A Descriptive Study to Assess the Level of Knowledge and Attitude of Hypertensive Patients Regarding Lifestyle Modification in Hypertensive Clinic, Opd Kgmu, Lucknow, Uttar Pradesh

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ABSTRACT

Background: Hypertension is one of the leading vascular diseases and is called as "Silent Killer". The world's biggest killer is ischemic heart disease, responsible for 16% of the world's total deaths. Since 2000, the largest increase in deaths has been for this disease, rising by more than 2 million to 8.9 million deaths in 2019. Hypertension remains a major risk factor for cardiovascular disease globally. Hypertension Despite considerable improvement in increasing awareness, treatment and control of hypertension. Undiagnosed and uncontrolled hypertension remains a major public health challenge. Our focus was on studying the knowledge, attitude and lifestyle modification regarding hypertension at hypertensive clinic OPD KGMU.

Method: Descriptive study with quantitative research approach was used. Total 90 samples selected by purposive sampling technique. Knowledge was assessed by self-structured questionnaire including 5 questions regarding general information of hypertension and 13 questions regarding Lifestyle modification of hypertensive patients .Attitude was assessed by likert scale contained a total of 10 questions.

Results: The result revealed that level of knowledge on life style modification among hypertensive patients. 24 hypertensive patients were having less than 50 % knowledge, 66 hypertensive patients were having more than 50% knowledge. The observations on attitude items showed that the maximum proportion of strongly agree was found for the attitude A2 (Stress can be a cause factor for high blood pressure, 53.3%) while maximum proportion of strongly disagree was found for the attitude A6 (For a hypertensive patient it is not necessary to avoid stressful situation, 18.9%). More knowledge was observed in higher income group(P= 0.025) and nuclear family (p= 0.023).There was a significant association of attitude (Antihypertensive medicine is essential for controlling high BP) was found with family income (P=0.040) and marital status showed significant relationship is (P=0.008) more married where agreed than unmarried and Widow.

Conclusion: The study concluded that Nurses are the front line health care worker need to assess the life style practices and educate the patients about the importance of change of life style practices to prevent complications and improve the health of the patient. Nurses could use multidisciplinary approach to educate and motivate the person to change the lifestyle practices.

INTRODUCTION

Hypertension is an iceberg disease and could be described as the "Sleeping Snake" which bites when it wakes. Hypertension is one of the leading vascular diseases and is called as "Silent Killer". [1] The world's biggest killer is ischemic heart disease, responsible for 16% of the world's total deaths. Since 2000, the largest increase in deaths has been for this disease, rising by more than 2 million to 8.9 million deaths in 2019. Stroke and chronic obstructive pulmonary disease are the 2nd and 3rd leading causes of death, responsible for approximately 11% and 6% of total deaths respectively. [2]

Hypertension remains the major risk factor for Cardiovascular Disease around the world. To achieve the global target to reduce the prevalence of hypertension by 25% by 2025, WHO and the United States Centers for Disease Control and Prevention launched the Global Hearts Initiative in 2016. With its five technical packages – HEARTS (manage cardiovascular diseases), MPOWER (control tobacco), Active (increase physical activity), SHAKE (reduce salt consumption) and REPLACE (eliminate Trans fat) – the Initiative aims to improve heart health worldwide. The HEARTS technical package itself gives guidance on more effectively detecting and treating people with hypertension in primary health care. On World Hypertension Day, WHO joins the call for people to "Know Your Numbers", adopt a healthy lifestyle and stay on treatment as prescribed. An estimated 1.13 billion people worldwide have hypertension, most (two-thirds) living in low- and middle-income countries. In 2015, 1 in 4 men and 1 in 5 women had hypertension. Fewer than 1 in 5 people with hypertension have the problem under control. Hypertension is a major cause of premature death worldwide. One of the global targets for non communicable diseases is to reduce the prevalence of hypertension by 25% by 2025 (baseline 2010).

Overall prevalence for hypertension in India was 29.8%. One-tenth of rural and one-fifth of urban Indian hypertensive population have their BP under control. [3]

The "Global Burden of Disease study" has projected CAD and CVD as the leading cause of death worldwide by the year 2020. The prevalence of hypertension in Asia is similar to the prevalence in Western countries and ranges from 23% to 41% among men and from 11% to 34% among women. It has been estimated that in Asia up to 66% of deaths from cardiovascular disease, including stroke, may be attributable to hypertension. In India, about 25 % of adults in cities and 10% of adults in rural areas suffer from hypertension. Dr. Siraj Ahmad, Associate Professor, Department of Community Medicine, Teerthanker Mahaveer Medical, College and Research Centre (2015), Out of 354 patients, 59.3% were males, 40.7% were females. 47.7% were illiterate or just completed primary education. 52.5% were either unemployed or unskilled workers. 31.4% of patients were smokers, whereas, 15.5% were alcoholics.72.32%, 77.68%, and 82.77% had poor score of knowledge, attitude and practice of hypertension respectively. 15.5% had their eyes examined every year. Only 4.0% were having their blood pressure checked at 15 days interval Majority of the patients have poor awareness of hypertension. Health education camps and mass media should be used to improve awareness. Adequate knowledge, a positive attitude and good practices are important for effective control of hypertension.[4]

Awareness regarding the prevalence of hypertension and its complication is still lacking in low and middle income country. Hypertension remains a major risk factor for cardiovascular diseases globally. Despite considerable improvement in increasing awareness, treatment, and control of hypertension, undiagnosed and uncontrolled hypertension remains a major public health challenge. Hypertension is a major disease condition leading to multiple co morbidities and eventually death. The recommended lifestyle measures that have been shown to be capable of reducing blood pressure include (i) salt restriction, (ii) moderation of alcohol consumption, (iii) high consumption of vegetables and fruits and low-fat and other types of diet, (iv) weight reduction and maintenance, and (v) regular physical exercise. Hypertensive patients irrespective of their stage or grade should be motivated to adopt these measures. Hypertension is an overwhelming global challenge. Appropriate lifestyle modifications are the cornerstone for the prevention and control of hypertension. In this regard, lacks of knowledge and poor attitude toward lifestyle modification have been a major setback. Unawareness of Life style modification and failure to apply it was one of the identified patient-related barriers to BP control. Despite its proven effect, the implementation of Life style modification is often the overlooked part of hypertension management. One problem for lack of life style modification among hypertensive patient is lack of awareness and poor practice. [5]

Statement of the Problem

A descriptive study to assess the level of knowledge and attitude of hypertensive patients regarding lifestyle modification in hypertensive clinic in OPD KGMU. Lucknow. Uttar Pradesh.

Objectives of the Study

To assess the level of knowledge of hypertensive patient regarding lifestyle modification.

➢ To identify the attitude of hypertensive patient towards life style modification.

➢ To find out association between level of knowledge of hypertensive patients with their selected demographic variables.

➢ To find out the association between attitude of hypertensive patients regarding life style modification with their selected demographic variables.

Hypothesis:-

H1 - There is a significant association between knowledge levels of hypertensive patients with their selected demographic variables.

H2 - There is a significant association between attitude level of hypertensive patients with their selected demographic variables.

Methodology

Research approach- Quantitative research approach was used for the research study

Research design- Descriptive research design.

Setting of the study- This study was conducted in Hypertensive clinic, OPD, King George's Medical University, Lucknow, Uttar Pradesh.

Research variables-: knowledge and attitude of hypertensive patients regarding lifestyle modification.

Demographic variables- The socio demographic variable include age, gender, marital status, education, occupation, religion, area of residence, family income, history of hypertension, dietary pattern, habits, previous hospitalization.

Target population- The target population of the study is hypertensive patients who fulfill the inclusion criteria of the research study.

Accessible population- The accessible population consists of all hypertensive patients residing in research setting and is willing to participate in the study.

Sample size: The sample size of the present study was 90 hypertensive patients who attended Hypertensive clinic, OPD, King George's Medical University, Lucknow, Uttar Pradesh.

Sampling Technique- In this study a purposive sampling was used. Purposive sampling is a type of non -probability sampling method in which the researcher used his or her own judgment in the selection of sample members. It is sometimes called a judgmental sample. 90 hypertensive patients were selected by non- probability purposive sampling technique from Hypertensive clinic, OPD, King George's Medical University Lucknow.

Criteria for Samples Selection-
Inclusion criteria –

➢ Patients coming for treatment in, hypertensive clinic, KGMU.

➢ Can understand at least either Hindi or English language.

Exclusion Criteria-

➢ Participant unwilling to give consent. ′
➢ Mentally and critically ill. ′
➢ Below 20 years of age

Description of Tool
Part I: -Socio demographic variables

Socio demographic variables for hypertensive patients consist of 15 items such as age, gender, educational qualification, marital status, monthly, family income, religion, occupation, and place of residence etc

Section II- Knowledge Questionnaire

The knowledge questions are divided into 2 sections:-
1. General information of hypertension (No. of questions 5)
2. **Lifestyle modification of hypertensive patients** (No. of questions 13)

Total items– contains 18 questions with single answer questions.

Scoring mode: -

Each correct answer was a score of 1 and incorrect was score of 0.Maximum scoring possible was 18 in knowledge questionnaire and minimum was 0.

Attitude scale :-

Total items- contained a total of 10 questions and was based on likert scale format**.**

Reliability

It was calculated Karl Pearson's correlation coefficient formula and split half method. The reliability of knowledge tool was 1 and attitude questionnaire tool was 0.8 hence the tool was highly reliable.

Ethical Consideration-

The research proposal was approved by the ethical committee of KGMU, Lucknow. Informed consent was taken from the subject. Confidentiality of the information provided by the subject and anonymity was maintained.

Data collection procedure-

Firstly the permission is obtained from ethical committee of institute, formal permission was taken

medicine HOD and the study was started .Then data collection was started by purposive sampling technique and all the potential participants matching the inclusion and exclusion criteria .After the purpose and benefits of the study was explained to the participants and informed consent was taken question were explained to the participants if any participants was not able to understand.

Plan for data analysis-
Descriptive statistics like frequency distribution, percentage, mean, standard deviation and inferential statistics was used for the analysis.

Result-
Section-A: Description of socio demographic variable of hypertensive patients.

Table 1: Frequency and percentage distribution of hypertensive patients according to their demographic variables.

n=90

Demographic variable	f	%
Age		
20-25 years	19	21.1
26-40 years	17	18.9
41-55 years	21	23.3
55 years and above	33	36.7
Gender		
Male	66	73.3
Female	24	26.7
Religion		
Hindu	72	80.0
Muslim	17	18.9
Other	1	1.1
Rural	52	57.8
Urban	38	42.2
Unmarried	20	22.2
Marital status		
Married	69	76.7
Widowed	1	1.1
Education		
No formal education	15	16.7
Up to 10th	21	23.3
Up to 12th	17	18.9
Degree and above	37	41.1
Occupation		
Labor	21	23.3
Private employee	28	31.1
Govt. employee	10	11.1
Family income in Rs. Per month		
Less than Rs. 5000	29	32.2
Rs. 5001-10000	31	34.4
Rs.10001- 15000	12	13.3
Rs.15001 and above	18	20.0

| Family Type		
Joint Family	59	65.6
Nuclear Family	27	30.0
Extended Family	4	4.4

Table 2: Frequency and percentage distribution of hypertensive patients according to their life style variables.

Lifestyle Variable	f	%
Duration of treatment/ medication		
Less than 5 years	70	77.8
5 - 10 years	12	13.3
10 - 15 years	3	3.3
above 15 years	5	5.6
History of hypertension in the family		
Yes	28	31.1
No	62	68.9
Dietary pattern		
Vegetarian	56	62.2
Non vegetarian	34	37.8
Habits		
Smoking	5	5.6
Alcoholism	2	2.2
Tobacco chewing	16	17.8
None	67	74.4
Previous knowledge regarding Life style modification		
Yes	42	46.7
No	48	53.3
Previous Hospitalization		
Yes	48	53.3
No	42	46.7

Section-B: l Finding on level of knowledge of hypertensive patient regarding lifestyle modification.

**Table 3-Percentage distribution of level of knowledge regarding lifestyle modification.**

Level of knowledge	f	%
Less than 50%	24	26.7
More than 50%	66	73.3
Total	90	100.0
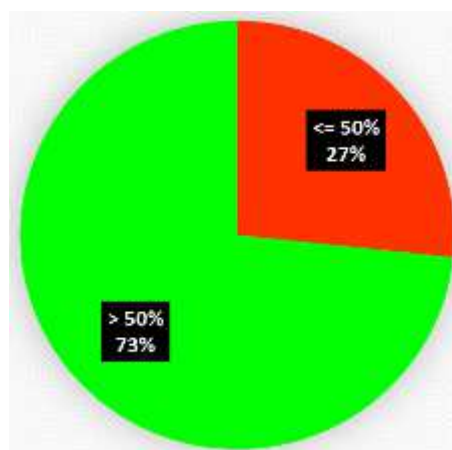
It showed the level of knowledge on life style modification among hypertensive patients. 24 hypertensive patients were having less than 50 % knowledge, 66 hypertensive patients were having more than 50% knowledge.

Section-C: Finding regarding attitude of hypertensive patient towards life style modification.
Fig 1 -Percentage distribution of Attitude Items on the basis of response towards life style modification.
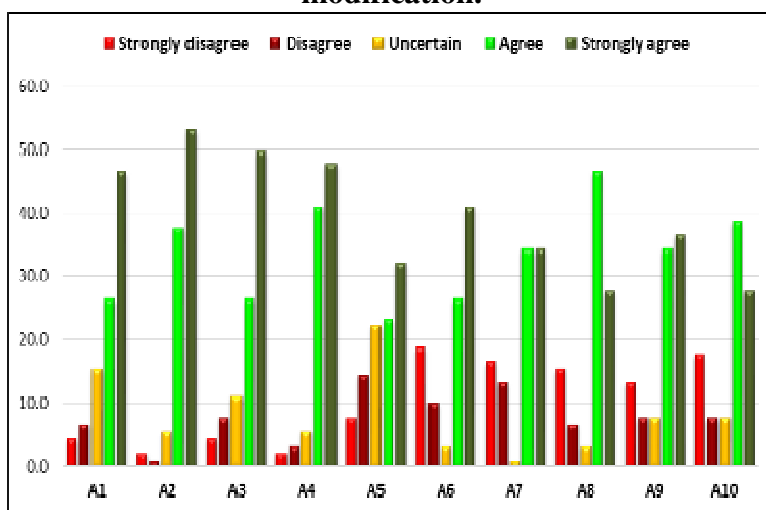
The observations on attitude items showed that the maximum proportion of strongly agree was found for the attitude A2 (Stress can be a cause factor for high blood pressure, 53.3%) while maximum proportion of strongly disagree was found for the attitude A6 (For a hypertensive patient it is not necessary to avoid stre ssful situation, 18.9%).

Section-D: Association between level of knowledge of hypertensive patients with their selected demographic variables.
Table 4- Distribution of association between level of knowledge of hypertensive patients with their selected demographic variables.

Demographic variable		level of knowledge				chi sq	p-value
		<= 50% (n=24)		> 50% (n=66)			
		f	%	*f*	%		
Age	20-25 years	6	31.6%	13	68.4%	5.37	0.146
	26-40 years	4	23.5%	13	76.5%		
	41-55 years	9	42.9%	12	57.1%		
	55 years and above	5	15.2%	28	84.8%		
Gender	Male	15	22.7%	51	77.3%	1.96	0.161
	Female	9	37.5%	15	62.5%		
R3eligion	Hindu	19	26.4%	53	73.6%	0.43	0.806
	Muslim	5	29.4%	12	70.6%		
	Other	0	0.0%	1	100.0%		
Area	Rural	15	28.8%	37	71.2%	0.30	0.584
	Urban	9	23.7%	29	76.3%		
Marital status	Unmarried	7	35.0%	13	65.0%	1.22	0.544
	Married	17	24.6%	52	75.4%		
	Widowed	0	0.0%	1	100.0%		
Education	No formal education	6	40.0%	9	60.0%	7.25	0.064
	Up to 10th	9	42.9%	12	57.1%		
	Up to 12th	2	11.8%	15	88.2%		
	Degree and above	7	18.9%	30	81.1%		
Occupation	Unemployed	10	32.3%	21	67.7%	5.93	0.115
	Labor	8	38.1%	13	61.9%		
	Private employee	6	21.4%	22	78.6%		
	Govt. employee	0	0.0%	10	100.0%		

Family Income	Less than Rs. 5000	10	34.5%	19	65.5%	9.37	0.025
	Rs. 5001-10000	12	38.7%	19	61.3%		
	Rs.10001- 15000	1	8.3%	11	91.7%		
	Rs.15001 and above	1	5.6%	17	94.4%		

Table 4 reveals that no significant association of knowledge level was found with demographic variables Age (p=0.0146), gender (p=0.161), religion (p=0.806), area (p=0.584) and marital status (p=0.544). Education (p=0.064) and occupation (p=0.115). However significant association was found with family income (p=0.025) and family type (p=0.023). More knowledge was observed in higher income groups and nuclear family.

Table 5- Distribution of association between level of knowledge of hypertensive patients with Lifestyle/Risk Factor variables.

Lifestyle/Risk Factor Variable		Level of Knowledge				chi sq	p-value
		<=50% (n=24)		>50% (n=66)			
		f	%	f	%		
Duration of treatment/ medication	Less than 5 years	17	24.3%	53	75.7%	3.04	0.385
	5 - 10 years	4	33.3%	8	66.7%		
	10 - 15 years	2	66.7%	1	33.3%		
	above 15 years	1	20.0%	4	80.0%		
History of hypertension	Yes	5	17.9%	23	82.1%	1.61	0.204
	No	19	30.6%	43	69.4%		
Dietary pattern	Vegetarian	16	28.6%	40	71.4%	0.28	0.600
	Non vegetarian	8	23.5%	26	76.5%		
Habits	Smoking	1	20.0%	4	80.0%	1.70	0.637
	Alcoholism	0	0.0%	2	100.0%		
	Tobacco chewing	3	18.8%	13	81.3%		
	None	20	29.9%	47	70.1%		
Previous knowledge regarding Life style modification	Yes	11	26.2%	31	73.8%	0.01	0.924
	No	13	27.1%	35	72.9%		
Previous Hospitalization	Yes	14	29.2%	34	70.8%	0.33	0.566
	No	10	23.8%	32	76.2%		

Table 4 reveals that no significant association of knowledge level was found with Lifestyle/Risk Factor duration of treatment/medication (p=0.385), history of hypertension (p=0.204), dietary pattern (p=0.600), Habits (p=0.637), previous knowledge regarding life style modification (p=0.924) and previous hospitalization (p=0.566).No significant association of knowledge level was found with Lifestyle/Risk Factor duration.

Section-E: Association between attitude of hypertensive patients regarding life style modification with their selected demographic variables level of knowledge of hypertensive patients with their selected demographic variables. Finding reveals that no significant association of Attitude 1 (Body Mass Index has an impact on high blood pressure) was found with demographic variables Age (p=0.895), gender (p=0.886), religion (p=0.469), area (p=0.271) and marital status (p=0.284). Education (p=0.887), occupation (p=0.786) and family type (p=0.605), Lifestyle/Risk Factor duration of treatment/medication (p=0.539), history of hypertension (p=0.814), dietary pattern (p=0.135), Habits (p=0.127), previous knowledge regarding life style modification (p=0.067) and previous hospitalization (p=0.968). However significant association was found with family income (p=0.040). More positive attitude was observed in higher income groups.

No significant association of Attitude 2 (Stress can be a cause factor for high blood pressure) was found with demographic variables Age (p=0.480), gender (p=0.354), religion (p=0.519), area (p=0.506) and marital status (p=0.144). Education (p=0.705), occupation (p=0.652), family income (p=0.826) and family type (p=0.584). Lifestyle/Risk Factor duration of treatment/medication (p=0.168), history of hypertension (p=0.567), dietary pattern (p=0.252), Habits (p=0.968), previous knowledge regarding life style modification (p=0.468) and previous hospitalization (p=0.581).

No significant association of Attitude 3 (Periodic blood pressure monitoring of high blood pressure patients can reduce the risk of complication) was found with demographic variables Age (p=0.363), gender (p=0.541), religion (p=0.890), area (p=0.531) and marital status (p=0.583). Education (p=0.698), occupation (p=0.088), family income (p=0.142) and

family type (p=0.550). Lifestyle/Risk Factor duration of treatment/medication (p=0.488), history of hypertension (p=0.216), dietary pattern (p=0.372), Habits (p=0.798), previous knowledge regarding life style modification (p=0.161) and previous hospitalization (p=0.359).

No significant association of Attitude 4 (Antihypertensive Medicine is essential for controlling high blood pressure.) was found with demographic variables Age (p=0.902), gender (p=0.679), religion (p=0.789) and area (p=0.341). Education (p=0.519), occupation (p=0.691), family income (p=0.232) and family type (p=0.839) Lifestyle/Risk Factor duration of treatment/medication (p=0.124), history of hypertension (p=0.951), dietary pattern (p=0.104), Habits (p=0.945),previous knowledge regarding life style modification (p=0.273) and previous hospitalization (p=0.632). However marital status showed significant relationship (p=0.008) More married were agreed strongly than unmarried or widowed.

No significant association of Attitude 5 (DASH diet has an impact in reduction of blood pressure) was found with demographic variables Age (p=0.930), gender (p=0.165), religion (p=0.914), area (p=0.236) and marital status (p=0.338). Education (p=0.180), occupation (p=0.281), family income (p=0.647) and family type (p=0.372). Lifestyle/Risk Factor duration of treatment/medication (p=0.747), history of hypertension (p=0.960), dietary pattern (p=0.904), Habits (p=0.926), previous knowledge regarding life style modification (p=0.857) and previous hospitalization (p=0.996).

No significant association of Attitude 6 (For a hypertensive patient its not necessary to avoid stressful situation.) was found with demographic variables Age (p=0.782), gender (p=0.734), religion (p=0.400), area (p=0.223) and marital status (p=0.834). Education (p=0.511), family income (p=0.567) and family type (p=0.567). Lifestyle/Risk Factor duration of treatment/medication (p=0.166), history of hypertension (p=0.447), dietary pattern (p=0.329), Habits (p=0.128), previous knowledge regarding life style modification (p=0.590) and previous hospitalization (p=0.355). However occupation showed significant association (p=0.031). Govt emplyees showed maximum positive attitude.

No significant association of Attitude 7 (: High blood pressure is neither controlled nor prevented by cessation of smoking) was found with demographic variables Age (p=0.530), gender (p=0.716), religion (p=0.145), area (p=0.355) and marital status (p=0.541). Education (p=0.157), occupation (p=0.521), family income (p=0.273) and family type (p=0.829). Lifestyle/Risk Factor duration of treatment/medication (p=0.714), dietary pattern (p=0.179), previous knowledge regarding life style modification (p=0.456) and previous hospitalization (p=0.539). However significant association was found with history of hypertension (p=0.011) and Habits (p=0.025). More positive attitude was found among without history, without addiction or addiction of tobacco chewing only.

No significant association of Attitude 8 (Exercise don't have a major contribution in reduction of high blood pressure) was found with demographic variables Age (p=0.624), gender (p=0.166), religion (p=0.988), area (p=0.217) and marital status (p=0.683). Education (p=0.293), occupation (p=0.756) and family type (p=0.968). Lifestyle/Risk Factor duration of treatment/medication (p=0.644), dietary pattern (p=0.518), Habits (p=0.900), previous knowledge regarding life style modification (p=0.420) and previous hospitalization (p=0.615). However family income(p=0.023) and history of hypertension (p=0.019) showed significant association (p=0.023). More positive attitude was found among Higher income groups and without hypertension history.

No significant association of Attitude 9 (Fruits and vegetables should not be compulsory in daily diet) was found with demographic variables Age (p=0.319), gender (p=0.799), religion (p=0.826) and marital status (p=0.810). Education (p=0.857), occupation (p=0.481), family income (p=0.114) and family type (p=0.946). Lifestyle/Risk Factor history of hypertension (p=0.208), dietary pattern (p=0.110), Habits (p=0.818), previous knowledge regarding life style modification (p=0.485) and previous hospitalization (p=0.613). However association with area was found to be significant (p=0.041) and duration of treatment/medication (p=0.041). More positive attitude was found in Urban residents and among cases with higher duration.

No significant association of Attitude 10 (Healthy lifestyle modification have a negative impact on prevention of hypertension) was found with demographic variables Age (p=0.915), gender (p=0.116), religion (p=0.364), area (p=0.075) and marital status (p=0.913). Education (p=0.752), occupation (p=0.412), family income (p=0.498) and family type (p=0.938). Lifestyle/Risk Factor duration of treatment/medication (p=0.368), dietary pattern (p=0.556), Habits (p=0.488), previous knowledge regarding life style modification (p=0.180) and previous hospitalization (p=0.865). However significant association was found with history of

hypertension (p=0.029). More positive attitude was found among cases of without history.

Nursing Implication
The findings from this study has varied implications in relation with nursing practice, education, research, and administration as it helps in understanding the effectiveness of lifestyle modification in hypertensive patients.

Nursing Practice
➢ 1.It is important to promote the knowledge and lifestyle modifying factor that prevent and control hypertension.
➢ 2.In the nursing practice, it is important to focus on health education, the nurses can help patients of hypertension to understand its complication in the community by providing health education.

Nursing education:
1. Student nurse can be motivated by educator to give health education and community set setting regarding lifestyle modification.
2. Student nurses can also practice the monitoring of BP periodically on hypertensive patients in clinics after being prepared by nurse educator.
3. The student can be divided into different team by the nurse educator which will encourage them to practice BP monitoring on hypertensive patients.

Nursing administration
➢ The nursing administration should also come forward to organized in implements such type of information and education campaign for public.
➢ Nursing administrator should organize to workshop for the health care worker and provide necessary facilities an opportunities for the nursing staff to equip them with the knowledge regarding hypertension with more positive attitude.

Community health nursing.
➢ The study has important implications for the community health nursing.
➢ The community health nurse I act as a link between community and health care worker.
➢ Community health nurse is in most advantageous position to educate people for hypertension and there complication and prevention to the society.

Summary
A Study was undertaken to assess the level of knowledge and attitude of hypertensive patients regarding lifestyle modification in hypertensive clinic in OPD KGMU Lucknow. The selection of problem is based on the primary and secondary source were used to do A literature of review. It was helpful in creation of conceptual framework and formulation of tool. The tool is based on demographic variables knowledge questionnaire and using the likert scale for attitude Assess. This tool have been validated by 7 experts. The sampling was done through the purposive sampling technique. The sample included patients who were attended the hypertensive clinic that fulfill the inclusion criteria. The Study was conducted on 90 samples, Data were analysed by using descriptive statistics like frequency distribution, percentage, mean, standard deviation and inferential statistics .

Conclusion
The level of knowledge and attitude assessed in this study on hypertensive patients. The sample for the Study was taken from hypertensive clinic KGMU Lucknow. Based on the above finding the Study concluded that the distribution of overall knowledge showed that 73.3% subjects given 50% or more correct responses while remaining 26.7% given less than 50% correct responses. The observations on attitude items showed that the maximum proportion of strongly agree was found for the attitude A2 (Stress can be a cause factor for high blood pressure, 53.3%) while maximum proportion of strongly disagree was found for the attitude A6 (For a hypertensive patient it is not necessary to avoid stressful situation, 18.9%).

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