

# Public Awareness about Hypertension: Findings of a Kidney Day

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## ABSTRACT

**Objectives:** To determine the frequency of hypertension, its associated life style factors and to explore the level of awareness about hypertension among adult populace attending the kidney day and to formulate the strategies to improve the awareness.

**Design:** A cross sectional study

**Place and duration:** One day health camp at Sharif Medical City Hospital Lahore 2008 on 13.03.2008.

**Patients and methods:** A total of one hundred participants were interviewed. The structured questionnaire was filled at the spot to obtain sociodemographic information after taking verbal informed consent. Height, weight, pulse, blood pressure were recorded.

**Results:** A total of one hundred participants were interviewed. Overall frequency of hypertension in the study population was twenty five percent (25%). The prevalence of hypertension increased with increasing age and body mass index. Only thirty five percent (35%) could define hypertension and this awareness was significantly associated with educational level. Lack of physical activity, card playing and televisionization was observed in sixty percent of participants while thirty three percent were overweight. Fifty nine percent were using additional salt while seventy percent were having meals and snacks outside.

**Conclusion:** High frequency of hypertension, obesity, lack of physical activity, unhealthy nutrition, and faulty dietary habits was observed in the study population. Emphasis on health education and use of electronic and print media is recommended to improve the public awareness about the risk factors and consequences of hypertension like stroke, heart attack, kidney failure etc.

**Key words:** Awareness, hypertension, life style, obesity, risk factors,

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## INTRODUCTION

Hypertension, referred to as high blood pressure, HTN or HPN, is a medical condition in which the blood pressure is chronically elevated. Hypertension<sup>1</sup> was previously referred to as nonarterial hypertension, but in current usage, hypertension normally refers to arterial hypertension without a qualifier<sup>2</sup>. Hypertension is considered to be present when a person's systolic blood pressure is consistently 140mmHg or greater, and/or their diastolic blood pressure is consistently 90 mmHg or greater<sup>4</sup>. At severely high pressures, defined as mean arterial pressures 50% or more above average, a person can expect to live no more than a few years unless appropriately treated<sup>3</sup>.

Awareness comprises human's perception and cognitive reaction to a hypertension. Awareness does not necessarily imply understanding, just an ability to be conscious of feel or perceive<sup>5</sup> hypertension. The prevalence of hypertension in the developing world is on the increase<sup>6</sup>. Hypertension is increasingly becoming common and mainly driven by demographic and epidemiological transition and

changing life style among the people<sup>7</sup>. The prevalence of hypertension varies from 15-35% in urban adult population of Asia as compared to rural population<sup>8</sup>. This prevalence has been reported to be 21-37% in adult population<sup>9</sup> and 65% for elderly<sup>10</sup>. 17% in Sri Lanka<sup>11</sup> and 17.9% for Pakistan<sup>12</sup>.

Hypertension is an independent risk factor for cardiovascular diseases. Therefore early diagnosis and appropriate management and preventive measures are essential if we are to reduce the development of hypertension related morbidity and mortality. Although hypertension continues to affect increasing number of people, but the level of awareness, control and treatment of hypertension is low. This study was conducted to determine the frequency of hypertension and explore its associated modifiable lifestyle factors and assess the level of awareness about hypertension in the study population attending the one day health camp and to make the recommendations for prevention of development of hypertension.

## MATERIALS AND METHODS

A cross sectional study was conducted on those who visited health camp on kidney day at Sharif Medical and Dental College Lahore on 13.03.2008. After

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taking verbal consent a structured questionnaire was filled. Information about family history of hypertension, knowledge about blood pressure and history of smoking was obtained.

Standard heights and weights were measured in meters and kilograms respectively and BMI was calculated. A BMI equal to or more than 25 was considered overweight while BMI equal to or more than 30 was considered obese, less than 18.5 was considered underweight and from 18.5 to 24.9 were taken as normal. The diagnosis of hypertension was made if the blood pressure reading was more than 140/90 mmHg. Hypertension was also considered to be present if the patient was a known case of hypertension.

Data were analyzed by using SPSS version 10.0. Percentages are given for categorical variables whereas mean and standard deviations for quantitative variables. Chi Square test of significance was used for qualitative and t-test for quantitative variables to assess the association.

## RESULTS

A total of one hundred participants took part in the study. The mean age was  $40 \pm 12$  years. Sixty percent (60%) of the population was matriculation or more. Higher education was found to be significantly associated with the awareness of the hypertension. Seventy five percent (75%) of the hypertensives were  $\geq 40$  years of age, Seventy percent (70%) were having positive family history, previously known hypertensives were ten percent (10%) whereas newly diagnosed cases were twenty two percent (22%) and twenty five percent (25%) were smokers. Lack of physical activity was reported in sixty percent (60%) of the study population.

Table

Variable	value	Frequency	%age
Age	$\geq 40$	75	75
Education	$\geq$ Matric	60	60
Family history	Positive	70	70
Previously known	Yes	10	10
Physical inactivity	Yes	60	60
BMI	$\geq 25$	30	30
Knowledge of Hypertension	$\geq 140/90$	25	25
Smoking	Yes	25	25

Most common form of exercise was walking. Thirty percent (30%) of the participants were overweight or obese. Hypertension was more frequent in older age persons and advancing age was found to be statistically significantly associated with the development of hypertension. Hypertensives were

having higher BMI compared with normotensives. 40% were able to define hypertension. There was a statistically significant association between ability to define hypertension and educational level and previous diagnosis. No significant association was seen between age and ability to define hypertension. The results are summarized in the table.

## DISCUSSION

It was found that hypertension was prevalent at the rate of 25% which was higher than observed in Pakistan National Surveys. It was noted that 67 % of the respondents were not aware about their disease. This is in consistence with other studies showing low detection of hypertension<sup>13</sup>.

There is definite evidence that Non Communicable Diseases are initiated by unhealthy lifestyle and risk factors like unhealthy diet, obesity, televisionisation, computerization, smoking and lack of physical activity among the major modifiable lifestyle issues. The frequency of overweight or obesity and lack of physical activity were high in the study group 30 and 60 % respectively. These figures are higher than reported earlier<sup>14</sup>.

Diet is considered to be a very important risk factor of NCD. Shifting from vegetarian food to animal origin like meat, fat and others have significantly increased the risk of obesity, diabetes mellitus, coronary heart disease, cancer and stroke<sup>14</sup>. The changing dietary habits observed in the study populace like taking meals outside and snacks are noteworthy and influx of fast food chains like McDonaldisation, KFCisation, Coca Colaisation is becoming a norm and a symbol of social status. High amount of saturated fats, cholesterol and refined sugars in these diets are associated with increased incidence of obesity, hypertension and NCD.

This Study had some limitations. It was conducted on selected group of persons, so there is a possibility of selection bias.

## CONCLUSION

This study throws light on an alarming increase of hypertension as a result of population aging and changing lifestyle among the populace. It also identified the knowledge gap that exists in correctly defining the hypertension. It is known that Non Communicable Diseases are preventable through interventions against the modifiable risk factors. It is thus imperative to formulate priorities and design public health interventions to increase public awareness of the warning signs and risk factors of Non Communicable Diseases and provide them information to adopt and maintain healthy lifestyle.

## RECOMMENDATIONS.

High blood pressure can be controlled if population takes these steps:

- Maintain a healthy weight.
- Moderate physical activity on most days of the week.
- Follow a healthy eating plan, which includes foods low in sodium and fruits.
- Stop smoking,
- Compliance with prescribed medication for hypertension

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