

Research Article

Assessment of patient's knowledge, attitude and practice regarding hypertension

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ABSTRACT

Background: Hypertension is not a disease but it is an important risk factor for cardiovascular complications. Approximately 77.9 million American adults (1 in 3 people) and one billion people worldwide have high blood pressure. Hypertension can be described as the 'sleeping snake' which bites when it wakes up. There is need to investigate KAP among the general population which helps in the future development programmes for effective health education. The main aim of this study was to assess the patients Knowledge, Attitude and Practice regarding hypertension.

Methods: This is a prospective observational study conducted in the In-patient Departments of Gandhi hospital, Secunderabad for a period of 6 months (August 2015 - January 2016) which was approved by institutional ethics committee. A total of 160 hypertensive patients with or without comorbid condition were included. . Adults of age less than 30 years, paediatrics, Pregnant and lactating women were excluded. Patients were selected by simple random sampling method. A suitably designed and validated KAP questionnaire was administered to hypertensive patients. This questionnaire was filled in at face to face interview along with informed consent. Statistical analysis was performed using Graph pad prism software version 5. Data was analysed using unpaired t-test.

Results: We observed a good score towards knowledge, attitude and poor score towards practice.

Conclusions: Our study signifies that patients require support and guidance for practicing better disease management. Clinical activities such as patient counselling, Home Medication Review, Pharmaceutical care program help to increase the patients practice in disease management.

Keywords: Hypertension, KAP, Home medication review

INTRODUCTION

Hypertension is not a disease but it is an important risk factor for cardiovascular complications. It can be defined as a condition where blood pressure is elevated to an extent where clinical benefit is obtained from blood pressure lowering.¹ Approximately 77.9 million American adults (1 in 3 people) and one billion people worldwide have high blood pressure. It is estimated that by 2025, 1.56 billion adults will be living with

Hypertension. Increased blood pressure is estimated to cause 7.5 million deaths accounts for 57 million disability adjusted life years (DALYs).² A survey in 2004 revealed that the prevalence of hypertension in India was 25% in urban and 10% in rural population, and it leads to 57% of all stroke deaths and 42% of deaths due to cardiovascular disease.³

The increasing prevalence of hypertension is attributed to ageing of population, urbanisation sedentary habits, lack

of physical activity, obesity, alcohol consumption and exposure to persistent stress. Complications of hypertension account for 9.4 million deaths worldwide every year. In India, 23.10% of men and 22.60% of women over 25 years suffer from hypertension.⁴

Hypertension is labelled as ‘silent killer’ because it progressively and permanently damages organs before occurrence of any diagnosable external presentation. Therefore, the patients should be alert of the preventive strategy of hypertension management and therefore should strictly adhere to the therapy.⁵

Hypertension can be described as the ‘Sleeping snake’ which bites when it wakes up.⁶ In this context, hypertension presents a major area of intervention because it is a frequent condition and is amenable to control through both nonpharmacological lifestyle factors and pharmacological treatment. Lifestyle measures for lowering BP include reduced alcohol intake, reduced sodium chloride intake, increased physical activity, and control of overweight.⁷

A proper assessment and understanding of KAP factors is particularly helpful in the area of chronic conditions such as hypertension, for which prevention and control necessitate a lifelong adoption of healthy lifestyles.⁸ There is need to investigate KAP among the general population which helps in the future development programmes for effective health education.⁹ The knowledge and attitudes of the patients have an impact on the management of the disease condition which helps in improving the medication adherence, the blood pressure control, morbidity and mortality of the patients.

The main aim of this study was to assess the patients Knowledge, Attitude and Practice regarding hypertension.

METHODS

This is a prospective observational study conducted in the In-patient Departments of Gandhi hospital, Secunderabad for a period of 6 months (August 2015 - January 2016). A total of 160 hypertensive patients with or without comorbid condition were included. Adults of age less than 30 years, paediatrics, Pregnant and lactating women were excluded. Patients were selected by simple random sampling method. A suitably designed and validated KAP questionnaire was administered to hypertensive patients.

The questionnaire consists total of 21 questions, with 8 questions related to knowledge about hypertension, 6 questions to assess the attitude of the patient towards hypertension and 7 questions regarding practice. This questionnaire was filled in at face to face interview along with inform consent.

Statistical analysis was performed using Graph pad prism software version 5. Data was analysed using unpaired t-

test. Unpaired t-test was applied to compare differences in two groups. P values <0.01 were considered statistically significant, P- values <0.001 were considered very significant.

RESULTS

A total of 160 cases of hypertension were examined of which males were 52.5% and females 47.5%. Age ranges from 33- 87 years in which most of the respondents were below 60years constituted about 81.25% of the total study population.

Table 1: Distribution of patients according to economic status, literacy and social habits.

Variable	Frequency	Percentage
Economic status		
Low	54	33.75
Medium	106	66.25
Literacy		
Literate	74	46.25
Illiterate	86	53.75
Social habits		
Alcoholic	29	18.13
Smoker	7	4.37
Both	22	13.75
None	102	63.75



Figure 1: Scores of knowledge attitude and practice questions.

Table 2: The most commonly prescribed drugs for hypertension.

Mostly prescribed drugs	Frequency	Percentage
Amlodipine	49	30.62
Telmisartan + hydrochlorthiazide	23	14.37
Atenolol	19	11.87
Ramipril	14	8.75
Enalapril	09	5.63
Losartan	01	0.63
Combination therapy	45	28.12

30% of the patients were between the age group of 51- 60years, followed by 28.75% were between 41- 50 years and 22.5% were between 31- 40 years remaining 18.75%

were above 61 years. 57.5% of hypertensive patients were with duration of 1- 5 years followed by 6-10 years 33.75%, 5.62% with duration of 11- 15 years, 1.88% with duration of 16-20 years and 1.25% with duration of above

21 years. 65.62% of respondents were without comorbid conditions, remaining 34.48% were with comorbid conditions.

Table 3: Knowledge related questions.

Questions	Answers	Frequency	Percentage
How did you come to know about your htn	Clinical	135	84.37
	voluntary	25	15.62
Do you have any relatives with history of htn-	Yes	42	26.25
	No	118	73.75
Do you know what are the complications of htn	Yes	38	23.75
	No	112	76.25
Do you know normal level of blood pressure	Yes	83	51.88
	No	77	48.12
Do you know the symptoms of htn	Yes	52	32.5
	No	108	67.5
Do you think smoking and alcohol consumption cause htn	Yes	91	56.88
	No	69	43.12
Do you think obesity is associated with htn	Yes	74	46.25
	No	86	53.75
Do you know the names of your prescribed drugs	Yes	48	30
	No	112	70

Table 4: Attitude questions.

Do you think regular medications will improve the disease	Yes	143	89.37
	No	17	10.62
Do you think medications alone can control HTN	Yes	144	90
	No	16	10
Do you think diet control will improve the condition	Yes	93	58.13
	No	67	41.87
Do you think salt reduction can control hypertension	Yes	106	66.25
	No	54	33.75
Do you think regular physical activity is essential	Yes	58	36.25
	No	102	63.75
Avoiding extra cooking oil	Yes	87	54.38
	No	73	45.62

Table 5: Practice related questions.

Where you was first diagnosed with HTN	Government	73	45.62
	Private	87	54.37
Regular Follow up	Yes	103	64.38
	No	57	35.62
Did you ever experienced any side effect	Did you ever experienced any side effect		
Did you ever taken double dose	Yes	5	3.12
	No	155	96.88
Are you avoiding extra added salt	Yes	98	61.25
	No	62	38.75
Are you doing any physical exercise daily	Yes	26	16.25
	No	134	83.75
Are you taking your drugs regularly	Yes	103	64.38
	No	57	35.62

Table 6: Knowledge attitude and practice of patients regarding hypertension.

Knowledge	N	Mean	SD	Lower 95% CI	Upper 95% CI	P value
Poor score	76	3.000	1.811	2.586	3.414	P<0.0001
Good score	84	6.833	0.8190	6.656	7.011	
Attitude						P<0.0001
Poor score	74	1.331	0.5476	1.316	1.559	
Good score	86	1.051	0.8583	3.959	4.341	
Practice						P<0.0001
Poor score	94	4.123	0.6183	4.141	1.321	
Good score	66	1.223	0.5178	1.286	1.569	

Table 7: Practice of hypertension measurement.

Gender	15 days	1 month	3 months	≥ 6 months	No measurement	Chi square	P value
Male	2	7	24	0	51	9.7	< 0.01
Female	7	11	21	8	29		
Total	9	18	45	8	80		

DISCUSSION

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.⁶ In our study majority of the respondents were below the age of 60 years and this was similar to studies conducted by Pragnesh et al.⁸ This showed that HTN was not only the disease which is seen in elderly people but was also very much prevalent among the adult age groups. Hence measures such as healthier diet and lifestyle habits should be adopted to control the prevalence of the disease.

Majority of the patients are suffering from HTN since 1-5 years and are at risk of developing comorbid conditions. Most of the patients were from medium socio economic status and were illiterates. In a study from Jaipur, high prevalence of hypertension was reported in low education or illiterate groups.¹⁰ In our study majority of respondents are not having any addictions (smoking and alcohol consumption). Alcohol consumption has been consistently related to high blood pressure in cross-sectional as well as prospective observational studies in several populations.¹¹ Amlodipine, Calcium channel blockers (CCB) was the extensively used drug. Combination therapy of different anti-hypertensive drugs was preferred next to amlodipine. Other drugs used were Telmisartan, Atenolol, Ramipril, Enalapril and Losartan.

Patients level of education, skilled occupations and being health conscious have been previously shown to be associated with improved compliance among patients with hypertension.¹² 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.¹³

In this study the patients are having good knowledge about disease complications, normal B.P levels, signs and symptoms, prescribed drug names and risk factors. This finding was similar to the previous study conducted by Sanjiv Bhatia et al.¹⁴ 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%.¹⁵ We found that patients had profound perception and positive attitude regarding the disease and its influential factors. 89% of patients think regular medications will improve the condition and 66% thinks that taking less salt will control the blood pressure. This finding was similar to the previous study conducted by Roopa et al and Sabouhi et al.^{16,17} We noticed that the patients were not executing the practice regarding lifestyle and diet. 83% of patients are not doing any physical activity. This shows the poor practice towards hypertension. This finding was similar to the previous studies conducted by Sanjiv Bhatia et al., and Susan A Oliveria et al.^{14,18} We found that 50% of study population doesn't practice regular measurement of hypertension and in the remaining 50% of study population practice regular measurement of hypertension.

Epidemiological studies suggest that exercise is efficacious in controlling the Blood Pressure. Exercise has multiple benefits for patients with hypertension there by reducing the risk of cardiovascular event and mortality.¹⁹ The serious spread of disease can cripple the fiscal and human resources; therefore, it is the time to act now and do as much as possible to cover almost all aspects of the disease. In the present study, the responses to knowledge and attitude were appealingly good but the practice was not regular.

The role of pharmacist involvement in a chronic disease care programme, including one for hypertension, is clearly demonstrated in developed countries. Pharmacists

can reduce pressure on the healthcare system and helps in the management of chronic diseases by providing information about medications and lifestyle modifications to patients, and by acting as a referral point between the patient and doctor.²⁰

CONCLUSION

Our study signifies that patients require support and guidance for practicing better disease management. Hence we conclude that a clinical pharmacist can play major role in improving patient's knowledge and adherence by patient education, developing maintenance of diet and exercise improved the patients practice activities. Clinical activities such as patient counseling, Home Medication Review, Pharmaceutical care program help to increase the patients practice in disease management. Thus, a pharmacist has a potential role as patient educator in the management of hypertension.

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