

A Descriptive Study to Assess the Knowledge and Practice of Hypertensive Clients Regarding Prevention and Control of Hypertension in Bundelkhand Hospital, Datia City, (M.P.)

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ABSTRACT

Introduction

High blood pressure is a blood pressure reading of 140/90 mm/Hg or higher. Both numbers are important. If one or both numbers are high, one has high blood pressure. If one is being treated for high blood pressure, he still has high blood pressure even if he has recreated readings in the normal range.

In many people with high blood pressure, when a single specific cause is not known this is called essential or primary high blood pressure.

The only way to find out if one has high blood pressure is to have blood pressure measured; using a blood pressure cuff and stethoscope or electronic sensor, a doctor or a nurse can take blood pressure and tell if it is high.

Back ground of study:

Hypertension remains a major health issue worldwide and is one of the commonest diseases affecting our society. Its incidence is increasing day by day and rapidly emerging as a major health problem in developing countries. In India the prevalence of hypertension in adult population varies from 3 to 10 % and the average figure is 4.8% high blood pressure is a major risk factor for cardiac, cerebral & renal diseases (HANKER 1987, PAUL1998).

Blood is carried from the heart to all parts of our body in vessels called arteries. Blood pressure is the force of the pushing blood against the walls of the arteries. Each time the heart beats (about 60-70 times a minute at rest), is pumps out blood into the arteries. Our blood pressure is at its highest when the heart beats, pumping the blood. This is called systolic pressure. When the heart is at rest between beats, blood pressure falls. This is the diastolic pressure. Blood pressure changes during the day. It is lowest as sleep and rises when you get up. It also can rise when one is excited, nervous, or active.

Hypertension is a silent killer and an available disorder in the community at least half the number of cases remains undiagnosed and ultimately report for the first time with some vascular complications. (1988-1999 By third national health nutrition examination survey done by BURT-V.L. WHELTON P.K. ROCCELA E.J. et al).

Need For Study:-

Hypertension is one of the leading causes of death and disability among adults. In most of the industrial countries the prevalence of hypertension in adult population has been reported from 10-20% with 70% are of being mild hypertension (MOSER1983)

ACCORDING TO GUPTA 1978 in India the prevalence of hypertension in adult population vary from 3% to 10% and the average figure is 4.8%.

The population at risk in India more than 20 years of age is 330 million according to 1981 population.

Hypertension is latent disorder in many people as it has a long symptomatic phase.

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The problem is self has no clinical sign and symptom unit organ damage has taken place.

High blood pressure is a major risk factor for cardiac cerebral and the mortality figures due to the potential problem are as follows:-

Cardiac complication- 60-75%

Cerebral thrombosis 15-20%

Objectives:-

- To assess the level of knowledge of hypertensive clients regarding prevention and control of hypertension.
- To assess the practice of hypertensive clients towards prevention and control of hypertension.

Hypothesis:-

- **H1-** Assess the knowledge and practice in descriptive study, there no analysis of increase/decrease in Existing knowledge of sample, so hypothesis is incorrect.
- **H2-** Assess the knowledge and practice is not effective as it has not yet to increase in knowledge of client related to Hypertension.

Design: Descriptive design

Setting: Bundelkhand hospital Datia (M.P.) chosen to conduct the main study

Participants: - 100 clients were selected by using Purposive sampling technique is a type of probability sampling technique method

Assumptions Of The Study:-

The study assumes that:-

1. Present knowledge and practice towards control of hypertension is not adequate among the hypertensive client.
2. The clients adopt irreverent ways to solve problems of hypertension 2. Accurate knowledge and practices of individual's client may help to know greater extent solve some of their problems.

Delimitations of The Study:-

- This study is delimited to Bundelkhand Hospital, Datia, OPD and other special OPD in department of Medicine.
- The study is limited to hypertensive clients W.H.O. were willing to participate in the study.
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Operational Definitions :-

1. **Hypertension-** Can be defined arbitrary as persistent level of blood pressure in which systolic pressure is above 140mm of Hg & diastolic pressure is above 90mm of Hg.
2. **Knowledge-** Adequate understanding about the predisposing causes which are responsible for hypertension.
3. **Practice-** It denotes the behavioral attitude towards control of hypertension by the client for healthy life.
4. **Control-** Control refers to the planned restriction in factors responsible for prevention of hypertension.
5. **Prevention-** Prevention refers to the precaution of methods adopted to control the pre- disposing factors of Hypertension.
6. **Descriptive Study** – Descriptive research study refers to describe characteristics of a population or phenomenon Being studied.
7. **Assess** - Assess refers to evaluate or estimate the nature, ability, or quality.

KEYWORDS: *Hypertension, prevention & control, Deceptive, Assess*

CONCEPTUAL FRAMEWORK

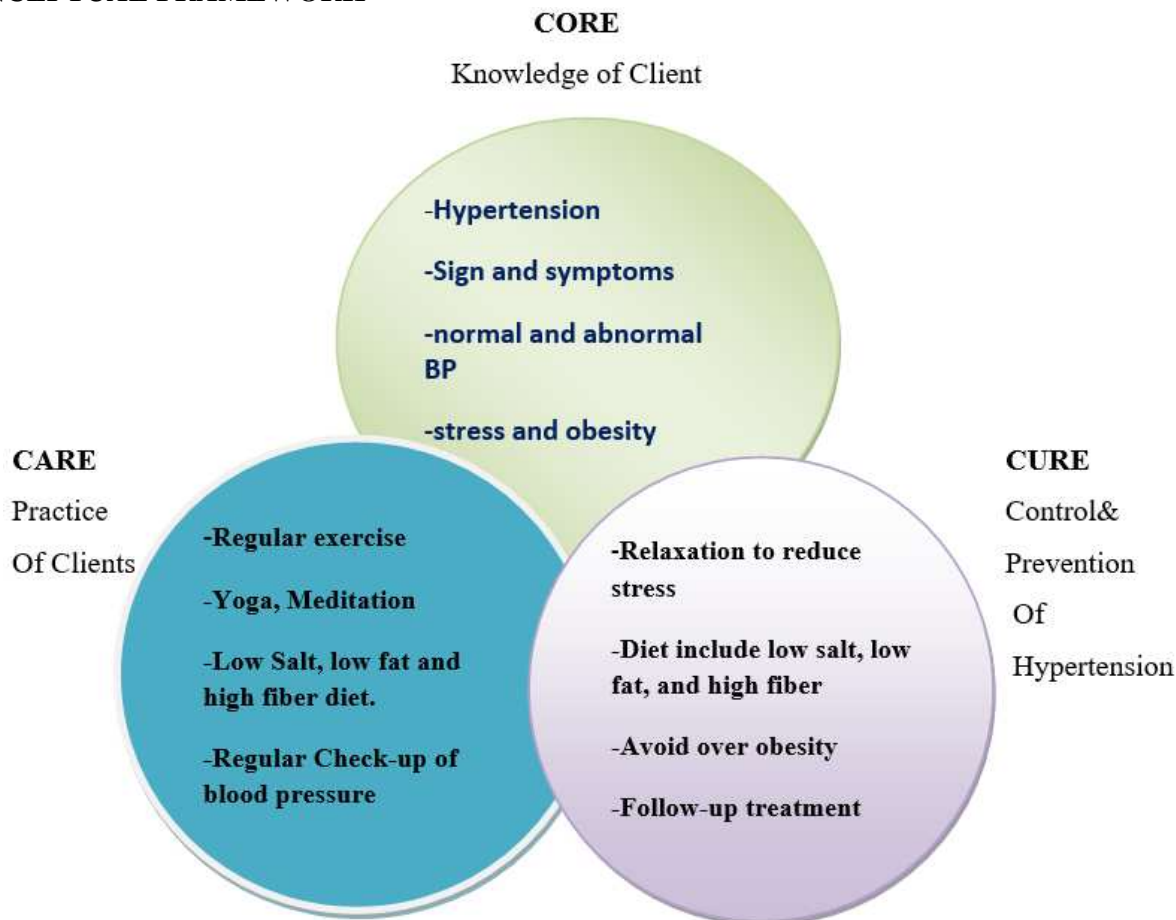


Fig. 1: CONCEPTUAL FRAMEWORK BASED ON HALL’S THEORY - CORE, CARE AND CURE MODEL

Review of Literature:-

Review of literature is a vital aspect of scientific research is an important step for any research project from beginning to the end. The review involves the systematic identification, location scrutiny and summary of written material that contains information on a research problem. Reviewing related literature is important in broadening the understanding and gaining an insight necessary for development of broad conceptual context into which a problem fits. **(POLIT AND HUNGLER 1999).**

The literature review for the present study helped the researcher to gain a deeper insight of the problem, methodology, plan of the data analysis and to become familiar with the findings of research. The investigator did an extensive review of research and non research literature related to present study and Medlar Medline research was also done. Literature review was done and presented under the following headings:

1. Literature related to magnitude of problem of hypertension
2. Literature related to epidemiology of hypertension
3. Literature related to knowledge and practice of hypertension

Table 1

Category	Blood pressure (mmHg)	
	Systolic	Diastolic
Optimal	<129 and	<80
Normal	<130 and	<85
High-Normal	130-139 or	85-89
Hypertension		
- Stage 1	140-159 or	90-99
- Stage 2	160-179 or	100-109
- Stage 3	≥ 180 or	N ≥ 110

According to joint National community VI, hypertension is defined as systolic blood pressure 140 mm of HG greater or diastolic blood pressure 90 mm of HG or greater or both. JNC VI report provides stratification of risk in to three groups based on components of risk and levels of blood pressure which in turn are used as the basis for deciding upon initial treatment

Risk Stratification and Treatment:

1. Literature related to magnitude of problem of hypertension:-

INDIA: It is established fact that elevated blood pressure is a major cause of disease and disability in the adult population in India in recent years. The data are derived from two well planned studies which screened all person age 20- 60 years and followed by W.H.O. criteria for diagnosis (VERMA et al 1986). The one in Rohtak is taken to represent Urban population (GUPTA et al 1978) and the other in a village in Haryana to represent rural population in India (GUPTA 1977). The prevalence of hypertension was 59.9 and 69.9 per 1000 in male and female respectively in urban population and 35.5 and 35.9 per 1000 in females and female in the rural population. In India death from a stroke is more common in hypertensive cases.

Primary Or Essential Hypertension: This is defined as hypertension for which there is no identifiable cause. Paul wood in 1959 observed that 80-85 cases of persistent hypertension are essential, about 2% upper primary malignant and most of the remainder renal, according to **DATAY AND ZHATAKIA** in 1969 essential hypertension accounts for 75% of all cases of hypertension, renal for about 15 to 20% and to the cases remind, **KRANTZ AND CARR in 1969**, on the other hand observed that essential hypertension is responsible for 90% of all cases of hypertension.

2. Literature Related To Epidemiology:

(**WHELTON PK HE J et al 1994**), Average blood pressure tends to rise progressively with increasing age in almost every population, as a consequence the prevalence and incidence also increase with age. In the third National Health and nutritional examination survey (NHANES-III), the prevalence of hypertension rose with increasing age in every gender, race group. The prevalence is more in middle age and older age groups, the incidence of hypertension also tend to rise with increasing is in Framingham Heart Study.

CORNONI – HUNTELY J et al 1989, overall the prevalence and incidence are slightly higher in men compared to women, consequently the prevalence of hypertension is higher in women than in men late in life, this is probably due to hormonal changes of Menopause, does the ratio of hypertension frequency in women vs. men increases from 0.6 to 0.7 and at age 30 to 1.1 to 1.28 age 65, invite server1 population like that in the Framingham study, nearly 1 feet of individuals have blood pressure > 160/95 while almost one half have pressure > 149/ 90. An average higher prevalence has been documented in to non white population

3. Literature Related To Complications Of Hypertension:

Patients with hypertension die prematurely, the most common cause of death is heart disease with stroke and renal failure also frequent particularly and patients with significant retinopathy.

Hypertension is a major risk factor of myocardial ischemia and infarction. In Framingham cohort, the prevalence of silent myocardial infarction was significantly increased in hypertensive subject and they were also more susceptible to silent ischemia and sudden death as well as having greater risk for mortality after an initial myocardial infarction. **Braunwald e. 2001.**

As described by **KEITH AND ASSOCIATED IN 1939**, vascular changes in the fundus reflect both hypertensive retinopathy and arteriosclerotic retinopathy. The two process first induce narrowing of the arteriolar lumen (grade 1) and then sclerosis of the advantitia and/or thickening of the artiriolar wall, visualize as arteriovenous nicking (grade 2). Progressive hypertension induces rupture of small vessels, seen as hemorrhages and exudates (grade 3) and eventually pepilledema (grade 4) . The grade 3 and 4 changes are clearly indicative of an accelerated malignant form of hypertension, whereas the lesser changes have been correlated with other evidence of target organ damage.

Methodology:-

The methodology of research indicated the general pattern of organizing the procedure together valid and reliable data for the problem under investigation.

These chapter deals with the investigators methodology adopted in the present study.

It includes research approach Research Design, variable, setting, population, sample and sample size, sample criteria for development of Tools and techniques for data collection, description of tool, content validity, reliability, pilot study procedure of Data Collection, plan for data analysis and ethical issues.

This non experimental studies was undertaken to assess the knowledge and practice of hypertensive clients regarding prevention and control of hypertension.

Research Approach:-

Talbot (1995) define research approach is logically orderly and objective means of generating and testing ideas.

POLIT AND HUNGLAR (1999) Stated “ evaluation “ research is an applied terms of research that involves finding out how well a program practice or policy is working its goal it is to assess and evaluate the success of the program.

In order to achieve the objective of the study, a descriptive study method was considered suitable. In this study approach was directed towards the existing knowledge and practice of hypertensive clients regarding the control and prevention of hypertension.

Research Design:-

POLIT HUNGLAR (1997) stated that Research Design is corporate the most important methodological design that an investigator make in conducting a research study. It helped the investigator in the selection of the subject manipulation of independent variable in observation of the type of statistical method to be used interpreted the data. The selection of design depends upon the purpose of the study, research approach and variable to be studies.

Variable:-

When an abstract concept is defined in terms that can be measured it is called variable. Variable are characteristics being among the subject study.

➤ **Independent Variable**

It is outcome variable the presumed effect caused by dependent variable. The independent variable in the study was to assess the knowledge and practice of hypertensive clients.

➤ **Dependent Variable**

It is outcome variable the presumed effect caused by independent variable . the dependent variable in this study was the hypertensive client of age between 25 to 60 years.

➤ **Attribute Variable**

It includes the background factor that is socio demographic characteristics of hypertensive clients.

Setting of the Study:-

POLIT & HUNGLAR (1999) define setting as a physical location and condition in which Tata collection take place in the study.

The study was conducted in medical OPD and other specialty OPD of department of medicine in Bundelkhand Hospital, Datia (M.P.) state.

Population:-

Population is the entire aggregation of cases that meet a designed set of criteria the population of criteria established the target population and the assessable population.

Sample and Sample Size:-

Political & Hunglar (1999) stated that simple consists of subjects of the population selected to participate in research study.

Sample size is the number of elements of the population to the samples to study the objective sample size is normally decided by the nature of the study, nature of population types of Sampling technique, total variables statistical test adopted for data analysis sensitivity of measures and attribution?

Sample size:- consists of 100 subjects W.H.O. fulfill the criteria of sample selection

Sample and Sample Techniques:-

Sampling is the process of selecting a portion of the population to represent the entire population.

Purposive sampling method was used for the selection of clients from each OPD. **POLIT & HUNGLAR (1999)** **Stated** that purposive sampling or judgmental sampling were used on the belief that researchers knowledge of the population can be used to handpicks the cases are to be included in the sample.

Sampling Criteria:-

The study samples were selected using the following criteria:

1. Hypertensive client those W.H.O. are attending medical OPD. And other facilities OPD of the department of the medicine in Bundelkhand Hospital, Datia M.P. state during the month of 20/11/2024 to 25/11/2024 in age group 25 – 60 years irrespective of their sex, qualification and marital status.
2. Patient W.H.O. were willing to participate in the study were included in the sample.

Pilot Study:-

POLIT & HUNGLAR (1999) pilot study is a small scale virgin or trial in preparation for a major study.

The Pilot study and at find out the feasibility of conducting the study and deciding on the plan of statistical analysis. The investigator conducted The Pilot study with the purposes mentioned above.

After obtaining a formal administrative permission from nursing superintendent Bundelkhand Hospital, Datia, Madhya Pradesh.

A pilot study was conducted from 01/12/24 to 05/12/24 investigator conveniently selected potential clients. The interview schedule used to assess the knowledge and practice of clients in relation to prevention and control of hypertension.

Finding a pilot study revealed that the tool were found to be valid and reliable.

The tool was found feasible and practicable, no problem faced during the pilot study.

Plan for Data Analysis:

It was planned to include both descriptive and inferential statistics the statistics plan of analysis was as follows

- Frequencies and percentage would be used to describe sample characteristics
- Mean and median would be calculated to find out the label of knowledge among hypertensive clients regarding prevention and control of hypertension
- Mean and median would be calculated to find out the level of knowledge among hypertensive clients regarding prevention and control of hypertension

Summary:-

The chapter dealt with research methodology with research approach, Research Design, variable, setting and population, sample, sample size, sampling technique, sampling criteria development of tool for data collection description of tools, content validity and reliability, Pilot study procedure for data collection data analysis, ethical issue, and summary. Data analysis and interpretation is done in next chapter by different statistical presentations.

Analysis and Interpretation of Data:-

The chapter deals with the analysis and interpretation of data obtained from interview schedule about on knowledge and practice of hypertensive patients to towards maintenance of healthy life.

KERLIGER 1973, defined analysis as the “categorizing” ordering manipulating and summarizing of data to obtain assess to research questions. The purpose of analysis is to reduce data to on intelligible and interpretable form, so that the relation of research problem can be studied and tested.

Analysis and interpretation of data for presents study was based on data collected from 100 hypertensive patients from those W.H.O. were attending medical OPD and other special OPD of department of medicine in Bundelkhand Hospital, Datia, M.P.

Analysis and interpretation was based on as per the stated objectives of this study for the maintenance of healthy life style.

Presentation of Data:

Section I: Finding related to description of Demographic Characteristics of hypertensive clients.

Section II: Finding related to the level of knowledge of hypertensive clients regarding control and prevention of hypertension.

Section III: Finding related to practice of hypertensive clients regarding control and prevention of hypertension.

Discussion:-

Hypertension is a graded phenomenon associated with credit risk of complications and shortening the life expectancy of the patients. There are enough evidences of an increasing burden of hypertension and related cardiovascular diseases in India sub-continent . The association of hypertension with body mass index Diabetes mellitus and physical activity has been reported previously on numerous occasions. 77/2 82 longitudinal observations from developed countries suggest a direct relation between better educational status and hypertension in early stages of epidemiological transition. However this pattern rivers in the latter stages of epidemiological transition with the burden of chronic disease including hypertension and risk factors shifting to the less educated group.

The present study was carried out in Bundelkhand Hospital, Datia in adult population, those W.H.O. are attending various medical OPD. This involves 100% of which 70% for males and 30% were females.

Conclusion:

In this study first found that knowledge about high blood pressure comma in obesity, less physical activity, high Sodium and fat intake, cholesterol and other risk factors like smoking, alcohol intake, is lacking.

Other subjects were unaware of the risk factors and complications and hazards of high blood pressure.

Low proportion of persons with hypertension and or having many risk factors expressed the best to reduce the corresponding detrimental condition intend to leave it.

The high proportion of the participants were of the opinion that there is no need for follow up until 1 age symptomatic, when one is taking antihypertensive medications and a few of those W.H.O. were knowing the detrimental lifestyle habits seriously thought and tried to make modifications in their lifestyle.

**SECTION I
DEMOGRAPHIC CHARACTERISTICS**

Table. 1.1 Age- Distribution of hypertensive clients

S. No.	Year	No. of Cases	Percentage
1.	25-34 years	22	22%
2.	35-44 years	16	16%
3.	45-54 Years	35	35%
4.	55-64 years	27	27%
	Total	100	100%

This table showing that majority of clients 62% belongs to 45-64 years where as only 32% clients belong to age group of 25-44 years. Suggesting prevalence increase as age advance.

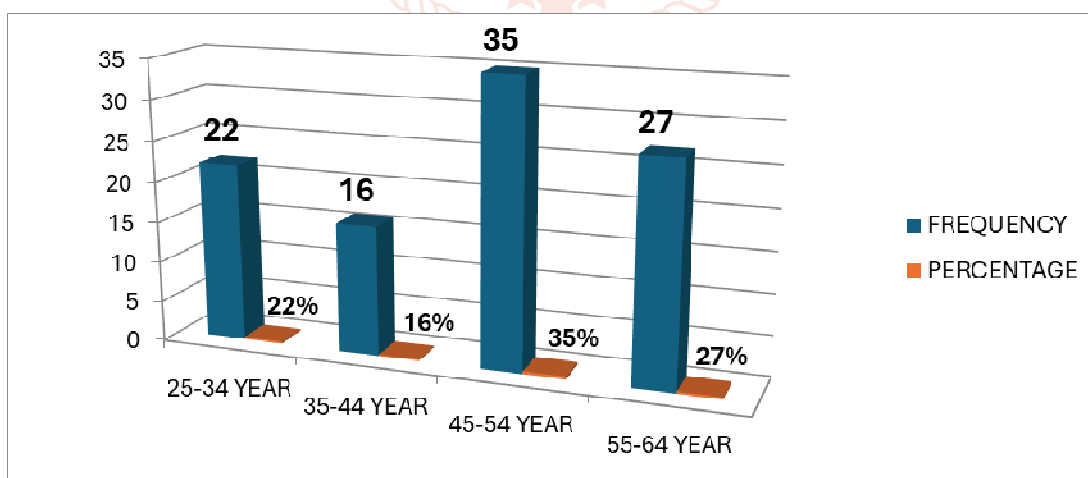


Fig. -1.1

Bar diagram representing the percentage distribution of age of hypertensive clients.

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