

## Review Article

# Unveiling the silent threat - understanding hypertension knowledge and perception among adults: review article

Muskaan<sup>1\*</sup>, Gitanjali Sikka<sup>1</sup>, Shaveta<sup>2</sup>

<sup>1</sup>College of Physiotherapy, Pt. B. D. Sharma UHS, Rohtak, India

<sup>2</sup>Department of Medicine, Pt. B. D. Sharma UHS, Rohtak, India

**Received:** 14 October 2024

**Accepted:** 11 November 2024

### \*Correspondence:

Dr. Muskaan,

E-mail: [aryamuskaanarya.1@gmail.com](mailto:aryamuskaanarya.1@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## ABSTRACT

Hypertension is major risk factor for cerebrovascular and cardiovascular diseases. Hypertension, characterized by persistently elevated blood pressure, has emerged as a modern-day epidemic, particularly alarming in developing countries. The classification outlined by the Joint National Committee report offers a framework for understanding its severity, ranging from normal to stage 2 hypertension. Notably, studies in regions like Punjab and Haryana highlight the need for tailored interventions and education of patients about the disease knowledge, its severity, and complications. The increasing global prevalence is which inherently increasing the global disease burden whereas knowledge of this disease and its determinants are poor. To evaluate the level of knowledge and perception about hypertension in population. Moreover, the variations in knowledge and perceptions of hypertension between rural and urban populations have yet to be examined. In order to fill this knowledge gap, the current study understanding perceptions and knowledge of hypertension.

**Keywords:** Blood pressure, Hypertension, High BP, Isolated blood pressure, Indian, Perception, Rural hypertension, Raised blood pressure

## INTRODUCTION

Hypertension (HTN) was responsible for approximately 19% of all deaths and 9.3% of disability-adjusted life years lost worldwide. It is a critical global health issue that significantly contributes to cardiovascular disease (CVD) and stroke. HTN is becoming more common, especially in low- and middle-income countries, where less than 10% of HTN patients have stable blood pressure. Actual inertia and inactive way of behaving are major modifiable gamble factors for HTN and other persistent circumstances, prompting a huge piece of passings from ischemic heart disease.<sup>1</sup> The cardiovascular system is put under strain because of persistently high blood pressure (BP) above 130/80 mm Hg in HTN. HTN can go undiagnosed for a long time because it often causes no symptoms. Early discovery and treatment are pivotal for dealing with the

condition and diminishing its impact.<sup>2</sup> HTN is a leading cause of morbidity and mortality in India, and its prevalence rate has been rising over time. endeavours like the public program for anticipation and control of malignant growth, diabetes, cardiovascular illnesses and stroke (NPCDCS) and the India Hypertension Control Drive (IHCI) have been sent off to resolve this issue. The need for improved public health interventions and up-to-date data on trends in hypertension control is highlighted by the fact that hypertension control rates remain low despite these efforts. Internationally, HTN is a huge general wellbeing concern, frequently alluded to as the "quiet executioner" because of its asymptomatic nature and extreme wellbeing outcomes. Compelling administration procedures incorporate way of life alterations, like activity, dietary changes, and weight reduction.<sup>3</sup> Physical activity is gainful for overseeing

pulse, with studies showing that actual work can lessen systolic and diastolic circulatory strain by a few mmHg. Despite the known advantages of active work, countless individuals with HTN don't figure out how to control their circulatory strain really. In nations like Bangladesh, which has seen an expansion in future and urbanization, the pervasiveness of HTN is high, with ongoing information showing that around 40% of grown-ups have hypertension, and many have uncontrolled blood pressure. While the pervasiveness of HTN changes by locale, for certain areas showing high rates, the information, mentalities, and practices (KAP) towards HTN the board are critical for controlling the sickness and lessening its impact.<sup>4,5</sup>

From 594 million people in 1975 to 1.13 billion in 2015, there was a significant rise in the global prevalence of hypertension. 10.2 million people died because of high systolic blood pressure (SBP) in 2017 and 208 million DALYs (disability-adjusted life years) were lost as a result. In India, there were an expected 207 million people with hypertension, adding to 1.63 million passings in 2016. The overall prevalence of high SBP in India was 21.1%, varying from 18.8% in low transition states to 26.0% in high transition states.<sup>6</sup>

Depending on the level of epidemiological transition. Hypertension (BP) is a preventable reason for unexpected passing, yet many individuals neglect to really control it. A good understanding of hypertension is essential for managing the condition and avoiding its complications. Absence of understanding among hypertensive patients adds to unfortunate control of their BP and adherence to treatment. Expanded information is decidedly connected to better drug adherence and BP control. Health education has been shown to improve BP management and treatment

adherence, particularly among older adults, and is a key strategy for improving patients' understanding.<sup>7</sup>

Past research has featured a huge absence of mindfulness among hypertensive patients regarding the causes and confusions of hypertension. Poor knowledge, attitudes, and practices regarding hypertension have been demonstrated by research, including community-based studies in Nepal and Pakistan as well as hospital-based studies in Kathmandu.<sup>8</sup>

This deficient seeing adversely influences the control of hypertension regardless of getting suitable treatment. For example, a concentrate in Nepal showed unfortunate local area mindfulness about cardiovascular illnesses. To resolve these issues, it is vital for medical care experts to analyse and regard hypertension as well as to improve mindfulness about counteraction and the board methodologies. This has persuaded the specialist to survey the information and view of hypertension among hypertensive patients. Concentrates on KAP connected with HTN show shifted results across various nations, highlighting the significance of customized general wellbeing procedures.<sup>9</sup> In order to fill this knowledge gap, the current study understanding perceptions and knowledge of hypertension.

Studies are searched from the following search engine PubMed, Google scholar, Scopus, web of knowledge, Virtual Health Library, Research Gate and Cochrane library to review the literature. Studies include that investigate hypertension, knowledge, perception, risk factors, we researched 10 studies are assessed with full text reading and included in this review and shown in table 1.

**Table 1: Summary of studies conducted on Hypertension Knowledge and Perception Among Adults.**

Authors	Objectives	Designs	Characteristic of participant sample size	Methods	Outcomes	Results
<b>Kongara san et al<sup>9</sup></b>	To assess the knowledge and perception of hypertension among hypertensive patients attending Rural Health and Training centre (RHTC)	Hospital based, observational, cross-sectional study	50 hypertensive patients	The study was conducted using a questionnaire covering. Knowledge and perception aspects of hypertension in one-to-one interviews	The questionnaire comprised of three sections covering sociodemographic details, knowledge and perception components about hypertension.	The mean age of participants is 55.6±10.06 with illiterate of 18% and 37.1% unemployed. More than half of the participants were female 64%. Knowledge about the causes of hypertension were 94%.
<b>Rashidin et al<sup>5</sup></b>	Evaluating knowledge and awareness of hypertension and the risk factors for hypertension.	cross-sectional study	110 hypertensive patients	Two self-administered questionnaires. The first questionnaire was about the	Two self-administered questionnaires.	Seventy-three percent of participants know the normal range of hypertension. About 82.7% of

Continued.

Authors	Objectives	Designs	Characteristic of participant sample size	Methods	Outcomes	Results
				demographic characteristics and the second one was about the knowledge (n=10), attitude (n=9) and practice (n=8).		participants believed that after adaptation of body to hypertension, there is no need to use antihypertensive drug.
<b>Jahangeer et al<sup>2</sup></b>	To find out the knowledge and preferences of a rural hypertensive populace.	cross-sectional study	143 hypertensive patients	Questionnaire was designed based on existing knowledge and keeping in view the holistic and homeopathic approaches in rural settings.	Questionnaire was designed based on existing knowledge and keeping in view the holistic and homeopathic approaches in rural settings.	Eighty-four (84%) patients who did not know of their normal blood pressure, 100 (70%) patients either did not know or were not told of their high BP by their healthcare provider. Sixty-four (45%) patients did not consider hypertension a serious life threat.
<b>Bogale et al<sup>11</sup></b>	To assess knowledge, attitude and practice of lifestyle modification recommended for hypertension management and the associated factors among adult hypertensive patients	Hospital-based cross-sectional study	274 hypertensive patients	Pre-tested structured questionnaire was used, and the data were collected through an interview.	face-to-face interview using a pre-tested structured questionnaire.	200 (73.0%) of participants had good knowledge, 182 (66.4%) had favourable attitude and 136 (49.6%) had good practice on lifestyle modification recommended for hypertension management.
<b>Bashyal et al<sup>7</sup></b>	Knowledge and perception regarding hypertension among hypertensive patients	cross-sectional study	400 hypertensive patients	simple random sampling technique and were interviewed using semi-structured questionnaire.	All participants using a semi-structured questionnaire (HK-LS) and (BIPQ).	Perceived hypertension as less serious illness and significant difference with education level and duration of HTN diagnosis.
<b>Singh et al<sup>12</sup></b>	To assess the knowledge of hypertension in patients with mental illness in community settings.	Descriptive cross-sectional study	108 hypertensive patients	Assessed for knowledge about hypertension by using a 29-item-adapted Hindi version of the patient administered Hypertension Knowledge-LEVEL SCALE (HK-LS).	29-item-adapted Hindi version of the patient – administered knowledge-level scale (HK-LS)	There was no statistically difference of the score on the knowledge questionnaire, between those with and without hypertension.

Continued.

Authors	Objectives	Designs	Characteristic of participant sample size	Methods	Outcomes	Results
<b>Jahan et al<sup>4</sup></b>	To understand perception of and experiences related to HTN among rural Bangladeshi hypertensive women.	Focus group discussion. (FGD)	74 female hypertensive participants	A focus group Discussion (FGD) was applied to share their perception and experiences. Transcripts were read in an iterative process, and a thematic analysis was performed	One session was arranged per one group, and each session lasted for 35–45 minutes	The mean age of the 74 participants was 52.2 years (35–85 years). Even though more than half of participants had relevant knowledge of how to manage HTN
<b>Godara, et al<sup>6</sup></b>	To find out the prevalence, awareness, treatment and control of hypertension and the factors associated with hypertension prevalence.	Cross-sectional study	300 adults aged 30 years.	community-based cross-sectional study, 20 villages of Barmer district of Rajasthan were selected by multistage cluster sampling.	Data were collected using a modified World Health Organization STEPs tool.	Mean age was 45 years (SD: 14.3), women 49%. Mean SBP was 125 and mean DBP was 81 mm of Hg.
<b>Machalani, et al<sup>8</sup></b>	Assessing HTN knowledge, attitude, and practice (KAP) is crucial for controlling HTN.	cross-sectional study	342 hypertensive patients.	This cross-sectional study was conducted to assess KAP towards HTN in hypertensive patients. Eligible patients were $\geq 18$ -year-old, diagnosed as hypertensive	KAP towards HTN was assessed using an electronic survey uploaded to Google Forms based on a structured questionnaire.	HTN patients were analysed of whom 98.2% were Lebanese and 51.2% were males. The median age was $59.15 \pm 13.55$ years old. Only 45.3% regularly checked their blood pressure.
<b>Ajjad Alhazmi et al<sup>10</sup></b>	To assess overall and specific knowledge about hypertension and to identify predictors of inadequate knowledge.	cross-sectional study	253 hypertensive patients	Data were collected using an online, self-administered questionnaire divided into two sections. In the first section, the characteristics of the participants were collected. In the second section, the HK-LS was used to measure overall and specific knowledge areas.	26 items of the HK-LS.	253 hypertensive patients were eligible for participation; almost 70% of whom were male. The mean age of the participants was 45 years ( $\pm 14.7$ ), and their mean overall knowledge score was $17.60 (\pm 5.09)$ , which was equivalent to 67.7% of the maximum score. In addition, 40.7% of participants had an adequate level of hypertension knowledge.

## KNOWLEDGE AND PERCEPTION ON HYPERTENSION AMONG ADULTS

Several studies have shown that hypertension is the most prevalent preventable risk factor for premature death and disability globally, it is a significant modifiable risk factor for cardiovascular disease and one of the major contributors to premature death and morbidity. There is need for more effective health education programs and initiatives are needed to raise awareness of HTN and improve its management. Studies proved that inadequate knowledge and awareness about hypertension amongst the hypertensive patients at ground level. Although, they fail to recognize hypertension as a very serious health concern owing to lack public healthcare awareness initiatives.<sup>2</sup> Another study showed that prevalence of hypertension and risk factors is high among the study population.<sup>3</sup> The author (Yasmin Jahan) shown that health education programs should be initiative at the household and community level which will be potential starting point for any preventive and containment strategy in rural communities.<sup>4</sup>

The study like to need the developing proper and continuous self-management hypertension education programs. Study showed that knowledge and attitude toward lifestyle modification recommended for hypertension management was good, but practice level was poor.<sup>11</sup>

Another author Sabita Pandey Bashyal and Ajiad Alhazmi revealed that inadequate knowledge of hypertension and they perceived hypertension as less severe illness which might hinder the adherence to treatment. In general, this study reported how crucial it is to properly manage hypertension through individualized health measures and ongoing education, which may lessen the burden of the disease by enhancing patient behaviours, attitudes, and comprehension. Several studies have shown that inadequate knowledge and perception among hypertensive patients (Table 1).<sup>2,4-11</sup>

To the best of our knowledge, no studies have yet been conducted on hypertensive patients in Punjab and Haryana to explore their understanding and perceptions of hypertension. Additionally, there has been no analysis of the differences in knowledge and perception between rural and urban populations. To address this gap, there is need to conduct further research that focusses on comparison of the knowledge and perceptions of hypertension between rural and urban dwellers. Therefore, to develop a targeted patient and community education program tailored to the knowledge and perceptions of both rural and urban populations with hypertension, it is essential to conduct further research.

## CONCLUSION

The knowledge and perception of hypertension are poor, and the practice of blood pressure control must be

implemented. As a result, participants will benefit from health educational materials, extensive behavioural changes, and the incorporation of health literacy and competence to prevent hypertension complications and encourage treatment adherence. A comprehensive comprehension of the sociocultural dynamics of hypertension is required to address these disparities and inform targeted prevention and management strategies.

Through drives like the proposed study rustic, we expect to connect existing information holes and prepare for more powerful hypertension the executives rehearse. no studies have yet been conducted on hypertensive patients in Punjab and Haryana to explore their understanding and perceptions of hypertension. In order to establish a definitive community education program tailored to the knowledge and perceptions of both rural and urban populations with hypertension further research needs to be conducted.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

1. Islam FM, Islam MA, Hosen MA, Lambert EA, Maddison R, Lambert GW, et al. Associations of physical activity levels and attitudes towards physical activity with blood pressure among adults with high blood pressure in Bangladesh. *PLoS One*. 2023;18(2):280879.
2. Jahangeer MH, Bano S, Qamar K, Adil M. Analysis of hypertension perception outlook in a rural hypertensive population: at the basic health unit level. *Pak Armed Forces Med J*. 2019;69(2):356-62.
3. Rajkumar E, Romate J. Behavioural risk factors, hypertension knowledge, and hypertension in rural India. *Int J Hypertens*. 2020; 2020:8108202.
4. Jahan Y, Moriyama M, Rahman MM, Kazawa K, Mizukawa M, Rahman A, et al. Disease perception and experiences among rural Bangladeshi hypertensive women: a qualitative approach. *Health Promot Perspect*. 2020;10(1):66.
5. Rashidi Y, Manaflouyan H, Azar FP, Nikniaz Z, Nikniaz L, Ghaffari S. Knowledge, attitude, and practice of Iranian hypertensive patients regarding hypertension. *J Health Med*. 2018;10(1):14.
6. Godara R, Mathews E, Mini GK, Thankappan KR. Prevalence, awareness, treatment, and control of hypertension among adults aged 30 years and above in Barmer district, Rajasthan, India. *Indian Heart J*. 2021;73(2):236-8.
7. Bashyal SP, Thapa N. Knowledge and perception regarding hypertension among hypertensive patients at a tertiary hospital in Kathmandu, Nepal. *J Adv Acad Res*. 2020;7(1):51-62.
8. Wolde M, Azale T, Demissie GD, Addis B. Knowledge about hypertension and associated factors among patients with hypertension in public health

- facilities of Gondar city, Northwest Ethiopia: ordinal logistic regression analysis. *PLoS One*. 2022;17(6):270030.
9. Kongarasan P, Shah PB. Knowledge and perception of hypertension among hypertensive patients attending a rural health and training centre, Department of Community Medicine, SRMC & RI. *Int J Community Med Public Health*. 2018;5(6):2323-6.
  10. Alhazmi A, Moafa HN, Kotb M, Sayegh L, Baydhi H, Hazzazi A, et al. Assessing knowledge about hypertension and identifying predictors of inadequate knowledge in Saudi Arabia: a cross-sectional study. *PLoS One*. 2024;19(3):299745.
  11. Bogale S, Mishore KM, Tola A, Mekuria AN, Ayele Y. Knowledge, attitude and practice of lifestyle modification recommended for hypertension management and the associated factors among adult hypertensive patients in Harar, Eastern Ethiopia. *SAGE Open Med*. 2020; 8:2050312120953291.
  12. Singh SM, Naskar C, Malik Y, Shukla S. Assessment of knowledge of hypertension among patients with mental illness approaching a community psychiatry service. *J Postgrad Med Educ Res*. 2018;54(1):8-11.

**Cite this article as:** Muskaan, Sikka G, Shaveta. Unveiling the silent threat - understanding hypertension knowledge and perception among adults: review article. *Int J Res Med Sci* 2024;12:4853-8.