



“A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF CLIENT REGARDING MANAGEMENT OF HYPERTENSION IN GANDHI HOSPITAL, SECUNDERABAD, ANDHRA PRADESH.”

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Abstract

A study was undertaken to assess the effectiveness of structured teaching on knowledge of clients undergoing hypertension in Gandhi Hospital, Secunderabad, Andhra Pradesh. It was conducted by Mis Jyothi Lekshmi.S M.Sc(N) IInd year student of Mother Krishna Bai College of Nursing, Musheerabad, Hyderabad in partial fulfillment of requirement for the degree of M.Sc Nursing, Dr.NTR University of Health Sciences, Gunadala, Vijayawada. Andhra Pradesh.

The Objectives of the study are:

- Assess the knowledge of clients regarding management of hypertension before structured teaching programme.
- To evaluate the effectiveness of structured teaching programme on knowledge of client with management of hypertension.

- To associate the knowledge of client regarding management of hypertension with demographic variables.

The conceptual framework adopted for the study was King's Goal Attainment theory. The study was conducted in dialysis at Gandhi Hospital, Secunderabad, Andhra Pradesh. The research approach was quantitative approach and the research design adopted was pre-experimental "one group pre test post test design". The population for the study was clients undergoing hypertension. The total sample of sixty clients were selected by convenient sampling technique. The criteria for sample selection was the clients with hypertension who are in medical wards at Gandhi Hospital, Secunderabad Andhra Pradesh. The data was collected by giving questionnaire for the clients. Pilot study was conducted from 20-03-2012 to 27-03-2012 and was found that the study was feasible and the tool was appropriate. The main study was conducted in Gandhi hospital. The data collection was done for a period of one month. The data was analyzed with the help of descriptive and inferential statistics. Knowledge was assessed before giving structured teaching by pretest and then post test was done after giving structured teaching by post test.

The findings revealed that there was a significant difference in pre test and post test score. The mean score of post test is 17.03 and standard deviation is 2.364. The computed value is more than the table value (2.021) hence the null hypothesis was rejected. The obtained computed value was 16.736 was highly significant at 0.05 level with $df = 59$. There is significant difference in pre test and post test knowledge levels after structured teaching programme, so null hypothesis is rejected and as the post test score is more than pre test score so it shows that the structured teaching programme is effective.

Introduction

"Stable Blood Pressure for Steady Health"

(ALBERT)

The health of the individual should be a prime consideration for building a healthy nation. Health status can be mentioned by though adaptation of preventive measures and healthy practices when all mainly concerned with knowledge a little over hundred years ago.

Blood Pressure is the product of cardiac output multiplied by peripheral resistance. Cardiac output is the product of the heart rate multiplied by stroke volume. In normal circulation, pressure exerted by the follow blood vessels. High Blood Pressure is known, as Hypertension. High Blood Pressure has no symptoms at all. That is why it is often called as “Silent Killer”. High Blood Pressure to be both a disease and a risk factor for other diseases.

Blood pressure is a force exerted on the wall of blood vessels due to the beating of the heart. There are two types of blood pressure systolic and diastolic .The systolic blood pressure correspond to the pressure of the blood when the heart imparted the maximum pressure. The diastolic blood pressure is the pressure when the heart is in the resting phase. Arterial blood pressure is most commonly measured via Sphygmomanometer, which historically used as the height of the column of mercury is not used. Adult hood is a mature age in the development stage of life.

Hypertension is the one of the major risk factors for cardio vascular mortality which accounts for 20-50% of all deaths. Blood Pressure with in blood vessels when the heart contracts and relaxes to maintain circulation of blood throughout the body. First Blood Pressure was recorded by Sir.Stephen Halves in 1773.Hypertension is consistently elevated blood pressure exceeding 140/90mmHg. Primary hypertension is the most prevalent form of hypertension according for 90% of all cases of hypertension.

Hypertension as persistent elevation of systolic blood pressure at level of 140mmHg or higher and the diastolic pressure at 90 mmHg or higher. The major contributing factor for hypertension is cardiovascular disease. There are many risk factors for hypertension, obesity, atherosclerosis, high salt diet, alcohol and emotional stress coronary events such as heart attack are still the

most common result of hypertension. It is associated with risk of coronary heart disease, stroke, peripheral vascular disease and renal disease.

Regulation of blood pressure is one of the most complex of physiologic functions depend on the integrated actions of cardiovascular, renal, neurological and endocrine system. Most of the functional cardiovascular derangements of hypertension raise from the compensatory mechanism elevated blood pressure provokes vascular damage investigating the pathophysiology of hypertension there for it means understanding the mechanism of normal blood pressure control and seeking evidence of abnormalities that proceeds the rise of blood pressure to hypertensive levels dues nutrition and its major manifestation, obesity are the dominant health problem in most industrialized countries and appear to be increasing.

Hypertension can be divided as primary, secondary and malignant essential hypertension (primary) is accounts for 90-95% of all types of hypertension. It is a condition where there is increase in both systolic and diastolic pressure without identifiable causes. Secondary hypertension results from identifiable causes. Malignant hypertension is persistent severe hypertension characterized by a diastolic pressure above 120 mmHg Malignant hypertension is usually associated with a rapid rise in arterial pressure and untreated leads to expeditious end organ damage including cardiac failure and hypertensive encephalopathy. The incidence of malignant hypertension is about 2/100000 1year but it is relatively more common in younger adults males and black people.

Epidemiologic and clinical trial evidences supports the potential for hypertension prevention through weight control, increased physical activity, moderation of sodium and alcoholic intake. Increased potassium intake and dietary protein rich in fruits and vegetables and low fat meat, fish and dairy products. Both targeted and population strategies are important approaches to hypertension prevention. Evidence is now clear on the relationship to blood pressure of life style, particularly sub-optimal nutritional habits that are common in this population.

- Blood Pressure is not at goal level on a single agent.
- Patient experiences at effect of single agent that may be improved by the addition of second agent.
- Systolic blood pressure >20mmHg or diastolic blood pressure >10mm Hg above goal.
- Compelling indications present that may benefit iron different mechanism of action of multiple anti hypertensive.

Approximately 70% of patients with hypertension will require two or more agents to achieve their larger blood pressures using combination therapy for initial management offers the potential to achieve target blood pressure with fewer adverse effects because lower doses of each agent may be used. It has been shown that to lower the Blood Pressure to a level of 120/80 mmHg, the only way to accomplish this patients to ever combinations of antihypertensive drugs in adequate dosage.

Adults are typically busy people who face many challenges. They are expected to assume many roles at work, in the home, and in the community. These multiple roles may adopt non-traditional lifestyles which lead to certain chronic diseases like hypertension, diabetes mellitus, and cancer. Conventional management of hypertension leaves patients with unacceptable complications like Cerebrovascular Accidents, Heart Failure, Myocardial Infarction, Transient Ischemic Attack, and Renal Failure. People can do a great deal to influence their individual risk of developing hypertension and its complications in later life by paying careful attention to lifestyle factors like dietary approaches to stop hypertension, weight reduction, physical activity, cessation of smoking, and alcohol consumption, healthy management of stress, exercise, and monitoring blood pressure.

According to **Sushruta** in the 6th century BC as being the first mention of symptoms like those of hypertension. Others proposed even earlier descriptions dating as far as 2600 BC. Main treatment for what was called the "hard pulse disease" consisted in reducing the quantity of blood in a subject by the sectioning of veins or the application of leeches. Well-known individuals such as The Yellow Emperor of China, Cornelius Celsus, Galen, and Hippocrates

advocated such treatments. Our modern understanding of hypertension began with the work of physician William Harvey (1578–1657), who was the first to describe correctly the systemic circulation of blood being pumped around the body by the heart in his book “*De motu cordis*”. The basis for measuring blood pressure were established by Stephen Hales in 1733.

The **World Health Organization** has estimated that high blood pressure causes one in every eight deaths, making hypertension the third leading killer in the world. The prevalence of hypertension in developed countries is 25% and developing countries is 10-20% among adult age group. Incidence of USA between 14% to 40% in 35-64 years. Control of hypertension has been ineffective all among even in developed countries. The World Health Organization scientific group has reviewed the six key risk factors are responsible for hypertension. These are following:-

- Cigarette use and other forms of smoking.
- Alcohol abuse.
- Failure or inability to obtain preventive health services.
- Dietary habits and physical activity.
- Environmental risk factors like occupational hazards.
- Stress factors.

A healthy mind gives a healthy body, so goes the symbolic relationship between the mind and body has been reiterated and corroborated over again in all societies, philosophies and in curative system as well so there is wish “salve sant a Nirmaya” (her each human be disease free).The recent interest in yoga and concept of “back to nature ”are pointers to the resurging concern of people for health.

According to **Dailia B Corry (1999)** said “The trail of non pharmacologic prevention in the elderly” study assessed the effect of sodium restriction to less than 1800mg 1day in the diet of 8:15 patients between 60 to 80 years of age with mild hypertension of the 876 subjects,585 were obese with a body mass index greater than 27.8 for men and greater than 27.3 for women in the 80 month period of the study there was an average weight loss of 8.6 kg, and 30% of

subject could remain off antihypertensive therapy and maintain a blood pressure less than 140/90 mm Hg.

According to **Michael H Tucks (2000)** said “The train of antihypertensive interventions and management study” enrolled 878 subjects with mild hypertension ages 21-65yrs with range of blood pressure 138-145 at 4 normal Hg, and who were 136% to 139% over ideal body weight the study duration was 6months with patients on diet therapy with a men weight the study duration was 6months with patients on diet therapy with a mean weight less of 4.5kg or greater there was significant fall in diastolic blood pressure of 11.6 mmHg. Patients fall in blood pressure was equivalent to drop in blood pressure produced by the B-blockers atenolol or of the diuretics agent chlorthalidone (25mg/d) also weight loss potentiated the effect of anti hypertensive agents on blood pressure reduction for example a weight loss of 4.6 kg with atenolol (50 mg/d) produced reduction in diastolic blood pressure of 18.4 mm Hg from baseline.

Depending on other risk factors, even the high end of normal may be too high for some people. A study done by researchers at the University of Michigan suggested that even slightly elevated blood pressures can be dangerous for some people, especially those who are obese (those with 20 percent to 30 percent above the recommended body weight). Borderline hypertension is defined as anywhere between 140 and 160 systolic, and between 90 and 95 diastolic. Anything above those levels is bona fide hypertension. The exception is elderly patients. Here, systolic pressures are sometimes allowed to rise to 180 to compensate for aging arteries, as long as the patient doesn't have other risk factors such as obesity or high cholesterol.

About half of the people diagnosed with high blood pressure have borderline to mildly high blood pressure. For these cases, diet and lifestyle changes, including regular exercise, stress management and self-monitoring with a home blood pressure device, can be used to control and bring down the blood pressure with no side effects. However, if you have elevated blood pressure, you will have to take medication to bring it down and then implement lifestyle changes to make sure that the blood pressure stays low. Thus Complementary therapies are very useful in managing this condition .

Need for the study

According to **Nanwani (1999)** keeping Blood Pressure under control is tremendously important for overall health by having healthy lifestyle. High blood pressure is one of the several factors associated with cardiovascular disease which is a major killer of both men and women.

According to the **World Health Organization** the prevalence of hypertension in world is 20.6% males and 20.9% females in the year of 2000 and is projected to increase the year of 2000 and is projected to increase to 22.9% and 23.6% respectively by 2025. The estimated total number of people with hypertension in world 2000 was 60.4 million males and 57.8 million females and projected to increase 107.3 million and 106.2 million respectively in 2025. According to World Health Organization report 2002 hypertension causes 5 million predeaths and 13% of global facilities each year world wide. Life style modification is a pro-active approach towards optimum health and wellness by bringing about appropriate change in the way person lives to live life more.

Prevalence of Hypertension In India.

In India 20million people have moderate to severe hypertension in age group of 25-45years. **Mr.Rohatak (2004)** conducted a study on 20-60 year aged people and found that 59.9 -69.9 percentage 1000 in males and females respectively in the urban population, and 35.5-35.9 percentage 1000 in males and females respectively in the rural population were found in India. About 20% of the adult population develops hypertension more than 90% of these have essential (primary) hypertension, which has no identifiable medical cause. The blood pressure with specific cause such as narrowing of the renal arteries or disease of the parenchyma of kidneys certain medication, organ disfunction, tumors and pregnancy.

In India there are 34 million patients in urban area. According to the “Indian Hypertension Guideline-II” 2004 released by Association of physicians of India. So World Health Organization focuses on preventive measures to overcome the Epidemics of

hypertension and its complication among adults. The seventh report of the Joint National Committee on prevention, detection, evaluation and treatment of high Blood Pressure recommends manage the lifestyle modifications for all clients with hypertension.

According to **Mridul Chaturvedi (2008)** were conducted study on “Management of Hypertension in Indian context”. The Chennai urban and rural epidemiological study showed that Hypertension was present in 1/5th urban south Indian population and majority of the hypertensive subjects still remain undetected and the control of hypertension is also inadequate. The researcher found that lack of awareness is the main reason to management and control Hypertension.

Prevalence of Hypertension in Andhra Pradesh

Prevalence of hypertension in Andhra Pradesh was 25% and without gender difference. The prevalence tended to increase with age, from 13.6% in 20-30 years age group and 56.4% in >80 years age group. About 60-67 % of the adults were aware of hypertension, while 2-3% were currently on treatment in 2002. Since the prevalence of hypertension was high among the adults who were not following the lifestyle modification and suffering from complication.

A greater awareness of the causes and accelerations of hypertension may provide insights in to the real goal prevention despite more intensive treatment of millions of people with hypertension we have done little to prevent its on self the incidence of hypertension in the farming have population has remained quire stable over 30years.

Hypertension affects approximately one –third of the population. However the prevalence of hypertension increases significantly with age, consistent with the age –related rise in blood pressure observed in most populations.

The health survey for India in 2002 reported prevalence of hypertension as:-

- 16% in those aged 30-40yrs.
- 36% in those aged 60-69 yrs.

➤ 50% in those aged 80yrs and over.

The over all prevalence of hypertension (140/90 mm Hg) is 37%.

➤ 13.5% had attained optimal blood pressure Control (<140/80 mmHg)

➤ 30.0% had achieved adequate blood pressure control <150/90mmHg.

Age -related changes in blood pressure.

According to **Cutler(1993)** In almost all the societies, systolic blood pressure rises progressively through out life, where as diastolic blood pressure rises modestly until the age of 50years and then falls, thus pulse pressure actually increases after middle age. Increasingly strong evidence documents the ability the delay, if not to prevent the onset hypertension crucial to that effort is the prevention of obesity to the population, 70% of hypertension in men and 61% in women was directly to attributable to excess adiposity we should keep goal of prevention in minds as we consider the overall problems of hypertension for the individual patient .

The age related changes in blood pressure in modern populations seems to reflect continued exposure to a number of environmental factors. Which results in progressive arterial stiffening, rather than any intrinsic physiological progress. Hence the gap of knowledge on one side and growing risks on the necessitates the need to systematically educate hypertensive clients regarding the role of diet and exercise and early identification of problems which are life threatening cause gross morbidity in future.

Table 1

According to Prevalence Of Hypertension World Wide Studies is

Country	Incidence In Male	Incidence In Female
China	24%	22%
Japan	37%	33%

Korea	41.1%	24.4%
USA	48.2%	38.6%
India	40%	37.5%
Russia	30.8%	26.4%
UK	40%	25%

Table 2

Incidence in Gandhi Hospital

Sl. No	Year	Incidence per year
1	2005	25830
2	2006	27300
3	2007	26325
4	2008	27010
5	2009	27120
6	2010	28440
7	2011	29000

The investigator was convinced, motivated to design management of hypertension “*Add a Year to Life, Add Life to Years*” which means that modified lifestyle can prolong the life span, improve the quality of life by controlling and even reversing the reversible disease process. One has to realize that one’s life style plays a crucial role in “remaining healthy life”. So, a scientifically planned and logically guided healthy life style is to prevent disease and attain optimum health and wellbeing.

Statement of the problem

“A study to assess the effectiveness of structured teaching programme on knowledge of client regarding management of hypertension at Gandhi Hospital , Secunderabad , Andhra Pradesh.”

Objectives

- Assess the knowledge of clients regarding management of hypertension before structured teaching programme.
- To evaluate the effectiveness of structured teaching programme on knowledge of client with management of hypertension.
- To associate the knowledge of client regarding management of hypertension with demographic variables.

Operational definitions

Basavanthappa (2009) states that the researcher's definition of a term that provides a description of the method for studying the concept by citing the necessary operations (manipulations and observations) to be used."

- **Assess** to evaluate and identify the knowledge of clients regarding the management of hypertension.
 - **Effectiveness** improvement of post test scores over pre-test scores after structured teaching programme regarding management of hypertension.
 - **Structured Teaching Programme** a planned teaching programme with the help of instructional aids prepared by investigator on management of hypertension.
 - **Knowledge** verbal response given by clients regarding management of hypertension as identified with the help of questionnaire prepared by investigator.
 - **Clients** an individual with hypertension who is depend on medical personnel for the treatment.
 - **Management** as a set of activities directed at the efficient and effective utilization of resources for the hypertensive client.
- ✚ Diet
 - ✚ Exercise.
 - ✚ Life style modification.

a)Alcoholism.

b)Caffeine restriction.

- c)Relaxation technique.
- d)Smoking cessation.
- e)Potassium supplement.
- f)Medication

➤ **Hypertension** persistent elevation of systolic blood pressure at level of 140 mmHg or higher and the diastolic pressure at 90 mmHg or higher. Hypertension is increased blood pressure more than 140/90 mmHg .

Assumption

A statement based on logic or reason whose correctness or validity is taken for granted.

- The client will have some knowledge about management of Hypertension.
- The clients selected for the study will respond honestly to the questionnaire.

Hypothesis

“A Hypothesis is an assumption statement about the relationship between two or more Variable that suggest an answer to the research question”.

There will be significant of increase knowledge of client regarding management of hypertension after structured teaching programme.

H_I -There will be a significant different between pre and post test level of knowledge about management of hypertension.

H_{II}. There will be a significant association of post test level of knowledge about hypertension with their selected demographic variables.

Limitation

Restriction identified by the researcher that may affect the outcome of a study but over which the researcher has little or no control.

- The study is limited to the Hypertensive clients in Gandhi Hospital, Secunderabad.
- The study is limited to who are willing to participate in the study.
- The study is limited to clients who can speak and read English and Telugu.

Conceptual Framework

Conceptual framework is an abstract generalization that explains systematically the relationships among phenomena and helps to summarise existing knowledge into coherent systems and explain the nature of relationship between variables.

The conceptual framework for this study is modified and adopted from “the theory of goal attainment” proposed by Imogene King 1945, which explains the major concepts in the theory of goal attainment like interaction, perception, communication, transaction, role, stress, growth and development, time and space.

Interaction:

A process of perfection and communication between person and environment and between person and person represented by verbal and non-verbal behaviours that are good.

The researcher is using the various interaction methods in order to make the communication effective and useful and also to get the knowledge from the sample. The various interaction methods using are health education to the samples, survey method and interview method.

Perception:

Each person's representation of reality includes the import and transformation of energy and processing, storing and exporting information.

According to the variables which are selected by the researcher is affecting and influencing the perception of each person or sample i.e., according to the age, sex, religion, educational status, occupation, marital status, type of family, socio-economic status, family history, type of diet, etc. According to each of these variables the perception will be different.

Communication:

A process where by information is given from one person to another either directly or indirectly. This is the information component of the interactions. Communication is nothing but the process of giving information to the selected sample. The researcher is using the various communication methods such as directly giving the information or by using interview or survey method. By these the researcher is trying to provide the information to the selected samples.

Transaction:

Purposeful interaction that lead to goal attainment.

The researcher has to make aware the people about the role of diet and exercise in the management of hypertension. The researcher first collects the various knowledge levels of samples and after that the researcher is providing the correct and accurate information which is for the goal attainment.

Role:

Each person occupies a position in a social system that has specific rules and obligations. Roles can be congruent (resulting in transactions) or in conflict (resulting in stress).

Stress:

A set of behaviour expected of a human being interacting with the environment.

When the researcher is providing the knowledge regarding the role of management of hypertension. The samples which are having different levels of knowledge is getting the troubles and adjustment problems to follow the instructions and as well as the new lifestyle modifications to control hypertension

Growth and development:

Individuals are in a constant state of molecular, cellular and behavioural change.

As these changes occur transactions are made, moving the individual towards a level of maturity and self actualisation.

Time:

A person experiences a sequence of events that move towards the future.

Space:

Existing in all directions and is the same every where .This is the environment in which nurse and client interact.

The space which is selected for this research study is Gandhi hospital, secunderabad.

King goal attainment theory focuses on the interpersonal system and the interaction s that take place between individuals , specifically in the nurse – client association. The relation ships between King’s major concepts that are important to this aspect is explained through figure.

In this nursing process , each member of the dyad perceives the other and make judgments, action results and together these activities culminate in reaction. Interaction results and “ perceptual accuracy ” exists and any disturbances are conquered, transaction is the out come . This system is open to permit feed back ,because perception is potentially influenced by each phase of activity.

Summary

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

Chapter II**Review of literature**

The term Review of literature refers to the activities involved in identifying and searching for information on a topic and further developing a comprehensive picture of the topic. Review of literature is a critical review of Scholarly publications, unpublished scholarly print materials, audio visual materials and personal communications.

The review of literature for the present study has been done on home care management of hypertension from published articles, textbooks, reports, news ,letters, med line and internet search. The reviewed publications have been organized and presented as following:-

- ❖ Studies related to incidence and prevalence of hypertension.
- ❖ Studies related to prevalence of hypertension.
- ❖ Studies related to disorder with genetic and environmental factors
- ❖ Studies related to clinical manifestation
- ❖ Studies related to management of hypertension.

1.Research studies related to History of Medicine and Man Kind in hypertension

According the **Ronald.C.Hamdy(1994)** availability of effective and safe medication to reduce blood pressure has dramatically changed the impact and natural course of hypertension, enormously expanded the scope and influence of medicine, transformed the role of physicians in society, and may have been a turning point in the history of mankind. Before these medications were available, patients went to see their doctors only if they were not feeling well or were sick. Once these medications became available, asymptomatic and otherwise healthy people went to see their doctors to find out if they were health.

2.Research studies related to prevalence of hypertension.

According to **Guptha(2003)** High blood pressure is an important cardiovascular risk factor. Hypertension experts still debate on the level of blood pressure considered abnormal. The currently accepted dividing line is systolic blood pressure 140 mmHg and diastolic blood pressure 90 mmHg based on epidemiological and intervention studies. In India, hypertension has become a major health problem. Epidemiological studies show a steadily increasing trend in hypertension prevalence over the last 40years, more in urban than in the rural areas. This is converse to findings reported from developed countries where there is a significant decrease in its prevalence. Objectives of clinical evaluation of hypertensive individual are: To establish that

blood pressure is elevated, to seek evidence for a causal or contributory factor which may influence management, to assess target organ involvement and to assess relevant factors which will influence the particular mode of treatment to be adopted. Proper measurement techniques are important for diagnosis of hypertension. Canadian Coalition Guidelines are important in this regard. A basic, simple screening programme is the most appropriate policy for investigating the majority of hypertensive patients. Assessment of target organ involvement is important and can be obtained from history, physical examination or investigations. Studies of hypertension in general population have shown that secondary hypertension with high Blood Pressure is present in 1.1% to 5.7% of subjects. Investigating all the hypertensive patients for secondary hypertension is not cost-effective and should be guided by history and clinical examination.

Stressors and race ethnic differences in hypertension prevalence 2011 april 24

The reasons for racial/ethnic disparities in hypertension prevalence in the U.S are poorly understood. Using data from the Multi-Ethnic Study of Atherosclerosis (MESA), we investigated whether individual and neighborhood-level chronic stressors contribute to these disparities in cross-sectional analyses. The sample consisted of 2679 MESA participants (45–84yrs) residing in Baltimore, New York, and North Carolina. Hypertension was defined as systolic or diastolic blood pressure ≥ 140 or 90mmHg, or taking anti-hypertensive medications. Individual-level chronic stress was measured by self-reported chronic burden and perceived major and everyday discrimination. A measure of neighborhood (census tract) chronic stressors (i.e. physical disorder, violence) was developed using data from a telephone survey conducted with other residents of MESA neighborhoods. Binomial regression was used to estimate associations between hypertension and race/ethnicity before and after adjustment for individual and neighborhood stressors.

The prevalence of hypertension was 59.5% in African Americans (AA), 43.9% in Hispanics, and 42.0% in whites. Age and sex adjusted relative prevalences of hypertension (compared to whites) were 1.30 [95% Confidence Interval (CI): 1.22–1.38] for AA and 1.16 [95% CI: 1.04–1.31] for Hispanics. Adjustment for neighborhood stressors reduced these to 1.17 [95% CI: 1.11–1.22] and 1.09 [95% CI: 1.00–1.18] respectively. Additional adjustment for individual-

level stressors, acculturation, income, education, and other neighborhood features only slightly reduced these associations. Neighborhood chronic stressors may contribute to race/ethnic differences in hypertension prevalence in the U.S.

Overcoming barriers to hypertension control in African Americans 2011

Barriers to blood pressure control exist at the patient, physician, and system levels. We review the current evidence for interventions that target patient- and physician-related barriers, such as patient education, home blood pressure monitoring, and computerized decision-support systems for physicians, and we emphasize the need for more studies that address the effectiveness of these interventions in African American patients. Rates of cardiovascular disease and related death are disparately high in African Americans. Ways to improve how physicians manage blood pressure in this patient population may include chart audit with feedback, a computerized clinical decision-support system, and keeping up-to-date with treatment guidelines. However, more data are needed to determine the effectiveness of these interventions. A novel method of health education is the use of narrative communication—ie, storytelling. Culturally appropriate storytelling may allow patients to identify with a story as it relates to their own lives.

A team-based approach to blood pressure control that involves nurses, pharmacists, and physician assistants should be emphasized, even though studies that have shown positive results did not focus specifically on African Americans. High blood pressure takes a devastating toll on African Americans. Better control can go a long way to closing the “mortality gap” between African Americans and white Americans. But which strategies are best to address this complex problem. In this report, we review the evidence on practice-based approaches to improving blood pressure control, from new styles of patient education to home blood pressure monitoring, focusing on studies in African Americans.

3. Research studies related to disorder with genetic and environmental factors

According to **Williams(1997)** hypertension is a complex multi factorial disorder with genetic, environmental and demographic factors contributing to its prevalence. The genetic element contribution to blood pressure variation ranges from 30 to 50%. Therefore, identifying

hypertension susceptibility genes will help understanding the pathophysiology of the disease. In addition to the potential impact of genomic information in selecting antihypertensive drug therapy, it may also help in recognizing those at risk of developing the disease, which may lead to new preventive approaches. Several strategies and methods have been used to identify hypertension susceptibility genes. Currently, genetic analysis of such data produced complex results, which makes it difficult to draw final conclusion on the use of genomic data in management of hypertension. This review attempts to summarize present known genetic variations that may be implicated in the pathogenesis of hypertension and to discuss various research strategies used to identify them. It also highlights some of the opportunities and challenges, which may be encountered in interpreting the value of these genetic variations to improve management of hypertension.

4.Epidemic of hypertension in Ghana: a systematic review july 2010

This is an Open Access article distributed under the terms of the Creative Commons Attribution. Hypertension is a major risk factor for many cardiovascular diseases in developing countries. A comprehensive review of the prevalence of hypertension provides crucial information for the evaluation and implementation of appropriate programmes. The PubMed and Google Scholar databases were searched for published articles on the population-based prevalence of adult hypertension in Ghana between 1970 and August 2009, supplemented by a manual search of retrieved references. Fifteen unique population-based articles in non-pregnant humans were obtained. In addition, two relevant unpublished graduate student theses from one university department were identified after a search of its 1996-2008 theses.

The age and sex composition of study populations, sampling strategy, measurement of blood pressure, definition of hypertension varied between studies. The prevalence of hypertension (BP \geq 140/90 mmHg \pm antihypertensive treatment) ranged from 19% to 48% between studies. Sex differences were generally minimal whereas urban populations tended to have higher prevalence than rural population in studies with mixed population types. Factors independently associated with hypertension included older age group, over-nutrition and alcohol consumption.

Whereas there was a trend towards improved awareness, treatment and control between 1972 and 2005, less than one-third of hypertensive subjects were aware they had hypertension and less than one-tenth had their blood pressures controlled in most studies.

Hypertension is clearly an important public health problem in Ghana, even in the poorest rural communities. Emerging opportunities such as the national health insurance scheme, a new health policy emphasising health promotion and healthier lifestyles and effective treatment should help prevent and control hypertension.

5. Research studies related to clinical manifestation of hypertension

According to **Appel, champagne, Harsha Act (2003)** study shown : that weight loss, reduced alcohol and sodium intake, and regular physical activity are effective lifestyle adoptions to reduce blood pressure.

According to **Bent Megan (1990)** united state conducted a study. Which states that approximately 60% of adults have a total cholesterol greater than 200mg/dl. Many of them have 1000 density lipoproteins, high triglycerides and dense low density lipoproteins cholesterol. The study showed that cardiovascular risk and disease advance sharply with increasing age where as control takes for hypertension in particular, decline.

According to **Ashage Mo ,Gives WHO Act (1998)**. This state review discusses the magnitude of the problem and its epidemiology and the evaluation and management of hypertension as recommended by the reports of the Joint National Committee on prevention ,detection ,evaluation, and treatment of high blood pressure. Data from the third National Health and nutrition examination survey 1998-1994 (NHANES III) suggest approximately three quarters (75%) of black hypertensive all aware of their diagnosis but only 57% are treated and just 25% have their blood pressure under control (<140mm Hg systolic and <90 mm Hg diastolic).

According to **Cappucino T.P (2002)** London, OC in his cross sectional survey studied the logo risk of coronary heart disease ,stroke and combined cardiovascular disease (CVD) estimated from 1386 men and women, age 45-50 yrs with no history of CVD (475 white people 447 South Asian people and 464 people African origin) and a subgroup of 1069 without known diabetes left ventricular hypertrophy, peripheral vascular disease renal impairment or target organ damage of CHD adjusted for age and sex (8.890,8.2,9.5) compared to Asian and whites and the highest estimated risk of stroke primary card doctors should use a lower threshold of Coronary Heart Disease risk when treating mild uncomplicated hypertension in people of African and South Asian origin.

According to **Sacksectal (2001)** ,studies show that diets high in fruit,vegetable and low fatty dietary products can prevent the development of hypertension and can lower elevated blood pressure.

According to **Catherine (2000)** Mumbai studied the effects of relaxation exercises on hypertensive clients sample consisted of subjects assessed by interview schedule.The findings reveled that relationship exercise have a positive effect in licking blood pressure , in hypertensive subject with significant disease in systolic and diastolic blood pressure.

According to **Jain (1999)**,Delhi conducted a cross sectional study to compare arterial blood pressure between lacto vegetarian and non-vegetarian males by house survey using a prescribed performed. The sample consisted of 392 subjects. The findings that hypertension 33.71% of non-vegetarian males on compared to 24.5% lacto vegetarian males ,the mean systolic blood pressure among lacto vegetarian ranged from 117.14 multi to 146 - 70 multi and diastolic ranged to 77- 44mmHg to 91- 46mmHg.

According to **Polit and Hunger (1999)** the activities involved in identifying and searching too information on a topic and developing a comprehensive picture of a state of knowledge on the topic is called review of literature.

According to **Ambard and Beanjard (1905)** U.K were the first to promote the concept that the cause of hypertension was salt in the diet. They thought the culprit was chloride rather than sodium. They claimed some success in reducing blood pressure by restricting salt.

According to **Kemper (1940)** United State, demonstrated that a diet of plain rice, fruit and vitamin tablets were effective in reducing blood pressure in patients with severe or even malignant hypertension .Kemper maintained 100% compliance by forcing the patients to live for 100 days confined to special dormitories. Kempner maintained 100% compliance by forcing the patients to live for 100 days confined to special dormitories. Kempner thought that the success of his diet was due to lack of protein, but two other investigations watkin and Murphy both found that the effectiveness of Kempner's diet was due to its extremely low sodium content of only 20-30 m eq/day.

According to **Prichard and Gilliam(1989)**, were the first to demonstrate the effectiveness of the B-blocks reducing blood pressure & preventing its complications, as demonstrated in several controlled trails .B-blockers were especially effective when combined with a diuretics.

According to **Young,(1808)** Germany in his croonian lecture, stated “that pressure of the blood at the beginning of the great trunk of aorta is kept up without noticeable loss down to the branches of lower order”. In studies he discovered that the fall in systolic blood pressure from the aorta to arteries as small as 200Km in diameter was approximately 16 mmH

Cadman, J. (May 4, 2012). “Uncontrolled Hypertension: "Wee" Can Help!” Presented at the Graduate Nursing Synthesis Seminar, Misericordia University, Dallas, PA.Hypertension (HTN), affecting approximately 73 million Americans, is associated with significant vascular morbidity and mortality (Kountz, 2009). Research supports the beneficial effects of quality blood pressure (BP) management, and that the most patients will require combination pharmacotherapy (Fitzgerald, 2011). The focused question is, “In adult patients

with uncontrolled Stage I HTN for greater than one month after the initiation of an angiotensin converting enzyme inhibitor, will the addition of 12.5mg of hydrochlorothiazide (HCTZ) be effective in lowering the BP Results of a rigorous literature search were used to formulate an evidence-based practice protocol for additive pharmacologic HTN therapy. Imogene King's Goal Attainment Theory was employed in the implementation. Second-line HCTZ treatment-induced systolic BP (SBP) and diastolic BP (DBP) reduction was demonstrated in seven out of eight patients representing 87.5% achievement. The reductions averaged -20.8mmHg for SBP and -8mmHg for DBP. These results exceeded those reported in the appraised literature.

Hypertension Analysis Of Stress Reduction Using Mindfulness Meditation And Yoga (The Harmony Study)

Hypertension (HTN) is a leading risk factor for preventable cardiovascular disease, with over one in five adults affected worldwide. Lifestyle modification is a key strategy for the prevention and treatment of HTN. Stress has been associated with greater cardiovascular risk, and stress management is a recommended intervention for hypertensive. Stress reduction through relaxation therapies has been shown to have an effect on human physiology, including lowering blood pressure (BP). However, individualized behavioural interventions are resource intensive, and group stress management approaches have not been validated for reducing HTN. The HARMONY Study is a pilot randomised controlled trial designed to determine if mindfulness-based stress reduction (MBSR), a standardised group therapy, is an effective intervention for lowering BP in stage 1 unmedicated hypertensives

Based on an annual consensus conference reviewing the world literature including the Cochrane Collaboration Databases, the Canadian Hypertension Education Program recommends lifestyle modification as a key strategy for the prevention and treatment of hypertension (HTN). Over 5 million Canadians, part of a worldwide epidemic, are hypertensive. Data extrapolated from large population surveys and prospective studies show that approximately 250 000 Canadians with high-normal blood pressure (BP) (systolic blood pressure (SBP) 120–139 mm Hg or diastolic blood pressure (DBP) 80–89 mm Hg) will develop full-blown high BP every year (BP \geq 140/90

mm Hg)—putting them at higher risk for heart attack and stroke, necessitating the use of medications in most of them. Preventing and controlling HTN is one of the most cost-effective strategies for reducing the global burden of premature cardiovascular disease and death. Reducing SBP by just 3 mm Hg in the general population has the potential to reduce stroke mortality by 8% and coronary artery disease mortality by 5%. The published findings of the *InterStroke* Study, one of the largest studies of its type in the world, concluded definitively that uncontrolled HTN is the single most influential risk factor for stroke.

Stress has been associated with greater cardiovascular risk and consideration of stress management is a recommended intervention for hypertensive. However, specific stress management approaches are not well validated for reducing HTN. Stress management therapies can be differentiated based on their approach and delivery: single- or multicomponent approach and individualised or group delivery. Certain therapeutic approaches have been efficacious for reducing BP in subjects with hypertension: transcendental meditation (TM) (a single-component, individualised therapy), cognitive behavioural therapy (CBT) (a multicomponent, individualised therapy) and, more recently, contemplative meditation (a multicomponent, group therapy).

All study data are maintained in a secure location only accessible to study related personnel; this includes lab computers, which are accessible only through authentication with ID and password. Study data are shared with family physicians or the Nephrology Research Group at Sunnybrook Health Sciences Centre only with the participant's consent. All source information collected is retained under the primary investigator (ST) as custodian. After all data entry/data auditing are completed, paper copies of study data will be stored at Iron Mountain and destroyed after 25 years as per Health Canada guidelines. Electronic study data will be kept in the Microsoft Access Database until data analysis is completed. Maintenance of study data and study confidentiality is done in full conformance with requirements from the Sunnybrook Research Ethics Board, the University Health Network Research Ethics Board and Health Canada. Men and women unmedicated for HTN with mean daytime ambulatory blood pressure (ABP) $\geq 135/85$ mm Hg or 24 h ABP $\geq 130/80$ mm Hg are included in the study. Subjects are randomised to receive MBSR immediately or after a wait-list control period. The primary

outcome measure is mean awake and 24 h ABP. The primary objective of the HARMONY Study is to compare ABP between the treatment and wait-list control arm at the 12-week primary assessment period. Results from this study will determine if MBSR is an effective intervention for lowering BP in early unmedicated hypertensive

The primary outcome will be examined using an intent-to-treat analysis. An intent-to-treat population is defined as all subjects in the study who completed at least one session of MBSR. The primary outcome measure is mean awake and 24 h systolic and diastolic ABP. ABP between treatment and control will be compared by two-tailed two-sample t test at the end of the 12-week primary outcome period. Within-subject analysis of the effect of MBSR on ABP will be performed by a paired t test. Persistence of effect of MBSR on BP will be assessed using repeated analysis of variance measures, comparing group differences between subsequent study visits (baseline, pre-MBSR, post-MBSR and study close-out). The proportion of subjects achieving BP targets will be analysed using χ^2 tests. Multiple regression analyses will be employed to assess differences in BP between subjects while adjusting for covariates. Subjects may be started on antihypertensive therapy during the study. If this leads to imbalance between the study arms, a per-protocol analysis may be performed to take this variable into account. All analyses will be carried out using (SAS Institute).

Perceptions of hypertension treatment among patients 26 March 2012

Despite the availability of a wide selection of effective antihypertensive treatments and the existence of clear treatment guidelines, many patients with hypertension do not have controlled blood pressure. We conducted a qualitative study to explore beliefs and perceptions regarding hypertension and gain an understanding of barriers to treatment among patients with and without diabetes.

Ten focus groups were held for patients with hypertension in three age ranges, with and without diabetes. People with hypertension tend to see hypertension not as a disease but as a risk factor for myocardial infarction or stroke. They do not view it as a continuous, degenerative process of damage to the vascular system, but rather as a binary risk process, within which you can either be a winner (not become ill) or a loser. This makes non-adherence to treatment a gamble with a

potential positive outcome. Patients with diabetes are more likely to accept hypertension as a chronic illness with minor impact on their routine, and less important than their diabetes. Most participants overestimated the effect of stress as a causative factor believing that a reduction in levels of stress is the most important treatment modality. Many believe they "know their bodies" and are able to control their blood pressure. Patients without diabetes were most likely to adopt a treatment which is a compromise between their physician's suggestions and their own understanding of hypertension.

Patient denial and non-adherence to hypertension treatment is a prevalent phenomenon reflecting a conscious choice made by the patient, based on his knowledge and perceptions regarding the medical condition and its treatment. There is a need to change perception of hypertension from a gamble to a disease process. Changing the message from the existing one of "silent killer" to one that depicts hypertension as a manageable disease process may have the potential to significantly increase adherence rates.

Intergenerational Transmission Of Chronic Illness Self-Care: Results From The Caring For Hypertension In African American Families Study 2011 February

African Americans often experience early onset of hypertension that can result in generations of adults managing high blood pressure concurrently. Using a model based on the Theory of Interdependence, this study examined whether intergenerational transmission of hypertension knowledge and self-efficacy would affect hypertension self-care of older parents and their adult children. We recruited 95 African American older parent–adult child dyads with hypertension. We constructed separate logistic regression models for older parents and adult children with medication adherence as the outcome. Each model included individual demographic and health characteristics, the partner's knowledge, and self-efficacy to manage hypertension and dyad-related characteristics. Parents were more adherent with medication than adult children (67.4% vs. 49.5%, $p < .012$). There were no significant factors associated with parent medication adherence. In adjusted models for adult children, medication adherence was associated with child's gender (odds ratio [OR] = 3.29, 95% confidence interval [CI] = 1.26–8.59), parent beliefs that the child had better hypertension self-care (OR = 4.36, 95% CI = 1.34–

14.17), and child reports that the dyad conversed about hypertension (OR = 3.48, 95% CI = 1.18–10.29). Parental knowledge of hypertension and parent's self-efficacy were weakly associated with adult children's medication adherence (OR = 1.35, 95% CI = 0.99–1.84 and OR = 2.59, 95% CI = 0.94–7.12, respectively). Interventions should consider targeting African American older adults to increase self-care knowledge and empower them as a primary influencer of hypertension self-care within the family.

Job strain, workplace discrimination, and hypertension among older workers: the health and retirement study 3 rd marh 2011

Job strain has been associated with hypertension among younger workers; however, whether this relationship persists among older workers, particularly older racial/ethnic minorities, is unresolved. This study evaluated whether job strain and workplace discrimination are associated with hypertension and poor blood pressure control among older workers and whether these relationships vary by gender and race/ethnicity. Data were drawn from the Health and Retirement Study, and analysis was restricted to employed participants with complete information on job strain and blood pressure ($N = 3,794$). In adjusted models, high job strain was associated with lower likelihood of hypertension (odds ratio (OR): 0.75, 95% confidence interval (CI): 0.63, 0.89) relative to low job strain. Stratified analyses indicated this association was only significant among white (OR: 0.71, 95% CI: 0.58, 0.86) and male (OR: 0.61, 95% CI: 0.47, 0.79) workers. High job strain was not significantly associated with hypertension among African American (OR: 1.14, 95% CI: 0.63, 2.07) or Hispanic (OR: 0.56, 95% CI: 0.29, 1.09) workers. Workplace discrimination was not associated with hypertension among any group. Neither job strain nor discrimination was associated with poor blood pressure control. These findings suggest that persistence in work characterized by high job strain in later life may signal resilience to the influence of work-related stressors on health. Future research efforts should examine the factors that contribute to gender and racial differences in these relationships.

Decreased cognitive function in young adults at risk for hypertension: effects of sleep deprivation january 24 th 2012

Hypertension has been linked to impaired cognitive/CNS function, and some of these changes may precede development of frank essential hypertension. The stress and fatigue of sleep deprivation may exacerbate these cognitive changes in young adults at risk. We hypothesize that individuals at risk for hypertension will show significant declines in cognitive function during a night of sleep deprivation. Fifty-one young adults were recruited for 28-hour total sleep deprivation studies. Hypertension risk was assessed by mildly elevated resting blood pressure and by family history of hypertension. A series of cognitive memory tasks was given at four test sessions across the sleep deprivation period. Although initially comparable in cognitive performance, persons at risk showed larger declines across the night for several indices of working memory, including code substitution, category, and order recall. These results suggest that cognitive/CNS changes may parallel or precede blood pressure dysregulation in the early stages of hypertension development. The role of CNS changes in the etiology of essential hypertension is discussed.

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stages of hypertension development. The role of CNS changes in the etiology of essential hypertension is discussed.

Quality and safety of medication use in primary care: consensus validation of a new set of explicit medication assessment criteria and prioritisation of topics for improvement **february 2012**

Addressing the problem of preventable drug related morbidity (PDRM) in primary care is a challenge for health care systems internationally. The increasing implementation of clinical information systems in the UK and internationally provide new opportunities to systematically identify patients at risk of PDRM for targeted medication review. The objectives of this study were to develop a set of explicit medication assessment criteria to identify patients with sub-optimally effective or high-risk medication use from electronic medical records and (2) to identify medication use topics that are perceived by UK primary care clinicians to be priorities for quality and safety improvement initiatives.

For objective 1, a 2-round consensus process based on the RAND/UCLA Appropriateness Method (RAM) was conducted, in which candidate criteria were identified from the literature and scored by a panel of 10 experts for 'appropriateness' and 'necessity'. A set of final criteria was generated from candidates accepted at each level. For objective 2, thematically related final criteria were clustered into 'topics', from which a panel of 26 UK primary care clinicians identified priorities for quality improvement in a 2-round Delphi exercise.

The RAM process yielded a final set of 176 medication assessment criteria organised under the domains 'quality' and 'safety', each classified as targeting 'appropriate/necessary to do' (quality) or 'inappropriate/necessary to avoid' (safety) medication use. Fifty-two final 'quality' assessment criteria target patients with unmet indications, sub-optimal selection or intensity of beneficial drug treatments. A total of 124 'safety' assessment criteria target patients with unmet needs for risk-mitigating agents, high-risk drug selection, excessive dose or duration, inconsistent monitoring or dosing instructions. (2) The UK Delphi panel identified 11 (23%) of 47 scored topics as 'high priority' for quality improvement initiatives in primary care.

Dairy Consumption, Blood Pressure, and Risk of Hypertension: An Evidence-Based Review of Recent Literature

Hypertension is a major risk factor for development of stroke, coronary heart disease, heart failure, and end-stage renal disease. In a systematic review of the evidence published from 2004 to 2009, the 2010 Dietary Guidelines Advisory Committee (DGAC) concluded there was moderate evidence of an inverse relationship between the intake of milk and milk products (dairy) and blood pressure. This review synthesizes results from studies published over the past year on the relationship between dairy intake, blood pressure, and hypertension risk. The influence of dairy micronutrients including calcium, vitamin D, potassium, and phosphorous on blood pressure and incident hypertension is examined. Emerging research on bioactive dairy peptides is also reviewed. Lastly, recent evidence on effects of dairy fat content on blood pressure and hypertension risk, and the impact of inclusion of low-fat dairy in dietary patterns is also investigated.

5.A review of its use in the management of hypertension

Combination therapy is an effective strategy to increase antihypertensive efficacy in those patients with poor blood pressure (BP) control. In order to achieve BP targets, at least 75% of patients may require combination therapy, and European guidelines advocate this approach, particularly in those patients with a high cardiovascular risk. Evidence from large, randomized controlled trials, and the European hypertension treatment guidelines is supportive of the use of an angiotensin receptor blocker (ARB) with a calcium channel blocker (CCB). Fixed-dose combination formulations of olmesartan medoxomil, an ARB, and the CCB amlodipine are approved in several European countries for patients with essential hypertension. The olmesartan /amlodipine combination has demonstrated greater efficacy than its component monotherapies in reducing BP in patients with mild-to-severe hypertension. Significantly greater reductions in seated diastolic BP were observed between baseline and after eight weeks of treatment with olmesartan/amlodipine, compared with equivalent doses of olmesartan or amlodipine monotherapy ($P < 0.001$), in the factorial Combination of Olmesartan Medoxomil and Amlodipine Besylate in Controlling High Blood Pressure (COACH) trial. About 85% of the

maximal BP reductions after the 8-week treatment period were already observed after two weeks. Uptitration as necessary, with or without hydrochlorothiazide, allowed the majority of patients to achieve BP control in a 44-week open-label extension treatment period to the COACH trial. The use of olmesartan/amlodipine allowed up to 54% of patients, with previously inadequate responses to amlodipine or olmesartan monotherapy, to achieve their BP goals. Data from post-registration studies using tight BP control and forced titration regimens have further demonstrated the high efficacy of olmesartan/amlodipine in achieving BP goal rates. Moreover, consistent reductions in BP were observed over the 24-hour dosing interval using ambulatory measurements. Olmesartan/amlodipine was generally well tolerated over the short- and long-term, with a lower frequency of peripheral edema with olmesartan/amlodipine 40/10 mg than with amlodipine 10 mg monotherapy.

Summary

This chapter dealt with the review of related literature and research studies.

- ❖ Studies related to incidence and prevalence of hypertension.
- ❖ Studies related to prevalence of hypertension.
- ❖ Studies related to disorder with genetic and environmental factors
- ❖ Studies related to clinical manifestation
- ❖ Studies related to management of hypertension.

Literature was reviewed for getting familiarized with various aspects and issues related to the problem under study. These research studies helped the investigator to have insight into what was done in past related to the present problem and what can be done in future.

CHAPTER-III

METHODOLOGY

According to Polit and Beck (2008) Methodological research designed to develop or refine methods of obtaining, organizing, or analyzing data. Research Methodology deals with the method of investigation to be adopted by the Investigator. This chapter on methodology deals with research approach, research design, variables, setting, population, sample, sampling technique, criteria for sample selection, method of data collection, development and description of tool, procedure of data collection, and plan of data analysis adopted for the present study.

In the present study the investigator aims “A study to assess the effectiveness of structured teaching programme on knowledge of client regarding management of hypertension at Gandhi Hospital , Secunderabad , Andhra Pradesh.”

Research approach

Research approach (design) is the researchers over all plan for answering the research question. According to Polit and Beck (2008) the research approach refers to a general set of orderly disciplined procedures used to acquire dependable and useful information. The research approach adopted for the present study was quantitative approach with pre experimental type because experiments are most powerful methods available for testing hypothesis of cause and effect associations between variables. Hence quantitative research approach was considered to be the most useful method.

Research design

The research design is the overall plan for obtaining answers to the questions or for testing the hypothesis. It spells out basic strategies that the researcher to develop information that is accurate and interpretable.

- The research design for the present the study is Pre - experimental design. (One group pretest and post test design)

Polit and Beck (2008) specify that the Research design is an overall plan for obtaining answers to the research questions or for testing the research hypothesis. The research design adopted for the present study was the **“One group pre test and post test design ”**. In this design pre test was conducted to clients with hypertension, then independent variable was introduced to the group, the investigator has selected structured teaching programme as the independent variable. The investigator planned to test the effectiveness of independent variable with the help of post test for the group.

Group O₁ X O₂

Where ‘O₁’ was pretest which included assessing the knowledge of clients regarding management of hypertension. ‘X’ was where structured teaching programme was given to the group and ‘O₂’ was post test which included assessing the level of knowledge of clients management of hypertension.

Variable

“Variables are qualities, properties or characteristics of persons, things or situations that change or vary.”

- Independent Variable -Structured questionnaire.
- Dependent Variable – Knowledge of the hypertensive client regarding management of hypertension.
- Extraneous variables- Demographic variable.

Description of variables

Polit and Beck (2008) describe variable as an attribute that varies, that is, takes on different values. In the present study investigator has identified independent variable, dependent variable and few extraneous variables.

Independent variable

According to Polit and Beck(2008) specifies that independent variable is that believed to cause or influence the dependent variable. In the present study the investigator has identified the structured teaching programme on management of hypertension as the independent variable which influence the dependent variable.

Dependent variable

According to Polit and Beck (2008) dependent variable is the variable hypothesized to depend on or cause by another variable (the independent variable). In the present study the dependent variable was Knowledge of the hypertensive client regarding management of hypertension.

Extraneous variables

According to Polit and Beck (2008) extraneous variable is that confounds the association between the independent and dependent variables and that needs to be controlled either in the research design or through statistical procedures. The extraneous variables identified are sex, age, education , occupation, marital status, type of family, socio-economic status, family history, type of diet.

Setting

According to Polit and Beck(2008) setting refers to physical locations and conditions in which the data collection takes place. The setting selected for the present study was Gandhi Hospital ,Secunderabad. Hyderabad, Andhra Pradesh. It is one of the biggest hospital in A.P having bed strength of 1000 and delivering specialized and expertise services to clients with hypertension .So the investigator selected the medical wards which was divided in to five units as the setting for the present study. Each unit consist of 20 bed strength ,and among that 8-10 clients with hypertension. The sample were collected from this hospital because it was approachable and had adequate sample for data collection.

Population

Polit and Beck (2008) specify the population is the entire set of individuals or objects having some common characteristics. The population always comprises the entire aggregate of elements in which the researcher is interested. Population refers to the totality of all subjects that conform to a set of specification. Population of the present study is Hypertensive clients at Gandhi Hospital, Secunderabad

Sample technique

According to Polit and Beck (2008) sampling refers to process of selecting a portion of the population to represent the entire population. In the present study the investigator has selected Convenient sampling technique, which is based on researchers knowledge about the population and is used to hand pick the cases that are included in sample

Sample size

According to Polit and Beck (2008) sample is a subset of a population, selected to participate in the research study. In the present study the samples were 60 clients admitted to the male and female medical wards at Gandhi Hospital, Secunderabad, Hyderabad, Andhra Pradesh.

Sample criteria

Inclusion criteria

- Clients with hypertension of both sexes.
- Clients with hypertension who can speak and read English and Telugu.
- Clients with hypertension who are participate in study age groups of 30 – 70 Years.

Exclusion criteria

- Clients with hypertension who are non co-operative.

Methods of data collection

Polit and Beck (2008) specifies that the method of data collection is a method of gathering information from respondents in a standardized fashion. For the present study “Questioning” have chosen as a method of data collection and adopted to assess the hypertensive client’s knowledge. The investigator found that the Questioning is a popular approach to collect information from hypertensive clients through the structured questionnaire regarding management of hypertension, is a process by which gathers data from the study subjects.

Development of the Tool

A search for literature is made for purpose of developing appropriate tool for assessing the knowledge of clients with hypertensive clients. An instrument in the form of structured questionnaire developed with the help of related literature from various textbooks, journals and net information, discussion with experts in the medical-surgical nursing, & doctors in order to develop the tool.

Description of tool

Data collection tools are the procedures instruments used by variables in the researchers to observe or measure the key variables in the research problem. The present study aimed to evaluate the structured teaching programme on knowledge of client regarding management of hypertension. So structured knowledge questionnaire was developed as the tool to collect

data. Tool developed for the study is structured questionnaire for evaluating the knowledge of client regarding management of hypertension. Tool is divided into two parts.

Part I:- Demographic data which consist of age, sex, religion, educational status, occupation, marital status, type of family, socio-economic status, family history, type of diet.

Part II:- Questionnaire related to management of hypertension.

In the study categorization of knowledge will be done based on scores to place clients in to three groups.

Below Average	>	33%
Average	>	33-66%
Above Average	>	Above 66%

Validity of the tool

According to Polit and Hungler (1999), Validity refers to the what extent an instrument is supposed to measures in order to determine the content validity.

The investigator submitted the tools for content validity to experts in the field of nursing after suggestions tool is modified.

Reliability of the tool

According to Polit and Hungler (1999), Reliability refers to the stability, consistency, accuracy and dependability of an instrument or measurement.

Reliability of questionnaire was tested by pre test and post test method to the sample of 10 clients with hypertension. The subjects first score was compared with the second with the help of Karl Pearson co-efficient correlation. A value of $r = 0.9$ was obtained indicating the tool to be highly reliable.

Section-I:- knowledge about definition and causes of hypertension.

Section II :- knowledge about clinical manifestations and diagnostic

evaluation of hypertension

Section III :- knowledge about the management of hypertension.

In the study categorization of knowledge will be done based on scores to place clients in to three groups.

Below Average	>	33%
Average	>	33-66%
Above Average	>	Above 66%

Pilot study

The purpose of the pilot study is to assess the feasibility ,applicability and practibility of the tool and to plan for statistically analysis of data . Pilot study was conducted in Guru Nanak Care Hospital,Musheerabad. Hyderabad from 20th march to 27th march 2012. Ten clients were selected for pilot study by convenient sampling method. The investigator first explained the instructions regarding the aim and method of tool, then qestionnare was conducted and collected the response of samples. Post test was conducted on 7th day to assess the effectiveness of structured teaching programme .Statitcal analysis was made with the help of descriptive and inferential statistics

Data collection procedure

The investigator obtained the written permission from medical super indent of Gandhi Hospital to collect data. The HOD' s , nursing super indent and in charges are informed about details of study and obtained permission .The data collection have done in Male & female Medical ward at Gandhi Hospital, Secunderabad , Hyderabad, Andhra Pradesh. 60 clients with hypertension evaluated with the help of structured questionnaire. They have informed about the purpose of the study and necessary instructions has given to help them to respond to the questions. The confidentiality of the responses will be assured.

Plan for data analysis

After collecting data it can be analyzed by using descriptive and inferential statistics i.e., mean, standard deviation, standard error and paired “t” test and χ^2 test for obtained scores in pre and post test. The analysis and interpretation of the data can be presented in 3 parts

Part-I: Deal with frequency percentage distribution of demographic characteristics of clients with Hypertension.

Part-II: Deals with analysis of knowledge scores obtained by the clients with hypertension before and after structured teaching programme on management of hypertension by percentage mean, standard deviation, standard error, paired “t” test and chi-square test.

Part-III: Deals with the Association between knowledge of clients with hypertension regarding management of hypertension with selected variables by using chi-square test and interpreting the results.

Summary

This chapter deals with research approach, variable, research design, setting and population, sampling technique, sample size and sample criteria for sample selection, it includes method of data collection, development and description of the tool, validity, reliability, pilot study data collection procedure and plan of data Analysis.

Chapter-IV

Analysis and Interpretation

This chapter deals with the analysis of data collected from 60 clients with hypertension at Gandhi hospital, Hyderabad. A structural questionnaire was used for data collection and analysis was done with the help of descriptive and inferential statistical methods.

The objectives of the study were

- Assess the knowledge of clients regarding management of hypertension before structured teaching programme.
- To evaluate the effectiveness of structured teaching programme on knowledge of client with management of hypertension.
- To associate the knowledge of client regarding management of hypertension with demographic variables.

Data was collected from 60 clients with hypertension and the data was entered in master sheet according to section wise for the analysis and interpretation. Descriptive and inferential statistical procedures such as frequencies, percentage, mean, standard deviation, standard error, “t” test and chi-square tests were used and the results were presented in tables and figures.

The data is presented under the following headings

Part-I: Deal with frequency and percentage distribution of demographic characteristics of clients with hypertension.

Part-II: Deals with analysis of knowledge scores obtained by the clients with hypertension before and after structured teaching programme on management of hypertension by percentage mean, standard deviation, standard error, paired “t” test and chi-square test

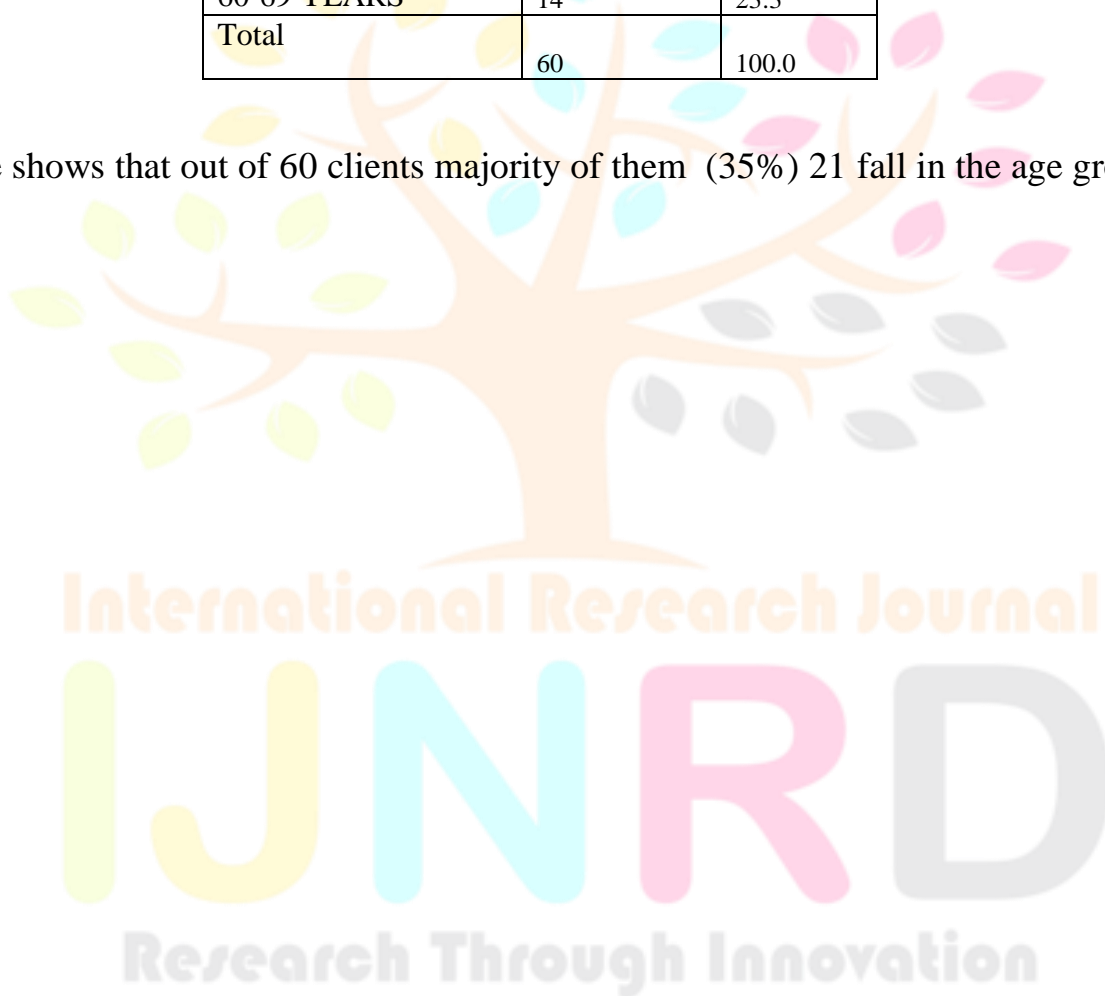
Part-III: Deals with the association between knowledge of clients with hypertension regarding management of hypertension with selected variables by using chi-square test and interpreting the results.

Table 4
Distribution of Clients With hypertension
According to the Age.

N=60

Age	Frequency	Percent
30- 39 YEARS	8	13.3
40-49 YEARS	17	28.3
50- 59YEARS	21	35.0
60-69 YEARS	14	23.3
Total	60	100.0

Above table shows that out of 60 clients majority of them (35%) 21 fall in the age group of 50-59 years.



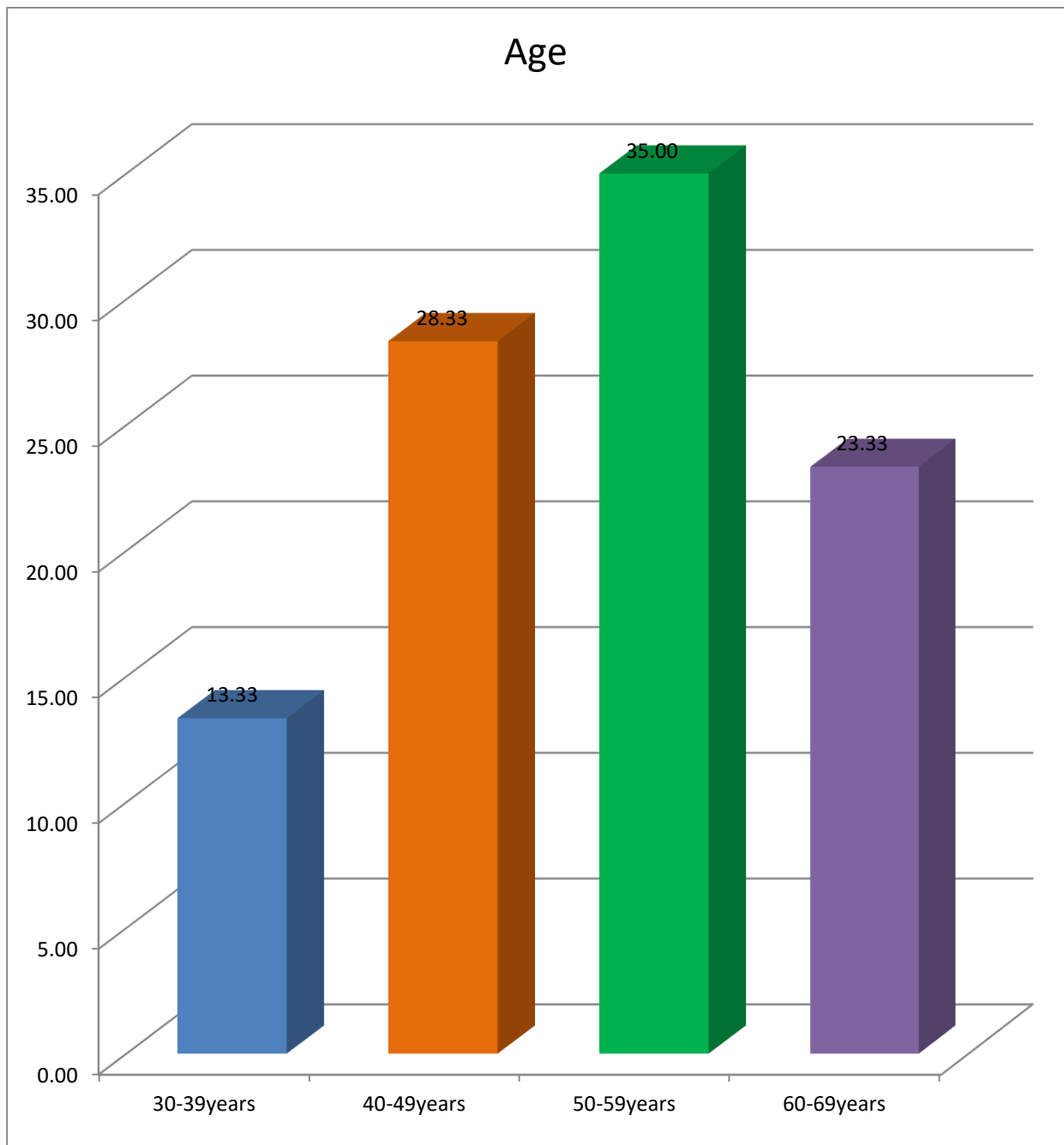
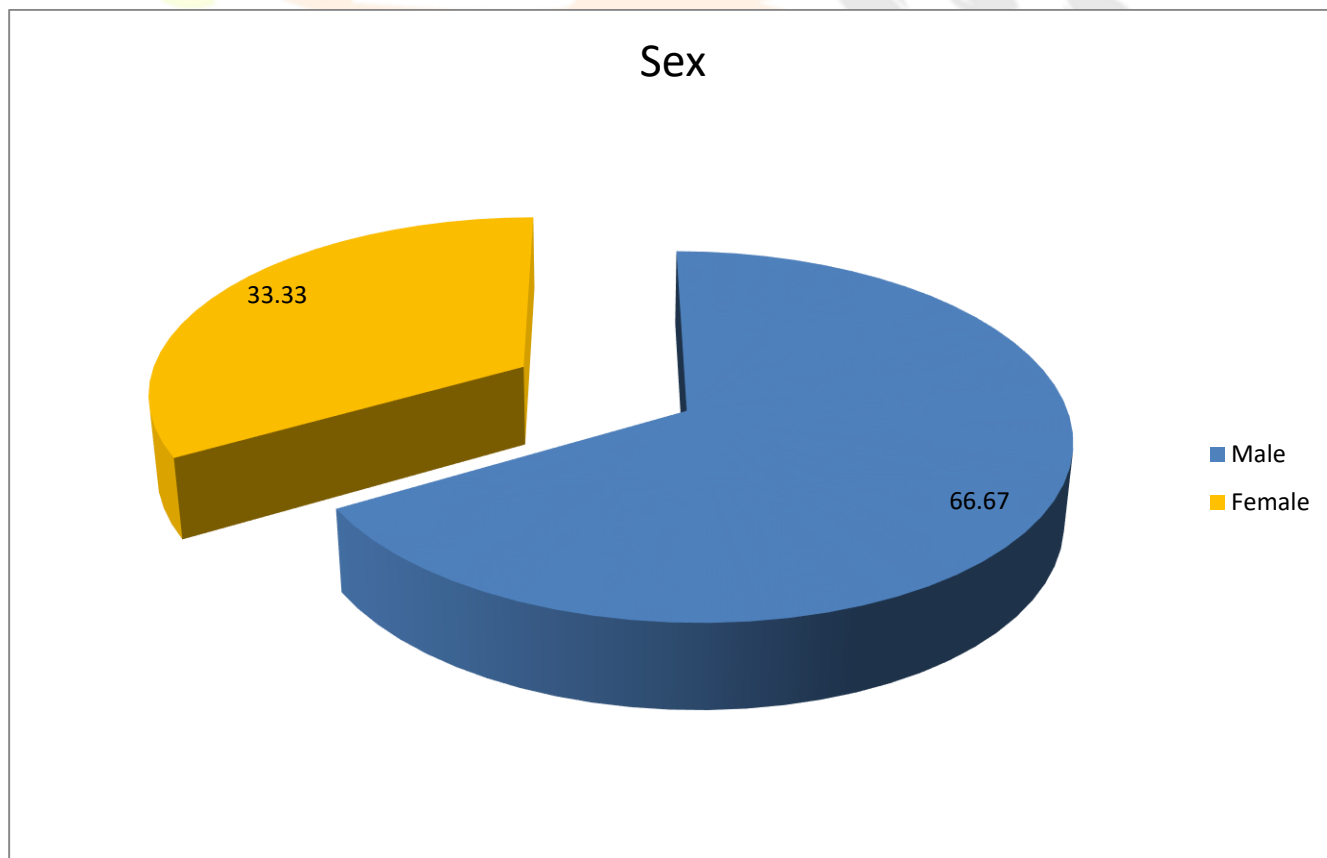


Table 5**Distribution of Clients With hypertension****According to the Sex****N=60**

	FREQUENCY	PERCENTAGE
MALE	40	66.7
FEMALE	20	33.3
TOTAL	60	100.0

Above table shows that out of 60 clients with hypertension (66.7 %) 40 were males and (33.3%) 20 were females.

**Table 6****Distribution of Clients With hypertension****According to the Religion**

N=60

	FREQUENCY	PERCENTAGE
Hindhu	39	65.00
Christian	3	5
Muslim	18	30
Total	60	100

Above table shows that out of 60 clients majority of them 39 (65%) were Hindu religion.

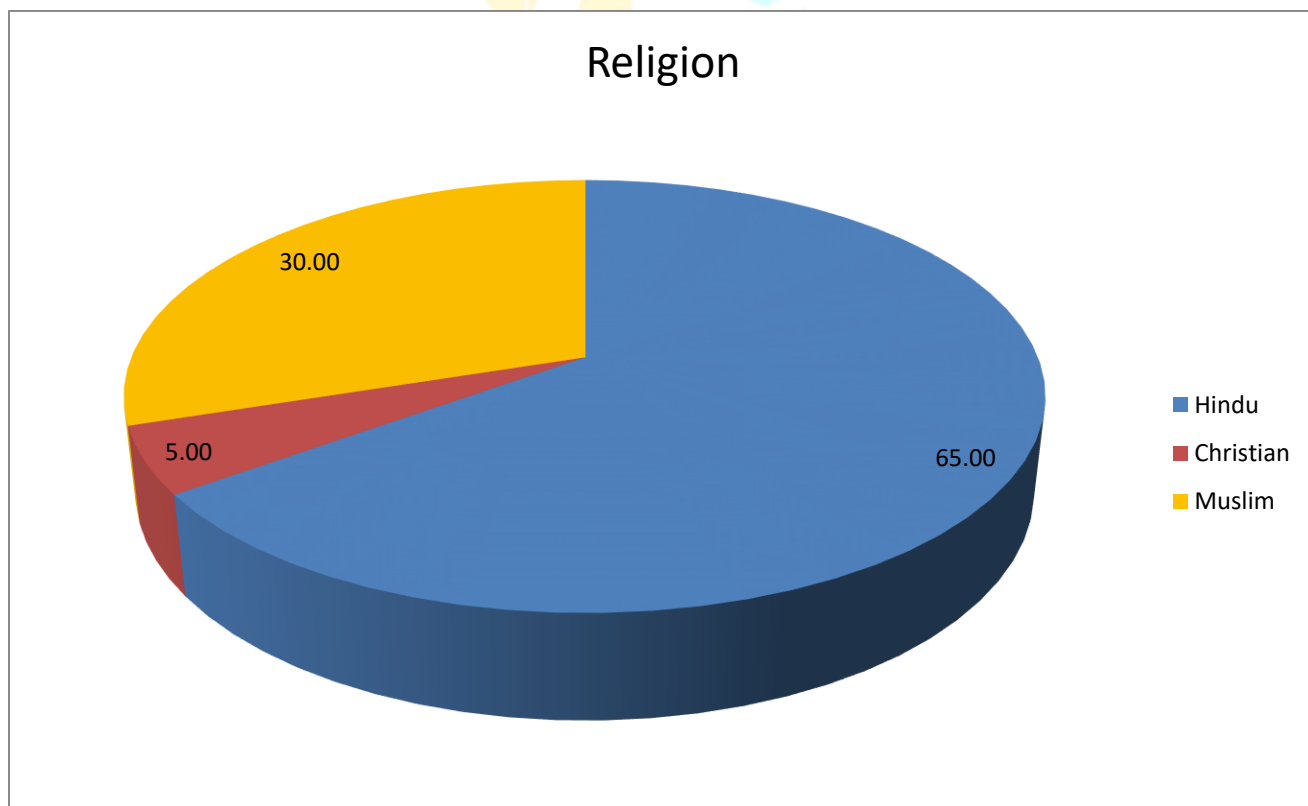


Table 7
Distribution of Clients With hypertension
According to the Education

N=60

	FREQUENCY	PERCENTAGE
GRADUATION	3	5
INTERMEDIATE	11	18.3
SECONDARY EDUCATION	33	55

PRIMARY EDUCATION	9	15
ILLITERATE	4	6.7
TOTAL	60	100

Above table shows that out of 60 clients majority of them (55%) 4 were illiterate.

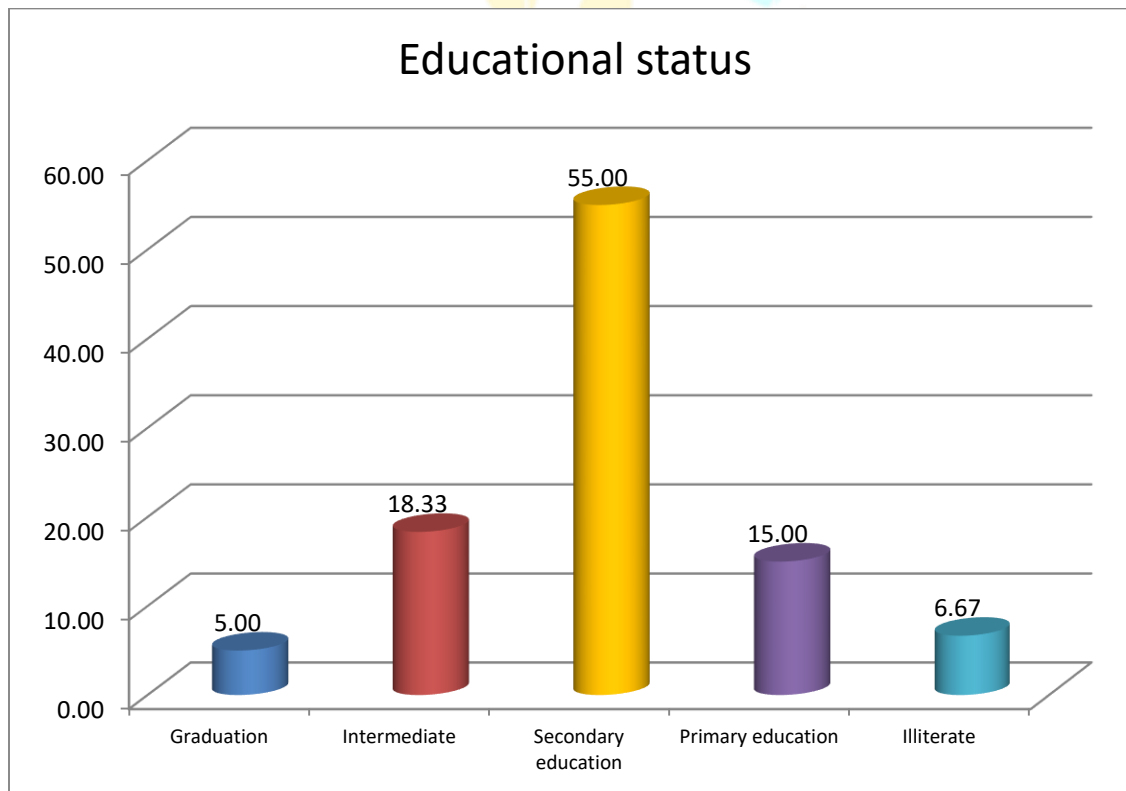


Table 8

Distribution of Clients With hypertension

According to Occupation

N=60

	FREQUENCY	PERCENTAGE
LABOUR	4	6.7
GOVERNMENT SECTOR	8	13.3
PRIVATE SECTOR	15	25
BUSINESS	14	23.4
ANY OTHER	19	31.7
TOTAL	60	100

Above table shows that out of 60 clients majority of them (31.7%)19 were any.

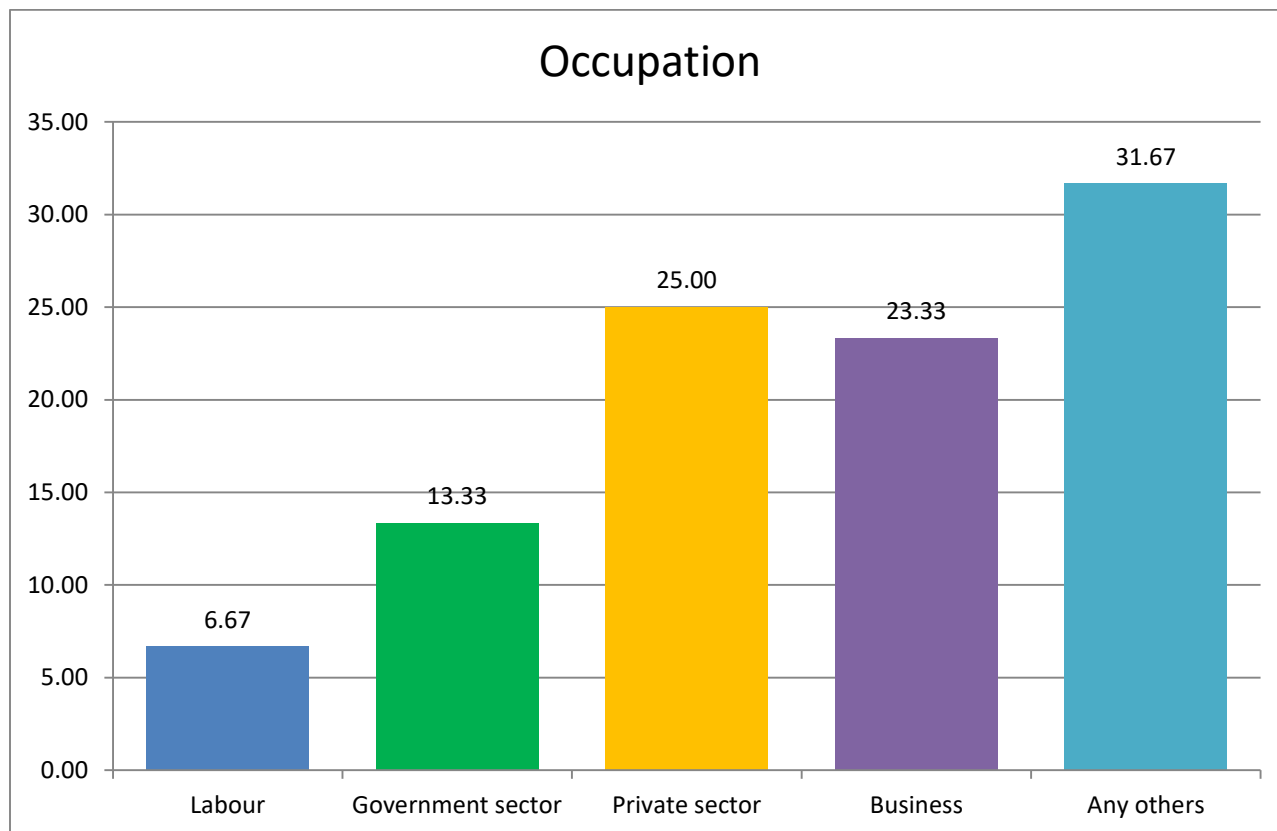


Table 9

Distribution of Clients With hypertension

According to Marital status

N=60

	FREQUENCY	PERCENTAGE
MARRIED	46	76.7
UNMARRIED	8	13.3
WIDOW / WIDOWER	3	5
DIVORCED	3	5
TOTAL	60	100

Above table shows that out of 60 clients majority of them (76.7%) 46 married .

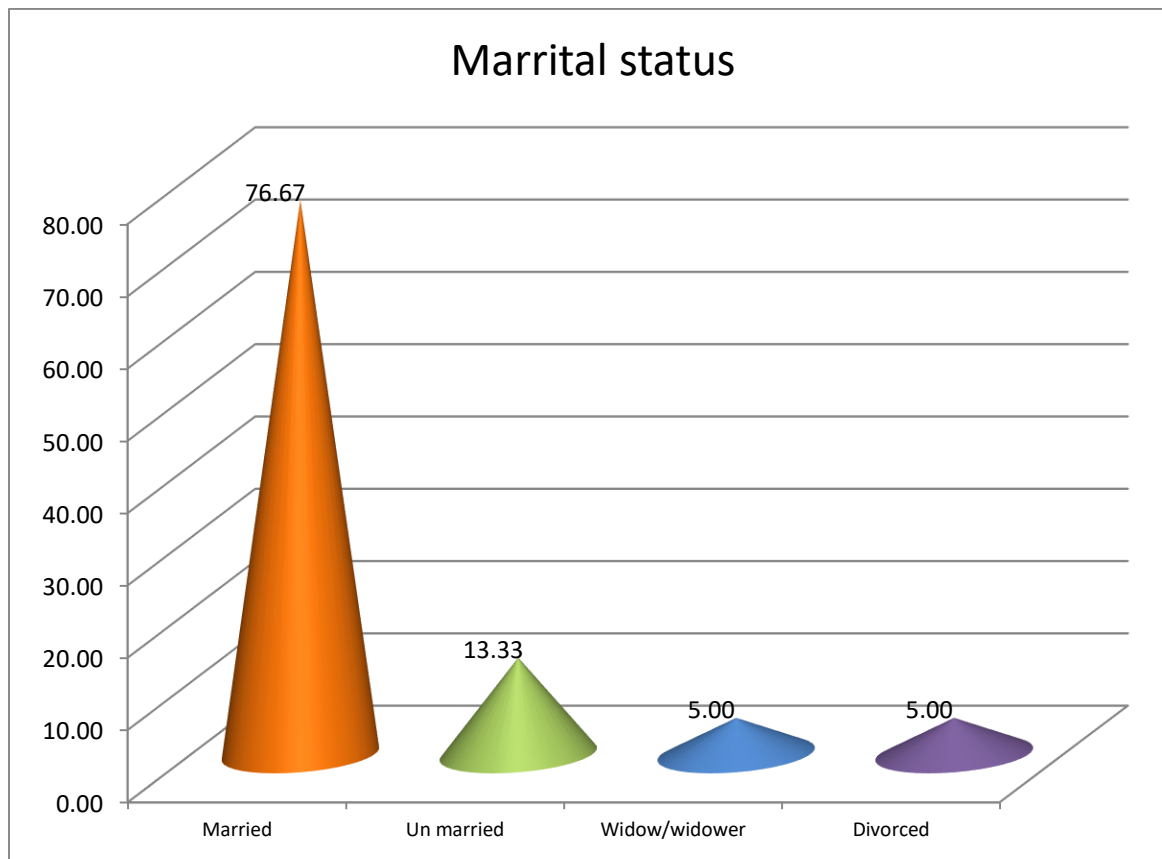
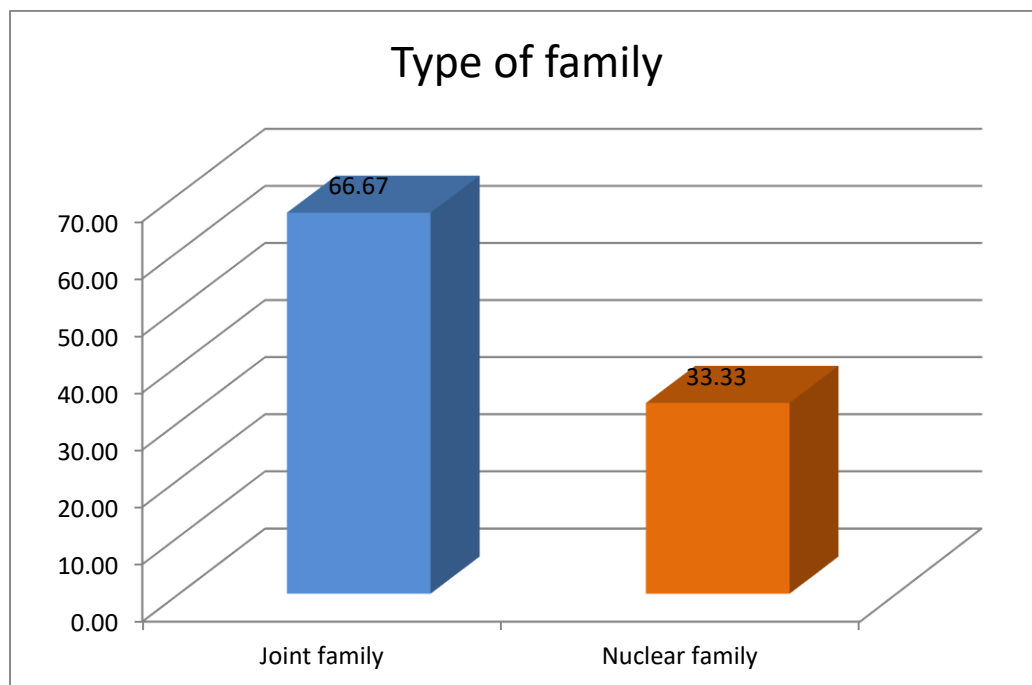


Table 10
Distribution of Clients With hypertension
According to Type of family

N=60

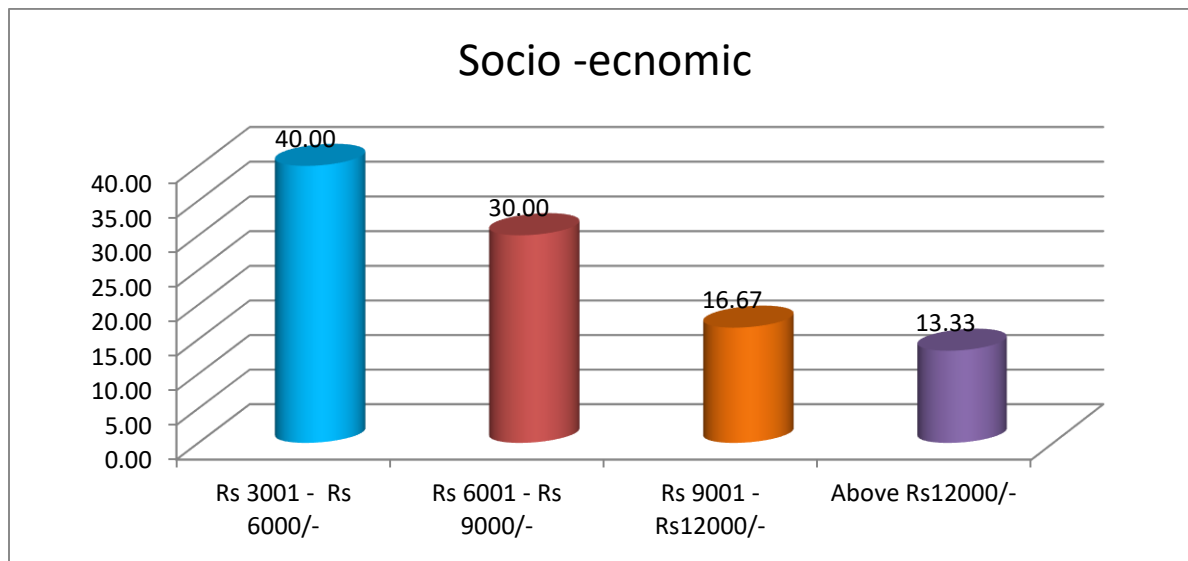
	FREQUENCY	PERCENTAGE
JOINT FAMILY	40	66.7
NUCLEAR FAMILY	20	33.3
TOTAL	60	100

Above table shows out of 60 clients majority of them (66.7%) 40 were belongs to nuclear family.

**Table 11****Distribution of Clients With hypertension****According to Socio-economic status****N=60**

	FREQUENCY	PERCENTAGE
BELOW RS 3000/-	0	0
RS 3001 – RS 6000 /-	24	40
RS 6001 – RS 9000 /-	18	30
RS 9001 – RS 12000 /-	10	16.7
ABOW RS 12000 /-	8	13.3
TOTAL	60	100

Above table shows out of 60 clients majority of them (40%) 24 in the group of Socio-economic status .

**Table 12****Distribution of Clients With hypertension****According To Family History Of Hypertension**

N=60

	FREQUENCY	PERCENTAGE
YES	48	80
NO	12	20
TOTAL	60	100

Above table shows out of 60 clients majority of them (80%) 48 having family history of hypertension.

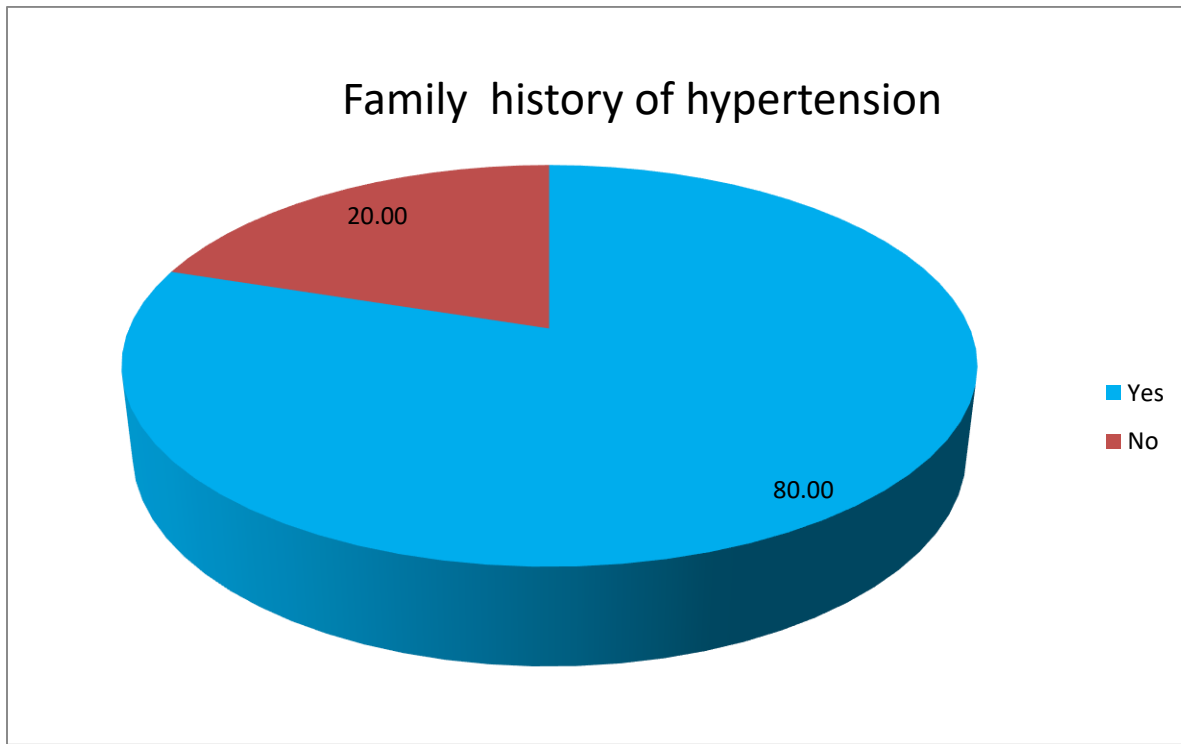


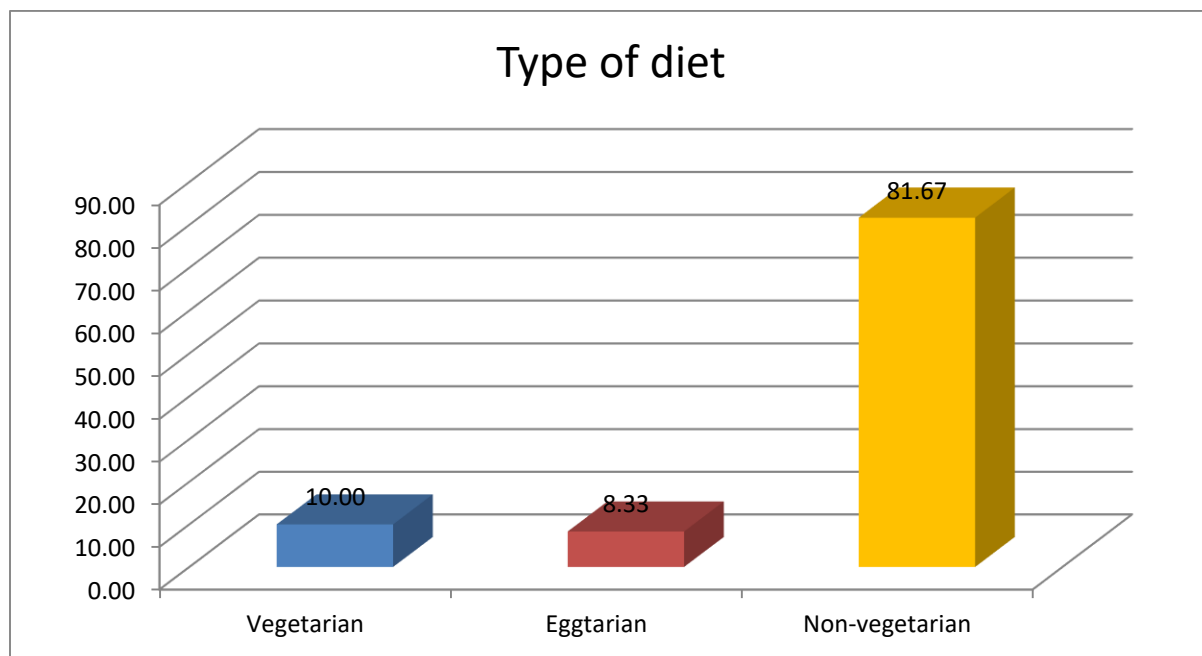
Table 13

Distribution of clients with hypertension

according to diet

N=60

	FREQUENCY	PERCENTAGE
VEGETARIAN	6	10
EGGTARIAN	5	8.3
NON VEGITARIAN	49	81.7
TOTAL	60	100



Part-II

Deals with analysis of knowledge scores obtained by the clients with hypertension before and after structured teaching programme on management of hypertension by percentage mean, standard deviation, standard error, paired “t” test and chi-square test.

Table-14

Distribution of Clients with hypertension Knowledge About management on hypertension before and after structured teaching programme by Pre-test and Post test

Crosstab

			KNOWLEDGE LEVEL			Total
			BELOW AVG (<=33.33%)	AVG (33.4%-66.66%)	ABOVE AVG (>66.7%)	
TEST	PRE TEST	Count	50	10	0	60
		% within TEST	83.3%	16.7%	.0%	100.0%
	POST TEST	Count	0	45	15	60
		% within TEST	.0%	75.0%	25.0%	100.0%
Total		Count	50	55	15	120
		% within TEST	41.7%	45.8%	12.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	87.273	2	.000

χ^2 87.273

df 2

p 0.000

The above table and the figure below clearly indicate that the knowledge of the clients with hypertension increased after structured teaching programme. It is observed that the pre test score was below average for 83.3% of the clients, where as in the post test 0% of the clients obtained below average score. The obtained chi square was 87.273 was highly significant at 0.000 level with $df = 2$.

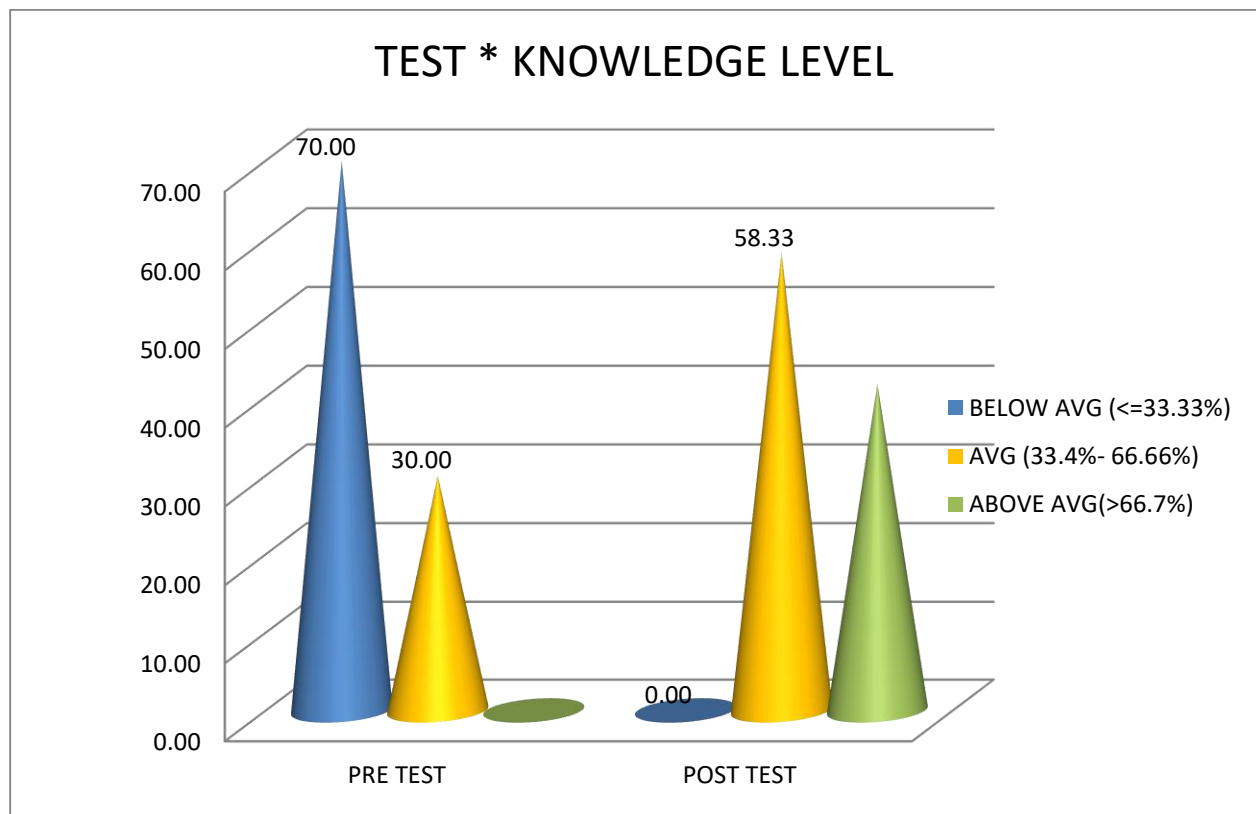


Table-15

Comparison of pre test and post test knowledge level of clients with hypertension to determine the effectiveness of structured teaching programme on management of hypertension.

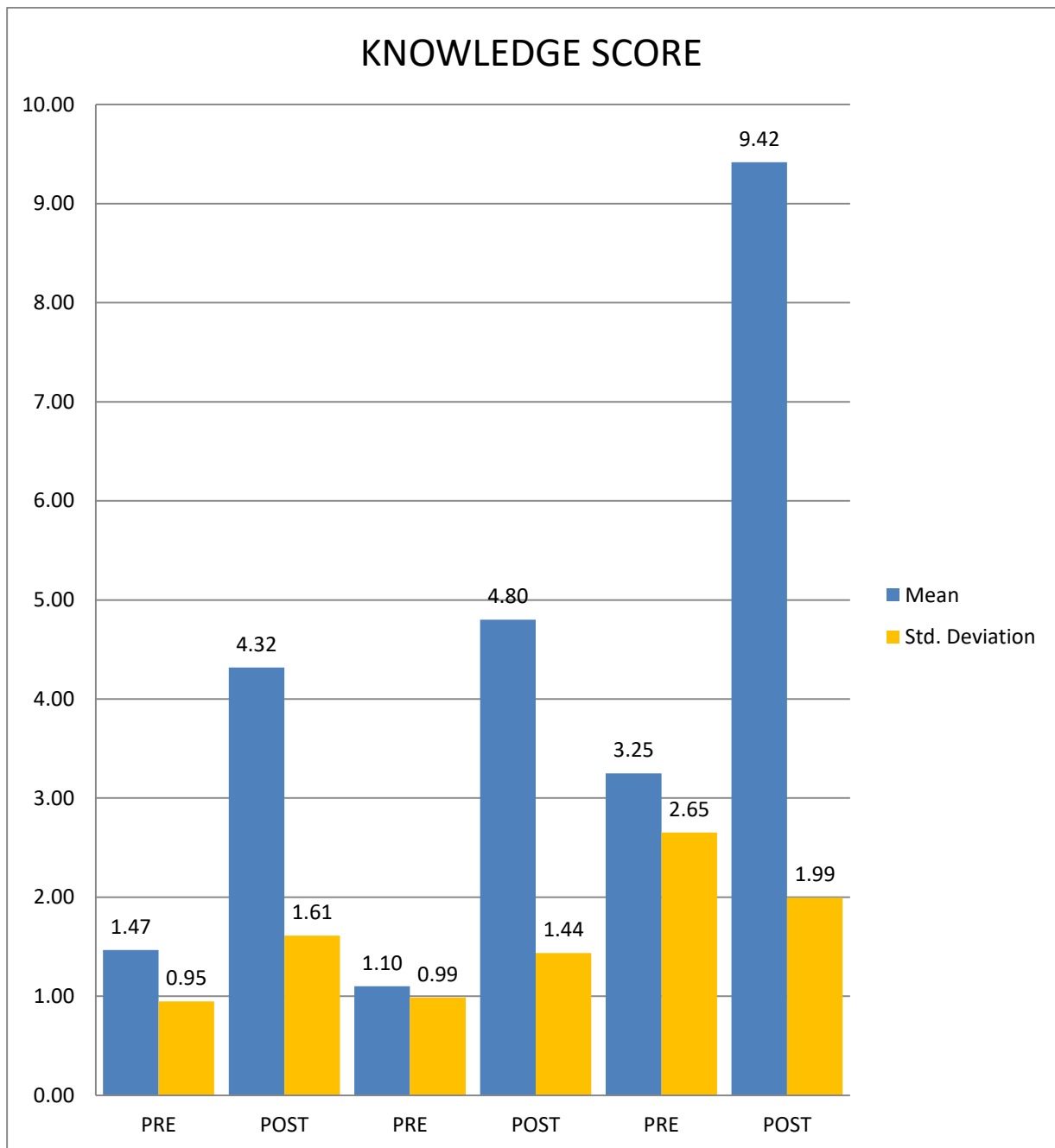
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE TEST	5.8167	60	3.50540	.45255
	POST TEST	18.5333	60	2.97713	.38435

df 59

Table't' value - 21.678, p < 0.000

The above table and below figure shows that obtained pretest mean was 5.8167, S.D=3.50540 and post test mean was 18.5333, S.D=2.97713, there was a significant difference between the pretest and post test scores of clients at the level of 0.05 significance. The computed t value - 21.678 is more than table value 2.021, hence the null hypothesis was rejected and as the post test score is more than pre test score so it shows that structured teaching programme is effective.



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Part-III

Deals with the association between knowledge of clients with hypertension regarding management of hypertension with selected variables by using chi-square test and interpreting the results.

Table-16

Association Between Clients With hypertension Knowledge about management of hypertension and Age.

Age		Below avg(<-33.33%)		Avg (33.4%-66.66%)		Above avg (>66.7%)		Total Frequency	Chi-Square Value	Df	P-value
		F	%	F	%	F	%				
Pre test	30-39years	6	75%	2	25%			8	2.864	3	.413
	40-49years	10	58.80%	7	41.20%			17			
	50-59years	14	66.70%	7	33.30%			21			
	60-69years	12	85.50%	2	14.30%			14			
	Total	42	70%	18	30%			60			
Post test	30-39years			3	37.30%	5	62.50%	8	2.436	3	.487
	40-49years			9	52.90%	8	47.10%	17			
	50-59years			14	66.70%	7	33.30%	21			
	60-69years			9	64.30%	5	35.70%	14			
	Total			35	58.30%	2500.00%	41.70%	60			

N=60

Pretest chi square table value is of 3df is 7.815 here computed value 2.864 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 3df is 7.815 here the computed value 2.436 is less than the table value .Hence concluded that there is no association between age and knowledge level in post test.

Table-17

Association Between Clients With hypertension Knowledge about management of hypertension and sex .

N=60

		Below avg(<-33.33%)		Avg (33.4%-66.66%)		Above avg (>66.7%)		Total Frequency	Chi-Square Value	Df	P-value
		F	%	F	%	F	%				

sex											
	male	28	70%	12	30%			40			
	female	14	70%	6	30%			20			
pre test	Total	42	70%	18	30%			60	0	1	1
	Male			24	16%	16	40%	40			
post test	Female			11	55%	9	45%	20			
	Total			35	58.3 0%	25	41.7 0%	60	0.137	1	0.711

Pretest chi square value is of 1df is 3.841 here computed value 0 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 1df is 3.841 here the computed value 0.137 is less than the table value .Hence concluded that there is association between sex and knowledge level in post test.

Table-18

Association Between Clients With hypertension Knowledge about management of hypertension and Religion.

N=60

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Crosstab

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG (>66.7%)	
PRE TEST	Religion	Hindu	Count	26	13	39	
			%	66.7%	33.3%	100.0%	
	Christian	Count	2	1	3		
		%	66.7%	33.3%	100.0%		
	Muslim	Count	14	4	18		
		%	77.8%	22.2%	100.0%		
Total		Count	42	18	60		
		%	70.0%	30.0%	100.0%		
POST TEST	Religion	Hindu	Count	23	16	39	
			%	59.0%	41.0%	100.0%	
	Christian	Count	2	1	3		
		%	66.7%	33.3%	100.0%		
	Muslim	Count	10	8	18		
		%	55.6%	44.4%	100.0%		
Total		Count	35	25	60		
		%	58.3%	41.7%	100.0%		

Chi-Square Tests

TEST	Value	df	Asymp. Si (2-sided)
PRE TEST Pearson Chi-Square	.646	2	.724
POST TEST Pearson Chi-Square	4.479	2	.107

Pretest chi square value is of 3df is .646 here computed value .635 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 3df is 4.479 here the computed value .658 is less than the table value .Hence concluded that there is no association between religion and knowledge level in post test.

Table-19

Association Between Clients With hypertension Knowledge about management of hypertension and Educational status.

Crosstab

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG(>66.7%)	
PRE TEST	Educational status	Graduation	Count	0	3	3	
			%	.0%	100.0%	100.0%	
		Intermediate	Count	7	4	11	
			%	63.6%	36.4%	100.0%	
		Secondary education	Count	25	8	33	
			%	75.8%	24.2%	100.0%	
	Primary education	Count	6	3	9		
		%	66.7%	33.3%	100.0%		
	Illiterate	Count	4	0	4		
		%	100.0%	.0%	100.0%		
Total	Count	42	18	60			
	%	70.0%	30.0%	100.0%			
POST TEST	Educational status	Graduation	Count	0	3	3	
			%	.0%	100.0%	100.0%	
		Intermediate	Count	3	8	11	
			%	27.3%	72.7%	100.0%	
		Secondary education	Count	20	13	33	
			%	60.6%	39.4%	100.0%	
	Primary education	Count	8	1	9		
		%	88.9%	11.1%	100.0%		
	Illiterate	Count	4	0	4		
		%	100.0%	.0%	100.0%		
Total	Count	35	25	60			
	%	58.3%	41.7%	100.0%			

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	2.382	4	.666
POST TEST	Pearson Chi-Square	2.303	4	.680

Pretest chi square value is of 4df is 9.488 here computed value 2.382 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between education and knowledge level. In post test chi square table value for 4df is 9.488 here the computed value 2.303 is less than the table value .Hence concluded that there is association between education and knowledge level in post test.

Table-20

Association Between Clients With hypertension Knowledge about management of hypertension and occupation.

Crosstab

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG(>66.7%)	
PRE TEST	Occupation	Labour	Count	4	0	4	
			%	100.0%	.0%	100.0%	
		Government sector	Count	5	3	8	
			%	62.5%	37.5%	100.0%	
		Private sector	Count	10	5	15	
			%	66.7%	33.3%	100.0%	
	Business	Count	11	3	14		
		%	78.6%	21.4%	100.0%		
	Any others	Count	12	7	19		
		%	63.2%	36.8%	100.0%		
	Total		Count	42	18	60	
			%	70.0%	30.0%	100.0%	
POST TEST	Occupation	Labour	Count	4	0	4	
			%		100.0%	.0%	100.0%
		Government sector	Count	4	4	8	
			%		50.0%	50.0%	100.0%
		Private sector	Count	9	6	15	
			%		60.0%	40.0%	100.0%
	Business	Count	7	7	14		
		%		50.0%	50.0%	100.0%	
	Any others	Count	11	8	19		
		%		57.9%	42.1%	100.0%	
	Total		Count	35	25	60	
			%	58.3%	41.7%	100.0%	

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	1.645	4	.801
POST TEST	Pearson Chi-Square	2.956	4	.565

Pretest chi square value is of 4df is 7.815 here computed value 1.645 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 4df is 7.815 here the computed value 2.956 is less than the table value .Hence concluded that there is no association between occupation and knowledge level in post test.

Table-21**Association Between Clients With hypertension Knowledge about management of hypertension and marital status****Crosstab**

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG (>66.7%)	
PRE TEST	Marital status	Married	Count	33	13		46
			%	71.7%	28.3%		100.0%
		Un married	Count	6	2		8
			%	75.0%	25.0%		100.0%
		Widow/widower	Count	1	2		3
			%	33.3%	66.7%		100.0%
		Divorced	Count	2	1		3
			%	66.7%	33.3%		100.0%
	Total	Count	42	18		60	
		%	70.0%	30.0%		100.0%	
POST TEST	Marital status	Married	Count		25	21	46
			%		54.3%	45.7%	100.0%
		Un married	Count		6	2	8
			%		75.0%	25.0%	100.0%
		Widow/widower	Count		1	2	3
			%		33.3%	66.7%	100.0%
		Divorced	Count		3	0	3
			%		100.0%	.0%	100.0%
	Total	Count		35	25	60	
		%		58.3%	41.7%	100.0%	

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	1.317	3	.725
POST TEST	Pearson Chi-Square	6.087	3	.107

Pretest chi square value is of 3df is 5.991 here computed value 1.317 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between marital status and knowledge level. In post test chi square table value for 3df is 5.991 here the computed value 6.087 is less than the table value .Hence concluded that there is association between marital status and knowledge level in post test.

Table-22**Association Between Clients With hypertension Knowledge about management of hypertension and Type of Family .****Crosstab**

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG(>66.7%)	
PRE TEST	Type of family	Joint family	Count	34	6	40	
			% within Type of family	85.0%	15.0%	100.0%	
	Nuclear family	Count	16	4	20		
		% within Type of family	80.0%	20.0%	100.0%		
	Total	Count	50	10	60		
		% within Type of family	83.3%	16.7%	100.0%		
POST TEST	Type of family	Joint family	Count	30	10	40	
			% within Type of family	75.0%	25.0%	100.0%	
	Nuclear family	Count	15	5	20		
		% within Type of family	75.0%	25.0%	100.0%		
	Total	Count	45	15	60		
		% within Type of family	75.0%	25.0%	100.0%		

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	.240	1	.624
POST TEST	Pearson Chi-Square	.000	1	1.000

Pretest chi square value is of 1df is 3.841 here computed value .240 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 1df is 3.841 here the computed value .000 is less than the table value .Hence concluded that there is no association between type of family and knowledge level in post test.

Table-23

Association Between Clients With hypertension Knowledge about management of hypertension and socio-economic of hypertension.

Crosstab

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (<=33.33%)	AVG (33.4%-66.66%)	ABOVE AVG(>66.7%)	
PRE TEST	Socio-economic	Rs 3001 - Rs 6000/-	Count	17	7	24	
			%	70.8%	29.2%	100.0%	
		Rs 6001 - Rs 9000/-	Count	12	6	18	
			%	66.7%	33.3%	100.0%	
		Rs 9001 - Rs12000/-	Count	8	2	10	
			%	80.0%	20.0%	100.0%	
		Above Rs12000/-	Count	5	3	8	
			%	62.5%	37.5%	100.0%	
	Total		Count	42	18	60	
			%	70.0%	30.0%	100.0%	
POST TEST	Socio-economic	Rs 3001 - Rs 6000/-	Count	18	6	24	
			%	75.0%	25.0%	100.0%	
		Rs 6001 - Rs 9000/-	Count	8	10	18	
			%	44.4%	55.6%	100.0%	
		Rs 9001 - Rs12000/-	Count	6	4	10	
			%	60.0%	40.0%	100.0%	
		Above Rs12000/-	Count	3	5	8	
			%	37.5%	62.5%	100.0%	
	Total		Count	35	25	60	
			%	58.3%	41.7%	100.0%	

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	.794	3	.851
POST TEST	Pearson Chi-Square	5.611	3	.132

Pretest chi square value is of 3df is 3.841 here computed value .794 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 1df is 3.841 here the computed value 5.611 is less than the table value .Hence concluded that there is no association between socio economic and knowledge level in post test.

Table-24

Association Between Clients With hypertension Knowledge about management of hypertension and Family history of hypertension.

Crosstab

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG(>66.7%)	
PRE TEST	Family history of hypertension	Yes	Count	33	15	48	
			%	68.8%	31.3%	100.0%	
	No	Count	9	3	12		
		%	75.0%	25.0%	100.0%		
	Total		Count	42	18	60	
			%	70.0%	30.0%	100.0%	
POST TEST	Family history of hypertension	Yes	Count	28	20	48	
			%	58.3%	41.7%	100.0%	
	No	Count	7	5	12		
		%	58.3%	41.7%	100.0%		
	Total		Count	35	25	60	
			%	58.3%	41.7%	100.0%	

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	.750	1	.386
POST TEST	Pearson Chi-Square	.556	1	.456

Pretest chi square value is of 1df is 3.841 here computed value .750 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 1df is 3.841 here the computed value .556 is less than the table value .Hence concluded that there is no association between family history of hypertension and knowledge level in post test.

Table-25

Association Between Clients With hypertension Knowledge about management of hypertension and diet.

Crosstab

TEST				KNOWLEDGE LEVEL			Total
				BELOW AVG (≤33.33%)	AVG (33.4%- 66.66%)	ABOVE AVG(>66.7%)	
PRE TEST	Type of diet	Vegetarian	Count	6	0		6
			% within Type of diet	100.0%	.0%		100.0%
		Eggtarian	Count	5	0		5
			% within Type of diet	100.0%	.0%		100.0%
		Non-vegetarian	Count	39	10		49
			% within Type of diet	79.6%	20.4%		100.0%
	Total	Count	50	10		60	
		% within Type of diet	83.3%	16.7%		100.0%	
POST TEST	Type of diet	Vegetarian	Count		6	0	6
			% within Type of diet		100.0%	.0%	100.0%
		Eggtarian	Count		4	1	5
			% within Type of diet		80.0%	20.0%	100.0%
		Non-vegetarian	Count		35	14	49
			% within Type of diet		71.4%	28.6%	100.0%
	Total	Count		45	15	60	
		% within Type of diet		75.0%	25.0%	100.0%	

Chi-Square Tests

TEST		Value	df	Asymp. Sig. (2-sided)
PRE TEST	Pearson Chi-Square	2.694	2	.260
POST TEST	Pearson Chi-Square	2.400	2	.301

Pretest chi square value is of 2df is 5.991 here computed value 2.694 is less than the table value. Hence null hypothesis cannot be rejected and concluded that there is no a association between age and knowledge level. In post test chi square table value for 2df is 5.991 here the computed value 2.400 is less than the table value .Hence concluded that there is no association between family history of hypertension and knowledge level in post test.

Findings

Clients with hypertension on knowledge about management of hypertension was assessed with the help of structured questionnaire. Maximum marks allotted for questionnaire is 30. The clients obtained knowledge scores on questionnaire in post test ranged from average to above average. The mean score is 19.4000 and standard deviation is 2.14081.

The study revealed that On the whole in pre test 83.3% were scored below average, 22.0% were scored average and 0% scored above average. In post test 0% clients scored below average (i.e., less than 33.3), 73.3% scored average (i.e., 33.4 - 66.6) and 26.7% scored above average (i.e., more than 66.7). so there is significant difference in knowledge levels between pre test and post test.

Null hypothesis

There is significant difference in pre test and post test knowledge level after structured teaching programme, so null hypothesis is rejected.

Chapter- v

Findings , Discussions, Conclusions, Implications

Limitations and Recommendations

The present study is under taken to assess the knowledge of clients with management of hypertension in Gandhi hospital, secunderabad ,Hyderabad.

The Objectives of the study were

- Assess the knowledge of clients regarding management of hypertension before structured teaching programme.
- To evaluate the effectiveness of structured teaching programme on knowledge of client with management of hypertension.

- To associate the knowledge of client regarding management of hypertension with demographic variables.

A review of related literature helped the researcher to gain insight in to the present problem, development of tool and plan for data analysis. The research approach adopted for the present study was quantitative approach method, Setting for the study Consists of Gandhi hospital,secunderabad, Hyderabad which are the biggest hospitals in Andhra Pradesh.

The population for the present study consists of clients with hypertension on basis in patient at Gandhi hospital ,secunderabad ,Hyderabad.

Convenient Sampling technique was used for the selection of Sample. i.e 60 In this method participants are to be included in the sample based on the researcher's knowledge about the population . Criteria for sample selection are clients with hypertension and who are able to read and write Telugu or English. And those who are available at the time of data collection as in patient basis.Clients of both the sexes (Male and Female between 30 years and 70 years).

Structured questionarie which include pretest questionare to assess the existing knowledge of client and post test questionnaire to assess the effectiveness of structured teaching regarding management of hypertension.

Part-II consist of III sections and each section I &II includes 7questions and section III include 16 questions.

Section-I:-knowledge about definition and causes of hypertension.

Section II :-knowledge about clinical manifestations and diagnostic evaluation of hypertension

Section III :- knowledge about the management of hypertension.

The tools were given for content validity to experts in the field of Nursing ,& doctors . The questionnaire was tested for reliability by test and retest method. The results were indicated that tools are valid and reliable.

Pilot study was conducted on ten clients with hypertension in Guru Nanak Care Hospital,Musheerabad, Hyderabad in the month of March 2012. The pilot study results

revealed that study is feasible and tools are appropriate. The main study was conducted in the month of April 2012 in Gandhi Hospitals. The data is analyzed with the help of descriptive and inferential statistics and findings are interpreted.

Findings of the study

Sample characteristics

On the basis of age 04 of them in the age group of 30-39 years 28.9% and 40-49 (28.3%) were in the age group 50- 59yrs 35 % and 60- 69 years (14%)

On the basis of sex 40 (66.7%) were females and 20 (33.3%) were males.

On the basis of religion 39 (65%) were belongs to Hindus (3) 5% were belongs to Christians 18 (30%)were Muslims

On the basis of graduation (5%) 5 were intermediate (18.3%) secondary education (55%) 33 were primary education (15%) 9, were (6.7%) 4.

On the basis of occupation 4 (6.7%) were government sector 8(13.3) and private sector 15 (50%) were business 14 (23.4%) any other 19(31.7).

On the basis of marital status , it is found that(76.7%)clients are married , (18.3%) are un married , (5%) widow/widower, (5%) are divorced cultivators.

On the basis of type of family 20 (33.3%) were belongs to nuclear family and 40 (66.7%) were belongs to joint family.

On the basis of socio-economic status below Rs/- 3000 (0%) were fall in Rs.3001 -6000/- socio economic status and 24 (40%) one fall in Rs.6001 – 9000 socio economic status 18(13.3%) one fall in Rs 9001 – 12000 socio economic status 8 (13.3%), above 12000 socio economic status 8 (13.3%)

On the basis of family history of hypertension 60 clients 48 (80%) were have the family history hypertension and 12 (20%) were does not have any family history of hypertension.

On the basis of diet vegetarian 6(10%) eggitarian 5 (8.3%) non vegetarian 49 (81.7%)

Discussions

Clients with hypertension on knowledge about management of hypertension is assessed with the help of structured questionnaire. Maximum marks allotted for questionnaire is 30. The clients obtained knowledge scores on questionnaire ranged from 2.5 to 65 percent. The mean score is 31.7 and standard deviation is 7.41.

The study revealed that On the whole 83.3% clients scored below average (i.e., less than 33.3), 37.5 percent scored average (i.e., 33.4—66.6) and 62.5 percent scored above average (i.e., more than 66.6). So that they will take better care about management of hypertension .

Null hypothesis

There is significant difference in pre test and post test knowledge levels after structured teaching programme, so null hypothesis is rejected.

Conclusions

The findings revealed that 37.5 percent of clients with hypertension have average level of knowledge about management of hypertension .So there is need to upgrade the knowledge of clients to above average for the maintenance of life with out much problem.

Implications

The findings of the study have implemented in four areas like nursing education, nursing practice, nursing management and nursing research.

Nursing education

This study also has implications for Nursing Education as there is an increased need to train prospective nurses to give knowledge about management of hypertension to the clients.

Nursing education must also focus on strategies for maintaining health, coping with the actual and potential management of hypertension. Nursing students can be trained to impart health education to the clients. So the nursing students develop interest and initial skills and continue to health education about management of hypertension.

Nursing practice

The Nursing Superintendent or in charge of wards should keep available protocol about introduction & causes of hypertension, types, clinical manifestation, diagnostic evaluation, management of hypertension to ensure that all clients will follow and take the safety measures.

Nursing management

Nursing management should plan teaching program for all clients with hypertension on right from the day of admission till discharge and necessary literature must be provided for future reference. And also in the medical wards.

Management of the hospital should see that appropriate information provided related to management of hypertension to the clients. So that the clients and family members will be benefited and educate others.

Limitations

Restriction identified by the researcher that may affect the outcome of a study but over which the researcher has little or no control.

- The study is limited to the Hypertensive clients in Gandhi Hospital, Secunderabad.
- The study is limited to who are willing to participate in the study.
- The study is limited to clients who can speak and read English and Telugu.

Recommendations for future study:

1. A Same study may be conducted to assess the knowledge of clients admitted in other hospitals.
2. A study may be conducted to assess the practices of clients with hypertension .
3. An evaluation study may be conducted to identify utilization and effectiveness of self informational modules available in the Gandhi hospital secunderabad,Hyderabad.
4. A same study may be conducted in clients below the age group of 21 years.

Summary

This chapter dealt with Findings, discussion, conclusion, implications, limitations and recommendations.

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