A STUDY TO ASSESS KNOWLEDGE AND FACTORS AFFECTING HYPERTENSION AMONG HYPERTENSIVE PATIENTS IN SELECTED HOSPITAL.

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CHAPTER I

INTRODUCTION

"Sometimes what you don't know can kill you,

but putting knowledge into action can save your life"

Health is the level of functional or metabolic efficiency of a living being. In humans, it is the general condition of a person's mind and body, usually meaning to be free from illness, injury or pain. Health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (World Health Organisation, 1946).

Health is considered as one of most important values in life and it is dynamic process that varies according to individual perception of well being and is regarded as Process. health is the process in which a person seeks to maintain an equilibrium that promote stability and comfort .the true fulfilment of life begins with good health when This equilibrium is altered disease occurs

Globally an estimated 26% of the world's population (972 million people) has hypertension and the prevalence is expected to increase to 29% by 2025 driven largely by increase in economically developing nations. Over all prevalence for hypertension in India was 29.8% significant differences in hypertension prevalence were noted between rural 27.6% and urban 33.8%.

In India about 33% urban and 25% rural Indians are hypertensive. Of these, 25% rural and 42% urban Indians are aware of their hypertensive status. Only 25% rural and 38% of urban Indians are being treated for hypertension. One-tenth of rural and one-fifth of urban Indian hypertensive population have their BP under control.

In Maharashtra, the prevalence of hypertension is found 25.1%. Besides, a huge variation in the prevalence of hypertension is observed across the districts (S1 Table).At the district level, the prevalence rate of hypertension is varied between 15% in Hingoli and 36% in Mumbai. Satara, Dhule, Gadchiroli and Mumbai are the districts with more than 30% prevalence of high BP, whereas Hingoli, Nagpur, Osmanabad, Wardha and Akola have a prevalence rate of less than twenty percent. There are districts like Nandurbar, Jalgaon, Buldana, Gondiya, Chandrapur, Yavatmal, Mumbai Suburban, Pune, Ahmednagar, Bid and Solapur which show a higher prevalence of hypertension than the state average

Hypertension or high blood pressure, sometime called arterial hypertension, is a chronic in which the pressure in the arterial is elevated. As of 2000, nearly one billion people or 26% of the world had hypertension, it was common in both developed (333 million) and underdeveloped (639 million) countries. Cardiovascular disease caused 2.3 million deaths in India in year 1990; this is projected to double by the 2020. Hypertension is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease deaths in India.3 Hypertension prevalence is in rural India population although there has been a steady increase over time here as well. Recent studies have shown high prevalence of Hypertension among urban adults. There is strong correlation between altering dietary among adults or avoid dash diet that leads to increase Hypertension in India .

High blood pressure is a silent killer. It usually shows no symptoms and many People do not realize they have it. High blood pressure, also known as raised blood Pressure or hypertension increases the risk of heart attacks, strokes and kidney failure. Even moderate elevation of arterial blood pressure is associated with a shortened life Expectancy. If left uncontrolled, high blood pressure can also cause blindness, Irregularities of the heart beat and heart failure (Jasim. N, 2013)

Hypertension is seen today as a cardiovascular risk factor, and lowering the blood pressure is considered a form of prevention. Preventive work requires that patients assume considerable responsibility for monitoring their health status. The understanding of hypertension is for most patients intellectual and expressed in blood pressure numbers rather than anchored in first hand experiences of signals from their own body, as would be the case with most other chronic conditions. This will require increasing attention to the necessity of establishing informative and convincing communication with the patients about salient features of their condition.

The cardiovascular system is responsible for delivery of blood, which carries oxygen and other nutrients to the tissues of the body. Cardiovascular disease is the leading cause of deaths worldwide, though since the 1970s, cardiovascular mortality rates have declined in many high-income countries. At the same time, cardiovascular deaths and disease have increased at a fast rate in low and middle-income countries. It currently causes 17.3 million deaths every year (World Health Organisation, 2013).

Hypertension is the commonest cardiovascular disorder affecting at least 20% of adult population in several countries. It is one of the important risk factors for cardiovascular mortality accounting for 20-30% of all adults. Hypertension, simply put, is high blood pressure. It is defined as a persistent elevation of the systolic blood pressure at a level of 140 mm Hg and of diastolic blood pressure of 90 mm Hg or higher. Hypertension prevalence is on the rise, and control rates are decreasing.

The causes of cardiovascular diseases are diverse but atherosclerosis and/or hypertension are the most common. Additionally, with aging a number of physiological and morphological changes occur that alter cardiovascular function and lead to subsequently increased risk of cardiovascular disease, even in healthy asymptomatic individuals (American Heart Association, 2019)

Ajay Sunder (2018) stated that Hypertension (HTN) or high blood pressure, sometimes called arterial hypertension, is a chronic medical condition in which the blood pressure in the arteries is elevated. This requires the heart to work harder than normal to circulate blood through the blood vessels. Blood pressure is summarised by two measurements, systolic and diastolic, which depend on whether the heart muscle is contracting (systole) or relaxing between beats (diastole).

Hypertension was previously defined as blood pressure greater than 140/90 mm Hg and treatment of High Blood Pressure was classified in stages, according the degree of severity (Joint National Committee on Detection, Evaluation, 1992).

BACKGROUND OF STUDY

Hypertension (HTN) is a major public health problem due to its high prevalence all around the globe. Around 7.5 million deaths or 12.8% of the total of all annual deaths worldwide occur due to high blood pressure. It is predicted to be increased to 1.56 billion adults with HTN in 2025. HTN is fast emerging as a major health problem among all school adolescents, particularly in urban areas. Regular screening of the students for this is required for the preventing the emergence of complications later in children The aim of the present study is to find the effectiveness of structured teaching program on knowledge regarding HTN among adolescent school children.

A experimental design with pre-test and post-test was conducted to study the effectiveness of structured teaching programs on HTN among adolescent school children. The investigator selected 60 samples using systemic random sampling technique. Demographic details about the samples were collected from the adolescents, pre-test was done on HTN. Structured teaching was conducted on HTN. After 2 h post-test knowledge was assessed using the structured questionnaire. The study results show that the pre-test mean score of knowledge among adolescent school children was 8.23 with standard deviation 2.37, and the post-test mean score of knowledge was 20.68 with standard deviation 2.65. The calculated paired "t-test" value of t = 29.170 was found to be statistically highly significant at P < 0.001 level. This clearly infers there is a significant improvement in the post-test level of knowledge regarding HTN among adolescent school children. Conclusion: This indicates that structured teaching program helps to improve the practice of healthy lifestyle among adolescent school children

NEED FOR THE STUDY

WHO (2014) stated that hypertension or high blood pressure affects at least 1 billion people world wide. It increases the risk of heart failure by two or three-fold and probably accounts for about 25% of all cases of heart failure. In addition, hypertension precedes heart failure in 90% of cases, and the majority of heart failure in the elderly may be attributable to hypertension. Hypertensive heart disease was estimated to be responsible

for 1.0 million deaths worldwide in 2004 and was ranked 13th in the leading global causes of death for all ages.

One out of three adults in South-East Asia Region is affected by high blood pressure. It is the leading risk factor for mortality claiming nearly 1.5 million lives each year in the region. High blood pressure is increasing in the region due to rapid urbanization and globalization leading to adoption of unhealthy lifestyles (Prabhudeva, 2013).

American Society of Hypertension (2011) stated that having high blood pressure increases the risk for heart disease and stroke, leading causes of death in the United States. High blood pressure was a primary or contributing cause of death for 348,000 Americans in 2008, or nearly 1,000 deaths a day. 67 million American adults (31%) have high blood pressure; that's 1 in every 3 American adults. 36 million American adults with high blood pressure don't have it under control.

In India, among adults one in three was found to have a raised blood pressure and about half of them remained undetected during WHO surveys. The number of hypertensive in India was expected to nearly double from 118 million in 2000 to 213 million by 2025. However, recently it is estimated that among those aged 25 years in 2013, there are already about 199 million hypertensive currently which include 103 million men and 96 million women .

Using the Hypertension Health Status Inventory and multivariate analysis, predictors of quality of life were determined for a random selection of 316 hypertensive patients. Controlling for the effects of demographic and socioeconomic factors and existing co-morbidity, a better quality of life was independently predicted by achieving a controlled blood pressure and absence of target organ complications. Neither the number of antihypertensive drugs received nor the dose frequency affected patients' quality of life. Presence of drug side-effects independently predicted a lower quality of life in the physical and emotional domains but not on aspects of daily living. The independent predictors explained 25%-30% of the variation in the quality of life of hypertensive patients. The study highlights the role of achieving blood pressure control to ensure a better quality of life for hypertensive patients.

PROBLEM STATEMENT

A study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital.

OBJECTIVES

1.To assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital

2. To find out the association between knowledge and selected demographic variables among hypertensive patients in selected hospital.

OPRATIONAL DEFINATION

ASSESS

According to Thesaurus Dictionary, "assess" means, 'to evaluate the value of, quality of. In this study, "assess" mean 'to gather information for evaluation of knowledge regarding oral cancer among students.

KNOWLEDGE

In this study it refers to correct responses obtained from hypertensive patients regarding their knowledge on blood pressure as measured by questionnaire.

EFFECTIVENESS

In this study it refers to the improvement of knowledge towards controlling blood pressure which is explored by the scores of the knowledge questionnaire.

BLOOD PRESSURE

According to NCI dictionary Blood pressure means "The force of circulating blood on the wall of the arteries.

PATIENT

According to medical dictionary "The patient one who is suffering from any disease or behavioural disorder and is under treatment for it.

VARIABLE OF THE STUDY

DEPENDENT VARIABLE

In this study, dependant variable was factors affecting the hypertension among hypertensive patients in selected hospital at the age group of 35-65 years.

INDEPENDENT VARIABLE

In this study, independent variable was factor affecting hypertensive patients in selected hospitals.

ASSUMPTIONS

- Hypertensive patients have inadequate knowledge in controlling blood pressure.

The structured teaching program improves the knowledge controlling blood pressure among hypertensive patients.

HYPOTHESIS

H1: The knowledge towards controlling blood pressure among hypertensive patients will be significantly improved by structured teaching program .

H2: The knowledge will have significant association with demographic variables among hypertensive patients.

RESEARCH METHODOLOGY

This chapter deals with methodology adopted for assessing the knowledge of patients regarding hypertension. Its include the description of the research approach research, design, setting of the study, sampling and sampling technique, development of data collection tools and knowledge questionnaire, checklist for data collection and plan for data analysis.

RESEARCH APPROACH

Quantitative approach was adopted in this study.

RESEARCH DESIGN

The Research Design adopted for the present study was one group pre-test, posttest, pre-experimental design.

SETTING OF THE STUDY

The setting for the study is Dr.D.Y. Patil Medical College and Research Center, Pimpri-18.

POPULATION

The population of the study includes hypertensive patients who have a blood pressure ranging from 140-180/90-110 mm of hg, admitted in DR. DY. Patil Hospital and Research center, Pimpri, Pune-18 during the collection.

SAMPLE SIZE

Sample size is the number of subject needed in sample.The sample size for this study was 60.

SAMPLING TECHNIQUE

A Non-Probability, convenient sampling technique was adopted for selecting the samples in the present study.

SAMPLING CRITERIA

Inclusive Criteria

1. Clients within the age group of 35 to 65 years

2. Both male and female hypertensive patients.

3. Clients with blood pressure ranging from 140-180/90-110 mm of hg.

Exclusion criteria for sampling.

1. Clients who are critically ill
2. Clients with altered sensory perception.
3. Clients who are having the complications of blood pressure.
4. Clients who are not willing to participate.
5. **DESCRIPTION OF THE TOOL**

    The pilot study will be done on 10% of sample.

PROCEDURE FOR DATA COLLECTION

- The permission is taken from the Dr. D Y Patil Medical Hospital and Cancer Research center.
- Prior to the data collection informed consent was taken from the sample and they were assured that their identy will not be revealed in any case after data collection.

PLAN FOR DATA ANALYSIS

Data will be analyzed was planned to include descriptive and inferential statistics.

A. DESCRIPTIVE STATISTICS.

Median, mode, standard deviation, percentage distribution will be used to assess the coping strategies of the patient selected in demographical variable.

B. INFERENTIALSTATISTICS.

Chi-square and T-test will be used to associate the coping strategies of the patient selected in demographical variable.

ETHICAL CONSIDERATION

- Formal administrative permission will be obtain from head of the research setting
- Inform written concern will be obtain given by researcher.

DATA DISSMENINATION

Data will be display in library.

ORGANIZATION OF STUDY FINDINGS

The analysis of data is organized and presented under the following headings.

Section I- Description of samples (hypertensive patients) based on their personal characteristics in terms of frequency and percentages.

Section II- Analysis of data related to pre-test and post-test knowledge regarding remedial measures on Hypertension among hypertensive patients in selected hospital.

Section III - Analysis of data related to the association of knowledge and demographic variables among hypertensive patients in selected hospital with demographic variables.

SECTION I

Description of samples (hypertensive patients) based on their personal characteristics

Table 1: Description of samples (hypertensive patients) based on their personal characteristics in terms of frequency and percentage

N=60

Demographic variable	Freq	%
Age		
35- 45 years	28	46.7
46- 55 years	22	36.7
56- 65 years	10	16.7
Gender		
Female	30	50.0
Male	30	50.0
Religion		
Christian	12	20.0
Muslim	22	36.7
Hindu	26	43.3
Education		
Illiterate	5	8.3
Primary	18	30.0
Secondary	9	15.0
Higher secondary	19	31.7
Graduate and Postgraduate	9	15.0
Occupation		
Unemployed	4	6.7
Technical workers	15	25.0
Professional	18	30.0
Business	23	38.3
Marital status		
Divorcee	4	6.7
Widow/ Widower	4	6.7
Single	17	28.3
Married	35	58.3
Monthly income		
Below Rs.10,000/ -	6	10.0

Rs . 10000 - 20,000/ -	30	50.0
Rs . 20,000 - 30,000/ -	21	35.0%
Above Rs . 30,000/ -	3	5.0%

SECTION II

Analysis of data related to knowledge and factors affecting hypertension among hypertensive patients in selected hospital

Table 2: Knowledge regarding hypertension among hypertensive patients in selected hospital

N=60

16.7% of the hypertensive patients had poor knowledge (score 0-5), 68.3% of them had average knowledge (Score 6-10) and 15% of them had good knowledge (score 11-15) regarding hypertension.
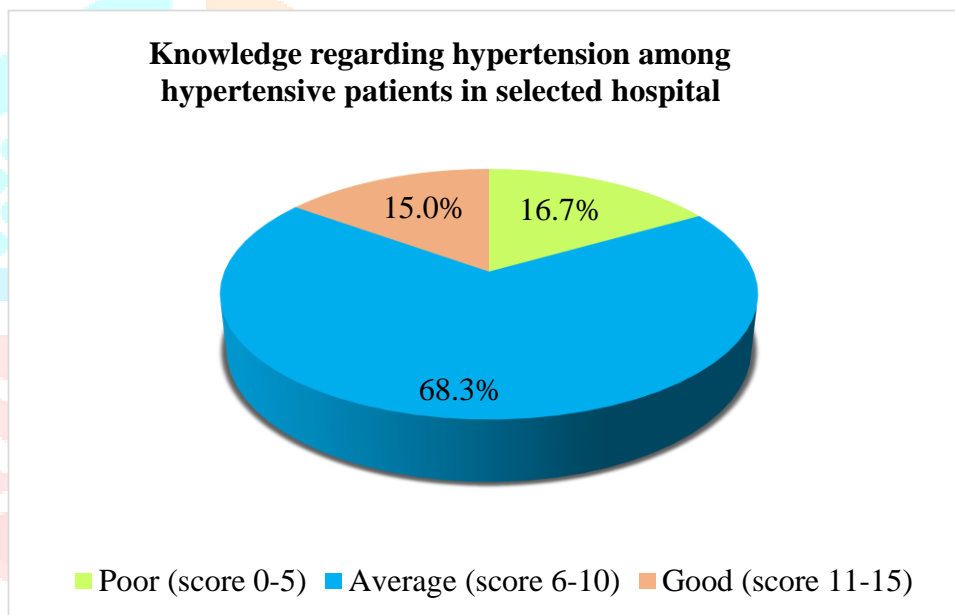
Table 3: Knowledge item analysis

N=60

Knowledge item	Freq	%
Hypertension is the blood pressure level of	26	43.3%
Hypertension is more likely to occur in people taking	30	50.0%
One of the causes of Hypertension is	35	58.3%
Hypertensive patients may have	30	50.0%
In severe Hypertension, there may be	36	60.0%
To prevent complication, a hypertensive patient should maintain the blood pressure level of	33	55.0%
Antihypertensive drugs will	30	50.0%
Among these, an antihypertensive drug is	20	33.3%
The first step in managing Hypertension is	29	48.3%
Foods that are high in fat are	51	85.0%
DASH diet is recommended to	35	58.3%
Foods that can be included plenty in daily diet are	26	43.3%
The sodium intake of hypertensive patients should be	34	56.7%
The amount of salt is high in	35	58.3%
Hypertensive patients should exercise for	34	56.7%

Table 4: Factors affecting hypertension among hypertensive patients in selected hospital

N=60

Factor	Yes		No	
	Freq	%	Freq	%
Hereditary	31	51.7%	29	48.3%
Occupational Stress	37	61.7%	23	38.3%
Industrial noise	21	35.0%	39	65.0%
Prolonged exertion	29	48.3%	31	51.7%
Habit of – smoking, tobacco chewing	28	46.7%	32	53.3%
Extreme high temperature at work	30	50.0%	30	50.0%
High salt diet	26	43.3%	34	56.7%
Overeating habit	17	28.3%	43	71.7%
Obesity	28	46.7%	32	53.3%

SECTION III

Analysis of data related to association between knowledge and selected demographic variables among hypertensive patients in selected hospital

Table 5: Fisher's exact test for the association between knowledge and selected demographic variables among hypertensive patients in selected hospital

N=60

Demographic variable		Knowledge			p-value
		Average	Good	Poor	
Age	35- 45 years	18	5	5	0.729
	46- 55 years	15	4	3	
	56- 65 years	8	0	2	
Gender	Female	20	5	5	1.000
	Male	21	4	5	
Religion	Christian	7	3	2	0.318
	Muslim	14	2	6	
	Hindu	20	4	2	
Education	Illiterate	4	0	1	0.275
	Secondary	5	0	4	
	Graduate and Postgraduate	6	2	1	
	Primary	12	5	1	
	Higher secondary	14	2	3	
Occupation	Unemployed	3	1	0	0.855
	Technical workers	11	1	3	
	Professional	13	3	2	
	Business	14	4	5	
Marital status	Divorcee	2	1	1	0.227
	Widow/ Widower	3	0	1	
	Single	14	0	3	
	Married	22	8	5	
Monthly income	Above Rs . 30,000/ -	1	1	1	0.562
	Below Rs.10,000/ -	5	0	1	
	Rs . 10000 - 20,000/ -	20	6	4	
	Rs . 20,000 - 30,000/ -	15	2	4	

Since p-value corresponding to all the demographic variables were large (greater than 0.05), none of the demographic variables was found to have significant association with the knowledge among hypertensive patients regarding hypertension.

MAJOR FINDINGS OF THE STUDY

Section I: Description of sample (hypertensive patients)based on their personal characteristics.

46.7% of the hypertensive patients had age 35-45 years, 36.7% of them had age 46-55 years and 16.7% of them had age 56-65 years.50% of them were females and 50% of them were males. 20% of them were Christians, 36.7% of them were Muslim and 43.3% of them were Hindu.

8.3% of them were illiterate, 130% of them had primary education, 5% of them had secondary education, 31.7% of them had higher secondary education , 15% of them had graduation.6.7% of them were unemployed, 25% of them were technical workers, 30% of them were professionals and 38.3% of them had business.6.7% of them were divorcee, 6.7% of them were widow/widower, 28.3% of them were single and 58.3% of them were married.10% of them had monthly income below Rs.10000, 50% of them had monthly income Rs. 10001-20000, 35% of them had monthly income Rs.20000-30000 and 5% of them had monthly income above Rs.30000.

Section II: Analysis of data related to knowledge and factor affecting hypertension among hypertensive patients in selected hospital.

51.7% of the hypertensive patients had heredity, 61.7% of them had occupational stress, 35% of them had industrial noise, 48.3% of them had prolonged exertion, 46.7% of them had habit of smoking, tobacco chewing, 50% of them had extreme high temperature at work, 56.7% of them had high slat diet, 71.7% of them had overeating habit and 53.3% of them had obesity.

16.7% of the hypertensive patients had poor knowledge (score 0-5), 68.3% of them had average knowledge (Score 6-10) and 15% of them had good knowledge (score 11-15) regarding hypertension.

43.3% of the hypertensive patients knew the level of blood pressure in hypertension. 50% of them knew the type of diet which more likely occurrence has to have hypertension. 58.3% of them knew the cause of hypertension. 50% of them knew the symptoms of hypertension. 60% of them knew the symptom of severe hypertension. 55% of them knew the blood pressure level which the hypertensive patient should maintain to prevent complication. 50% of them knew the action of antihypertensive drug. 33.3% of them knew antihypertensive drug name. 48.3% of them knew the first step in managing hypertension. 85% of them knew the food that are high in fat. 58.3% of them knew the purpose of DASH diet. 43.3% of them knew foods that can be included plenty in daily diet. 56.7% of them knew the sodium intake of hypertensive patients. 58.3% of them knew the food having high amount os salt. 56.7% of them knew the exercises for hypertensive patients.

Section III: Analysis of data related to association between knowledge and selected demographic variables among hypertensive patients in selected hospitals.

Since p-value corresponding to all the demographic variables were large (greater than 0.05), none of the demographic variables was found to have significant association with the knowledge among hypertensive patients regarding hypertension.

DISCUSSION

The finding of the study have been discussed with reference to the objectives and hypothesis findings of other studies.

A similar study was conductedstudy conducted In Bangladesh, half of the elderly persons were hypertensive, with a higher prevalence in females. In both sexes, odds of hypertension was higher among persons with older age (≥70 years), insufficient physical activity, higher waist circumference and self-reported diabetes. The Ministry of Health of Bangladesh should consider these findings while designing and implementing health programmes for elderly population.**Wenger. E (2018)** conducted study to evidence-based guidelines for hypertension treatment from clinical trials are similar between males and females; however, most of these trials do not include any risk stratification of sex and gender. Even from the start of medical education, students are taught a single set of risk factors and treatments to be applied to both sexes despite any underlying physiologic differences. The Center for Disease Control (CDC) estimates that 1 in 3 people have hypertension, and with half the population being female, the impact of not accounting for sex and gender variances can lead to poorer quality of care and worse outcomes.

Similarly, in this study on A study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital . in this study the hypertensive patients number were 60 Both male and females are involved.

CONCLUSION

While A study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital was done, tools / questionnaire were given.The demographic data of various aspects of hypertensive patients were evaluated based on pre-test or post-test. The responses were categorized in two different sections. It was based on variables like Age, Gender, Educational Status, religion, occupation, marital status, monthly income determined the range and the domain of the study. Conclusive evidence was inferred upon after reviewing the responses of patients regarding to the content of study delivered, checklist.At the end of the study, we conclude our Non-Experimental study, A study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital.

LIMITATIONS

1. The study is conducted only on 35-65 years old hypertensive patients. In selected hospital..
2. The is conducted only at selected hospital
3. Limited to 60 samples.

IMPLICATION OF THE STUDY

NURSING ADMINISTRATION

•The nurse administer can organise and conduct various continuing education services program regarding assessment of knowledge and factors affecting hypertension among hypertensive patients in selected hospital.

•It helps to provide the knowledge among the hypertensive patients.

•Nurse administrator can arrange seminar and lecture to educate the students and get to know the which method is most applicable.

NURSING EDUCATION

The study will help the nursing students to acquire knowledge regarding particular topic by the application of hypertensive patients

NURSING PRACTICES

•These results help the nurse personnel to Assess the condition of hypertensive patient

•Nursing Personnel include the study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital in the nursing practice based on evidences

NURSING RESEARCH

•This study motivates nursing personnel to do further studies related to this field.

•Research can be continued to A study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital.

RECOMMENDATION

•The study can be replicated on a larger sample to generate the result.

•The study can be done to A study to assess knowledge and factors affecting hypertension among hypertensive patients in selected hospital.

•The study can be done by the health education given to hypertensive patients.

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