# Hypertension and Beyond in Indian Clinical Practice Study: A Nationwide Survey Assessing Knowledge, Attitude and Practices of Physicians 

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#### Abstract

Aim: Hypertension and beyond in Indian clinical practice study: a nationwide survey assessing knowledge, attitude and practices of physicians Methods: This cross-sectional study was done the Department of Medicine, Darbhanga Medical College and Hospital, Laheriasarai, Darbhanga, Bihar, India, for 1 year. 100 individuals were included in this study. A pre-coded, clarified and pre-tested questionnaire was formulated to collect information from the selected respondent. Results: Out of $100,32 \%, 30 \%, 28 \%$ and $11 \%$ of the respondents were 30 to 45 years, 45-60 years, below 30 years and more than 60 years old respectively. $56 \%$ were male and $44 \%$ were female. $38 \%$ of the respondents were housewives followed by $22 \%$ farmers, $16 \%$ retired, $7 \%$ students and private-job holders, 7\%-day laborer, 5\% businessman and 5\% unemployed. More than $50 \%$ (average $56 \%$ ) of the respondents had proper knowledge on hypertension. more than $80 \%$ (average $86 \%$ ) had positive attitude about hypertension. $68 \%$ of the respondents never checked their BP, $66 \%$ of the respondents visited doctor last month. $77 \%$ and $76 \%$ of the respondents never checked their Urine and Blood Sugar and $95 \%$ of the respondents could not recall when they exercised Conclusion: This survey revealed specific lapses in knowledge, attitude, and practice behaviors in regard to hypertension. Individuals were less proficient in knowledge, attitude and practices about hypertension. Majority of the respondents had higher knowledge and positive attitude toward hypertension but low level of practices.


Keywords: HTN, Knowledge, KAP.
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## Introduction

Hypertension is one of the most common chronic diseases and one of the most critical health problems causing death as single contributor in developed and developing
countries [1,2]. In most cases of hypertension, the primary cause was not detected, and these cases are known as essential hypertension. Essential
hypertension is not curable, but with medication the blood pressure (BP) can be controlled to that of the physiological level. Nevertheless, as hypertension itself usually does not present with symptoms, it can remain undiagnosed for a long time. Hypertension is also called as a silent killer disease, which is often diagnosed incidentally. If a hypertensive patient remains untreated, it can lead to serious life-threatening complications of vital organs such as the brain, eye, heart, and kidney, resulting in death or serious patient disability [3,4]. It is believed to be one of the main risk factors for peripheral vascular, cerebrovascular and cardiovascular diseases (CVD) which include stroke, coronary disease, peripheral artery disease, renal disease and heart failure [5,6]. Obesity, sedentary behaviors, and other individual risks for one of these cardiovascular illnesses could be increased by two to three times due to hypertension [7,8].

The cost of antihypertensive medicine is very high and takes up a large and rising share of healthcare resources [9,10].In Malaysia, hypertension is quite prevalent among adult and elderly population; the age-adjusted prevalence for 2007-2011 was 42.0\% (CI: 40.9-43.2), which was higher in males or overweight and obese people [11,12].Its care is inadequate because the detection and treatment of hypertension is less than satisfactory High BP detection and control are seriously vital for decreasing the risk of strokes and heart attacks The prevalence of hypertension has not declined, although the enhancement in BP control is encouraging . Nowadays, continuing health education in Malaysia through mass media is the results of good basic understanding on hypertension in the general population, while the limited detailed understanding indicates the urge to develop more specific health education programs. Moreover, limited motivation to
implement healthy lifestyles indicates the urge to further develop an atmosphere conducive to healthy lifestyles [13].

## Material and methods

This cross-sectional study was done the Department of Medicine, Darbhanga Medical College and Hospital, Laheriasarai, Darbhanga, Bihar, India

## Methodology

100 individuals were included in this study. A pre-coded, clarified and pre-tested questionnaire was formulated to collect information from the selected respondent. The KAP study questionnaire was first piloted in both our home where it was translated and back translated for comprehension and response consistency. The data set was first checked, scrutinized, cleaned and entered into the computer from the numerical codes on the form. The data were edited to check if there was any discrepancy (double entry, wrong entry).
The frequency distribution of the entire variable was checked using SPSS 25.0 windows program. It gave overall information about the variables. All participants in the study were asked for their consent before collection of data and all had complete rights to withdraw from the study at any time without any threat or disadvantage. The questionnaire was designed considering the privacy of the subject. The subject's personal information was kept confidential.

## Results

Table 1 illustrates that $32 \%, 30 \%$, $28 \%$ and $11 \%$ of the respondents were 30 to 45 years, $45-60$ years, below 30 years and more than 60 years old respectively. $56 \%$ were male and $44 \%$ were female. $38 \%$ of the respondents were housewives followed by $22 \%$ farmers, $16 \%$ retired, $7 \%$ students and private-job holders, 7\%-day laborer, 5\% businessman and 5\% unemployed.

Table 1: gender and age distribution

| Gender | Number | $\%$ |
| :--- | :--- | :--- |
| Male | 56 | 56 |
| Female | 44 | 44 |
| Age |  |  |
| Below 30 | 28 | 28 |
| $30-45$ | 32 | 32 |
| $45-60$ | 30 | 30 |
| Above 60 | 10 | 10 |

Table 2 indicates that more than $50 \%$ (average 56\%) of the respondents had proper knowledge on hypertension. more than $80 \%$ (average $86 \%$ ) had positive attitude about hypertension.

Table 2: Knowledge level about hypertension

| Knowledge related questions | Yes | No | Don't know |
| :---: | :---: | :---: | :---: |
| Is HTN a disease? | 70 | 18 | 12 |
| What are the causes of HTN? | 57 | 24 | 19 |
| Normal range of HTN | 30 | 13 | 57 |
| Is salt the causal of HTN? | 72 | 18 | 10 |
| Is tobacco the cause of HTN? | 57 | 24 | 19 |
| Is overweight related to HTN? | 63 | 23 | 14 |
| Is physical exercise beneficial? | 64 | 21 | 15 |
| Do you know the symptoms of HTN? | 39 | 15 | 46 |

Results were expressed as percentage
Table 3 indicates that $68 \%$ of the respondents never checked their BP, $66 \%$ of the respondents visited doctor last month. $77 \%$ and $76 \%$ of the respondents never checked their Urine and Blood Sugar and $95 \%$ of the respondents could not recall when they exercised

Table 3: Practice level about hypertension

| Practices about HTN | Yesterday | 7 <br> Days <br> Ago | $\mathbf{1 5}$ <br> Days <br> Ago | $\mathbf{1}$ <br> month <br> Ago | $\mathbf{3}$ <br> months <br> Ago | Do <br> not <br> recall | Never |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| When did you check <br> up BP last? | 0 | 4 | 6 | 4 | 7 | 11 | 68 |
| When did you visit <br> doctor last? | 3 | 10 | 2 | 66 | 12 | 7 | 0 |
| When did you check <br> up urine last? | 0 | 0 | 0 | 0 | 12 | 11 | 77 |
| When did you check <br> up blood sugar last? | 0 | 0 | 8 | 8 | 8 | 0 | 76 |
| When did you <br> exercise last? | 2 | 3 | 0 | 0 | 0 | 95 | 0 |

## Discussion

High blood pressure is a burning issue now, rising developing countries. It is the top cause of mortality. Prevention is always desirable, but it is actually difficult where there is poor awareness, attitude, and
practices. This study reveals that $32 \%$, $30 \%, 28 \%$ and $11 \%$ of the respondents were 30 to 45 years, $45-60$ years, below 30 years and more than 60 years old respectively. This finding was supported by another study which shows that greater number of participants age range was 35-54 (50.2\%),
followed by 15-34 yrs (11.9\%) [14]. 56\% were male and $44 \%$ were female. Housewives were more but another study found dominant occupation was civil service (35\%) with married people (64.7\%) [14]. More than half of the respondents had proper knowledge on hypertension. On an average $86 \%$ had positive attitude toward hypertension. About $68 \%$ of the respondents never checked their blood pressure. This scenario is almost same in case of other non-communicable diseases i.e., average level of knowledge, good and positive attitude but lower practice level. Similar good levels of basic exposure to hypertension information have been reported in several previous studies among both hypertensive and non-hypertensive patients [15,19], especially women [20]. Exposure to hypertension knowledge was significantly associated with family history of hypertension but not with education or occupation. Awareness of the asymptomatic nature of the condition could affect attitude toward screening and early health-seeking behavior. Azubuike \& Kurmi [14] found in their study that strong positive attitude towards the use of drugs in the management of hypertension was seen only in 44 (17.5\%) of the respondents while strong positive perception towards etiology of hypertension seems to be harbored by only 23 ( $9.1 \%$ ) who strongly disagreed with the opinion that hypertension could be caused by evil spirits or charms. It has been reported that lack of awareness of asymptomatic presentation of hypertension affect positive attitude towards screening [21]. Another cross-sectional study found that the patient's knowledge on blood pressure and exercise was $59.2 \%$ and $67.7 \%$, respectively [22]. The attitude toward exercise is good when compared with the result of a research done in Ghana (60\%) [23]. On the contrary, knowledge about hypertension is low when compared with research done in Kinondoni Municipality, Dares Salaam (66.8\%) [23]. The attitude of the patients in avoiding salt intake and smoking cigarette was $94.6 \%$ and $98.5 \%$. Evidence recommended that
patients should be educated on the components and application of lifestyle modification for better control and prevention of their blood pressure. The health care providers can come forward and play vital role to enable the patients to control their blood pressure by giving consistent advice on the lifestyle modification. Community based health education programme can be instituted to raise awareness level as well as practice level.

## Conclusion

This survey revealed specific lapses in knowledge, attitude, and practice behaviors in regard to hypertension. Individuals were less proficient in knowledge, attitude and practices about hypertension. Majority of the respondents had higher knowledge and positive attitude toward hypertension but low level of practices.

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