WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 12, Issue 21, 1366-1378. Research Article ISSN 2277–7105

ASSESSMENT OF KNOWLEDGE, ATTITUDE, PRACTICE AMONG HYPERTENSIVE PATIENTS.

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Article Received on
11 Oct. 2023,

Revised on 21 Nov. 2023,
Accepted on 11 Dec. 2023

DOI: 10.20959/wjpr202321-30207

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ABSTRACT

Introduction: Hypertension has emerged as a major chronic condition worldwide and is the leading progressive disease in society despite having a wide range of treatment options. One of the influential ways of controlling hypertension is by providing patients counseling. The Knowledge, Attitude, Practice of the patient plays a crucial role in improving the patient's disease condition where the precaution through the Knowledge, Attitude, Practice causes fewer complications of the disease. The present study was planned to assess knowledge, attitude and practice among hypertensive patients. **Objective:** The main objective of our study is to assess the Knowledge, Attitude, Practice of hypertensive patients and to provide patient counseling. **Methodology:** This cross-sectional questionnaire based study was conducted for a period of 6 months among hypertensive patients. The data was collected from 163 patients through a data collection form, Knowledge, Attitude, Practice questionnaire, and analyzed through statistical methods. **Result:** A total of 163 patients participated in the study. Out of 163 patients, 101 (62%) were males and 62(38%) were females. The KAP score among hypertensive patients was 47.9%, 56.4% and 66.3% respectively. The hypertensive patients had moderate Knowledge, Attitude, Practice. Among Knowledge, Attitude, Practice patients have a proper attitude with a statistically significant P value of 0.002591($P<0.001$). **Conclusion:** Through this study, we conclude that most of the subjects have better attitude than knowledge and practice. The clinical pharmacist plays a crucial role in educating the patients regarding the disease and the drugs. The effect of KAP has significantly shown an impact on the patient's quality of life.

KEYWORDS: Hypertension, Knowledge, Attitude, Practice, Blood Pressure, Counseling.

INTRODUCTION

Systemic arterial hypertension is characterized by persistently elevated blood pressure in systemic arteries. Blood pressure is commonly expressed as the ratio of systolic blood pressure and diastolic blood pressure.

Hypertension is a serious medical condition and can increase the risk of heart, brain, kidney, and other diseases.

There is a continuous relationship between the level of blood pressure and the risk of complications. Starting at 115/75mmHg, cardiovascular disease risk doubles with each increment of 20/10 mmHg throughout the blood pressure range. The risk of cardiovascular death increases two folds if BP rises to 135/85mmHg, four fold if BP rises to 155/95mmHg and eight folds at 175/105mmHg.

In India increase in CVD is mainly due to uncontrolled hypertension. A recent meta-analysis reported that prevalence rates of CAD and stroke have more than trebled in the Indian population. Presently the prevalence of hypertension in urban areas is 33.8% and in rural areas, it is 27.6%, with an overall prevalence of 29.8%.

The recommended lifestyle measures that are capable of reducing blood pressure include (i) salt restriction (ii) moderate of alcohol consumption (iii) high consumption of vegetables and fruits and low-fat and other types of diet, (iv) weight reduction and maintenance, and (v) regular physical exercise.

ABOUT KNOWLEDGE, ATTITUDE AND PRACTICE (KAP):

A KAP survey means knowledge, attitude, and practice. KAP questions tend to reveal not only characteristic traits in knowledge, attitude, and behaviors about health but also the idea that each person has of the disease. Although the outcome of a KAP study seems simple, the results of the study can have a huge impact on the local community. As the KAP study explores what is known and what is done concerning a healthcare-related objective which is about hypertension in this study, the results will reveal the baseline information of the community and may reveal the misconceptions or misbehaviors about the practice of hypertension. It is very important to identify these facts as they directly influence future healthcare related interventions.

KAP is justifiable to conduct a study on the assessment of the knowledge, attitude, and practice concerning hypertension in a local community as this will reveal important unknown data on hypertension to guide future research studies and health-related interventions.

MATERIALS AND METHODS

A cross-sectional study was conducted in Vijayanagara Institute of Medical Sciences, Ballari, and Karnataka for the duration of six months among 163 patients.

STUDY CRITERIA

Inclusion Criteria

- Patient's age more than 18 years
- Both the genders
- Patients with hypertension and its co-morbidities
- Patients who are willing to participate in the study

Exclusion Criteria

- Age below 18 years
- Outpatients
- Special population (pregnancy and lactating women)
- Emergency department

MATERIALS USED

- Informed consent forms
- Patient profile form
- KAP questionnaire
- Patient counseling form
- Patient information leaflet

RESULTS

A cross-sectional study was conducted for six months among the In-patients of the department of general medicine at Vijayanagara Institute of Medical science Ballari, Karnataka. A total number of **163** patients participated during the study period.

Demographic information of enrolled patients

A total number of **163** patients participated during the study period. Out of **163** patients, **101(62%)** were males and **62(38%)** were females and they were categorized into 3 age groups, among these groups majority of the patients were from 40-59 years, **85** patients **(52%).**

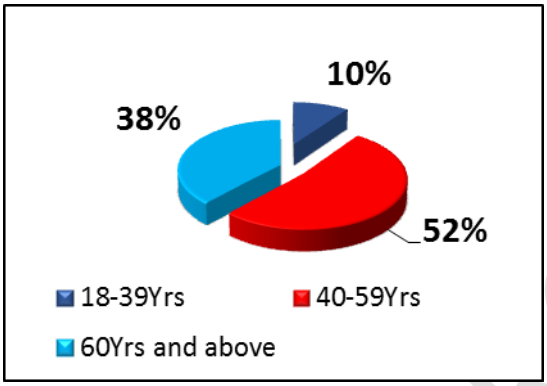

Figure 1: Distribution Based On Age Groups.

Social habits of enrolled patients

Distribution of **163** patients based on social habits was in three categories namely smoker, alcoholic & smoker, and alcoholic. Among **163** patients **110(67%)** were neither smokers nor alcoholics and **27 (17%)** were found to be smokers & alcoholics.

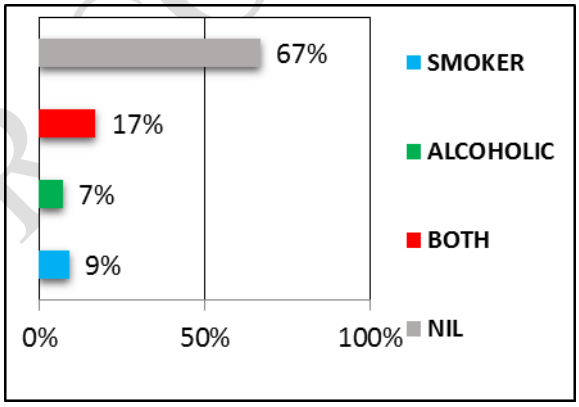

Figure 2: Distribution Based On Social Habits.

Co morbidities of enrolled patients

Various co-morbidities were observed in 163 patients among them cardiovascular diseases were prominent (49) followed by renal diseases (40) which increase the risk of hypertension.

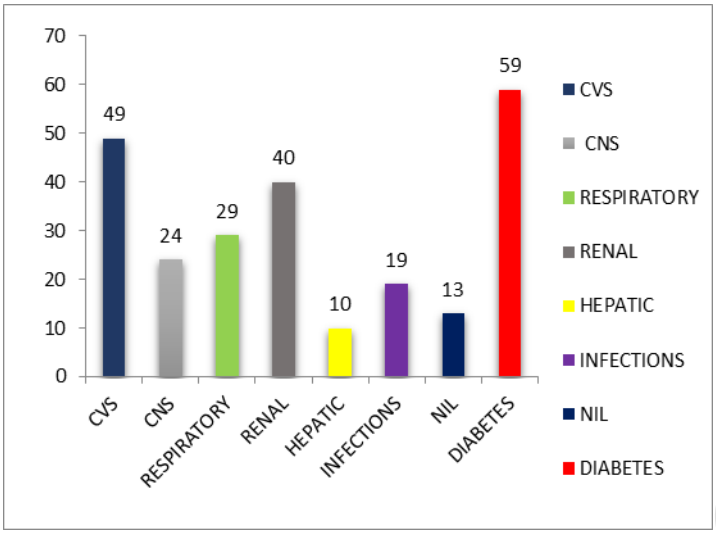

Figure 3: Distribution Based On Co- Morbidities.

Severity of hypertension

Among **163** patients **42 (25.8%)** patients were associated with hypertensive crisis (urgency & emergency) and the rest **[121(74.2%)]** had controlled hypertension.

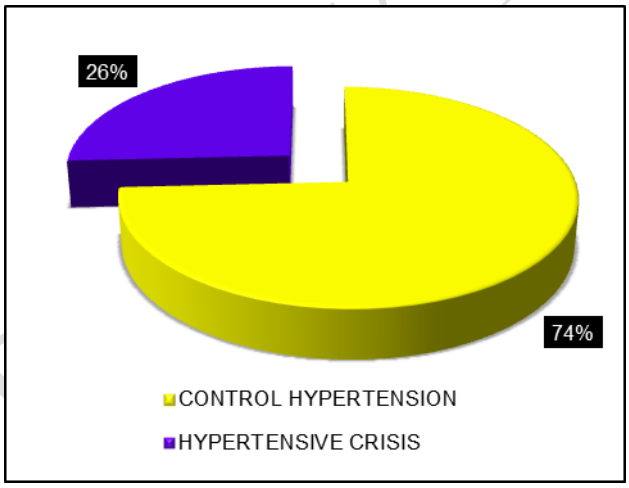

Figure 4: Distribution Based On Severity.

ASSESSMENT OF KNOWLEDGE

Sl.No	Questions	% Of Correct Response(yes)	% Of Wrong Response(no)
1	Do you know the normal BP reading?	51.5%	48.5%
2	Do you know what are the symptoms of HTN?	47.2%	52.8%
3	Do you know about the complications can arise if BP is not controlled ?	36.8%	63.2%
4	How did you come to know about your HTN?	92.7%	7.4%

	a)Medical clinic (yes) b)Screening program(yes) c) others(no)		
5	Do you remember your BP levels at most recent check ups?	52.1%	47.9%
6	Do you know about risk of developing hypertension among family history?	33.1%	66.9%
7	Do you know that diet control and exercise acts as a central pillar in management of hypertension?	59.5%	40.5%

ASSESSMENT OF ATTITUDE

Sl.no	Questions	% of Correct responses (yes)	% of Wrong responses (no)
1	Do you think regular check up of BP is important?	73.6%	26.4%
2	Do you think regular physical activity will decrease /prevent hypertension?	48.5%	51.5%
3	Do you think, it is good to avoid extra cooking oil in your diet ?	70.5%	29.5%
4	Do you think regular investigation are important to rule out complication?	40.5%	59.5%
5	Do you think that excess of alcohol can worse BP levels?	74.3%	25.8%
6	Do you think it is good to include green leafy vegetables in your daily diet ?	81%	19%
7	Do you think that allopathic medications are best in treating hypertension?	66.8%	33.2%

ASSESSMENT OF PRACTICE

Sl.no	Questions	% of correct response(yes)	% of wrong response (no)
1	Are you taking regular prescribed medicines & going for regular follow up?	66.2%	33.8%
2	How often do you measure your BP? a)Daily (yes) b)Monthly (yes) c) Twice a week (yes) d) If i have a problem (no)	38.03%	66.9%
3	Are you doing regular exercise to maintain weight ?	7.9%	92.02%

4	Are you having regular plan to include diet rich in vegetables and low fat dairy products in meals ?	63.8%	36.15
5	Should you keep in touch with physician regularly?	50.9%	49.07%
6	Do you reduce your fat and salt intake?	77.3%	22.6%
7	What are you doing if you experience the side effects of anti-hypertensive drugs? a)Drug withdrawal(no) b)Consulted another physician (no) c)Consulted with the same physician (yes)	67.48%	32.5%

ASSESSMENT OF KAP

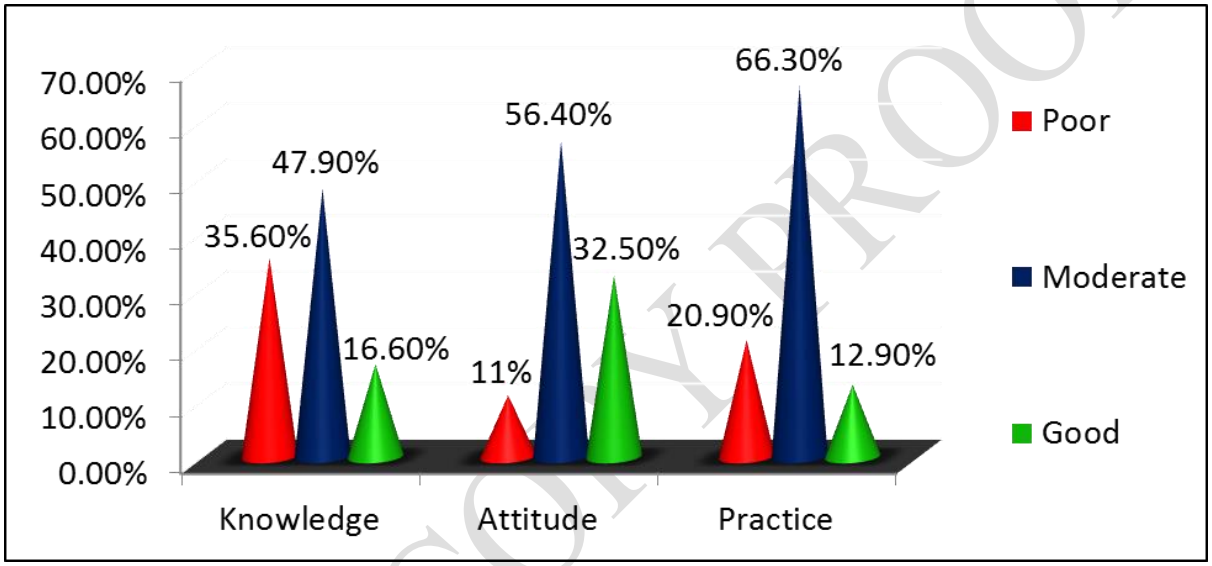

Figure 5: Assessment Of Kap.

COMPARISON OF KAP USING t-TEST

STATISTICAL ANALYSIS OF KNOWLEDGE

PARAMETERS	CORRECT RESPONSE	INCORRECT RESPONSE	P VALUE
Mean	86.85	76.14	0.5422
Standard deviation	±31.95	±31.95	

STATISTICAL ANALYSIS OF ATTITUDE

PARAMETERS	CORRECT RESPONSE	INCORRECT RESPONSE	P VALUE
Mean	**106**	**57**	**0.0025**
Standard deviation	**±24.20**	**±24.20**	

STATISTICAL ANALYSIS OF PRACTICE

PARAMETERS	CORRECT RESPONSE	INCORRECT RESPONSE	P VALUE
Mean	**86.57**	**76.42**	**0.629**
Standard deviation	**±38.30**	**±38.30**	

KAP data was analysed independently using a t-test and we found only *ATTITUDE* to be statistically significant with P value of 0.0025.

DISCUSSION

- A cross-sectional study was used to assess the knowledge, attitude, and practice among hypertensive patients and provide necessary patient counseling. This study is done on the population by considering various factors like age, gender, social habits, co morbidities etc. The feedback from the patients was obtained with the help of profile forms, Questionnaires. Counseling was also given to patients to improve the efficiency of given therapy by improving patient's knowledge regarding disease.
- We assessed 163 patients and categorized them based on the severity of hypertension i.e. controlled hypertension and hypertensive crisis. We found that 25.8% of patients had a hypertensive crisis (urgency and emergency) and the rest had controlled hypertension.
- The knowledge and attitudes of the patients have an impact on the management of the disease condition which helps in improving medication adherence, blood pressure control, morbidity, and mortality of the patients. Obtaining information regarding the level of awareness is the first step in formulating a preventive program for the disease.
- Through our study, we observed that 92.7% of patients knew about their hypertension through medical clinics and screening programs. This shows that many people are concerned about their health. 59.5% of patients knew that diet control and exercise act as central pillars in the management of hypertension. But 63.2% of patients didn't know the complications that can arise if blood pressure is not controlled.
- In the attitude assessment, we observed that 81% of patients think that green leafy vegetable inclusion in their diet may control hypertension. 73.6% of patients think that regular check-up of blood pressure is important. Whereas 59.5% of patients showed a negative attitude towards regular investigations to rule out complications related to hypertension. By this, we came to know that patients had less knowledge and attitude toward the complications of hypertension.
- After the assessment of knowledge and attitude, we assessed the level of practice. 77.3% of patients made changes in their diet and food habits by reducing fat and salt intake as

they had good knowledge and attitude towards diet. 66.2% of patients had a practice of taking medicines regularly and had frequent follow up. The patient had good knowledge about exercise but was unable to practice because of a sedentary lifestyle, and a busy schedule.

- By analyzing various responses given by patients to the questionnaire about knowledge, attitude, and practice we came to know that they had moderate knowledge (47.9%), attitude (56.4%), and practice (66.3%) towards hypertension.

CONCLUSION

- After the assessment of knowledge and attitude, we assessed the level of practice. 77.3% of patients made changes in their diet and food habits by reducing fat and salt intake as they had good knowledge and attitude towards diet. 66.2% of patients had a practice of taking medicines regularly and had frequent follow up. The patient had good knowledge about exercise but was unable to practice because of a sedentary lifestyle, and a busy schedule.
- By analyzing various responses given by patients to the questionnaire about knowledge, attitude, and practice we came to know that they had moderate knowledge (47.9%), attitude (56.4%), and practice (66.3%) towards hypertension.

STRENGTHS

- This study helps to identify the level patient's knowledge towards hypertension.
- Through this study, we can improve the patient's quality of life.
- This study may help to improve patient's medication adherence through counselling.

LIMITATIONS

- Pre and post counselling was not done as it was a cross sectional study.
- Single centered study and convenience sampling used cannot ensure the generalization of the results to the population.

STUDY APPLICATIONS

- This type of educational study can be conducted in multi centers to create awareness regarding knowledge, attitude and practice of chronic disease.
- This study can be useful in conducting clinical educational programs
- This is can be a base for choosing better study designs such as cohort or experimental, to generate better results on the prevalence of the disease.

ACKNOWLEDGMENT

It gives us immense pleasure to express our gratitude towards everyone who helped us to complete this project. The work on this project has been an interesting, often exiting and sometimes challenging but always an enjoyable experience. We wish to express our profound appreciation to Dr. Manjunath V. Jali, Professor and Principal, Dr. R.L.N. Murthy, HOD Department of pharmacy practice, TVM College of pharmacy Ballari. Our deepest thanks to Dr. S Chitrahasini for guiding and supporting us in each and every step of making this project successful. It is a great pleasure to acknowledge our deep sense of gratitude and heartfelt thanks to Dr. Gangadhar Gouda, director of VIMS and Dr. Yogesh R. B, medical superintendent of VIMS hospital for their kind support and encouragement throughout our project. We indebted to Dr. Y. Vishwanth, chair person of institutional ethics committee and other members of institutional ethics committee of TVMCP for their approval and valuable guidance in connection with the current project work.

FUNDING AND SPONSORSHIP

None.

CONFLICT OF INTEREST

None.

DECLARATION OF PATIENT CONSENT

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given consent for their clinical information to be reported in the journal.

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