is 50 clients with Hypertension. The pilot study was conducted on from 21-09-2023 to 22-09-2023 3 on 5 clients with Hypertension at medical OP, KGH, VSP and the mean value is 9.6 and found that the study is feasible and the tool was appropriate. Results: The study revealed that majority of clients with Hypertension, among 50 respondents 3(6%) respondents having below average level of knowledge, 44 (88%) respondents have average level of knowledge and 3 (6%) respondents having above average level of knowledge regarding Prevention of Myocardial Infarction hence the Investigation mode recommendations in improving their knowledge.

INTRODUCTION
EVERY DAY IS A FRESH START
It's never too late or too early to invest in your heart health. When we take care of Our Hearts we reduce our risk of heart disease.

The Brain has a centralized control over all organs of the body. It has a control on everything whatever we do, even it is functioning while sleeping. Brain has a very specialized cell and structure, which need sufficient oxygen and nutrient for its own life. The brain cell dies if it does not receives oxygen and nutrients which cause ischemia. This emergency condition needs medical attention and if not may lead to heart attack or stroke. A stroke occurs when the supply of blood to the brain is interrupted or reduced. It can be ischemic and hemorrhage. Stroke is highly prevalent condition leading to chronic disability and death. Multiple factors which leads to increase the risk of stroke are for example Unhealthy Lifestyle practices, Obesity, Diabetes mellitus, Cigar smoking, Consumption of Alcohol, Stress, Physical inactivity & Fatty & Junk foods and so on. Symptoms of stroke depends upon how much part of brain is affected. Its symptoms ranges from numbness to complete paralysis of the body part. This reduces the quality of life and individual ability to carry out their normal roles & job tasks. In the treatment of stroke, the health care professionals need to diagnose the first type of stroke i.e. Acute Myocardial Infarction. The primary and immediate goal of health care professionals of first stroke management is to minimize brain damage and preserve brain functioning. Immediate Stroke management involves, the delaying the progression of disability, prevent death and improve the quality of life and also the clients should have the knowledge of identifying and differentiating the stroke pain.

Cardiovascular disorders are one of the leading causes of death in developing countries like India, which comprises of a group of diseases of the heart and the vascular system which may lead to worsening of the condition and may develop stroke. Some of the major cardiovascular conditions which may lead to stroke are:

● Hypertension
● Ischemic Heart disease
● Cerebrovascular stroke
● Congenital Heart disease
● Rheumatic Heart disease, etc.

Among the above mentioned cardiovascular disease problems, in the present study the Investigators wants to take into consideration the Hypertension disease condition and wants to assess the knowledge of the clients with hypertension regarding the prevention of Myocardial Infarction.

Hypertension is one of the leading causes of morbidity and mortality worldwide, in many developed and developing countries like India. It is estimated that it will be the single large cause of disease burden globally by the year 2025.Atleast 30% of adults have a history of hypertension in developing countries and this disease alone is independently associated with the adverse effects of cardiac outcome of Stroke which is commonly termed as acute Myocardial Infarction. However this association is unclear. The size of infarct is a key determinant of survival of post MI, but previous studies have not shown any association between Hypertension status and Infarct size. In India heart disease is the single cause deaths being responsible for 1/3 rd of all deaths caused by heart attacks. According to projection by the WHO and Indian Medical Council of Medical research (ICMC) ,India will not only be the capital of heart attacks, but also the capital for heart attacks mostly among the clients with hypertension leading to death by 2025, due to poor knowledge and practices regarding life style modifications. In addition, knowledge is a critical determinant of client's behavior change and life style practices regarding hypertension. The socio economic and environmental factors are also important in hypertension control. Raised knowledge through health education and health promotion heavily influences lifestyle changes regarding hypertension which means people should adopt to behavior or life style modifications that help them maintain an optimal health status. In this present study the investigators wants to assess the knowledge regarding prevention of Myocardial Infarction among the clients with hypertension.

Need For the Study
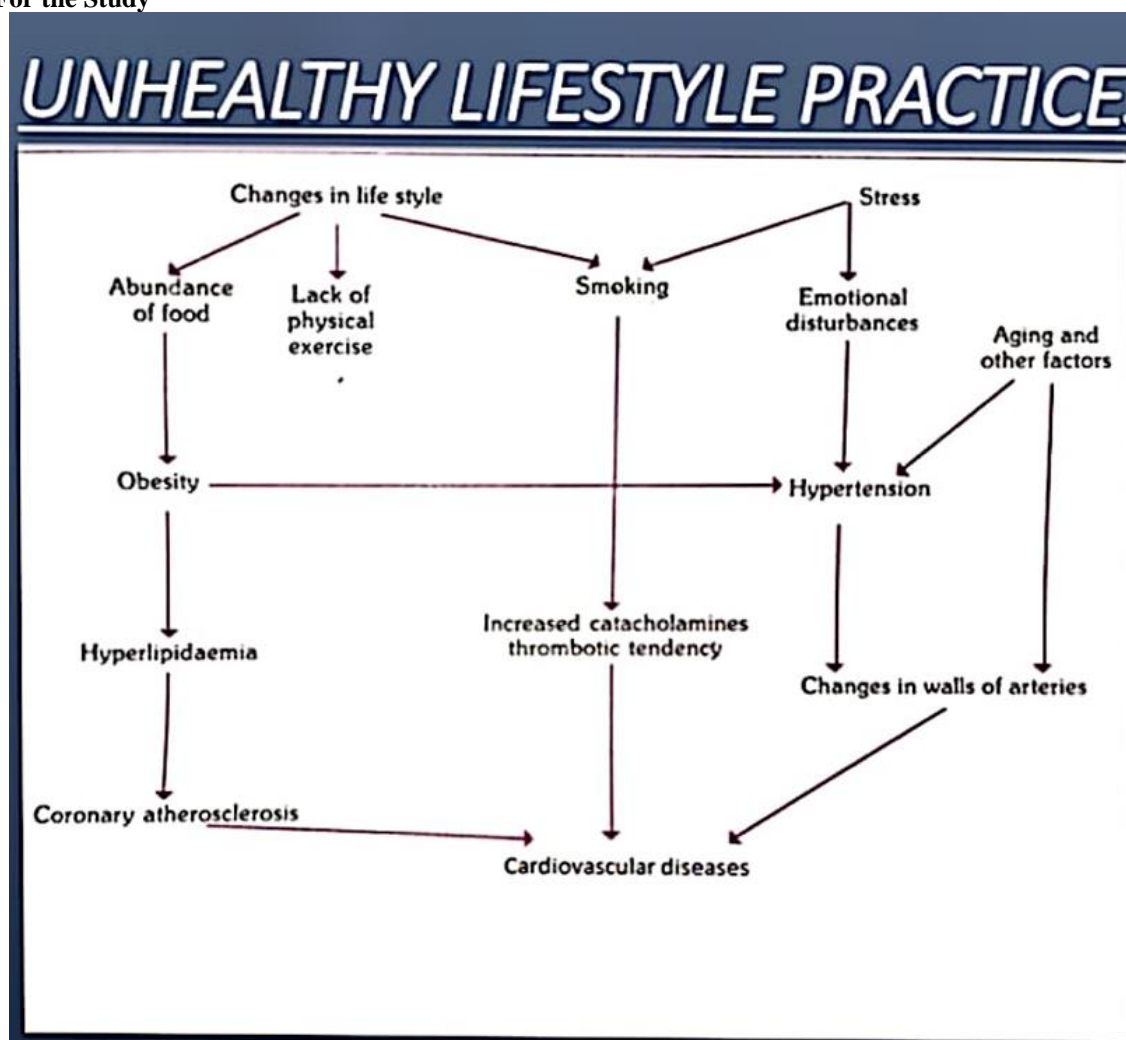
Hypertension can also be described as sleeping snake which bites when it wakes up. In this contest, hypertension presents a major area of intervention because it is amenable to control through both non Pharmacological life style factors and pharmacological treatment. Life style modifications lies in the collateral benefit of controlling other cardiovascular risk factors like increased cholesterol levels, cessation of smoking, control of blood sugar in diabetic clients, stop -*alcohol consumption, etc. thereby emphasizing the importance of multifactorial approach to effective risk reduction in hypertension. On other hand, pharmacological management for treating hypertension gives twin benefits, decreasing blood pressure and subsequent adverse cardiovascular events.
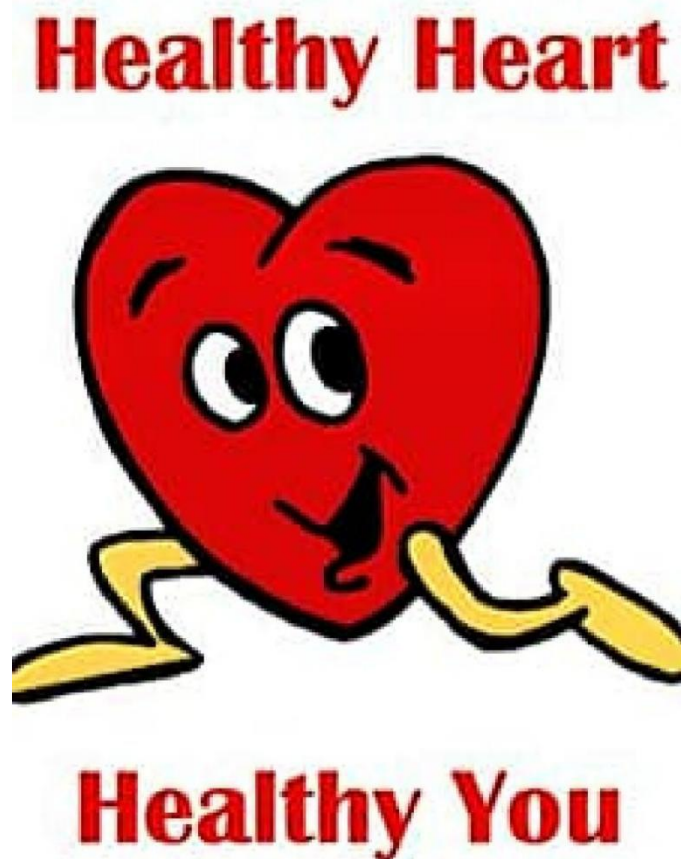
The risk of Heart attacks observed by the Investigators at their community level, work area, neighbors, relatives, during travelling ,out of which for most of the clients, only due to lack of knowledge of identifying the difference of pain i.e. chest pain or gastric pain which lead to heart attacks and also the hypertensive clients not following the healthy life style practices those mentioned above, deaths has occurred and also at their work area of the Investigators, they came across 3 of their coworkers with hypertension not followed healthy life style practices, discontinued the anti-hypertensive drugs, and were exposed to heart attack which caused their death in work area only. These events motivated the Investigators, the need for this study, to assess the knowledge regarding prevention of Myocardial Infarction among the clients with hypertension at their work area i.e. at Medical OP, King George Hospital, and Vsp.

Incidence in Visakhapatnam at KGH
The Prevalence of Myocardial Infarction in Visakhapatnam year wise

Synod	Year	Incident rate
1	2018	1824
2	2019	2284
3	2020	3884
4	2021	3840
5	2022	3884

Source: KGH-VSP: Medical Record Section

PROBLEM STATEMENT
Assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension at Medical OP, KGH, and Visakhapatnam.

OBJECTIVES
➢ To assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.
➢ To find out the association between the knowledge of clients with Hypertension and their selected demographic variables.

➢ To develop and provide self-instructional module on Prevention of Myocardial Infarction among clients with Hypertension

PURPOSE OF THE STUDY
➢ To identify the level of knowledge on Prevention of Myocardial Infarction among clients with Hypertension.
➢ Educate the client with Hypertension about predisposing and risk factors of Heart attacks which leads to Myocardial Infarction.
➢ To assess the impact of smoking, Alcohol, Fatty food & unhealthy life style practices on client with Hypertension related to demographic variables.
➢ To bring awareness regarding Prevention of Myocardial Infarction among client with Hypertension.

OPERATIONAL DEFINITIONS
Assess
The process to identify the level of knowledge regarding Prevention of Myocardial Infarction among client with Hypertension.
Knowledge
Scores obtained by the individual clients for their written responses to the structured questionnaires prepared by the investigators about Prevention of Myocardial Infarction.
Prevention
Strategies followed by the clients with Hypertension to keep their heart healthy i.e. healthy life style modifications like quite smoking, limit alcohol consumption , healthy diet, physical activity, regular health checkups and continuation of presided anti Hypertension medicines, in order to reduce or avoid the risk of Myocardial Infarction.
Myocardial Infarction
Chest pain or discomfort known as heart attack caused by decreased or complete cessation of blood flow with no oxygen supply to a portion of heart.
Clients with Hypertension
The individuals having a systolic blood pressure of at least 140mg/dl and above and a diastolic blood pressure of at least 90mg/hg and above, who are taking prescribed anti Hypertension medications for at least more than six months, attending medical OP, KGH, Visakhapatnam.

VARIABLES
Independent Variables
● Age in years
● Gender
● Religion
● Occupation
● Educational status
● Dietary pattern
● Place of living
● Duration of Hypertension

Dependent variables
Level of knowledge among clients with Hypertension regarding Prevention of Myocardial Infarction.

ASSUMPTIONS
● It is assumed that the participants would be willing to participate in the study and actively participate in responding to the structured questionnaires regarding Prevention of Myocardial Infarction.
● It is assumed that clients with Hypertension are considered as high risk to get Myocardial Infarction.
● It is assumed that knowledge on lifestyle modifications of the clients with Hypertension like quit smoking, reduce intake of alcohol, Physical activity, stress management, dietary changes, may prevent Myocardial Infarction.
● The developed self-instructional module will be helpful to provide knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.

DELIMITATIONS
● The study is limited to clients with Hypertension who are present at the time of study at medical OP in KGH, Visakhapatnam and are above 30 years of age.
● The study is delimited to the participants who can understand deluge and English only.
● The study is delimited to 50 samples only.

● This study is delimited to Prevention of Myocardial Infarction among clients with Hypertension in those aspects given in the questioners.

CHAPTER – II

REVIEW OF LITERATURE

"The review is defined as a broad comprehensive in depth systematically and critical review of scholarly publication, unpublished printed or audio visual materials and personal communication".

BT.Basavathappa(2000)

The review of literature is helpful to gain strong knowledge to carry out research. For the purpose of logical sequence, the review of literature has been organized under the following sections.

LITERATURE REVIEW HAS THE FOLLOWING THREE SECTIONS:

Section A: Review related to prevalence of Myocardial infarction among Diabetes mellitus and Hypertension patients.

Section B: Review related to knowledge regarding Myocardial infarction among High risk patients.

Section C : Review related to effectiveness of teaching programme on Knowledge regarding Myocardial infarction.

Section A: Review related to prevalence of Myocardial infarction among Diabetes mellitus and Hypertension patients.

Fatemeh kiam (2014) conducted a cross sectional study to assess the risk factors in patients with myocardial infarction in khatam Anbia hospital in zahedan, Iron. Totally 21 3 patients were selected. Data collection was done with the check list & it consisted of four parts. The first part included demographic data, the second part included pain onset time, Emergency hospitalization time, the third part included questions related to artery coronary disease history and its duration, Hypertension history and its duration, diabetes history and its duration, cholesterol and it's duration, history of smoking, CABG history and about patients information & type of myocardial infarction. The result shows that 70 % (149) were male participants and

METHODOLOGY

This chapter deals with methodological approach for the study Research methodology is a way to solve the research problems systematically. It involves research approach, research design, study setting, population, sample & sampling technique, development and description of the tool, pilot study, data collection procedure and plan for data analysis.

RESEARCH APPROACH

. The present study is adopted a quantitative approach without any control and randomization and best method for testing association between variables. The descriptive approach is selected which is most suitable and appropriate to study the variables. Research approach tells the researcher from whom to collect the data, how to analyse them. It also suggests possible conclusions and helps the researcher in answering specific research questions in most accurate and efficient way possible.

RESEARCH DESIGN

The research design applied for the study is "Univariate descriptive design". The basic purpose of the study is to only describe each of the variables without intending to establish any relationship between those variables. The design is used for the study to identify and describe the knowledge of caregivers.

SETTING OF THE STUDY

Setting refers to physical location and conditions in which data collection takes place in the study. The type of setting selected depends on research problem and purpose. Selection of the area for the study is one of the essential steps for the research process. The selection of the setting for the present study is on the basis of availability of subjects, feasibility of conducting the study, economy of time and energy.

The setting chosen for the study is Medical OP, Kgh, Visakhapatnam.

It is the one of the major Government Hospital administering care to many physically ill clients. It provides holistic care to the clients in order to provide quick recovery.

➢ Different services provided by this hospital are OPD Services & inpatient services for several problems such as cardiovascular, gastrointestinal, renal, neurological, dermatological, pediatric, obstetrics, gyneac problems, etc.

➢ There are separate wards for males, females and separate pediatric, gyneac wards.

➢ The security is more for the clients.

➢ The Hospital won the "Award of Excellence" in India, for its excellent services.

POPULATION

A population is an entire set of individuals or objects having some common characteristics of clients. Population consists of the total number of a defined set of subjects to whom the data for the study would be generalized. Target population for the study consist of clients with hypertension at King George Hospital, Visakhapatnam.

SAMPLE

Sample is a subjects of the total population selected to participate. Sample in a study and members of the sample are subjects. The sample in the present study were clients with hypertension attended at Medical OP in King George Hospital, Visakhapatnam.

SAMPLE SIZE

The size of the sample for the present study was 50 clients with hypertension attended at Medical OP in King George Hospital, Visakhapatnam.

SAMPLING TECHNIQUE

Sampling refers to the process of selecting a portion of population to represent the entire population for this study. Purposive sampling is a non-probability sampling method based on researchers knowledge about the population and is used to prick the cases that meet the criteria set by the investigators. Samples are chosen by choice not by chance. Sample criteria described above were related an included in the study. The investigator selected 50 clients with hypertension attended for services at Medical OP in King George Hospital, on the days of data collection.

SAMPLE SELECTION CRITERIA

In sample selection criteria, inclusive criteria and exclusive criteria are present.

The purpose is to control extraneous variables.

SAMPLING CHARACTERSTICS

It includes Age, Gender, Religion, Occupation, Education, Dietary pattern of family, Place of living, Duration of Hypertension.

Inclusive criteria:
- Clients with hypertension who are attended for OPD services at King George Hospital, Visakhapatnam.
- Clients who are willing to participate in the study.
- Clients who are present at the time of data collection

Exclusive criteria:
- Clients suffering with other health conditions other than hypertension.
- Clients who participated in the pilot study.
- Clients who are unfamiliar to the language adopted in the tool.

METHODS OF DATA COLLECTION
Data gathering technique used for the present study was questionnaire method.

According to Nelson, "A Questionnaire" is used when factual information is desire and administered personally to group of individuals.

The person administering the tool must take an opportunity to established support and explain the purpose of study, they also must consider economy of time & expenses where number of respondents in a place provides a higher proportion of variables responses. The questionnaire was focused to be appropriate for the study as for the respondents.

DEVELOPMENT AND DESCRIPTION OF THE TOOL
Development of the tool:
Development and description of the tool related literature was reviewed for the purpose of developing appropriate and suitable question was answered by the participants. The questionnaire was developed with the help of related literature through various textbooks, journals and discussed with the experts in the field of Nursing.

A structured questionnaire was prepared by the investigator to study the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.

The tool consists of list of items to elicit data with regard to demographic variables such as Age, Gender, Religion, Occupation, Education, Dietary pattern of family, Place of living,

Duration of Hypertension and items related to Related to knowledge regarding Disease condition, risk factors, signs & Symptoms and emergency management, Related to knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.

Description of the tool:
The structured questionnaire was organized into Part A and Part B.
- **Part A:** Deals with demographic data of clients. It consists of 8 characteristics such as Age, Gender, Religion, Occupation, Education, Dietary pattern of family, Place of living, Duration of Hypertension.
- **Part B:** It deals with questions related to Alcohol Dependence Syndrome. It is divided into two parts i.e. Section-I and Section-II.

Section-I: This part consists of questions 1 to 24 which deals with Related to knowledge regarding Disease condition, risk factors, signs & Symptoms and emergency management.

Section-II: This part consists of questions 25 to 36 which deals with Related to knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.

The knowledge scores were categorized into three groups.

SCORING TECHNIQUE
PART A: The scoring key was prepared by coding the demographic variables to assess the background of the samples and assessment by statistical analysis.

PART B: It consists of multiple choice questions with a single correct answer. There were 36 questions in number. Every correct answer was given a score of 1 point and every unanswered question with 0 point. The obtained knowledge was graded as follows:

Score between 0-13: Below average
Score between 14-27: Average
Score between 28-40: Above average

PILOT STUDY
The pilot study is a small scale version of trail run before the major study to see the practicability and feasibility of the study and plan for statistical analysis of data. Pilot study was conducted in the month of 21-12-2023 to 22-12-2023 at King George Hospital, Visakhapatnam to study the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.

Number of clients are selected for pilot study based on sample criteria using purposive technique.

DATA COLLECTION PROCEDURE

In order to collect data for the study, the investigator obtained permission from the superintendent, King George Hospital, Visakhapatnam. The study was conducted on 5 clients with Hypertension. Subjects were selected according to the sample criteria by purposive sampling technique. The purpose of the study was explained to the selected subjects with self-introduction. The final data was collected from 29-12-2023 to 04-01-2024 from 9 AM to 1 PM.

PLAN FOR DATA ANALYSIS

"Analysis & interpretation were carried out with the help of descriptive and inferential statistics. Association between knowledge and demographic variables were found with the help of chi-square test. The data was collected & presented in 2 sections.

Section-I:

Frequency and percentage distribution of demographic data of clients with Hypertension.

Section-II:

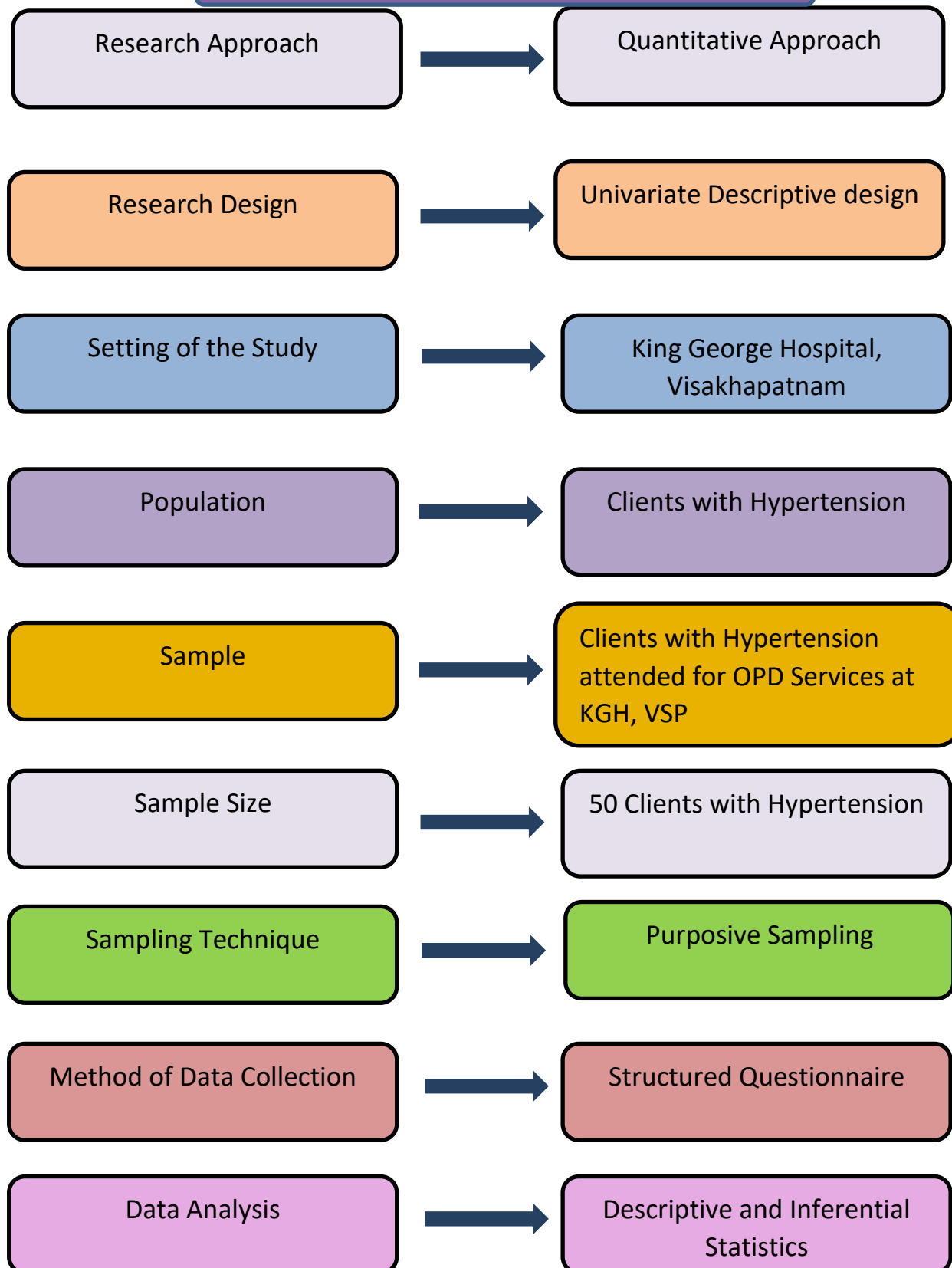Association between knowledge on prevention of myocardial infarction and selected demographic variables.

SUMMARY:

This chapter deals with research approach, research design, description of variables, study setting, population, sample & sampling technique, criteria for sample selection, development and description of the tool, pilot study, reliability, data collection procedure and plan for data analysis.

FIG NO.2: SCHEMATIC DESIGN OF THE STUDY

Research Approach	→ Quantitative Approach
Research Design	→ Univariate Descriptive design
Setting of the Study	→ King George Hospital, Visakhapatnam
Population	→ Clients with Hypertension
Sample	→ Clients with Hypertension attended for OPD Services at KGH, VSP
Sample Size	→ 50 Clients with Hypertension
Sampling Technique	→ Purposive Sampling
Method of Data Collection	→ Structured Questionnaire
Data Analysis	→ Descriptive and Inferential Statistics

RESULTS:

This chapter deals with the analysis and interpretation of data collection from 50 clients regarding prevention of myocardial infarction who are attending in Medical OP, at Kong George Hospital, Visakhapatnam. The structured questionnaire was used to collect the data. Analysis have done with the help of descriptive statistical method to meet this objectives of this study.

OBJECTIVES:

➢ To assess the knowledge regarding prevention of myocardial infarction among clients with hypertension.
➢ To find out the association between the knowledge of client with hypertension regarding prevention of myocardial infarction and their selected variables.
➢ To develop and provide self-instructional module on prevention of myocardial infarction among clients with hypertension.

PLAN FOR DATA ANALYSIS:

The data analysis and interpretation of data planned in 3 parts:

Part-I : Deals with demographic data of subjects like Age, Gender, Religion, Occupation, Education, Dietary pattern of family, Place of living, Duration of Hypertension.

Part-II: Analysis of total knowledge score in terms of frequency and percentage.

Part-III: This part deals with relationship between knowledge scores and selected variables such as age, gender, religion, occupation,

In this study total questions 35 each question carries 1 mark for correct answer and ½ mark for partially correct answers. Total score is 35.

☐ In this study categorization of scores is done in order to classify the subjects into below average, average and above average knowledge.

TABLE-1 FREQUENCY & PERCENTAGE DISTRIBUTION OF KNOWLEDGE OF CLIENTS REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

Level of Knowledge	Frequency	Percentage
Below average	3	6%
Average	44	88%
Above average	3	6%
Total	50	100%

Above table shows that among 50 respondents

1. 3 (6%) of respondents have below average level of knowledge
2. 44 (88%) of respondents have average level of knowledge
3. 3 (6%) of respondents have above average level of knowledge
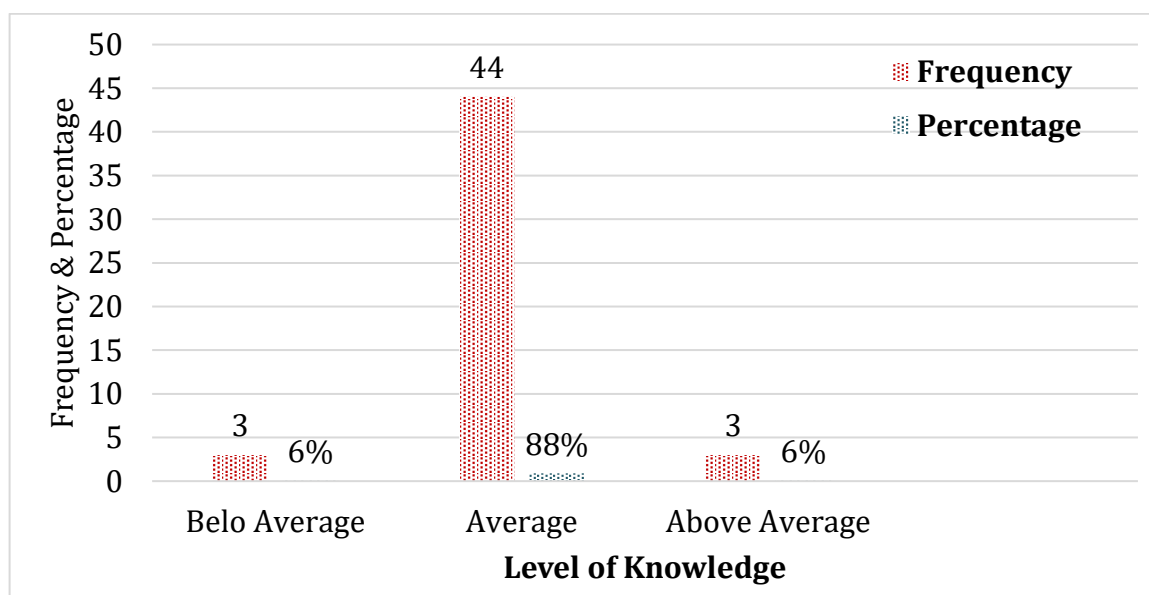
Fig No. 1: Distribution of Knowledge of Clients Regarding Prevention of Myocardial Infarction
TABLE-2 RELATIONSHIP BETWEEN AGE AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

| AGE | KNOWLEDGE SCORES | | | | | | Total frequency | Total Percentage |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | | | |
	F	%	F	%	F	%	F	%
30-39 Years	3	6%	14	28%	2	4%	19	38%
40-49 Years	0	0%	4	8%	0	0%	4	8%
50-59 Years	0	0%	20	40%	0	0%	20	40%
60-69 Years	0	0%	6	12%	1	2%	7	14%
Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 19 (38%) respondents belong to 30-39 years, 3 (6%) respondents having below average knowledge, 14 (28%) respondents having average knowledge, 2 (4%) respondents having above average.

➢ Among 50 respondents 4 (8%) respondents belong to 40-49 years, 4 (8%) respondents having average knowledge.

➢ Among 50 respondents 20 (40%) respondents belong to 50-59 years 20 (40%) respondents have average knowledge.

➢ Among 50 respondents 7 (14%) respondents belong to 60-69 years 6 (12%) respondents have average knowledge, 1 (2%) respondents have above average level of Knowledge
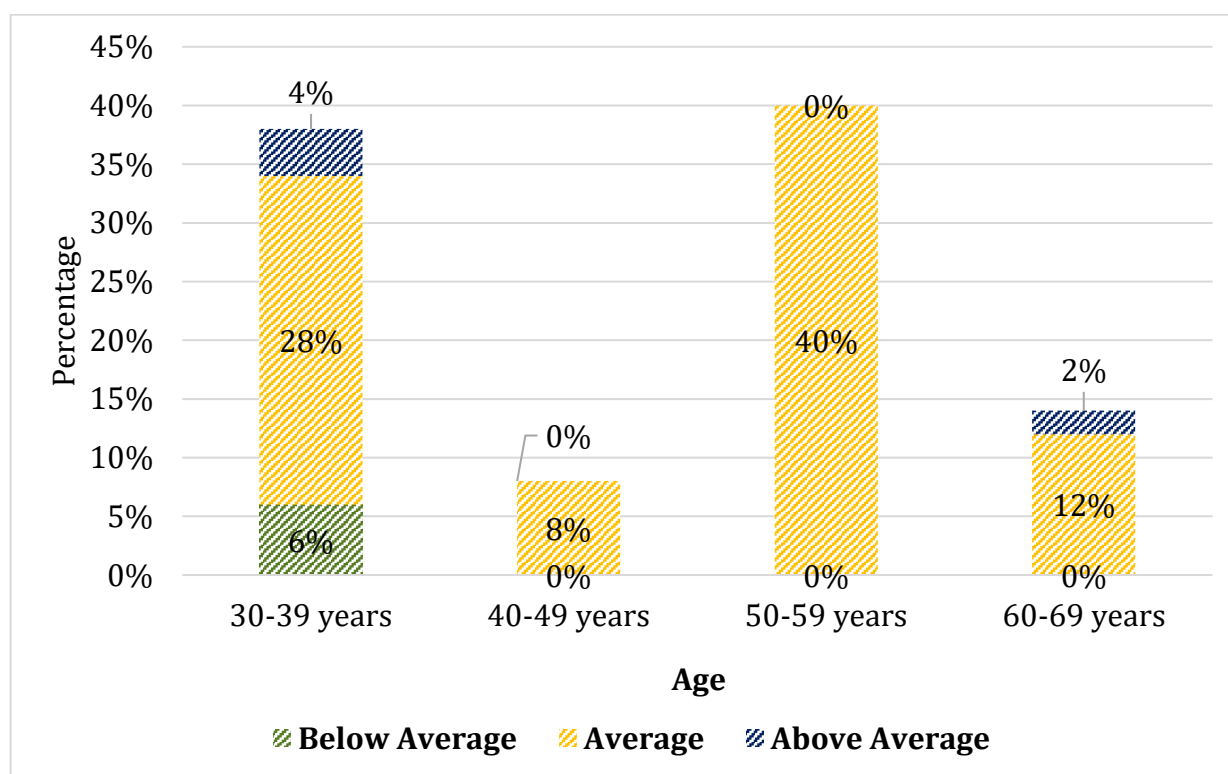
Fig No.2: Relationship between Age and Knowledge of Sample regarding Prevention of Myocardial Infarction

TABLE-3 RELATIONSHIP BETWEEN GENDER AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

| SEX | KNOWLEDGE SCORES | | | | | | Total frequency | Total Percentage |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | | | |
	F	%	F	%	F	%	F	%
Male	2	4%	27	54%	2	4%	31	62%
Female	1	2%	17	34%	1	2%	19	38%

Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 31 (62%) respondents are males 2 (4%) respondents having below average knowledge, 27 (54%) respondents having average knowledge, 2 (4%) respondents having above average level of knowledge.

➢ Among 50 respondents 19 (38%) respondents are females, 1 (2%) respondents having below average level of knowledge, 17 (34%) respondents having above average level of knowledge.
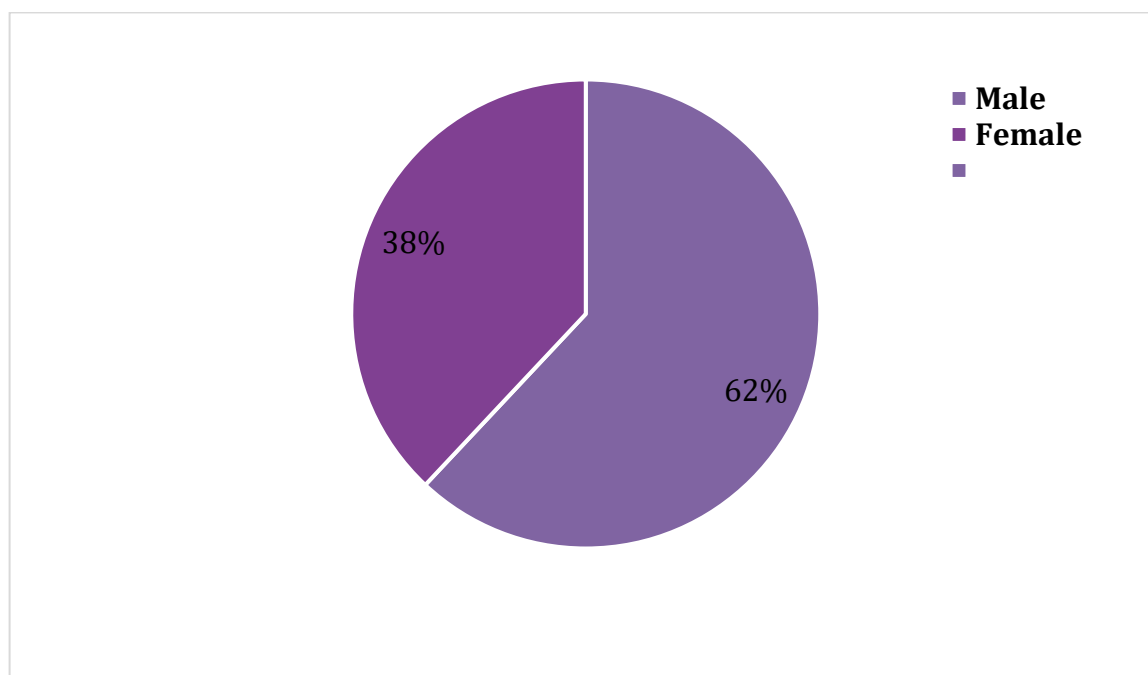

Fig No. 3: Relationship between Gender and Knowledge of sample regarding Prevention of Myocardial Infarction

TABLE-4 RELATIONSHIP BETWEEN RELIGION AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

| RELIGION | KNOWLEDGE SCORES | | | | | | Total frequency | Total Percentage |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | | | |
	F	%	F	%	F	%	F	%
Hindu	0	0%	28	56%	2	4%	30	60%
Christian	3	6%	10	20%	1	2%	14	28%
Muslim	0	0%	5	10%	0	0%	5	10%
Other	0	0%	1	2%	0	0%	1	2%
Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 30 (60%) respondents are Hindus, 28 (56%) respondents having average knowledge, 2 (4%) respondents having above average knowledge.

➢ Among 50 respondents 14 (28%) respondents are Christians, 3 (6%) respondents having below average knowledge, 10 (20%) respondents having average knowledge, 1 (2%) respondents having above average level of knowledge.

➢ Among 50 respondents 5 (10%) respondents are Muslim and above 5 (10%) respondents having average level of knowledge.

➢ Among 50 respondents 1 (2%) respondents belongs to others and above 1 (2%) respondents having average level of knowledge.
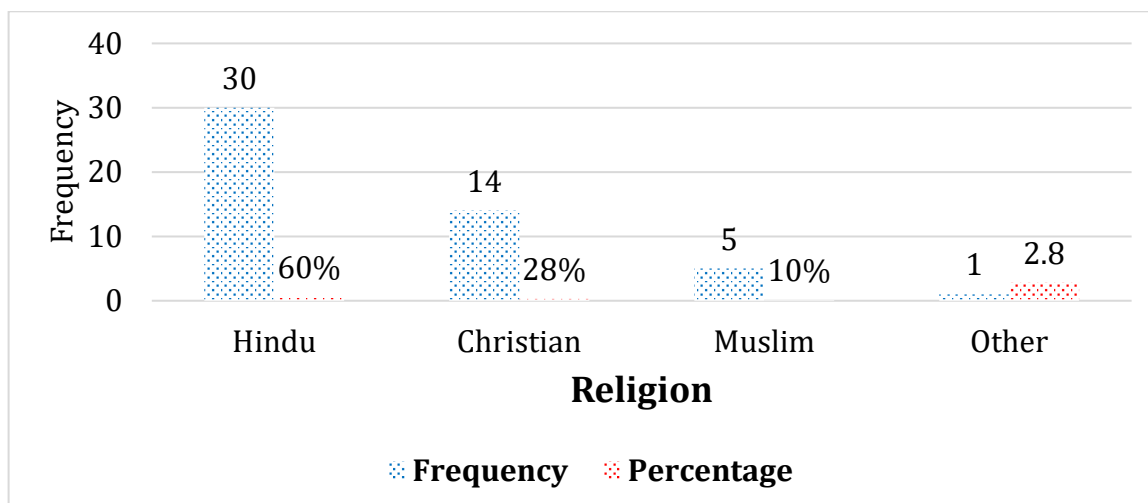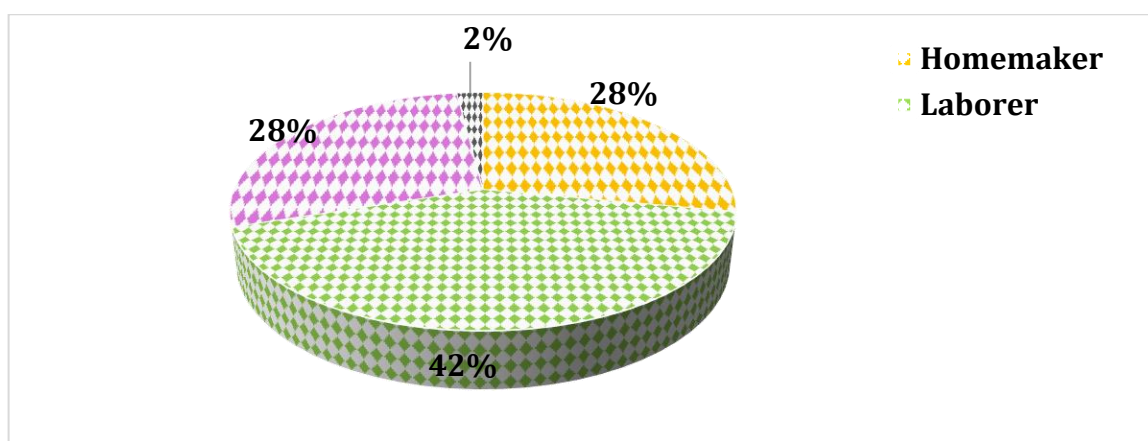
Fig No. 4: Relationship between Religion and Knowledge of sample regarding prevention of Myocardial Infarction

TABLE-5 RELATIONSHIP BETWEEN OCCUPATION AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

| OCCUPATION | KNOWLEDGE SCORES | | | | | | Total frequency | Total Percentage |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | | | |
	F	%	F	%	F	%	F	%
Homemaker	1	2%	12	24%	1	2%	14	28%
Labourer	1	2%	18	36%	2	4%	21	42%
Employee	1	2%	13	26%	0	0%	14	28%
Business	0	0%	1	2%	0	0%	1	2%
Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 14 (28%) respondents are homemaker, 1 (2%) respondents having below average knowledge, 12 (24%) respondents having average knowledge, 1 (2%) respondents having above average level of knowledge.

➢ Among 50 respondents 21 (42%) respondents are labourer, 1 (2%) respondents having below average knowledge, 18 (36%) respondents having average knowledge, 2 (4%) respondents having above average level of knowledge.

➢ Among 50 respondents 14 (28%) respondents are employee, 1 (2%) respondents having below average knowledge, 13 (26%) respondents having average level of knowledge.

➢ Among 50 respondents 1 (2%) respondents are doing business, 1 (2%) respondents have average knowledge, 3 (6%) respondents have above average level of knowledge
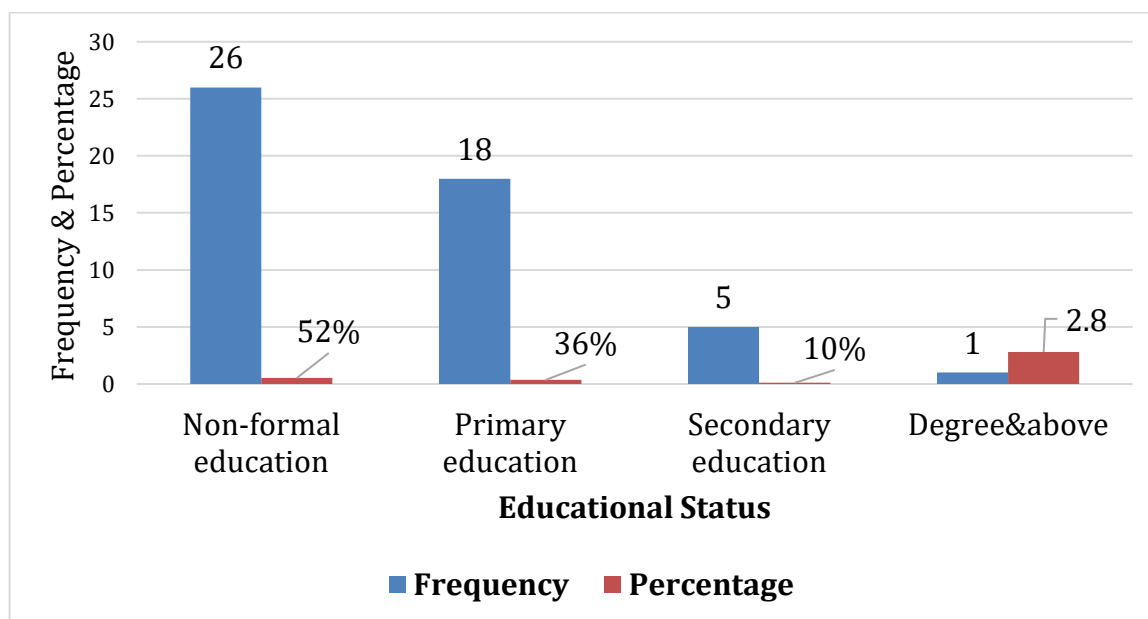
Fig No.5: Relationship between Occupation and Knowledge of Sample regarding Prevention of Myocardial Infarction

TABLE-6 RELATIONSHIP BETWEEN AGE EDUCATIONAL STATUS AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

| EDUCATIONAL STATUS | KNOWLEDGE SCORES | | | | | | Total frequency | Total Percentage |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | | | |
	F	%	F	%	F	%	F	%
Non formal education	03	6%	22	44%	1	2%	26	52%
Primary education	0	0%	16	32%	2	4%	18	36%
Secondary education	0	0%	5	10%	0	0%	5	10%
Degree & above	0	0%	1	2%	0	0%	1	2%
Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 26 (52%) respondents are having non formal education, 3 (6%) respondents having below average knowledge, 22 (44%) respondents having average knowledge, 1 (2%) respondents having above average level of knowledge.

➢ Among 50 respondents 18 (36%) respondents are having primary education, 16 (32%) respondents are having average knowledge, 2 (4%) respondents are having above average level of knowledge.

➢ Among 50 respondents 5 (10%) respondents are having secondary education, 5(10%) respondents having average level of knowledge.

➢ Among 50 respondents 1 (2%) respondents are having degree and above education, 1 (2%) respondents having average level of knowledge.

Fig No.6: Relationship between Educational status and Knowledge of Sample regarding prevention of Myocardial Infarction

TABLE-7 RELATIONSHIP BETWEEN DIETARY PATTERN OF FAMILY AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

| DIETARY PATTERN OF FAMILY | KNOWLEDGE SCORES | | | | | | Total frequency | Total Percentage |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | | | |
	F	%	F	%	F	%	F	%
Vegetarian	0	0%	7	14%	0	0%	7	14%
Non-Vegetarian	2	4%	31	62%	3	6%	36	72%

Egg-Vegetarian	0	0%	2	4%	0	0%	2	4%
Junk foods	1	2%	4	8%	0	0%	5	10%
Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 7(14%) respondents belong to non-vegetarian, 7(14%) respondents having average level of knowledge, 22 (44%) respondents having average knowledge.

➢ Among 50 respondents 36(72%) respondents are non-vegetarian, 2(4%) respondents are having below average knowledge, 31(62%) respondents are having above average level of knowledge, 3(6%) of respondents are having above average level of knowledge.

➢ Among 50 respondents 2 (4%) respondents are egg-vegetarian, 2(4%) respondents having average level of knowledge.

➢ Among 50 respondents 5(10%) respondents belong to junk foods, 1 (2%) respondents having below average knowledge, 4(8%) respondents having average level of knowledge.
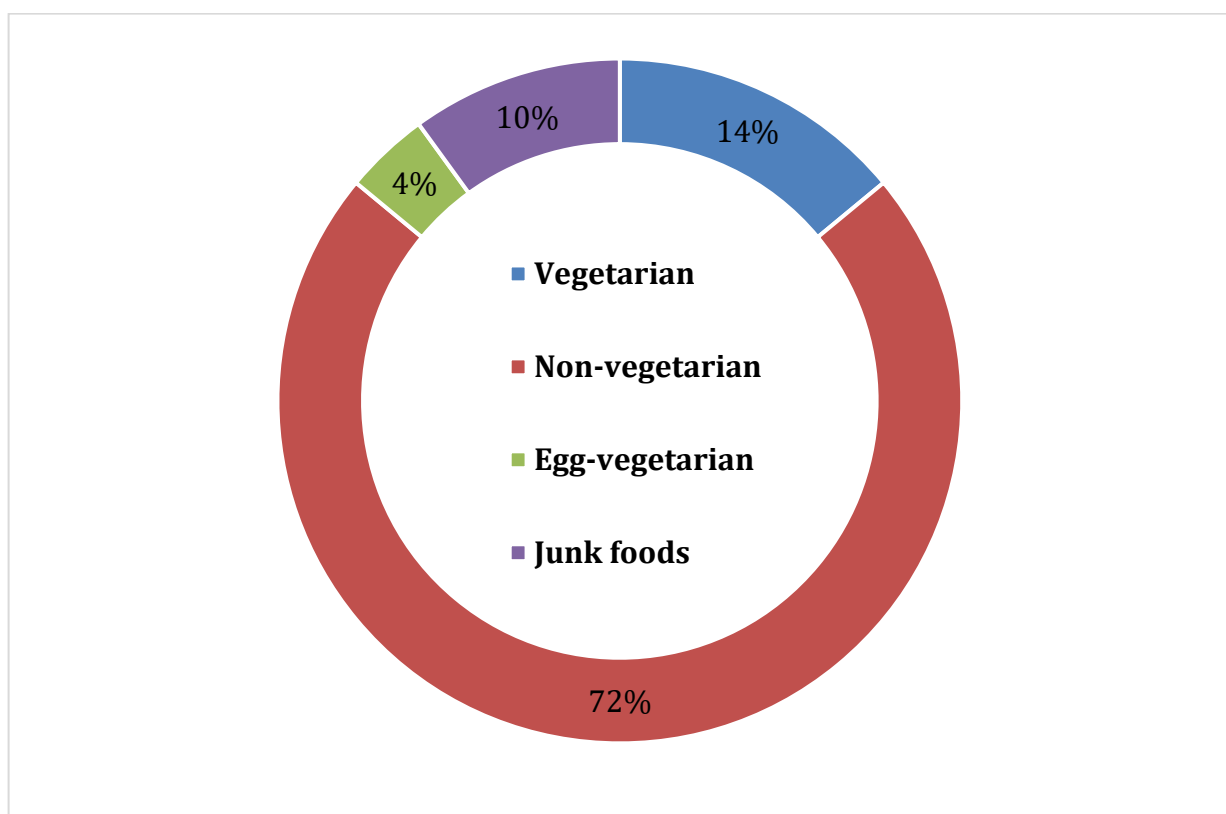

Fig No.7: Relationship between Dietary pattern of family and Knowledge of sample regarding prevention of Myocardial Infarction

TABLE-8 RELATIONSHIP BETWEEN PLACE OF LIVING AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

PLACE OF LIVING	KNOWLEDGE SCORES						Total frequency	Total Percentage
	BELOW AVERAGE		AVERAGE		ABOVE AVERAGE			
	F	%	F	%	F	%	F	%
Rural	0	0%	9	18%	1	2%	10	20%
Urban	0	0%	13	26%	2	4%	15	30%
City	2	4%	19	38%	0	0%	21	42%
Tribal area	1	2%	3	6%	0	0%	4	8%
Total	3	6%	44	88%	3	6%	50	100%

➢ The above table shows that among 50 respondents 10(20%) respondents belongs to rural, 9(18%) respondents having average knowledge.

➢ Among 50 respondents 15(30%) respondents belongs to urban, 13(26%) respondents are having average knowledge, 2 (4%) respondents are having above average level of knowledge.

➢ Among 50 respondents 21(42%) respondents belong to city, 2(4%) respondents having below average level of knowledge, 19(38%) respondents having average knowledge.

➢ Among 50 respondents 4(8%) respondents belong to tribal area, 1 (2%) respondents having below average knowledge, 3 (6%) respondents having average level of knowledge.
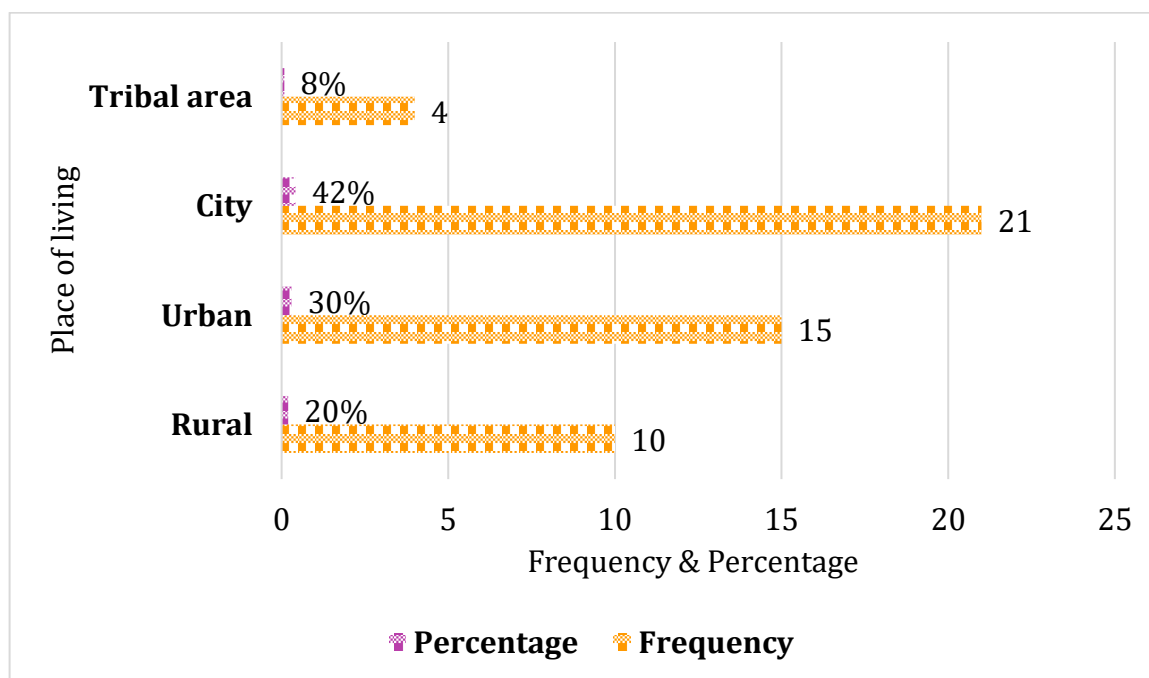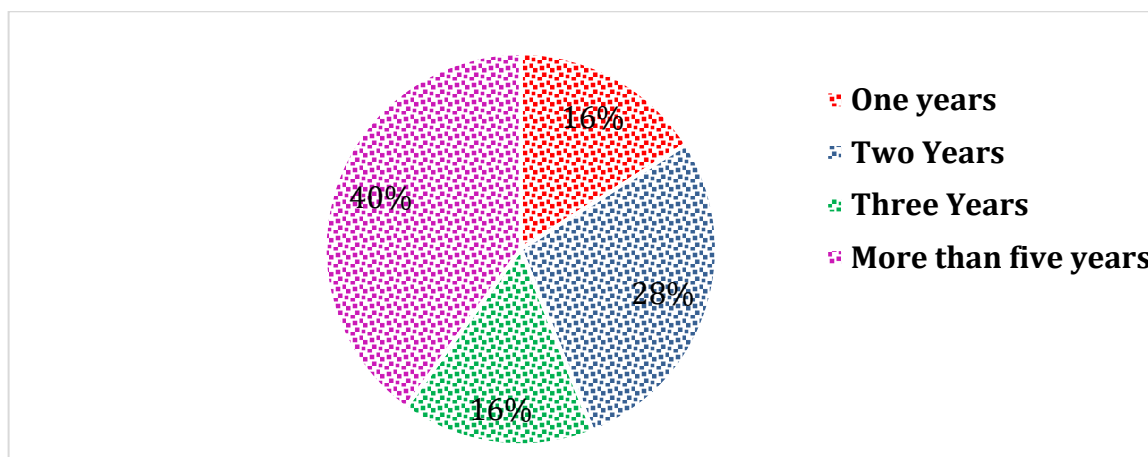

Fig No.8: Relationship between Place of living and Knowledge of sample regarding prevention of Myocardial Infarction

TABLE-9 RELATIONSHIP BETWEEN DURATION OF HYPERTENSION AND KNOWLEDGE OF SAMPLE REGARDING PREVENTION OF MYOCARDIAL INFARCTION N = 50

DURATION OF HYPERTENSION	KNOWLEDGE SCORES						Total frequency	Total Percentage
	BELOW AVERAGE		AVERAGE		ABOVE AVERAGE			
	F	%	F	%	F	%	F	%
One year	0	0%	7	14%	1	2%	8	16%
Two years	5	10%	9	18%	0	0%	14	28%
Three years	3	6%	5	10%	0	0%	8	16%
More than five years	4	8%	14	28%	2	4%	20	40%
Total	12	24%	35	70%	3	6%	50	100%

➢ The above table shows that among 50 respondents 8(16%) respondents belong to one year, 7(14%) respondents having average knowledge, 1(2%) respondents having above average level of knowledge.

➢ Among 50 respondents 14(28%) respondents belong to two years, 5(10%) respondents are having below average knowledge, 9(18%) respondents are having average level of knowledge.

➢ Among 50 respondents 8(16%) respondents belongs to three years, 3(6%) respondents having below average knowledge, 5(10%) respondents having average level of knowledge.

➢ Among 50 respondents 20(40%) respondents belong to more than five years, 4 (8 %) respondents having below average knowledge, 14(28%) respondents having average knowledge, 2(4%) respondents having above average level of knowledge.

Fig No.9: Relationship between Duration of Hypertension and Knowledge of sample regarding prevention of Myocardial Infarction

TABLE-10 CALCULATION OF MEAN MEAN

CLASS INTERVAL	FREQUENCY (f)	x	fx
0-5	0	2.5	0
6-10	0	8	0
11-15	4	13	52
16-20	26	18	450
21-25	18	23	414
26-30	2	28	56
31-35	0	33	0
	Σf=50		**Σfx=972**

The scores achieved are
24, 20, 20, 23, 20, 22, 23, 17, 27, 25, 22, 23, 22, 28, 24, 17, 23, 22, 17, 18, 20, 23, 19, 22, 13, 20, 17, 18, 20, 13, 23, 20, 20, 19, 20, 13, 22, 21, 17, 21, 19, 20, 23, 13, 17, 17, 20, 20, 20, 23, 22

Mean = Σ fx/N   [N=50, Σfx=972]
= 972/50
= 19.44

TABLE-11 CALCULATION OF MEDIAN

CLASS INTERVAL	FREQUENCY (f)	CUMULATIVE FREQUENCY
0-5	0	0
6-10	0	0
11-15	4	4
16-20	26	30
21-25	18	48
26-30	2	50
31-35	0	50
	Σf=50	

Calculation of Median
Median = L+ (N/2-m) w/f
= 16 + (50/2-4) x 5/26
= 16 + (25-4) x 5/26
= 16 + 21 x 5/26
= 16 + 105/26
= 16 + 4.038
= 20.038

TABLE-12 CALCULATION OF MODE

CLASS INTERVAL	FREQUENCY (f)
0-5	0
6-10	0
11-15	4
16-20	26
21-25	18
26-30	2
31-35	0
	Σf=50

Calculation of Mode

Mode = L+ $\frac{(f – f_0)}{2f- f_0- f_1}$ x h

$= 16 + \frac{26 - 4}{2(26) – 4- 18}$ x 5

$= 16 + \frac{22}{52-4-18}$ x 5

$= 16 + \frac{22}{30}$ x 5

= 16 + 3.7

= 19.7

TABLE-13 ASSOCIATION BETWEEN AGE AND KNOWLEDGE N = 50

AGE	KNOWLEDGE SCORES BELOW AVERAGE		AVERAGE		ABOVE AVERAGE	
	F	%	F	%	F	%
30-39 Years	3	6%	14	28%	2	4%
40-49 Years	0	0%	4	8%	0	0%
50-59 Years	0	0%	20	40%	0	0%
60-69 Years	0	0%	6	12%	1	2%
Characteristics	x^2	df	Table value		Inference	
Chi-square value	16.92	6	12.59		Association	

The above table shows that the Chi-square value is 16.92. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is more than the table value at 0.05 level of significance, association found between age and knowledge.

TABLE-14 ASSOCIATION BETWEEN GENDER AND KNOWLEDGE N = 50

GENDER	KNOWLEDGE SCORES BELOW AVERAGE		AVERAGE		ABOVE AVERAGE	
	F	%	F	%	F	%
Male	2	4%	27	54%	2	4%
Female	1	2%	17	34%	1	2%
Characteristics	x^2	df	Table value	Inference		
Chi-square value	0.1	2	5.99	No Association		

The above table shows that the Chi-square value is 0.1. The table value is 5.99 at 2 degrees of freedom. As the x^2 value is less than the table value at 0.05 level of significance, no association found between Gender and knowledge.

| RELIGION | KNOWLEDGE SCORES | | | | | |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | |
	F	%	F	%	F	%
Hindu	0	0%	28	56%	2	4%
Christian	3	6%	10	20%	1	2%
Muslim	0	0%	5	10%	0	0%
Other	0	0%	1	2%	0	0%

TABLE-15 ASSOCIATION BETWEEN RELIGION AND KNOWLEDGE N = 50

Characteristics	x^2	df	Table value	Inference
Chi-square value	16.92	6	12.59	Association

The above table shows that the Chi-square value is 16.92. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is more than the table value at 0.05 level of significance, association found between religion and knowledge.

| OCCUPATION | KNOWLEDGE SCORES | | | | | |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | |
	F	%	F	%	F	%
Homemaker	1	2%	12	24%	1	2%
Labourer	1	2%	18	36%	2	4%
Employee	1	2%	13	26%	0	0%
Business	0	0%	1	2%	0	0%

TABLE-16 ASSOCIATION BETWEEN OCCUPATION AND KNOWLEDGE N = 50

Characteristics	x^2	df	Table value	Inference
Chi-square value	5.99	6	12.59	No Association

The above table shows that the Chi-square value is 5.99. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is less than the table value at 0.05 level of significance, no association found between occupation and knowledge.

TABLE-17 ASSOCIATION BETWEEN EDUCATIONAL STATUS AND KNOWLEDGE

| EDUCATIONAL STATUS | KNOWLEDGE SCORES | | | | | |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | |
	F	%	F	%	F	%
Non formal education	03	6%	22	44%	1	2%
Primary education	0	0%	16	32%	2	4%
Secondary education	0	0%	5	10%	0	0%
Degree & above	0	0%	1	2%	0	0%

N = 50

Characteristics	x^2	df	Table value	Inference
Chi-square value	9.49	6	12.59	No Association

The above table shows that the Chi-square value is 9.49. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is less than the table value at 0.05 level of significance, no association found between educational status and knowledge.

| DIETARY PATTERN OF FAMILY | KNOWLEDGE SCORES | | | | | |
| | BELOW AVERAGE | | AVERAGE | | ABOVE AVERAGE | |
	F	%	F	%	F	%
Vegetarian	0	0%	7	14%	0	0%
Non-Vegetarian	2	4%	31	62%	3	6%
Egg-Vegetarian	0	0%	2	4%	0	0%
Junk foods	1	2%	4	8%	0	0%

TABLE-18 ASSOCIATION BETWEEN DIETARY PATTERN AND KNOWLEDGE N = 50

Characteristics	x^2	df	Table value	Inference
Chi-square value	9.49	6	12.59	No Association

The above table shows that the Chi-square value is 9.49. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is less than the table value at 0.05 level of significance, no association found between dietary pattern of family and knowledge.

	KNOWLEDGE SCORES					
PLACE OF LIVING	BELOW AVERAGE		AVERAGE		ABOVE AVERAGE	
	F	%	F	%	F	%
Rural	0	0%	9	18%	1	2%
Urban	0	0%	13	26%	2	4%
City	2	4%	19	38%	0	0%
Tribal area	1	2%	3	6%	0	0%

TABLE-19 ASSOCIATION BETWEEN PLACE OF LIVING AND KNOWLEDGE N = 50

Characteristics	x^2	df	Table value	Inference
Chi-square value	14.07	6	12.59	Association

The above table shows that the Chi-square value is 14.07. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is more than the table value at 0.05 level of significance, association found between place of living and knowledge.

	KNOWLEDGE SCORES					
DURATION OF HYPERTENSION	BELOW AVERAGE		AVERAGE		ABOVE AVERAGE	
	F	%	F	%	F	%
One year	0	0%	7	14%	1	2%
Two years	5	10%	9	18%	0	0%
Three years	3	6%	5	10%	0	0%
More than five years	4	8%	14	28%	2	4%

TABLE-20 ASSOCIATION BETWEEN DURATION OF HYPERTENSION AND KNOWLEDGE N = 50

Characteristics	x^2	df	Table value	Inference
Chi-square value	12.59	6	12.59	Association

The above table shows that the Chi-square value is 12.59. The table value is 12.59 at 6 degrees of freedom. As the x^2 value is equal to the table value at 0.05 level of significance, association found between duration of hypertension and knowledge.

CHAPTER-V
SUMMARY AND DISCUSSION
The present study aimed to assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension at Medical OP, KGH, Visakhapatnam.

OBJECTIVES:
1) To assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension.
2) To find out the association between the knowledge of clients with Hypertension and their selected demographic variables.
3) To develop and provide self-instructional module on Prevention of Myocardial Infarction among clients with Hypertension.

The investigators observed that this study would help the clients to improve their knowledge regarding Prevention of myocardial infarction. After extensive review of literature a tool was prepared regarding prevention of myocardial infarction and given to the experts in the field of nursing and their valuable suggestions were incorporated and necessary modifications were made in final tool of structured questionnaire. The research approach adopted for this study is quantitative approach. The research design selected for the study was descriptive research design. Pilot study was conducted on small sample (5 with hypertension) before conducting the main study with the help of structured

questionnaire. The sample for the main study comprised of 50 clients with hypertension were selected with the help of purposive sampling which is found appropriate to the study after obtaining permission from the superintendent of King George Hospital, Visakhapatnam. The data was analysed with the help of descriptive & inferential statistics and findings were interpreted.

Analysis was presented in 2 parts:
Part-1: Distribution of Demographic Variables
The present study revealed that out of 50 samples, with regard to age, 19 (38%) were in the age group of 30-39 years; 4(8%) were in the age group of 40-49 years; 20(40%) were in the age group of 50-59 years and 7 (14%) were in the age group of 60-69 years. Considering the gender, 31 (62%) respondents are males; 19 (38%) respondents are females. Considering the religion, 30 (60%) respondents are Hindus; 14 (28%) respondents are Christians; 5 (10%) respondents are muslim; 1 (2%) respondents belongs to others. Considering the occupation, 14 (28%) respondents are homemaker; 21 (42%) respondents are labourer; 14 (28%) respondents are employee; 1 (2%) respondents are doing business; Considering the education 26 (52%) respondents are having non formal education; 18 (36%) respondents are having primary education; 5 (10%) respondents are having secondary education; 1 (2%) respondents are having degree and above education. Considering the dietary pattern of family, 7(14%) respondents belong to non vegetarian; 36(72%) respondents are non-vegetarian; 2 (4%) respondents are egg-vegetarian; 5(10%) respondents belong to junk foods. Considering the place of living, 10(20%) respondents belongs to rural; 15(30%) respondents belongs to urban; 21(42%) respondents belong to city; 4(8%) respondents belong to tribal area. Considering the duration of hypertension, 8(16%) respondents belong to one year; 14(28%) respondents belong to two years; 8(16%) respondents belongs to three years; 20(40%) respondents belong to more than five years.

Part-2: Deals with association between knowledge and demographic variables
The association between the demographic variables & knowledge scores were calculated by using Chi-square test. The demographic variable analysed in the study are Age, Gender, Religion, Occupation, Education, Dietary pattern of family, Place of living, Duration of Hypertension. There exist significant association between the Age, Religion, Place of living, Duration of Hypertension & knowledge scores as the Chi-square test value is greater than the table value at 6 degree of freedom with 0.05 level of significance.
MAJOR FINDINGS OF THE STUDY
The present study examined the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension at Medical OP, KGH, Visakhapatnam.
To assess the knowledge regarding prevention of myocardial infarction among the clients with hypertension
The questionnaire was conducted to assess the knowledge of clients with hypertension. The results revealed that among 50 clients highest number of sample 44 (88%) of respondents have average level of knowledge; 3 (6%) of respondents have above average level of knowledge; 3 (6%) of respondents have below average level of knowledge. The mean value is 21.7 and standard deviation value is 6.618.

To find out the association between knowledge level of prevention of myocardial infarction among the clients with hypertension and demographic variables
The investigators to find out the association between the knowledge of clients with Age, Gender, Religion, Occupation, Education, Dietary pattern of family, Place of living, Duration of Hypertension. The association between the demographic variables & knowledge scores was calculated by using Chi-square test.
There exist a significant association between the demographic variables of Age, Religion, Place of living, Duration of Hypertension and knowledge scores as the Chi-square value is greater than the table value at 6 degree of freedom with 0.05 level of significance.

DISCUSSION
The present study aimed to assess the knowledge regarding Prevention of Myocardial Infarction among clients with Hypertension that the result demonstrates that the descriptive study was useful for improving the knowledge for clients with hypertension on prevention of myocardial infarction. The findings of the study revealed that out of 50 samples highest number of sample 44 (88%) of respondents have average level of knowledge; 3 (6%) of respondents have above average level of knowledge; 3 (6%) of respondents have below average level of knowledge. The mean value was 21.7; median value was 22.428 and the mode value was 23.884. The computed Chi-square value is higher than the tabulated value in four demographic variable i,e. Age, Religion, Place of living, Duration of Hypertension at 0.05 level of significance at 6 degree of freedom. The computed chi-square value is lower than the tabulated value in four demographic variables: Gender,, Occupation, Education, Dietary pattern of family at 0.05 level of significance at 6 degree of freedom.
The present study supports that the findings of "Philip manma kolo" (2011) conducted descriptive study to evaluate the public knowledge level of clients to determine the association of clients with hypertension with knowledge of myocardial infarction. The findings revealed that majority women (50.2%) than men (39%); Higher percentage of participants, 40

years and older (48.3%) were male knowledgeable than those younger than 40 years (42.9%). This study concluded that participants have low knowledge of myocardial infarction with women being more knowledgeable than male. So, there is a need for community education on warning signs of heart attack and it's Prevention.

NURSING IMPLICATIONS
The implications drawn from the present study is a vital concern for the health personnel the areas of Nursing practice, Nursing education, Nursing administration and Nursing research.

NURSING PRACTICE
The present study focus of health services are changed from curative to preventive services. Preventive services can be provided through health education. The Nursing personnel working at various setting either at clinical area of community can take an opportunity to educate the people through conducting health education programmes to create awareness regarding prevention of myocardial infarction in order to reduce the incidence.

NURSING EDUCATION
Nursing Education aim is to prepare the nurses to provide care to the clients with hypertension and myocardial infarction as a part of In-service education programme seminars, workshops can be organized to make the nursing personnel to update the knowledge on prevention of myocardial infarction. When the knowledge of nursing personnel is strengthened one can able to identify the cases and they can manage the cases of myocardial infarction.

NURSING ADMINISTRATION
Nursing Administration focuses to increase the potentialities of the Nursing personnel by organizing various In-service education programmes with innovative strategies to update the nursing personnel knowledge regarding the prevention of myocardial infarction.

NURSING RESEARCH
There must be continuous research should be conducted to increase the professionalism. So various research study can conducted and findings related to m prevention of myocardial infarction must be communicated to the nursing personnel to update the knowledge regarding prevention of myocardial infarction.

LIMITATIONS
❖ Due to lack of education in some clients with hypertension, the investigators had to collect the information through interview method.
❖ Investigators felt difficult to gather availability of subjects that is collecting data from only the hypertensive clients.

RECOMMENDATIONS
➢ A similar study can be conducted on a large sample to generalize the findings.
➢ A study can be conducted among staff nurses.
➢ An experimental study can be carried out to observe the methods followed by clients to minimize the affects of heart stroke.
➢ A comparative study can be done between urban and rural people to assess the knowledge regarding management of myocardial infarction.

CONCLUSION
The data was collected from 50 caregivers of hypertensive clients at Medical OP, King George Hospital, Visakhapatnam. The findings of the study reveals that out of 50 responding caregivers, highest number of sample 44 (88%) of respondents have average level of knowledge; 3 (6%) of respondents have above average level of knowledge; 3 (6%) of respondents have below average level of knowledge.. There is a need for further improvement of knowledge among hypertensive clients and were encouraged to improve the knowledge by giving health education on prevention of myocardial infarction.