ISSN: 0975-3583,0976-2833 VOL12, ISSUE 07, 2021

KNOWLEDGE, ATTITUDE, AND PRACTICE REGARDING HYPERTENSION AMONG RESIDENTS OF OUR AREA

[1]Dr Ruchira Maram, [2]Dr Tejaswini Potlabathini, [3]Dr T. Pavani Kiranmai, [4*] Dr K. Bhargavi,[5]Dr.P.Rajendra Prasad

[1]Deputy executive officer at Aarogyasri health care trust, Government of Telangana.
[2]MBBS student :Malla Reddy Institute of Medical Sciences: Suraram, Hyderabad, Telangana.
[3]Assistant professor: Department of Biochemistry, Osmania Medical College/ Maternity Hospital, Koti Hyderabad, Telangana.
[4*]Assistant professor: Department of Biochemistry, Osmania Medical College/Niloufer Hospital, Lakidikapool, Hyderabad, Telangana.
[5] Panel specialist doctor at Aarogyasri health care trust, Government of Telangana.

Corresponding author: Dr K. Bhargavi,Email: bhargavikareti5@gmail.com

ABSTRACT

Background: Hypertension is a chronic condition that increases the risk of cardiovascular problems. Hypertension is becoming more common due to population ageing, urbanisation, sedentary habits, lack of physical activity, obesity, alcohol intake, and constant stress. Antihypertensive drugs taken on a regular basis can lower the risk of cardiovascular morbidity and mortality in the long run. **Aim:** This study was conducted to measure hypertension-related knowledge, attitudes, and practises, as well as treatment compliance in hypertensive patients. **Materials and Methods:** This was a cross-sectional questionnaire-based study that took place between February 2019 and April 2019 among 170 hypertensive patients who visited the Department of Medicine's hypertension clinic. The patients were given an adapted, modified, closed-ended, validated questionnaire in vernacular language. There are 16 questions in the survey (demographic data, Knowledge-5 questions, Attitude-5 questions, Practice-6 questions). **Results:** The most common prescribed anti hypertensives were calcium channel blockers (80%), β-blockers (27%), ACE inhibitors (25%), Diuretics (6%) and 5% ARB's. The percentages of people who knew about hypertension, normal blood pressure, symptoms, and problems were 75 percent, 54 percent, 42 percent, and 36 percent, respectively. Positive attitudes for regular medications, drug role, diet control, salt restriction, and physical exercise were reported in 95 percent, 15 percent, 80 percent, 78 percent, and 70 percent of the participants respectively. Practice related responses likeregular BP measurement, follow-up, salt restriction, and exercise were reported to be 80 percent, 79 percent, 68 percent, and 11 percent of patients respectively.**Conclusion:** The current study revealed a lack of understanding among hypertension patients about normal blood pressure, symptoms, and problems. Except for the practise of regular exercise, the patients had a positive attitude and practise. As a result, there should be a greater emphasis on raising knowledge of symptoms, consequences, and the need of physical activity, particularly among male patients.

Keywords: Knowledge, Practise, Attitude, Hypertension.

Introduction: Hypertension (HTN) is a chronic illness that puts you at risk for a variety of heart problems. It's a condition in which blood pressure is consistently high, and reducing blood pressure has a clinical advantage[1]. In developing countries, hypertension is a serious public health issue and a primary cause of mortality and disability. Hypertension is becoming more common over the world, yet knowledge, treatment, and control rates are still quite low. Hypertension-related consequences cause roughly 9.4 million deaths worldwide each year.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 07, 2021

Hypertension affects 23.1 percent of men and 22.6 percent of women in India over the age of 25[2]. In India, hypertension affects 25% of the urban population and 10% of the rural population, resulting in 57 percent of all stroke deaths and 42% of deaths from cardiovascular disease[3]. Age, urbanisation, sedentary habits, lack of physical activity, obesity, alcohol consumption, and constant stress have all been linked to an increase in the prevalence of hypertension[4]. Cerebrovascular, cardiovascular, renal, and retinal disorders are all common sequelae of uncontrolled hypertension. These consequences are the leading causes of death and disability in developing nations like India, resulting in a lower quality of life and an increased burden on the family, society, and nation. Hypertension can be detected early on, reducing the risk of cardiovascular disease, stroke, and renal failure. Antihypertensive drugs taken on a regular basis can lower the risk of cardiovascular morbidity and mortality in the long run. The majority of hypertensive persons are unaware of their disease and have a low degree of hypertension health literacy. Hypertensive patients in several places around the world have been documented to have insufficient understanding about health issues. People's education, awareness, and attitude toward hypertension all have a role in modifying lifestyles, including modifiable hypertension risk factors[5]. As a result, patients should be informed of hypertension prevention strategies and strictly adhere to their treatment regimens. Regular exercise lowers blood pressure through reducing systemic vascular resistance, which is controlled by the autonomic nervous system and the renin-angiotensin system. Dietary factors have an important role in hypertension prevention and therapy. The DASH (Dietary Approaches to Stop Hypertension) diet can be adopted at a young age to prevent hypertension consequences. In hypertensive persons, limiting salt intake and adhering to medication can help lower blood pressure and related problems. As a result, the primary goal of this study was to examine hypertensive patients' knowledge, attitude, and practise (KAP) as well as to raise awareness about hypertension. The current study additionally looked at drug compliance and the most often prescribed anti-hypertensives.

Materials and Methods: This was a cross-sectional questionnaire-based study that took place between February 2019 and April 2019 among 170 hypertensive patients who visited the Department of Medicine's hypertension clinic. Based on a previous study's correlation coefficient (30%) of knowledge-attitude score, the required sample size was 150 patients, which was rounded off to 170 patients using the "statistics and sample size calculator," with a margin of error of 5%, a margin of error of 10%, and a confidence interval of 95%. After receiving clearance from the Scientific Research Committee and the Institutional Ethical Committee, the study was initiated. Primary hypertensive patients aged 25 to 65 years of both sexes who had been on medication for hypertension for more than 6 months, with or without co-morbid illnesses such as diabetes, cardiovascular disease, chronic renal disease, dyslipidemia, aneurysm, and so on; Pregnant and lactating woman, secondary hypertensive patients were also included in the study after taking proper informed consent. The study's nature and objectives were clearly stated. Confidentiality was maintained throughout the study. The questionnaire's filling instructions were carefully crafted. The patients were given an adapted, modified, closed-ended, validated questionnaire in vernacular language. There are 16 questions in the survey (demographic data, Knowledge-5 questions, Attitude-5 questions, Practice-6 questions). SPSS version 20.0 was used to analyse the data and provide descriptive statistics. A score system was used to examine the questions. To compare demographic and clinical information with KAP scores, the Chi square test was performed. Statistical significance was defined as a P value of less than 0.05.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 07, 2021

Results: There were 42 percent males and 58 percent females among the 170 primary hypertension patients in this study. Table 1 shows the demographic features of hypertensive patients.

Table 1 : Demographic characteristics.

Demographic Data	**Mean/Percentage**	
Age (Years)	59.24±8.27	
Sex	Male	71 (42%)
	Female	99 (58%)
Education	Illiterate	34 (20%)
	High School	94(55%)
	College	42 (25%)
Employment Status	Employed	153 (90%)
	Unemployed	3 (2%)
	Homemaker	14 (8%)
Duration of disease (years)	6.1±5.6	
Duration of treatment (years)	6.0±5.6	

Table 1 shows that age in years was 59.24±8.27, 42 percent were males and 58 percent were females, 20% were illiterate, 55% were from high school, 25% were from college, 90% were employed, 2% were unemployed and 8% were homemaker.

Table 2: Knowledge related response

Sl.No	Question	Yes	No
1.	What is hypertension, Do you know? High blood pressure ≥140/90	75%	25%
2.	What is normal blood pressure level? Do you know? <120/80 (30%), =120/80 (44%), <140/90 (21%), <150/90 (5%)	54%	46%
3.	What are symptoms of hypertension, Do you know? Headache (45%), Vomiting (3%), Dizziness (23%), Palpitation (8%), Sweating (19%), Chest pain (2%)	42%	58%
4.	The cause of hypertension was smoking and alcohol consumption, Do you think?	70%	30%
5.	What are hypertension complications, Do you know?	36%	64%

Table 2 shows that there was limited understanding regarding symptoms and complications of hypertension.

Table 3: Attitude related response.

Sl.No	Question	Agree	Disagree
1.	Regular medications will improve the disease.	95%	5%
2.	Drugs alone can control hypertension	15%	85%
3.	Diet will improve the condition	80%	20%
4.	Salt restriction can control the disease.	78%	22%
5.	Regular physical activity of at least 40 minutes/doing exercise 3-4 days/week is necessary to control hypertension.	70%	30%

Table 3 shows that in this study, a positive attitude was noticed.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 07, 2021

Table 4: Practise related response.

Sl.No	Question	Agree	Disagree
1.	Do you measure your blood pressure regularly? Daily (8%), Once a week (13%), Once in 15 days (20%), Monthly once (59%)	80%	20%
2.	Do you go for regular follow up? Once a week (10%), Once in 15 days (22%), Monthly once (58%), Once in 3 months (10%)	79%	21%
3.	Did you experience any side effects due to drugs? Gastritis (65%), Giddiness (22%), Vomiting (7%), Palpitation (6%)	8%	92%
4.	Do you avoid extra salt in diet?	68%	32%
5.	Do you do exercise atleast 40 minutes/3-4 days/week?	11%	89%
6.	Do you take drugs regularly? Forgetfulness (45%), Financial burden (10%), Inaccessibility to treatment facility (14%), Illness denial (31%)	86%	14%

Table 4 shows that in terms of the patient's practise, the patients were engaged in very poor physical exercise.

Table 5: Comparison of KAP scores with gender.

Gender	Knowledge about complications	Attitude towards diet and salt restriction	Practise of regular follow up	Practise of salt restriction
Male	51%	10%	68%	63%
Female	29%	25%	84%	79%
P value	<0.001	<0.001	<0.01	<0.01

Table 5 shows the mean knowledge, attitude and practice scores for both males and females. Males had a substantially better level of knowledge about hypertension problems than females ($p<0.001$). Females had a significantly more positive attitude and practise of salt restriction (<p0.01) than males. Females had a considerably greater rate ($p<0.01$) of regular blood pressure monitoring and follow-up than males.

Table 6: Comparison of gender with comorbidities.

Gender	Comorbidity	P value
Male	40%	<0.001
Female	31%	

Table 6 shows that males had a considerably higher incidence of comorbidities ($p<0.001$).Type 2 diabetes mellitus was the most common comorbid condition, accounting for 21% of males and 28% of females, respectively.

The most common prescribed anti-hypertensive drugs were calcium channel blockers (80%), β-blockers (27%), ACE inhibitors (25%), Diuretics (6%) and 5% ARB's.

Discussion: In India and other developing countries, hypertension is a major health issue. This examination is critical for hypertension patients to determine their KAP levels so that appropriate educational and self-management programmes can be developed. In this study, 42 percent of the participants were males and 58 percent were females, with an 83 percent literacy rate. The male-to-female ratio and literacy rate were similar to those found in Rashidi Y et al[5] and Rajan J et al[6] studies.ShresthaS et al[7] and Durai V et al[3] found results similar to that of the present study which was that the mean systolic and diastolic blood pressure was 140/91 mmHg.Type 2 diabetes mellitus was the most common comorbid condition, which was consistent with earlier studies[8].The KAP grading revealed that the patients in this study

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 07, 2021

had limited understanding of the signs and implications of hypertension. Other studies in Northern India have shown similar results[8,9]. In addition, males had more knowledge regarding hypertension than females, according to the present study. Headache (45%), dizziness (20%), sweating (16%), heart attack (52%) and renal failure (30%) were the most common symptoms and complications of hypertension, according to Mahajan H et al[8] and Rajan J et al[6] investigations. As a result, an educational intervention should be devised to increase the patient's knowledge of hypertension symptoms and problems. In this study, females had a more favourable attitude regarding hypertension and had a more profound perception of it. This finding is consistent with Roopa KS et al [10] study. In this study, the author **beedrvso** that 78 percent of patients believe that salt restriction can improve their condition, which contrasts with a study by Bhattacharya S et al[11], which found that 64% of patients believe that lowering salt in the diet is not important at all, and similar results of 76 percent were also found in a study by Rajan J et al[6]. Regular exercise of 40 minutes per session for 3-4 days per week, together with food control and salt restriction, has been shown to play an important role in the management of hypertension. The study also showed that 91% of the patients did not engage in regular physical activity. According to Bhatia S et al.[12], there was a lack of salt limitation, dietary habits, and physical activity. This was in contrast to a study by Sabouhi F et al[13], which found that regular physical activity was highly recommended. Females had much greater rates of regular BP monitoring and follow-up than males, with 59 percent of patients measuring once a month, similar to Mahajan H et al[8] study. Patients on hypertensive medicines experienced adverse symptoms (gastritis, giddiness, vomiting, and palpitation) in 8% of cases, which is similar to another study by BolluM et al[14] (6.5 percent). In this study, comparable to the Datta S[15] study in North India, amlodipine (CCB) was the most often used anti-hypertensive medicine. This study found that overall drug compliance was good, with ladies performing better than males. In a research by Shah AJ[16] and Ahmad S[17], the top cause for not taking medications on a regular basis was forgetfulness (45%), followed by denial of sickness (31%). The study's weakness was that it was a single-center, hospital-based study, so the results could not be applied to the broader public. Furthermore, the data was collected during working hours, which could explain for the large number of female responders. Based on these findings, a good active educational intervention and counselling is recommended to enhance hypertension patients' knowledge, attitude, and practise in order to better control their disease.

Conclusion: The current study revealed a lack of understanding among hypertension patients about normal blood pressure, symptoms, and problems. Except for the practise of regular exercise, the patients had a positive attitude and practise. As a result, there should be a greater emphasis on raising knowledge of symptoms, consequences, and the need of physical activity, particularly among male patients. It is critical to focus on KAP of hypertension patients by conducting well-planned educational interventions in order to reduce illness burden.

References:

1. Naveen B, Mahaboojan M, Padmanabha YR, Narayana G. Impact of clinical pharmacist mediated patient counselling on health-related quality of life in hypertensive patients. Ind J Pharm Prac. 2014;7(1):34-40.
2. BollampallyM, ChandershekharP, Kumar K, SurakasulaA,SrikanthS,ReddyT.Assessment of patient's knowledge, attitudeandpracticeregarding hypertension.IntJResMedSci.2016;4(6):3299-04.
3. DuraiV, MuthuthandavanAR. Knowledge and practiceondrugcompliance amongmaleswith hypertension. IntJ CommMed Pub Heal.2017;3(6):1424-30.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 07, 2021

4. Kumar SK, Singh AB, Asem P. Prevalence, awareness, treatment and control of hypertension in urban communities of Imphal, Manipur. IJIMS.2015;2:61-70.
5. Rashidi Y, Manaflouyan H, Azar FP, Nikniaz Z, Nikniaz L, Ghaffari S. Knowledge, attitude and practice of Iranian hypertensive patients regarding hypertension.JCardiovascul Thoracic Res. 2018;10(1):14.
6. Rajan J., Sakthibalan M., Gerard Marshall Raj, Mangaiarkkarasi A; Knowledge, attitude and practice of hypertension among hypertensive patients in a tertiary care teaching hospital; International Journal of Basic & Clinical Pharmacology | May 2019 | Vol 8 | Issue 5; Page No 1013-1018.
7. Shrestha S, Adhikari B, Poudel RS, Thapaliya K, Kharal T, Bastakoti M, et al. Knowledge, attitude and practice on hypertension among antihypertensive medication users. J Nepal Med Assoc. 2016;55(204):86.
8. MahajanH, KaziY, Sharma B, VelhalGD.AssessmentofKAP,riskfactorsandassociatedco- morbidities in hypertensive patients. IOSRJDMS.2012;1(2):06-14.
9. Shaikh MA, Yakta D, Sadia K, Kumar R. Hypertension knowledge, attitude and practice in adult hypertensive patients at LUMHS. JLUMHS. 2012;11(02):113.
10. Roopa KS, Rama Devi G. Impact of intervention programme on knowledge, attitude, practices in the management of hypertension among elderly. Studies Home Comm Sci. 2014;8(1):11-6.
11. Bhattacharya S, Thakur JS, Singh A. Knowledge attitude, and practice regarding dietary salt intake among urban slum population of North India. J Fam Med Primary Care. 2018;7(3):526.
12. Bhatia S, Khanka BS, Singh D, Shankar P, Tutu S, Lakhani P. Study of knowledge, attitude and practice of general population of Lucknow towards hypertension. WIPPS. 2015;4:10.
13. Sabouhi F, Babaee S, Naji H, Zadeh AH. Knowledge, awareness, attitudes and practice about hypertension in hypertensive patients referring to public health care centers in Khoor and Biabanak. Iran J Nursing Midwifery Res. 2011;16(1):34.
14. Bollu M, Nalluri KK, Prakash AS, Lohith MN, Venkataramarao N. Study of knowledge, attitude, and practice of general population of Guntur toward silent killer diseases: Hypertension and diabetes. Asian J Pharm Clin Res. 2015;8(4):74-8.
15. Datta S. Utilization study of antihypertensives in a South Indian tertiary care teaching hospital and adherence to standard treatment guidelines. J Basic Clin Pharm. 2016;8(1):33.
16. Shah AJ, Singh V, Patil SP, Gadkari MR, Ramchandani V, Doshi KJ. Factors affecting compliance to antihypertensive treatment among adults in a tertiary care hospital in Mumbai. Indian journal of community medicine: official publication of IndAssocPrev Social Med. 2018;43(1):53.
17. Ahmad S, Ahmad T. Assessment of knowledge, attitude and practice among hypertensive patients attending a health care facility in North India. Int J Res Med. 2015;4(2):122-7.