

## **A STUDY TO ASSESS KNOWLEDGE, ATTITUDE, PRACTICES ON HYPERTENSION AMONG HYPERTENSIVE PATIENTS**

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### **ABSTRACT**

Hypertension is a well-known independent risk factor for many chronic diseases including diabetes and cardiovascular diseases which leads to significant burden to the society and families. And it is the leading global risk factor for death and disability among all ages. Which is the elevation of blood pressure in the arteries. Lifestyle or behavioral factors critically determine the level of blood pressure in individuals and the prevalence of hypertension in population. So making modifications in the lifestyle factors is the greatest tool in prevention of hypertension. The study is to understand the knowledge, attitude and practices of participants on hypertension among

hypertensive patients. A variety of lifestyle factors have been shown to directly influence blood pressure levels at both an individual and population level. Of these, the most important are excess body fat, alcohol consumption, physical activity, and a variety of dietary constituents including salt, potassium, and a complex of fruits, vegetables, and saturated fat as well as n3 fatty acids. Moderate changes in combinations of some of these factors have additive effects on blood pressure reduction in all grades of hypertension. The study covered 150 participants, based on inclusion and exclusion criteria. Study reveals that Lifestyle is a vital issue in managing hypertension since optimal therapy of the disease involves consideration of the patient's age, sex, race, diet, exercise, tobacco use, comorbid conditions, use of antihypertensive drug treatment, compliance, and achievement of blood pressure control. From the data it shows there are some parameters which can be corrected through after giving proper awareness on impact of lifestyle changes in the incidences of hypertension.

**KEYWORDS:** Hypertension, Lifestyle modification, Incidences, Factors.

## INTRODUCTION

Hypertension has become one of the most common non-communicable diseases globally. It is a silent killer in both the developed as well as developing nations of the world. Hypertension is a chronic condition in which blood pressure in the arteries is persistently elevated. At present, hypertension is a global public health issue that dramatically increases the risk of heart disease, stroke, kidney failure and physical disability. Recently, 1 billion or 1 in 4 adult population in the worldwide suffers from this disease. According to a survey conducted by the World Health Organization (WHO) in 2018, the number of global hypertensive population around 26.6% is men and around 26.1% is women. It was estimated will be increased to 29.2% in 2025. High blood pressure or hypertension is condition in which the blood vessels have persistently raised pressure, increasing the pumping function of the heart and leading to hardening of the vessels. Normal adult blood pressure is defined as a systolic blood pressure of 120mmHg and a diastolic blood pressure of 80 mmHg.<sup>[1]</sup> Hypertension is defined as systolic blood pressure equal to or above 140mmHg and or diastolic blood pressure equal to or above 90mmHg. The symptoms are headache/heavy sensation in the neck, dizziness (vertigo), palpitations, fatigue, blurred vision, ringing in the ears (tinnitus), and nosebleeds. Lifestyle or behavioral factors critically determine the level of blood pressure in individuals and the prevalence of hypertension in populations. Living with hypertension can influence a patient's physical health, psychological state, independence level and family and social relationships; it ultimately leads to decreased health related quality of life (HRQOL). Comorbidity associated with hypertension is another independent factor that influences HRQOL.<sup>[2]</sup> As per the 2008 stated that 30% of hypertensive patients tend to mention that they have a poor health status compared to those who are not hypertensive. Poor health status indicates that quality of life is not good. Long high blood pressure (persistent) lead to cause damage the nephron in the renal (kidney failure), heart (coronary heart disease) and brain (causing stroke) if not detected early and receive adequate treatment. Patients With hypertension will need family support system to succeed blood pressure along with Proper medications. As identified in many studies, lifestyle factors are known to be related to the risk for hypertension and a healthy lifestyle could reduce the incidence of hypertension. Quality of life (QOL) is an important indicator to evaluate hypertensive treatment outcomes. Several studies showed that low level of physical activity, being overweight, malnutrition, and being smoker could be associated with increased risk for hypertension even in early

adulthood. Hypertension is closely related to psychological and emotional problems, particularly in severe life stresses. Studies have found that people with hypertension had a poorer quality of life indicator than people without the condition.<sup>[3]</sup> Emerging data suggest that lifestyle habits may affect blood pressure values. There is clear evidence that lifestyle changes can have a favorable effect on prevention and treatment of hypertension, with emphasis on alcohol and sodium intake, smoking cessation, physical activity level and dietary pattern.

## MATERIALS AND METHODS

**Study Site:** The study was an online survey which was conducted among the community.

**Study Type:** The study was conducted through online survey using structured questionnaires to assess the knowledge, attitude, and practices on hypertension among the hypertensive patients.

**Study Duration:** The study was conducted for a duration of 4 months from 18/04/2021 to 18/08/2021.

**Sample Size:** The study was limited for a sample of 150 based on the time schedule allotted for the project including other circumstances.

## INCLUSION CRITERIA

1. Patients having current or the past history of Hypertension.
2. Patients with age greater than 18 years.

## EXCLUSION CRITERIA

1. Patients below the age of 18 years.
2. Female patients of either pregnant or lactating category.
3. Terminally ill patients and patients with visual and hearing impairment.

## METHODS

An online survey will be conducted with the help of questionnaire in order to collect the data from the general population. Articles will be collected from the online sources such as PUBMED, WHO, FDA and GOOGLE SCHOLAR and questionnaires were prepared by using these articles. The data obtained from this survey will be analysed, assessed and interpreted.

**Method of Collection of Data:** Data collection procedure Data will be and collected through online surveys using structured questionnaires adapted from previous studies, and modified to suit our purpose. Questionnaires will be prepared in English language including all relevant variables based on the objectives of study.

**Data processing and analysis:** Sample characteristics will be computed including frequencies and percentage and it will be presented using tables and figures.

## RESULTS

### Demographic characteristics of study population

A total of 150 patients participated in the study, out of which 96 (64%) of participants were males and 36% of patients were females. Patients whose age was greater than 18 were included in the study. From the collected data 24 (16%) were between the age group of 18-24 years (16%), 36 (24%) were between the age group of 25-35 years, 53 (35.3%) patients were between the age group of between 35-60 and 37 (24.6 %) patients were more than 60 years of age. The figure 1 and figure 2 gives the diagrammatic representation of distribution of different age group and gender. All the patients enrolled were literate and out of which most of the patients had secondary level education, i.e. 68 (45.3%), 30.6% had college level education and 24% were found to have primary level education. Majority of patients was found to be employed, i.e. 56.6% and 43.3% were found to be unemployed. Also from the collected data which shows about 42.6% of patients were single and 64% of patients were married. The social habits of the population revealed that 56 (37.3%) of study population were found to be smokers, 33 (22%) of the populations were alcoholics and 26 (17.3%) of participants were one and the other. And the food habits of the study population shows 55 (36.6%) were veg and rest 95 (63.3%) were follow mixed veg.

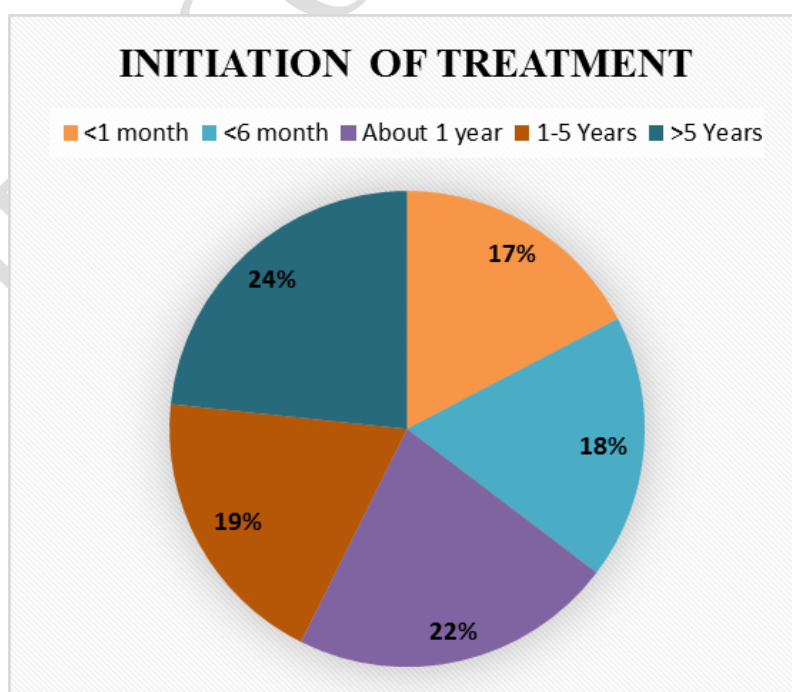
**Table 1: Demographic details of patients (n=150).**

Characteristics	Number	Percentage (%)
<b>Gender</b>		
Male	96	64%
Female	54	36%
<b>Age (in years)</b>		
18-24 years	24	16%
25-35 years	36	24%
35-60 years	53	35.3%
60 & above	37	24.6%
<b>Level of education</b>		
Primary	36	24%

Secondary	68	45.3%
College level	46	30.6%
<b>Occupation</b>		
Employed	85	56.6%
Unemployed	65	43.3%
<b>Marital status</b>		
Single	54	36%
Married	96	64%
<b>Social habit</b>		
Smoking	56	37.3%
Alocholic	33	22%
Both	26	17.3%
Nil	35	23.3%
<b>Food habit</b>		
Veg	55	36.6%
Mixed veg	95	63.3%

### Initiation of Treatment

Study reveals that 17.3% of population were undergoing on treatment for Hypertension is less than one month, whereas 18% were on treatment for less than 6 month, 22% were on treatment for almost one year, 19.3% of population were on treatment for one to five years and 23.3% of population were on treatment for more than five years. In the present study when analysing the gender as characteristics in hypertension out of 96 males, 10 males had diagnosed and initiate a their treatment within a month, 22 males in 6 month, also 28 in about to one year, and 24 greater than 5 years.



**Fig. 1: Initiation of treatment of the study population.**

**Table 2: Initiation of Treatment (n=150).**

Characteristics	Number	Percentage (%)
<b>Duration of Treatment</b>		
<1 month	26	17.3%
<6 month	27	18%
About 1 year	33	22%
1-5 years	29	19.3%
>5 years	35	23.3%

**Health status of study population**

From the data received 37.9% of population were comes under not having a better physical health status and among the data 29.3% of population have average health status, 24% of population have good and rest 8.6% of population were living with best physical health status. Health status of married, employed and college level and patients not having any social habits with mixed diet had good health status.

**Table 3: Health status of the population (n=150).**

Characteristics	Number	Percentage (%)
<b>Current Physical Health</b>		
Worst	35	23.3%
Bad	22	14.6%
Average	44	29.3%
Good	36	24%
Best	13	8.6%

**Awareness about Medication Consuming**

The highest number of study population are not having knowledge about the medications which they were consuming 90 (60%). only 60 (40%) were aware about their medications. When analyzing education as a characteristics, study participants with college level of education had more awareness about the medication which they were consuming.

**Table 4: Awareness About Medication Consuming by the study population (n=150).**

Characteristics	Number	Percentage (%)
<b>Awareness about medication consuming</b>		
Yes	60	40%
No	90	60%



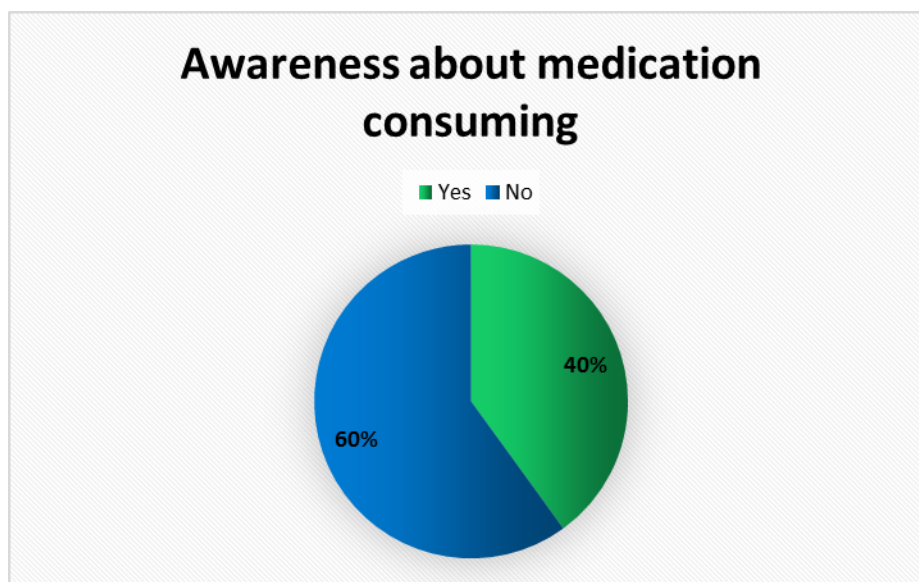


Fig. 2: Awareness about medication consuming.

### Effect of Obesity on Hypertension

The data shows 70.60% of population is thinking that obesity is one factor which effects or leads to hypertension.

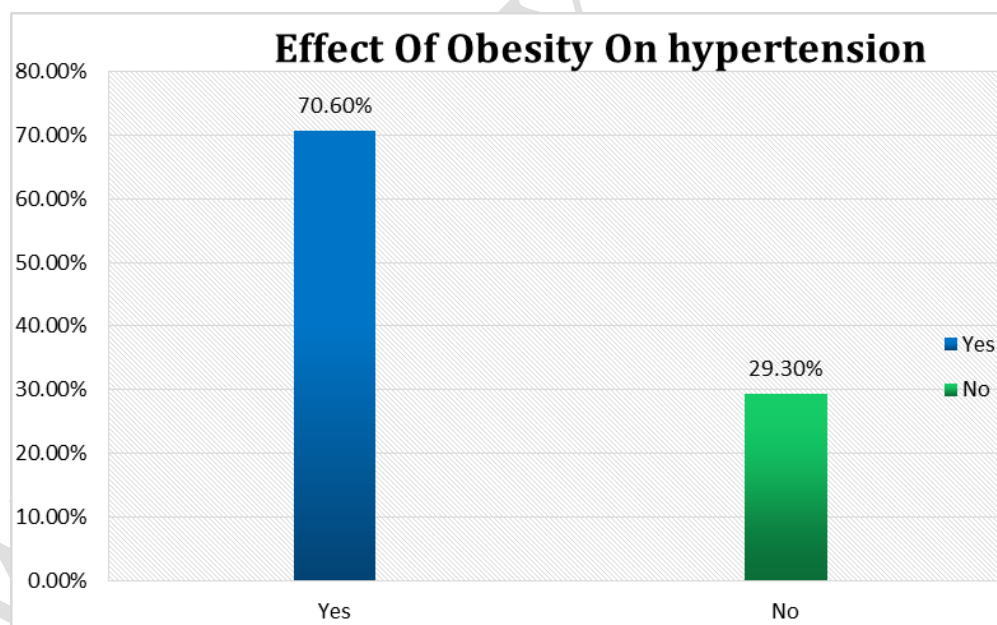
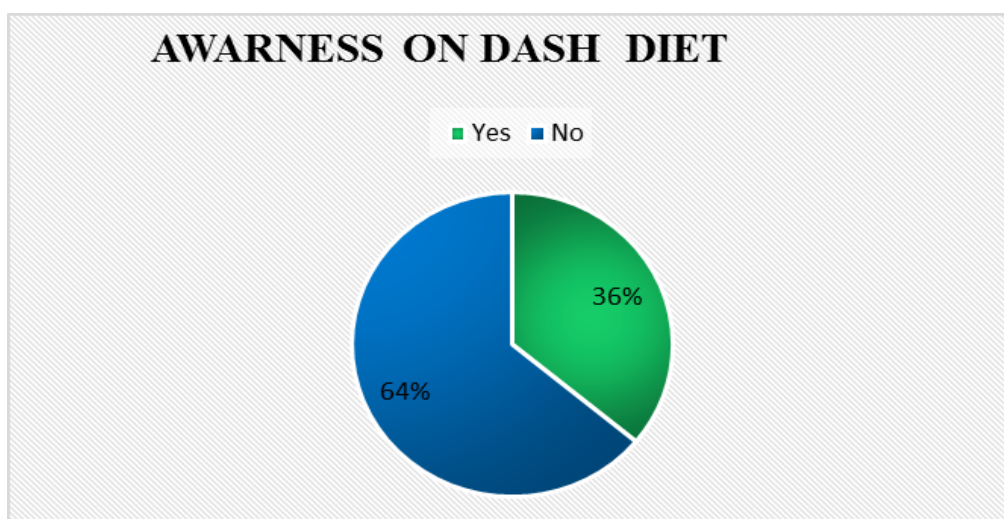


Fig. 3: Obesity and Hypertension.

### Awariness on DASH Diet

The data suggests out of 150 study participants only 54 (36 %) were aware about DASH diet and 96 (64%) were not.



**Fig. 4: Awarness on DASH diet.**

### Practices for Keeping Blood Pressure in Control

From the data received which shows there are some suggested practices are there for keeping elevated blood pressure get controlled. Which includes undergoing for various physical activities, following a healthy diet, getting adherent to the prescribed therapies, restricting intake of salt, cessation of cigarette smoking etc.

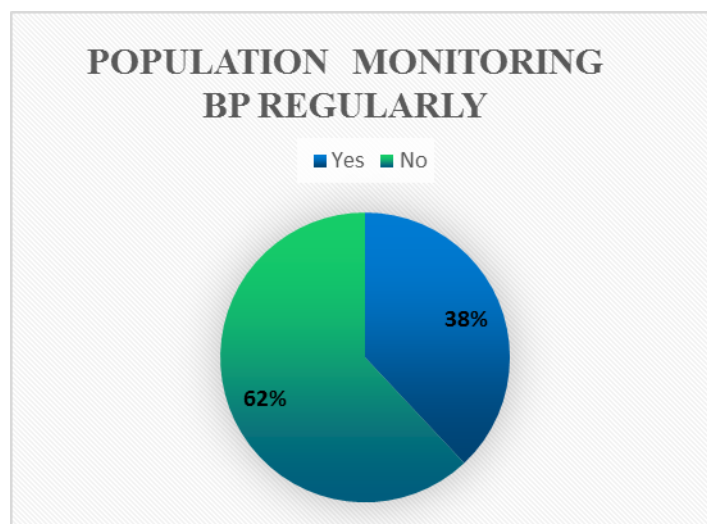
**Table 5: Practices for keeping BP in controlled by the study population.**

Characteristics	Number	Percentage (%)
<b>Practices Keeping BP Get Controlled</b>		
Physical activity	34	22.6%
Healthy Diet	38	25.3%
Adherence to prescribed medications	25	16.6%
Restricting salt intake	22	14.6%
Cessation of cigarettes smoking	20	13.3%
Others	11	7.3%

### Blood pressure monitoring among study population

The data shows only 57 (38%) of population were monitoring blood pressure regularly and 93 (62%) of population not following regular blood pressure monitoring. Study participants with college level of education were more considered about monitoring blood pressure regularly.





**Fig. 5: Blood pressure monitoring among study population.**

## DISCUSSION

Hypertension also known as elevated blood pressure is one of the most important health problems, which is considered as one of the major risk factors for cardiovascular disease, stroke, and kidney diseases as well. Various studies have shown that the prevalence of hypertension is increasing in various countries, however, the highest level of increase has been observed in developing countries, especially in Asia and the East Mediterranean region.<sup>[3]</sup> The reasons for uncontrolled hypertension are multifactorial with a number of patient and provider contributory factors. Lifestyle modification also known as non-pharmacological therapy is the cornerstone of helping out hypertensive patients to attain lifestyle behaviors that are healthy. The study helps to understand the effectiveness of lifestyle modification in prevention of hypertension. Participants who were having current or the past history of Hypertension were selected based on eligibility criteria.<sup>[4]</sup> The demographic data of the patients revealed that the majority of participants were male. Our study included patients with different age groups, more number of patients were found under category of 35-60 age group. Healthy lifestyle is critical for prevention of high blood pressure and a great way to manage hypertension for people with high blood pressure. The main lifestyle related factors which leads to hypertensive conditions identified by this study includes, alcohol consumption, smoking, physical inactivity and unhealthy diet, overweight and medication non- adherence etc. Research findings also supported that Smoking has great effects to the heart and blood pressure. It causes damage to the lining of the artery walls, which causes narrowing to the arteries, hence rising blood pressure. Smoking also causes other risky disease such as heart disease, stroke and heart attack.<sup>[5]</sup> Hypertensive patients who

smoke are at higher risk of having heart attack, stroke and other cardiovascular diseases compared to non-smokers with hypertension, similarly alcohol use was found to having direct relationship with the development of hypertension. The effects on the individuals blood pressure was dose dependent.

Those who were heavy consumers exhibit greater variation in their blood pressure with the least consumers having milder effects. The study demonstrates that Physical inactivity is a modifiable risk factor for hypertension. It is important for people with hypertension to be fit in order to keep their blood pressure low. Physical exercises should be done regularly for prevention and treatment of hypertension.<sup>[6]</sup> Maintenance of normal body weight plays a large role in prevention and reduction of high blood pressure. Also DASH diet and exercise promotes reduction of high blood pressure. From the data it shows majority of population is thinking that obesity is one factor which effects or leads to hypertension. Overweight patients are at higher risk of developing hypertension, hence weight reduction is highly advised. The research findings study also reported that obesity is one of the major public health problems of the 21st century, also because of its cardiovascular complications.<sup>[7]</sup> The previous study conducted on “Impact of dietary and lifestyle factors on the prevalence of hypertension in Western populations” it states that diet and lifestyle have a substantial impact on the prevalence of hypertension in Western societies, with different ranking of risk factors within populations.<sup>[8]</sup> Similarly other research study supported that adaptation to a healthy diet is one way of minimizing the risk of developing high blood pressure. DASH diet helps patients with hypertension to manage their eating plan.

## CONCLUSION

The present study concludes that a major proportion of study participates had a poor knowledge and also not following proper practice in keeping blood pressure in control which can advert in further. Antihypertensive drugs, lifestyle modification were the main approach in prevention of hypertension also patient education is very crucial in achieving treatment goals. The study observe that small proportion of participants aware of hypertension have a slightly healthier life style compare to those who were not.

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