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Research Article

" A Study To Evaluate The Effectiveness Of Structured Teaching Programme (Stp) On Knowledge Regarding Prevention Of Cornonary Artery Disease Among Hypertensive Patients Admitted In Kle Dr. Prabhakar Kore Hospital, Belagavi"

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The objective of the study is:

1) To assess the pre test knowledge regarding prevention of coronary artery diseaseamong hypertensive patients.
2) To assess the effectiveness of structured teaching program on knowledge regarding prevention of coronary artery disease among hypertensive patients.
3) To assess the post test knowledge regarding prevention of coronary artery diseaseamong hypertensive patients.

METHOD:

A descriptive cross-sectional study will be carried out in KLEs DR. Prabhakar Kore Hospital Belagavi. A sample of 20 patients will be selected using random sampling technique.
In the present study, an output includes the hypertensive patients' visiting OPDs and hypertensive patients admitted in cardiac wards in KLES DR. Prabhakar Kore Hospital Belagavi. The throughput includes the preparation and administration of structured teaching program on prevention of coronary artery disease.
Output pertains to the significant gain in knowledge concerning prevention of coronary artery disease among hypertensive patients admitted in cardiac wards. Of KLES DR. Prabakar Kore Hospital Belagavi.
Pre experimental design with an evaluative approach was used for the study. The independent variable of the study was the structured teaching programme and the dependant variable was the patients gain in knowledge scores.
The study was conducted on 20 hypertensive patients admitted and visiting KLES DR. Prabhakar Kore Hospital Belagavi. Non probability purposive sampling technique was used. The structured knowledge questionnaire consisting of 20 questions with multiple choice answers was used as an instrument for data collection. The data collected was tabulated and analyzed in terms of objectives of the study using descriptive and inferential statistics.

Finding of the study

The mean and standard deviation of knowledge score is 11.9 and 3.04 respectively. Finding related to knowledge that is 9% of patients have average knowledge and 10% have poor knowledge on prevention of coronary artery disease

INTRODUCTION

"As the arteries grow hard, the heart grows soft".

The heart is the engine of human life. Beating almost 100,000 times a day, more than 36 million times each year, Endlessly Beating examines the heart as a muscle, pushing approximately five quarts of blood in an endless course to deliver oxygen to every cell of the human body.

Coronary artery disease (CAD) continues to be a major cause of morbidity and mortality in Western societies.

Approximately two out of every three incidents of myocardial infarction (MI) occur without warning and of note, one third of first MIs are fatal; 20% of patients die outof hospital and 13% die within the first 24 to 48 hours of hospitalization.

Coronary artery disease is a condition in which the blood supply to the heart muscle is partially or completely blocked. The heart muscle needs a constant supply of oxygen-rich blood. The coronary arteries, which branch off the aorta just after it leaves the heart, deliver this blood. Coronary artery disease can block blood flow, causing chest pain (angina) or a heart attack (also called myocardial infarction). [3] Coronary artery disease was once widely thought to be a man's disease. On average, men develop it about 10 years earlier than women because, until menopause, women are protected by high levels of estrogen.

There is a strong and frequent association between arterial hypertension and coronary artery disease. There is no doubt that the magnitude of hypertension does have an impact in the incidence of CHD. If the risk ratio is 1 for a diastolic pressure _80mm Hg, this ratio increases progressively when diastolic pressure is higher, and at least d Coronary artery disease is the leading cause of death in both men and women. Coronary artery disease, specifically coronary atherosclerosis (literally -hardening of the arteries,‖ which involves fatty deposits in the artery walls and may progress to narrowing and even blockage of blood flow in the artery), occurs in about 5 to 9% (depending on sex and race) of people aged 20 and older [5]. The death rate increases with age and overall is higher for men than for women, particularly between the ages of 35 and 55. After age 55, the death rate for men declines, and the rate for women continues to climb. After age 70 to 75, the death rate for women exceeds that for men who are the same age [6]. Coronary artery disease affects people of all races, but the incidence is extremely high among blacks and Southeast Asians. The death rate is higher for black men than for white men until age 60 and is higher for black women than for white women until age 75. Having one or two drinks of alcohol a day appears to slightly reduce the risk of coronary artery disease (while slightly increasing that of stroke). However, having more than two drinks a day increases the risk, and the larger the amount, the greater the risk.

OBJECTIVE

The chapter deals with the statement of problem, objectives of the study. Operational definition delimilitations and projected outcomes. The objectives help to focus the study and avoid collection of necessary data which is not strictly required for understanding and solving the problem and identified. It helps to organize clearly the study in defined parts and phases.

STATEMENT OF THE PROBLEM

"A study to evaluate the effectiveness of Structured Teaching Programme (STP) on knowledge regarding prevention of coronary artery disease among hypertensive patients admitted in DR. KLES Prabhakar Kore Hospital, Belagavi.

The objectives of the study are:

1. To evaluate the effectiveness of STP on knowledge of prevention of coronary artery disease among hypertensive patients.
2. To assess the pre test knowledge regarding prevention of coronary artery disease among hypertensive patients.
3. To assess the post test knowledge regarding prevention of coronary artery disease among hypertensive patients.

OPERATIONAL DEFINATIONS.

1. Knowledge:
It refers to the appropriate response from the patients about prevention of coronary artery disease by structured knowledge questionnaire.

2. Hypertensive Patients:
It refers to the patient who was diagnosed as hypertensive admitted in the cardiac wardsand visiting OPDs of K.L.E's Dr. Prabhakar Kore Hospital and Belagavi.

3. Structured Teaching Programme:
It refers to a systematically developed teaching program to update the knowledge of hypertensive patient regarding prevention of coronary artery disease.

4. Prevention :
It refers to the methods which can be adopted by the patients to prevent the coronaryartery disease.

Assumptions:

1. The patients with hypertension may have some knowledge about prevention methods.
2. Use of STP will help the patients to improve their knowledge regarding prevention nutrition and enable them to follow proper management.

DELIMITATION

This study was delimited to the patients who are already cad patients admitted in cardiacwards of K.LES Dr. Prabhakar Kore Charitable Hospital, Belagavi. Knows to read and understand Kannada language Are willing to participate in the study

PROJECT OUTCOME:

The result of the study intends to gain the adequate knowledge regarding prevention ofcoronary artery disease

METHODOLOGY

The methodology of research indicates the general pattern of organizing the procedure for getting valid reliable data for the problem under investigation. The methodology enables the research to project a blue print of the details, data approach, analysis and findings of the researchundertaken.
For the present study descriptive research approach and non experimental researchdesign was used.

RESEARCH APPROACH

Research approach indicates the procedure for conducting the study. It helps the researcher to know what data to collect and how to analyze it. It also suggests the possible conclusions to be drawn from the data.
In view of the nature of the problem selected for the present study and the objectives tobe accomplished a descriptive approach was considered appropriate for the preset study.

RESEARCH DESIGN :

Research design depicts the overall plan for organization for scientific investigation. It helps the researcher in the selection of subjects, manipulation of independent variables and observations of a type of statistical method to be used to interpret data.
The selection of design depends upon the purposes of the study, research approach and variables to be studied. The research design used for the present study is descriptive correlation design.

POPULATION:

The population referred to as the target population which represents the entire groups or all the elements like individual or objects that meet the certain criteria for the inclusion in the study. The population of the present study comprises that the hypertensive patients who are at risk of coronary artery disease admitted and visiting KLES DR. Prabhakar kore hospital Belagavi.

SAMPLE:

Sample refers to subset of a population that is selected to participate in a particular study. The sample chosen for the present were hypertensive patients who were admitted in KLES DR. Prabhakar kore hospital Belagavi.

SAMPLE SIZE:

Sample size of the present study consists of 20 hypertensive patients attending OPDs and cardiac wards in KLES DR. Prabhakar Kore Hospital Belagavi. (Were able to read and write kannada)

SAMPLING TECHNIQUE:

Sampling technique is the process of selecting samples. The sampling technique used for the study was non probability purposive sampling is based on the belief that the researcher knowledge about the population can be used to handpick sample members. This samplingtechnique permits the researcher to decide purposely to select subjects who are judged to be typical of the population.

SAMPLING CRITERIA:

The criteria that specify population characteristics are referred to as eligibility criteria or inclusion criteria. A population may be defined in terms of characteristics that people must not posses ex: the exclusion criteria. The eligibility criteria may reflect issues concerning costs, practical concerns, and people's ability to participate in a study and design considerations.
The samples were selected with the following pre determined set of criteria :

Inclusion criteria:

The patients who were

- Admitted in the cardiac wards

- Patients attending OPDs
- Able to read and understand kannada language.
- Willing to participate in the study.

Exclusion criteria:

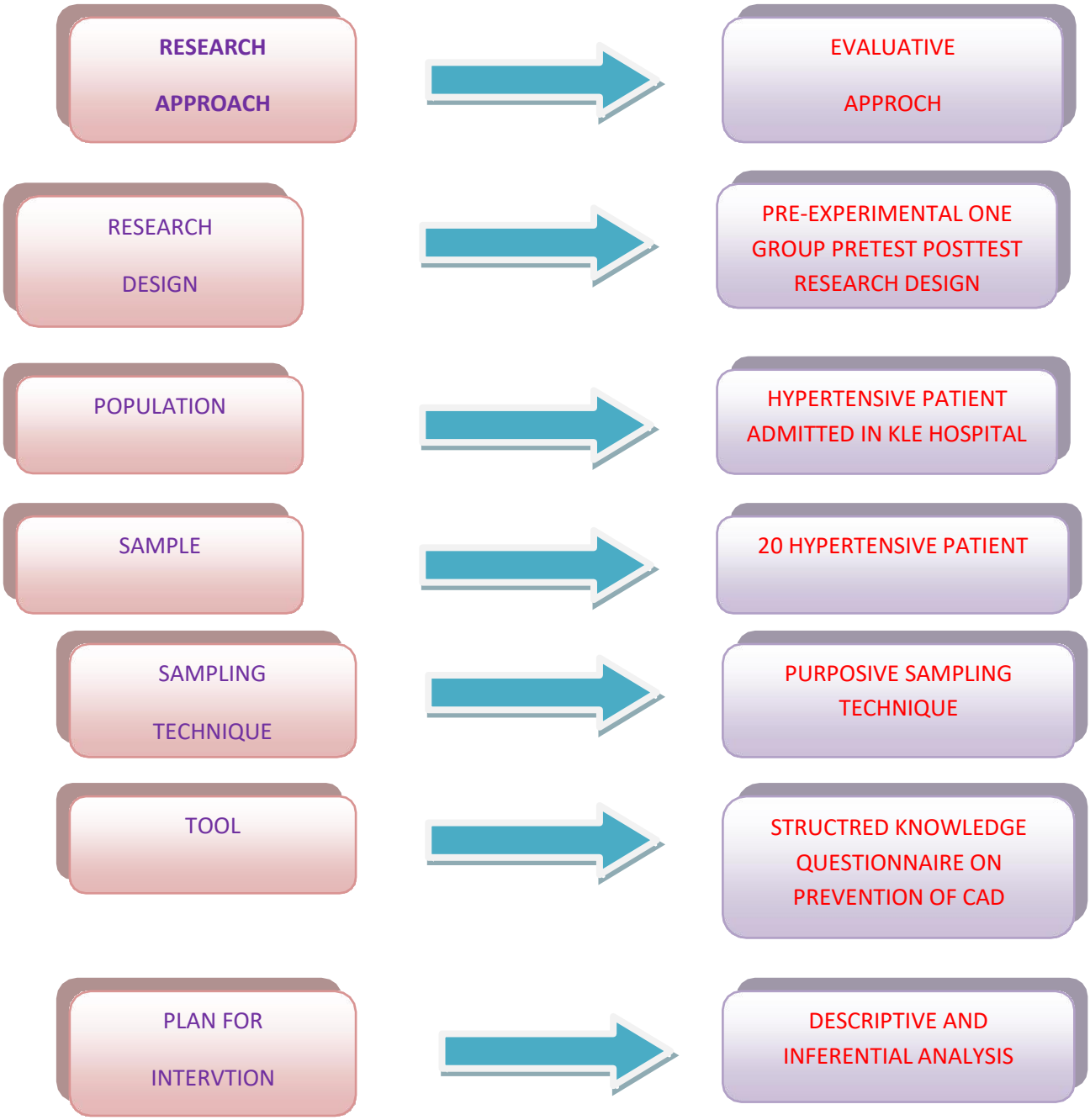
The patients who were

- Having hypertension
- Are at risk of coronary artery disease

SAMPLE CHARACTERISTICS:

A non probability purposive sampling of 20 subjects was taken from the study population for data collection. The data collection obtained to describe the sample characteristics includes age, gender, marital status, educational status and monthly income.

FIGURE: SCHEMATIC PRESENTATION RESEARCH METHODOLOGY



RESULTS

The term analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among the data groups. The analysis of the data in a general way involves a number of closely related operations which are performed with the purpose of summarizing the collected data and organizing these in such a manner that they answer the research question.

This chapter deals with the analysis and interpretation of data collected to evaluate the **A STUDY OF EVALUATE THE EFFECTIVENESS OF STRUCTERD TEACHING PROGRAMME (STP) ON KNOWLEDGE REGARDING PREVENTION OF CORONARY ARTERY DISEASE AMONG HYPERTENSION PATIENTS ADMITTED IN KLES DR. PRABHAKAR KORE HOSPITAL, BELAGAVI".** The purpose of this analysis is to reduce the data to a manageable and interpretable from so that the research problems can be studied and tested.

The data collected through structured knowledge questionnaire from STRUCTURED TEACHING PROGRAMME (STP) (N=20) is analyzed and interpreted. The results were computed using descriptive and inferential statistics based on the following objectives.

SECTION 1: ANALYSIS

SL.NO	SOCIO-DEMOGRAPHIC VARIABLES	FREQUENCY NO.	PRECENTAGE %
1.	Age in year		
	a. 40-50	2	10%
	b. 50-60	4	20%
	c. 60-70	7	35%
	d. 70 above	7	35%
2.	Gender		
	a. Male	8	40%
	b. Female	12	60%
3.	Marital status		
	a. married	13	65%
	b. unmarried	1	5%
	c. widow	5	25%
	d. separated	1	5%
4.	Education status		
	a. Illiterate	0	0%
	b. Primary	1	5%
	c. Secondary	3	15%
	d. Higher secondary	11	55%
	e. Graduate	5	25%
	f. Postgraduate and above	0	0%
5.	Monthly income of the family		
	a. Less than Rs.2000	0	0%

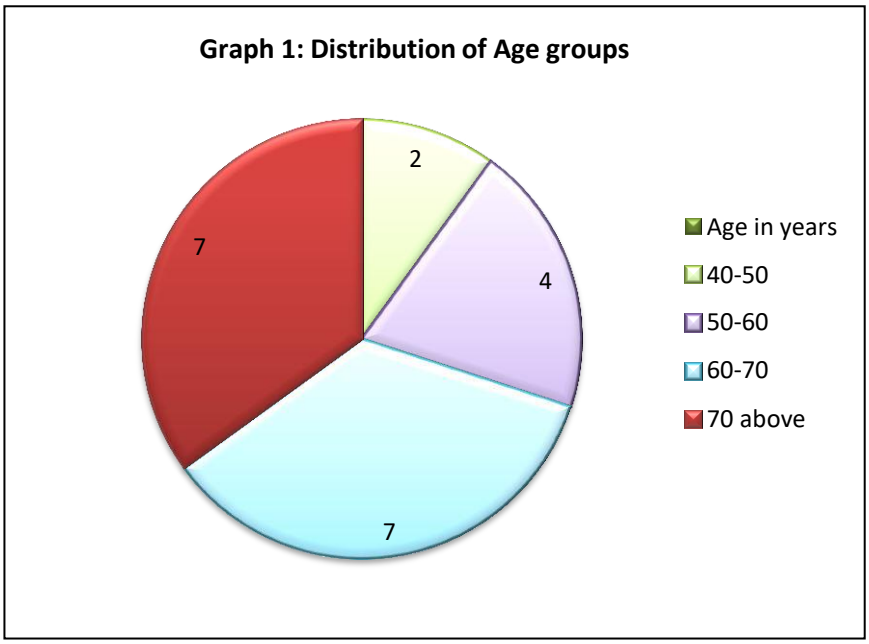
	b. Rs.2000-4000	3	15%
	c. Rs.4000-7000	11	55%
	d. Above 7000	7	35%
6.	Residence		
	a. Rural	13	65%
	b. Urban	7	35%
7.	Occupation		
	a. Pensioner	0	0%
	b. Formal employment	1	5%
	c. Others	18	90%
8.	Religion		
	a. Hindu	6	30%
	b. Muslim	4	20%
	c. Christian	5	25%
	d. Others	5	25%
9.	History of hypertension		
	a. 1-5years	0	0%
	b. 6years	7	35%
	c. 7years	11	55%
	d. Above 8 years	2	10%
10.	Types of family		
	a. nuclear	12	60%
	b. joint	8	40%

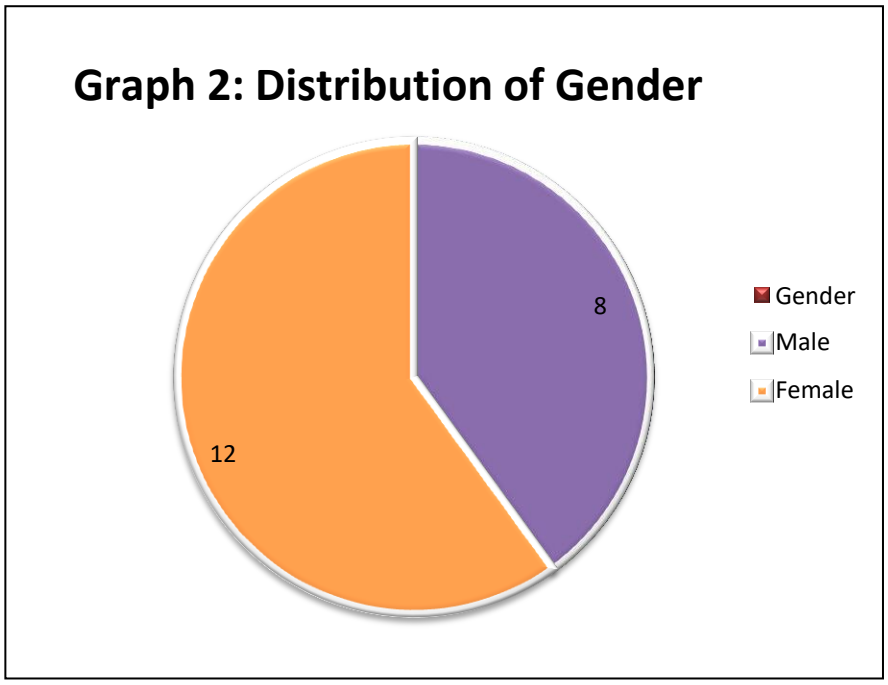
The data presented in table 1: Indicate that this the section the researcher analyzed andcategorized

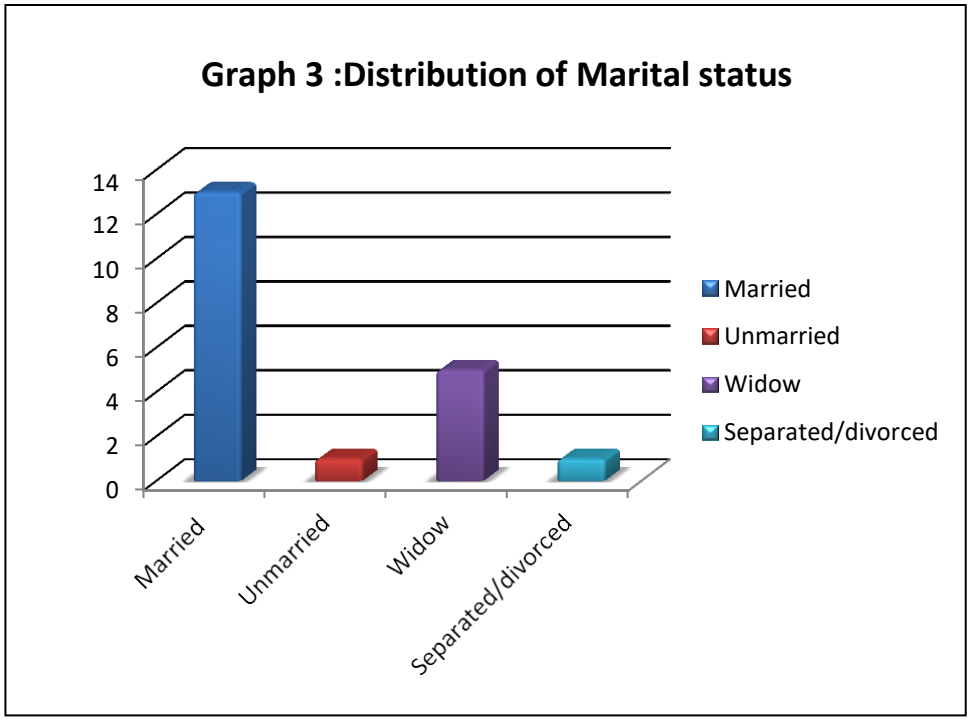
Major findings of the study:

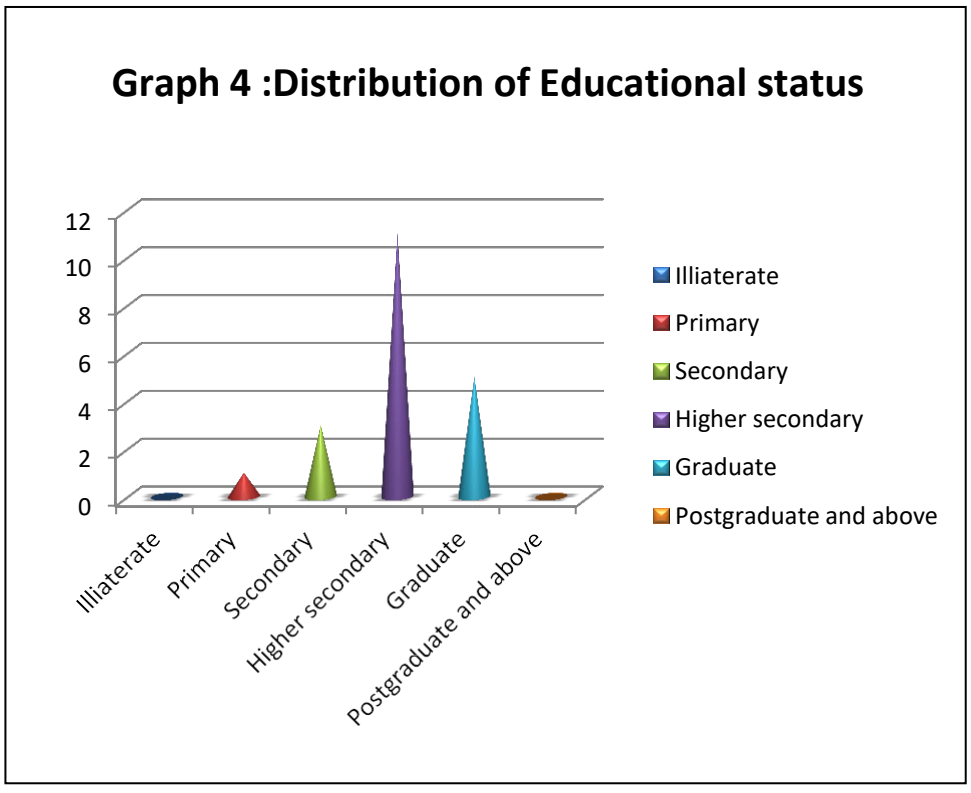
Majority (35%) of samples were in the age group of 60-70.Females (60%) are more compared to males.
Most (65%) of the samples are married.

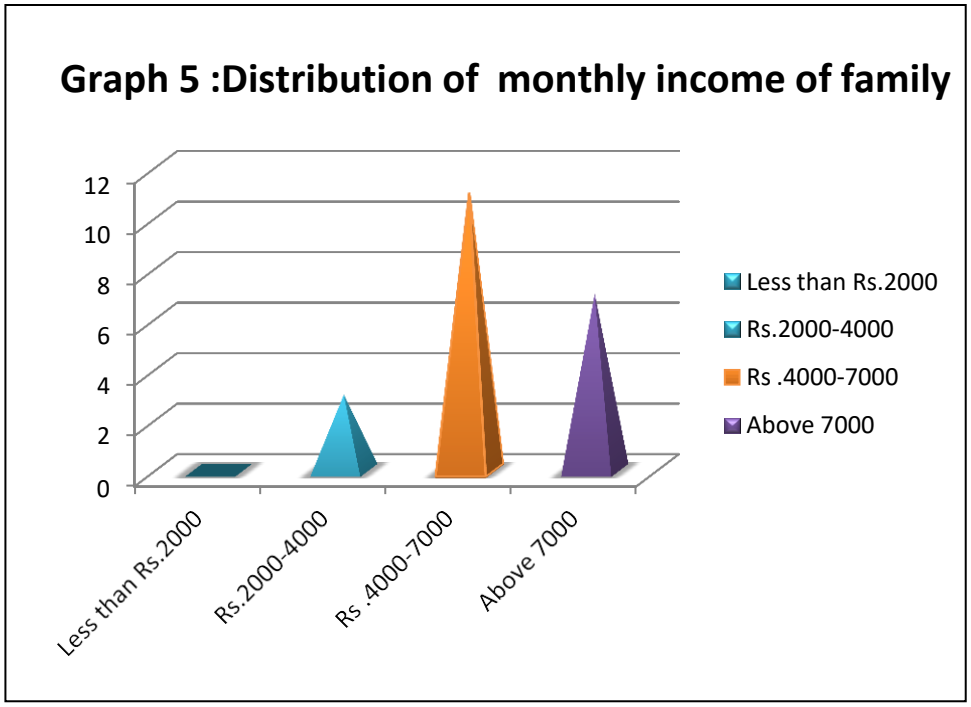
Majority (55%) of the samples are having education of higher secondary. Majority (55%) of the samples were having income up to 4000-7000 per month.Most (65%) of the samples have residence in rural.
Majority (90%) of the occupation are others.Most (30%) of the sample are Hindus.
Majority (55%) of the sample have the history of hypertension. Most (60%) of the samples comes from nuclear family.

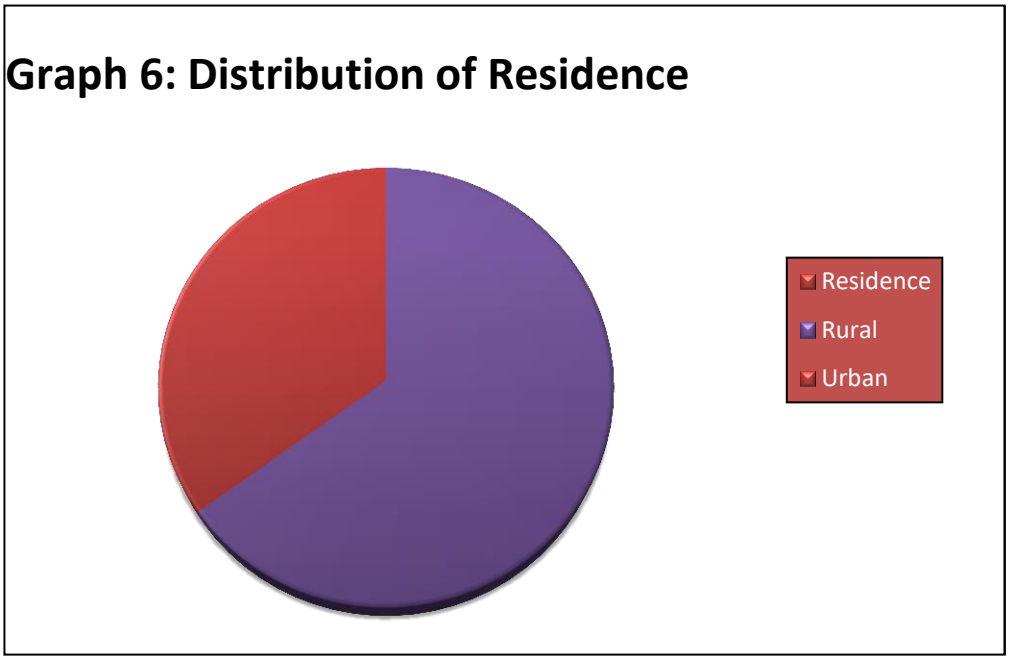

Graph 1: Distribution of Age groups
2
4
7
7
Age in years
40-50
50-60
60-70
70 above

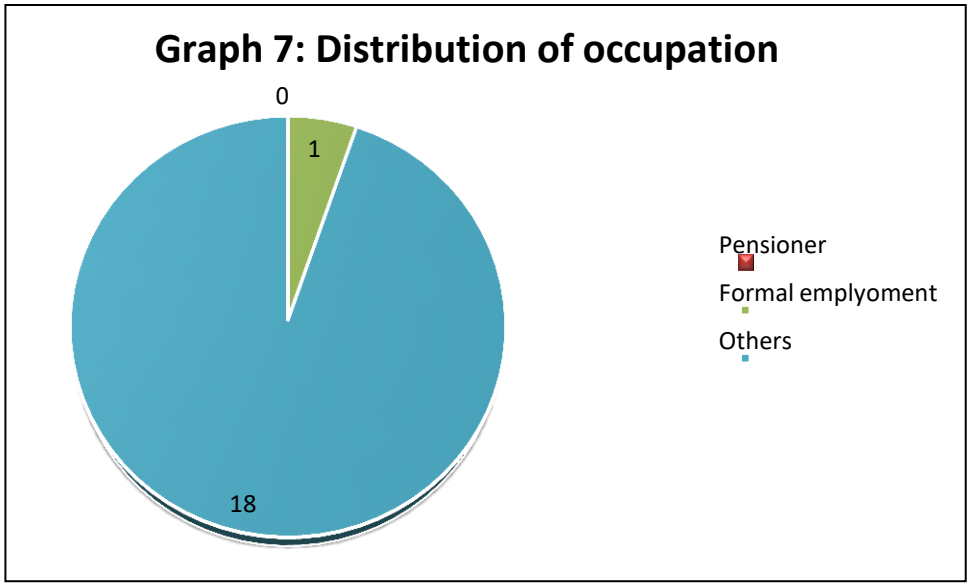

Graph 2: Distribution of Gender
8
12
Gender
Male
Female

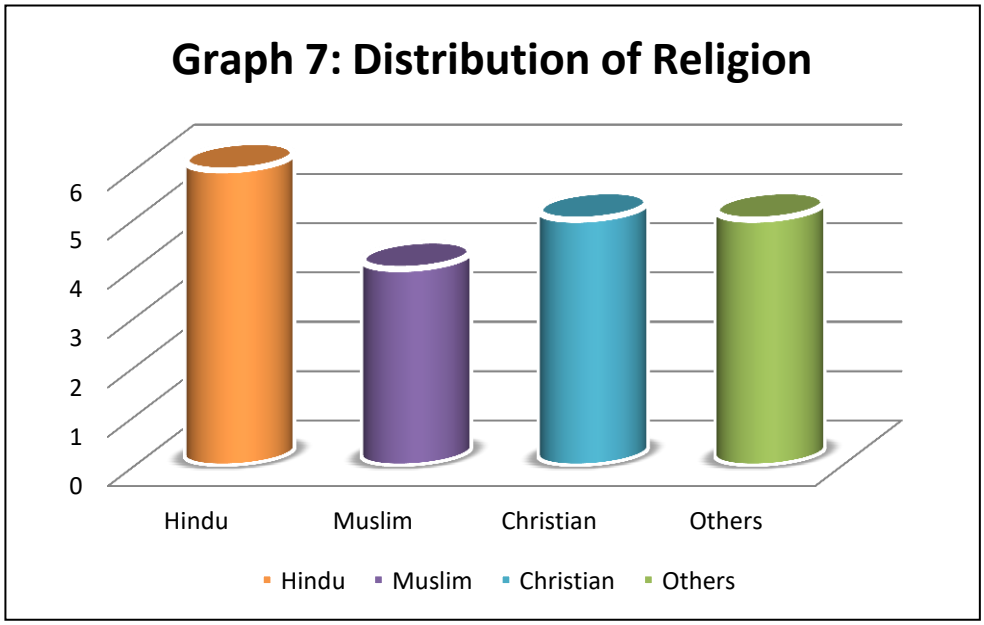

Graph 3 :Distribution of Marital status
14
12
10
8
6
4
2
0
Married
Unmarried
Widow
Separated/divorced
Married
Unmarried
Widow
Separated/divorced

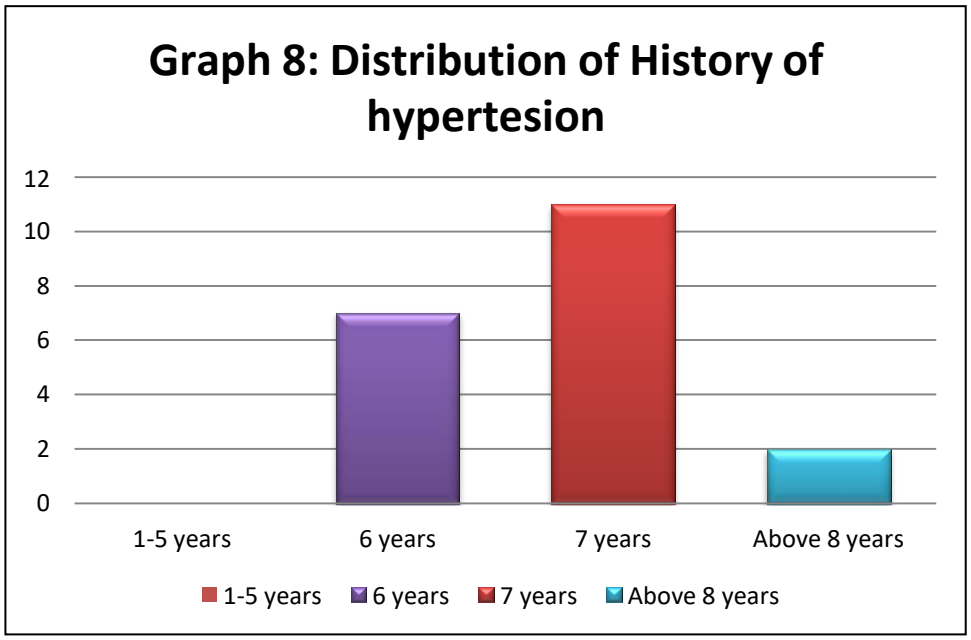

Graph 4 :Distribution of Educational status
12
10
8
6
4
2
0
Illiaterate
Primary
Secondary
Higher secondary
Graduate
Postgraduate and above
Illiaterate
Primary
Secondary
Higher secondary
Graduate
Postgraduate and above

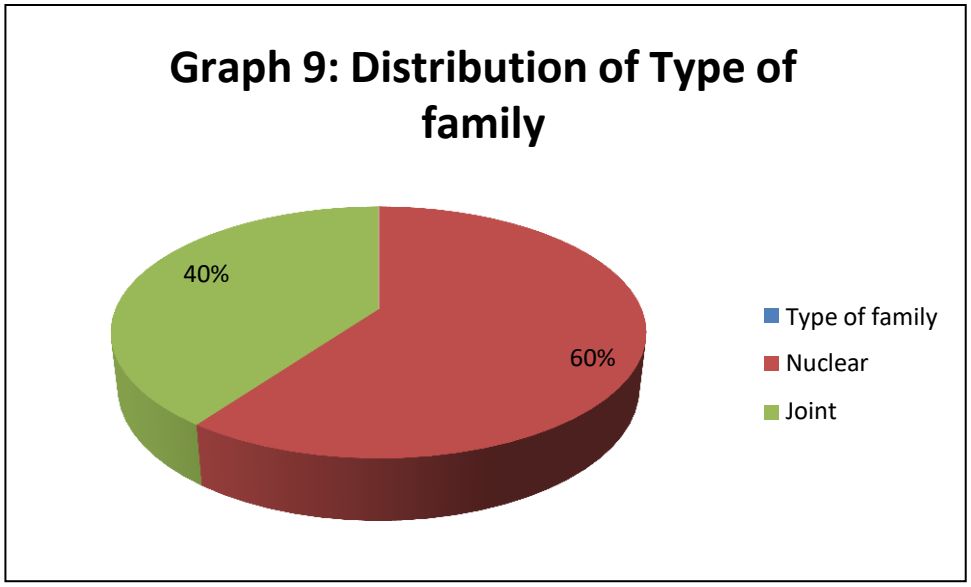

Graph 5 :Distribution of monthly income of family
12
10
8
6
4
2
0
Less than Rs.2000
Rs.2000-4000
Rs .4000-7000
Above 7000
Less than Rs.2000
Rs.2000-4000
Rs .4000-7000
Above 7000

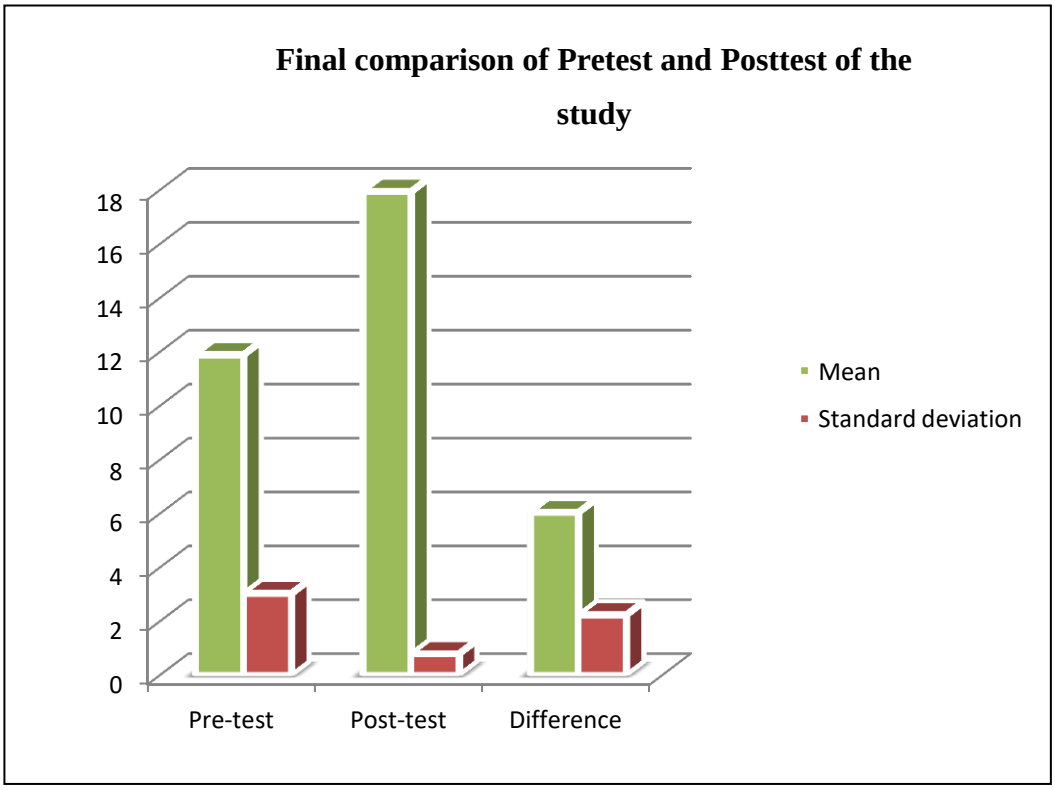

Graph 6: Distribution of Residence
Residence
Rural
Urban


Graph 7: Distribution of occupation
0
1
18
Pensioner
Formal emplyoment
Others


Graph 7: Distribution of Religion
6
5
4
3
2
1
0
Hindu
Muslim
Christian
Others
Hindu
Muslim
Christian
Others


Graph 8: Distribution of History of hypertesion
12
10
8
6
4
2
0
1-5 years
6 years
7 years
Above 8 years
1-5 years
6 years
7 years
Above 8 years





Mean of pre-test and post-test is 11.90, 17.95 respectively. Standard deviation of pre-test isand post-test is 0.80 . The difference between mean of pre-test and post-test is 6.05, whereas standard deviation difference is 2.24 .

Intervention	Mean	Standard deviation
Pre-test	11.90	3.04
Post-test	17.95	0.80
Difference	6.05	2.24

DISCUSSION

The study was conducted to evaluate the effectiveness of structured teaching program on knowledge regarding prevention of coronary artery disease among hypertensive patients. In order to achieve the objectives of the study, one group pre test post test designs with quantitative approach was adopted. Simple random sampling technique was used to select the sample for the study. The sample comprised of 20 hypertensive patients visiting the OPD. The data wascollected from them before and after administration of

STP using structured knowledge questionnaires.

Major findings of the study:

- Majority (35%) of samples were in the age group of 60-70.
- Females (60%) are more compared to males.
- Most (65%) of the samples are married.
- Majority (55%) of the samples are having education of higher secondary.
- Majority (55%) of the samples were having income up to 4000-7000 per month.
- Most (65%) of the samples have residence in rural.
- Majority (90%) of the occupation are others.
- Most (30%) of the sample are Hindus.
- Majority (55%) of the sample have the history of hypertension.
- Most (60%) of the samples comes from nuclear family.

Findings related to knowledge scores of hypertensive patients :

The present studies mean value of the knowledge regarding prevention of coronary arterydisease is 11.9, with standard deviation is 3.04. this findings show patients with hypertension have average knowledge about coronary artery disease.

DISCUSSION:

Assessment of knowledge regarding prevention of coronary artery disease was conducted in KLE Dr. Prabhakar Kore hospital Belagavi.

CONCLUSION

The primary aim of the present study was to evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of coronary artery disease amonghypertensive patients admitted in KLES Dr. Prabhakar kore hospital, belagavi. A pre experimental design with evaluative approach was used for the study the data was collected from
20 samples through non probability purposive sampling technique using the structured knowledge questionnaires.

The conclusion drawn on the basis of the findings of the study includes:

1. The clients were unaware of the prevention of coronary artery disease in hypertensive patients. Knowledge scores of the clients regarding the prevention of coronary artery disease was is found to be average in pre test.
2. There was a evident increase knowledge scores about prevention of coronary artery disease after administration of structured teaching programme. Thus, it was inferred that structured teaching programme was very effective in order knowledge regarding prevention of coronary artery disease.

NURSING IMPLICATIONS:

The findings of the study have some important implications for nursing practice, nursing education, nursing administration as well as further nursing research.

NURSING EDUCATION:

The clients have the right to know about his way to prevent coronary artery disease effectively. In order to achieve this objective, educational Programmes should include lecture and skilled demonstrations, which will provide client additional learning opportunities.

Structured Teaching Programme on prevention of coronary artery disease among hypertensive patients knowledge and help them to follow it even after discharge from the hospital.

NURSING PRACTICE:
Nursing personnel are having primary role in imparting health education for the clients with hypertension for proper prevention of complications of the disease.

NURSING ADEMINISTRATION:
The Structured Teaching Programme and the tool prepared by the investigator can be used by the hospital nurses for the benefit of those clients with hypertension and are at risk of coronary artery disease, as it brings the positive outcomes and decreases the mortality rate and by shortening lengths of hospital stay, decreasing the rate of complications.

NURSING RESEARCH:
The present study conducted by the investigator can be a source of review of literature for others who are intending to conduct studies on coronary artery disease. It helps the nurse researchers to conduct further research, which provides more scientific data and more scientific knowledge to nursing profession. It encourages the nurses to read, discuss and conduct research studies.

LIMITATION OF THE STUDY:
1. No broad generalization could be made due to small size of the samples and limited areaof setting.
2. The tools used for data collection were not standardized tools. They are designed by the investigators for the purpose of present study based on objectives of the study
3.

RECOMMENDATION:
1. The study can be replicated with a large number of clients for generalization.

2. The same study can be done with an experimental research approach having a control group.

3. Different teaching strategies can be used to educate clients regarding coronary artery disease.

SUMMARY

Coronary artery disease means narrowing of the **coronary arteries** (arteries that supplyblood to the heart). This narrowing is due to a buildup in the walls of the arteries of **plaque** (deposits made up of cholesterol, other fats, and calcium)—a process called **atherosclerosis** (hardening of the arteries). If a plaque becomes delicate and breaks, a blood clot will quickly form that can block blood flow in the artery and may lead toa **myocardial infarction**

Objectives of the study:

1) To assess the pre test knowledge regarding prevention of coronary artery disease among hypertensive patients.
2) To assess the effectiveness of structured teaching program on knowledge regarding prevention of coronary artery disease among hypertensive patients.
3) To assess the post test knowledge regarding prevention of coronary artery disease among hypertensive patients.

The research used in this study was descriptive approach. The setting of the study was at KLE Dr. Prabhakar Kore Hospital, Belagavi. The convenient sampling technique was used. The study was conducted after obtaining permission from medical superintendent of KLE hospital Belagavi. The data collected was analyzed by using descriptive statistics. There was significant association between * age, religion, gender, prevention among patients.

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