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## A STUDY ON KNOWLEDGE, ATTITUDE AND LIFESTYLE OF HYPERTENSIVE PATIENTS TOWARDS HYPERTENSION PATIENTS IN A TERTIARY CARE TEACHING HOSPITAL IN KERALA

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### ABSTRACT

Knowledge, attitudes, and life style are a crucial element of hypertension control, but little information is available from developing countries where hypertension has lately been recognized as a major health problem. Study on knowledge, attitude and lifestyle of hypertensive patients towards hypertension patients in a tertiary care teaching hospital in Kerala. The study was designed as a Hospital based prospective observational study and was conducted at General Medicine of Karuna Medical College, Palakkad. A total of 110 patients with Hypertension were included in the study. The study protocol was approved by Institution Ethical Committee SDAT/KMC/E C/12-74 2017/88 of Karuna Medical College. The data collection was carried for a period of six months from November 2017 to April 2018. About 38.46% of the former and 33.34% of the later group knows the consequences of their disease, hypertension about 38.46% of patients with BP on target and 14.26% of patients with BP not on target have knowledge on their current BP. 38.46% of target BP group and 32.44% of not on target BP group knows the ways to reduce blood pressure. Among 23.6% of study population 15.3% of patients were on target and 8.22% were not on target BP. 50% of our study population have knowledge about side effects of their medications of which 23.07% were having BP on target and 26.93% were not on target BP. Hypertension is emerging as a major public health problem in many developing countries undergoing epidemiological transition; it is essential to gather both epidemiological and KAP data on hypertension as crucial steps in the design of sound prevention and control programs. It is particularly important to maximize the efficiency of such programs in these countries to minimize delay in achieving effective hypertension control.

**Key words:** Hypertension, KAP, Prevalence.

### INTRODUCTION

India is experiencing an epidemiological transition and hypertension has emerged as a major threat to the health of the people. Hypertension is a significant public health problem in both urban and rural areas of India. According to the Register General of India, the prevalence of hypertension in urban and rural populations of India is 25.0% and 10.0%, respectively [1]. Cardiovascular diseases such as coronary heart disease and stroke are the largest cause of death in most developing countries [2]. Hypertension is directly responsible for 42.0% of coronary heart disease deaths and 57.0% of all stroke deaths in India [3]. As a result of changes in lifestyle, changes in the environment suggest that non-communicable diseases are already the most common

cause of death in many parts of rural India [4, 5]. This is plausible as apart from improvements in life expectancy, the greater interconnectedness increasingly allows rural populations to adopt urban lifestyles without migration to urban areas [6,7].

Hypertension is the primary risk factor for cardiovascular diseases. CVD's are the leading cause of morbidity and mortality worldwide [8]. Hypertension is having prevalence from 10-20% among adult population..Hypertensive patients have a twofold higher risk of Coronary artery disease, four times higher risk of Congestive heart failure, seven times higher risk for Cerebrovascular disease [9].

Many studies concluded that patient's lack of

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knowledge and poor lifestyle practices have a major effect in blood pressure [9]. The Knowledge, Attitude, and Practice of assessment is important in case of diseases like Hypertension which needs prevention and control for avoiding complications [10]. The major lifestyle factors for lowering blood pressure include reduced alcohol consumption, reduced intake of sodium chloride, increased physical activity, and control of body weight [11].

## METHODOLOGY

The study was designed as a Hospital based prospective observational study and was conducted at General Medicine of Karuna Medical College, Palakkad. A total of 110 patients with Hypertension were included in the study. The study protocol was approved by Institution Ethical Committee SDAT/KMC/E C/12-74 2017/88 of Karuna Medical College. The data collection was carried for a period of six months from November 2017 to April 2018.

### Inclusion Criteria

- Patients with the Age of above 18 years
- Both Inpatients as well as Outpatients were included in this study
- The prescription containing one antihypertensive drug
- Patients diagnosed with hypertension along with comorbidity condition
- Patients of both gender

### Exclusion Criteria

- Age < 18 years & above 80 years
- Pregnancy & Lactating women
- Newly diagnosed Hypertensive patients
- Patients who are not willing to participate in the study

### Knowledge, Attitude and Practice

Prior to starting any educational program it is appropriate to gauge the awareness level of the community under study by conducting a KAP study. This will help in implementing a health education program tailored to the needs of the particular community. A suitably designed and validated KAP questionnaire was administered at baseline and at the final follow-up to all the study patients to assess awareness regarding the disease and its management. The questionnaire covered three areas: knowledge, attitude, and practice. The self-administered questionnaire had a total of 14 questions, with 6 questions related to knowledge about hypertension, 4 questions to assess the attitude of the patient towards the disease, and 4 questions regarding practices (which reflect how the

patients put their knowledge and attitude into action). This questionnaire was filled in at a face-to-face interview with the investigator.

Among the study population of 110 patients, majority of them belongs to the age group of 61-70 followed by 20% of patients in the age group of 71 -80.

A total of 110 consecutive patients were enrolled and filled questionnaires were documented. The patient's medical record and prescription were reviewed for counseling and medication adherence was measured that hypertension is significantly higher in females (63.6%) than in males.

Occupational stress, or job strain, resulting from a lack of balance between job demands and job control, is considered one of the frequent factors in the etiology of hypertension in modern society. Among the study population 54.5% (n=60) patients were house wife followed by 25.4% (n=28) of patients were unemployed and 20% of patients were self employed.

Among the study population that 76.3% of patients do not have any social habits adversely affecting hypertension but 20.9% (n=23) 138 patients were both alcoholic and smoker.

A healthy diet will help you prevent, control, and a few will even reverse hypertension. Taking steps to prevent and management hypertension doesn't mean living in deprivation; it suggests that eating a tasty, balanced diet that may also boost your energy and improve patient's mood. Patient doesn't need to quit sweets entirely to a lifetime of bland food. In this study about 96 patients included in the study were Non - vegetarians comprising about 87.2% Social history places a major role in the management of hypertension.

The participant's knowledge was assessed based on their knowledge, attitude and practice towards hyperlipidemia, which include the causes, risk factors, symptoms, complication and treatment. The result of our study reveals that Knowledge level of patients with BP on target is better as that of the group with BP not on target. About 38.46% of the former and 33.34% of the later group knows the consequences of their disease, hypertension about 38.46% of patients with BP on target and 14.26% patients with BP not on target have knowledge on their current BP. 38.46% of target BP group and 32.44% of not on target BP group knows the ways to reduce blood pressure. Among 23.6% of study population 15.3% of patients were on target and 8.22% were not on target BP. 50% of our study population have knowledge about side effects of their medications of which 23.07% were having BP on target and 26.93% were not on target BP.

## RESULTS

**Table 1. Prevalence Based on Age**

Age Group	No. of Patients (n=110)	Percentage (%)
41-50	13	11.8%
51-60	17	15.4%
61-70	58	52.7%
71-80	22	20%

**Table 2. Prevalence based on gender**

Gender	No. of patients	Percentage (%)
Male	40	36.3%
Female	70	63.6%

**Table 3. Occupational Statuses**

Occupational status	No. of patients	Percentage (%)
Clerical, shop owners etc	22	20%
House wife	60	54.5%
Unemployed	28	25.4%

**Table 4. Social Habits**

Social habits	No. of patients	Percentage (%)
Smoker	3	2.7%
Alcoholic & Smoker	23	20.9%
No addictions	84	76.3%

**Table 5. Distributions Based on Dietary Habits**

Dietary habits	No. of patients	Percentage (%)
Vegetarian	14	12.7%
Non vegetarian	96	87.2%

**Table 6. Self Modified Knowledge, Attitude & Lifestyle Questionnaire**

Attitude Knowledge & Life style	Total(%)	On target(%)	Not on target(%)
<b>ATTITUDE</b>			
wish to eliminate need for medication	100%	92.3%	17.7%
Holistic approach	80%	69.2%	10.8%
Belief in benefits of medication	94.5%	76.9%	17.6%
Family history	38.18%	30.76%	7.42%
<b>KNOWLEDGE</b>			
BP consequences	71.81%	38.46%	33.35%
Current BP	52.72%	38.46%	14.26%
Ways to lower BP	70.9%	38.46%	32.44%
Side effects	50%	23.07%	26.93%
Recall target BP	23.6%	15.38%	8.22%
<b>LIFE STYLE</b>			
Diet facilitators	88.3%	84.6%	3.7%
Diet barriers	60.9%	38.46%	22.44%
Exercise facilitators	28.18%	23.07%	5.11%
Exercise barriers	61.8%	69.23%	7.43%

## DISCUSSION

Hypertension is the new-era pandemic, which causes about 7.1 million deaths per year & 4.5% of the disease burden, which translates to 64 million Disability Adjusted Life-Years (DALYs) globally [12]. It has turned out to be a major public health concern & an important risk factor for cardiovascular diseases. Prevention of hypertension induced organ damage & life threatening complications require adequate control of BP [13]. The present study showed that the prevalence of hypertension was significantly higher in individuals more than 40 years as compared to those less than 40 years. In our study, above 40 age group, 61-70 age groups was highly prevalent towards hypertension. Hypertension increases with increase of age is a well known fact now. Jugal

Kishore et al.,(2016) in their study conducted among 1298 subjects found significant association of hypertension with age [14]. Increase in hypertension with advancing age has been shown by six studies [5, 6]. Our study has also shown that the increase in age is positively associated with the increase risk of hypertension. The result of this study suggests that hypertension is more prevalent in females (63.6%) compared to males (36.3%). The above pattern is analogous to other studies conducted by in India by Krishna Murthi et al.,(2015) have reported higher prevalence of hypertension in females than in males. However the pattern is anomalous to studies conducted by in India. This study also reveals that hypertension is more prevalent in elderly patients belonging to age group 61-70 [15].

The result of our study reveals that Knowledge level of patients with BP on target is better as that of the group with BP not on target. About 38.46% of the former and 33.34% of the later group knows the consequences of their disease, hypertension about 38.46% of patients with BP on target and 14.26% patients with BP not on target have knowledge on their current BP. 38.46% of target BP group and 32.44% of not on target BP group knows the ways to reduce blood pressure. Among 23.6% of study population 15.3% of patients were on target and 8.22% were not on target BP. 50% of our study population have knowledge about side effects of their medications of which 23.07% were having BP on target and 26.93% were not on target BP. None of the study subjects depend additional information sources to know more about their disease condition. And the results show that the main reason is the patient's attitude and life style. These results comply with that of Pragnesh parmar.,et al.,(2014) in the study of knowledge ,attitude, and practice of general population of Gandhinagar towards hypertension . They concludes that the responders had good knowledge but poor attitude and practice towards hypertension [10].

## CONCLUSION

Hypertension is emerging as a major public health problem in many developing countries undergoing epidemiological transition; it is essential to gather both

epidemiological and KAP data on hypertension as crucial steps in the design of sound prevention and control programs. It is particularly important to maximize the efficiency of such programs in these countries to minimize delay in achieving effective hypertension control. Patient perspective was assessed based on their knowledge, attitude & lifestyle towards hypertension using a self modified questionnaire. It includes attitude on need for medication, holistic approach & belief in benefits of medication. Knowledge was assessed based on patient knowledge on BP consequences, current BP, ways to lower BP, side effects & target BP. Lifestyle modification of hypertensive patients were assessed based on facilitators of diet and exercise & barriers on diet & exercise.

## Limitations

Smaller population and shorter duration of the study is one of the limitation. Wide research studies with appropriate study design is needed to find if any causal association exists between hypertension & the discussed variables.

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Nil

## CONFLICT OF INTEREST

No interest

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