

## To assess knowledge, attitude and practices regarding lifestyle risk factors in patients with hypertension, coming to Medicine O.P.D. at PIMS Jalandhar

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### Abstract

**Background:** Hypertension is the most prevalent chronic disease in India. All the risk factors of lifestyle like diet, physical inactivity, smoking, alcohol intake and stress are known to cause the early onset and rapid worsening of the Hypertension. **Material and Methods:** First 200 Hypertensive patients, coming randomly to Medicine OPD at PIMS Jalandhar were interviewed on pretested – structured proforma and the results were analyzed statistically. Information regarding their knowledge about hypertension, its risk factors and prevention, their attitude towards prevention and their practices about control of hypertension were enumerated. **Results:** The study shows that out of total 200 hypertensive patients, 170 patients were already on anti hypertensive treatment and 30 were newly diagnosed. 159 (79.5%) patients had knowledge about hypertension and heard about high blood pressure and 169 (84.5%) knew about the preventive measures. Regarding attitude, 198 (99%) patients were ready to take preventive measures. In practice, 137(68.50%) patients were have decreased their salt intake and only 70 (35%) were doing physical activity. 11 (5.5%) and 45 (22.5%) patients were consuming tobacco and alcohol in any form. **Conclusion:** Therefore it's the need of the hour to increase awareness and generate motivation through extensive IEC campaigns to encourage communities to adopt a lifestyle with regular physical activity and free from harmful effects of alcohol and tobacco.

**Keywords:** Hypertension, Risk Factors, Knowledge, Attitude, Practices

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## INTRODUCTION

**I** 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<sup>1</sup>. Hypertension is one of the diseases of the XX century, with a social dimension. The 20th century revolution in health—and the consequent demographic transition—has led to major changes in the pattern of disease<sup>2</sup>. Hypertension is a classic example of an iceberg phenomenon of disease.

Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all annual death<sup>3</sup>. Globally the overall prevalence of raised blood pressure in adults aged 25 years and above was about 40% in 2008. In the South-East Asia Region, approximately 35% of the adult population has hypertension, which accounts for nearly 1.5 million deaths annually; 9.4% of the total deaths are attributable to hypertension<sup>4</sup>. In India, deaths from NCDs are projected to almost double, from about 4 million in 1990 to

about 8 million a year by the year 2020, while deaths due to communicable, maternal and perinatal conditions, and nutritional deficiencies are expected to fall from almost 5 million to below 3 million a year<sup>5</sup>. Hypertension, a major public health problem, is directly responsible for 51% of all stroke deaths and 45% of all coronary heart disease deaths in India. According to WHO health statistics 2012, the prevalence of hypertension in India was 23.1% in men and 22.6% in women in equal or more than 25 years age<sup>6</sup>. In Punjab state the prevalence of hypertension is approximately 14.5% in rural and 22.8% in urban areas respectively<sup>7</sup>. All the risk factors of lifestyle are known to cause the early onset and rapid worsening of the hypertension. Social determinants like urbanization, housing and income adversely affect the behavioral risk factors and therefore influence the development and progression of hypertension. The various risk factors of hypertension are: 1) physical inactivity 2) unhealthy diet consumption 3) tobacco use etc. It is often associated with co-morbidities such as overweight, obesity. As this disease can be detected early, primary care physicians and nurses are in an ideal position to improve the diagnosis and control of hypertension<sup>8</sup>. Screening can be performed easily in PHC centers. The population in Punjab have a different culture and lifestyle, as compared to other states of India. Their knowledge, attitude and practice towards NCD's is essential to determine to formulate an effective programme or policy for generation of awareness regarding prevention of hypertension. Keeping this in mind, the KAP study was undertaken for hypertensive patients reporting to medicine OPD of PIMS Jalandhar.

## MATERIALS & METHODS

A Cross Sectional study was conducted among outpatient department of Medicine of Punjab Institute of Medical Sciences (PIMS), Jalandhar, Punjab. The study was conducted after approval from institutional thesis and ethics committee. A sample size of 200 was selected randomly. First 200 hypertensive

patients, known or newly diagnosed, attending the OPD were interviewed using a prestructured proforma which was prepared in vernacular language. After explaining the purpose of the study, informed written consent was taken. The patients were assured that the information will be kept confidential.

**Inclusion criteria:** First 200 Hypertensive patients, attending the Medicine OPD of PIMS, Jalandhar, Punjab.

**Exclusion criteria:** Patients not willing to participate. Non Hypertensive patients.

After gathering information about the socio – demographic in the first part which included name, age, sex etc., the behavioral measurements regarding habits like type of diet, smoking, alcohol etc were followed. After the participant have rested 15 min, blood pressure was measured first, followed by height, weight and then BMI was calculated by using the formula  $(BMI = \text{weight}(\text{kg})/\text{height}(\text{m}^2))$ . Questions regarding knowledge about hypertension, its risk factors, preventive measures were asked. Then patients were asked about their attitude that whether they were ready to take preventive measures and willing to adopt a healthy lifestyle. Practice questions included their type of treatment, regularity and the measures they have adopted for control of hypertension. Digital Blood Pressure monitor, weighing machine and measuring tape were the instruments used during the study. Respondents with SBP  $\geq 140$  and/or DBP  $\geq 90$  mmHg and respondents already on anti-hypertensive treatment were considered hypertensive according to JNC VII & WHO criteria.

## RESULTS

Epi-info 7 was used to analyze the result and appropriate tests were applied. Out of first 200 hypertensive patients, 110(55%) were females and 90(45%) were males. Age ranges from 24 to 68 years and maximum patients were above 60 years of age i.e 74 (37%). 170 were already on hypertensive treatment and 30 were newly

diagnosed.159 (79.5%) patients out of 200 had knowledge about hypertension and heard about high blood pressure and 41 (20.5%) had no idea about the term high blood pressure or hypertension. Out of 200, 169 (84.5%) knew about the preventive measures and 31 (15.5%) had no idea about the preventive measures.20 (10%) felt that there is no need to get blood pressure checked.2 (1%),152 (76%),26 (13%) felt that blood pressure should be checked once a week, once a month or when you feel symptoms respectively (table 1). Regarding attitude, 198(99%) patients were ready to take

preventive measures. Table 2 shows the practices which patients follow towards hypertension.188 (94%) were taking pharmacological treatment. 147 (73.5%) were taking treatment on regular basis and 145 (72.50%) were going for follow up.137 (68.50%) have decreased their salt intake and 70 (35%) were doing exercise.11 (5.5%) and 45 (22.5%) were consuming tobacco and alcohol in any form.

**Table 1 – showing knowledge of patients relating to hypertension**

<b>Knowledge about</b>		
<b>Hypertension</b>	<b>Frequency</b>	<b>Percent</b>
<b>Yes</b>	159	79.5%
<b>No</b>	41	20.5%
<b>Total</b>	200	100%
<b>Preventive measures</b>		
<b>Yes</b>	169	84.5%
<b>No</b>	31	15.5%
<b>Total</b>	200	100%
<b>Frequency at which BP should be checked</b>		
<b>No need</b>	20	10%
<b>Once a week</b>	2	1%
<b>Once a month</b>	152	76%
<b>When feel symptoms</b>	26	13%
<b>Total</b>	200	100%

**Table 2 showing practice of patients towards hypertension**

<b>Practice about</b>		
<b>Type of treatment</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Non-pharmacological</b>	12	6%
<b>Pharmacological</b>	188	94%
<b>Total</b>	200	100%
<b>Regularity of treatment</b>		
<b>Regular</b>	147	73.5%
<b>Irregular</b>	53	26.50%
<b>Total</b>	200	100%
<b>Follow up</b>		
<b>Yes</b>	145	72.50%
<b>No</b>	55	27.50%
<b>Total</b>	200	100%
<b>Decreased salt</b>		
<b>Yes</b>	137	68.50%
<b>No</b>	63	31.50%
<b>Total</b>	200	100%
<b>Exercise</b>		

<b>Yes</b>	70	35%
<b>No</b>	130	65%
<b>Total</b>	200	100%
<b>Smoking</b>		
<b>Smoker</b>	11	5.5%
<b>Non-smoker</b>	189	94.5%
<b>Total</b>	200	100%
<b>Alcohol consumption</b>		
<b>Yes</b>	45	22.5%
<b>No</b>	155	77.5%
<b>Total</b>	200	100%

## Results & Discussions

Hypertension is considered as major health problem in India and other developing countries. In US the prevalence rates varies from 4% in the age group 18-24 years to 60% in the age group of 65-74 years<sup>18</sup>. In our study majority of the respondents were above the age of 60 years. Mahajan H et al (2012) in their study on 340 hypertensive subjects in urban slums of Mumbai stated that majority of patients 158 (46.46%) were in the age group of 51-60 years<sup>19</sup>. Desai et al also stated an increase in the prevalence of hypertension with the increasing age<sup>20</sup>. This study shows that out of 200 hypertensive patients reported in Medicine OPD, 159 (79.5%) had knowledge about hypertension and 169 (84.5%) has knowledge about the preventive measures. This finding was similar to the previous study conducted by Sanjiv Bhatia et al<sup>9</sup>. The reports of national Health and Nutrition Examination Survey (NHANES II and NHANES III) shows

an increase in BP awareness during the time period 1976 - 1991 from 51% to 73%<sup>10</sup>. According to this study majority of patients i.e 152 (76%) believe that blood pressure should be checked at least once a month. According to a study by Bollampally M et al 2016 in Hyderabad, 64.38% of patients were going for regular follow up<sup>11</sup>. We found that patients had profound perception and positive attitude regarding the disease and its influential factors. 198 (99%) patients were willing to change and ready to adopt a healthy lifestyle. This finding was similar to the previous study conducted by Roopa et al and Sabouhi et al<sup>12,13</sup>. Regarding practices about hypertension prevention, only 70 (35%) were doing any kind of exercise and 130 (65%) were not doing any kind of physical activity. According to a study by Bollampally M et al (2016), 83% of patients are not doing any physical activity<sup>11</sup>. This study shows the poor practice towards hypertension and similar findings were found in previous studies conducted by Sanjiv Bhatia et al., and Susan A

Oliveria et al<sup>14,15</sup>. In this study, only 11 (5.5%) and 45 (22.5%) patients were smoking tobacco and consuming alcohol respectively. Alcohol consumption has been consistently related to high blood pressure in cross-sectional as well as prospective observational studies in several populations<sup>16</sup>. In this study 137 (68.50%) patients have decreased their salt consumption which is almost comparative to a study conducted by Bollampally M et al 2016 in Hyderabad which states that 61.25% of patients have decreased their salt intake<sup>11</sup>.

In a study conducted by Williams MV consisting of 402 hypertensive patients of which 189 patients had inadequate knowledge, 49 patients had marginal knowledge and 155 had adequate knowledge<sup>17</sup>.

### Recommendations

This study showed that patients with hypertension had significant knowledge about the disease, its risk factors and prevention. Even their attitude towards the disease is positive and 99% were willing to adopt a healthy lifestyle. Our study signifies that patients require support and guidance for practicing better disease management. Thus a motivational factor is required to change the behavior in a desired manner. This can be achieved through extensive IEC/BCC campaigns. All sorts of media should be used to bring about this change. The best way to achieve this is to increase the interpersonal communications through health workers and ASHA's workers which can work at the grass root level and can change the unmotivated masses into motivated community. Clinical activities such as patient counseling, Home Medication Review, Pharmaceutical care program can be achieved by them and will help to increase the patients practice in disease management.

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