Knowledge, Attitude and Practice (Kap) Study on Hypertension in Hypertensive Patients at A Tertiary Care Hospital- A Cross Sectional Study.

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BACKGROUND:

Hypertension is becoming a global epidemic and threat to the population. Hypertension remains a major risk factor for cardiovascular diseases globally. Most people with hypertension have no symptoms at all this is why it is known as silent killer. The increase in prevalence of hypertension is attributed to age of population, urbanization, sedentary habits, and lack of physical activity, obesity, alcohol consumption and exposure to continuous stress. There is need to investigate KAP among the general population which help in the future development programs for effective health education.

AIM:

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

METHOD:

This is a cross-sectional study which was carried out in and around narasaraopeta over a period of 6 months i.e., October 2020 to March 2021. About 150 study participants were analyzed. For KAP of hypertension, data were collected using a structured interviewer-guided questionnaire.

RESULTS:

First and second review of knowledge reveal that majority of males are more prone to hypertension. The comparison KAP review was 38.8% and the first KAP review was 32.5%. The attitude comparison also shows that there is an increase in second review of attitude about 39.3% while first review is 35.9%. First review of practice is 39.2% and second review of practice is about 42.9%.

CONCLUSION:

We state that knowledge was improved by 6%, attitude was improved by 4% and practice was improved by 3%. This was a fair improvement in KAP. In our study we found that there is a great lack of knowledge and attitude compared to practice. Recommendations of this study were there is a urgent need for increasing awareness of hypertension. Health professionals must educate hypertensive patients about their disease, their medications and lifestyle modifications through patient counseling.

KEYWORDS: KAP, QUESTIONNAIRE

I. INTRODUCTION

1.1 Hypertension:

Hypertension, also known as high or raised blood pressure, is a condition in which the blood vessels have persistently raised pressure. Each time the heart beats, it pumps blood into the vessels. Blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries) as it is pumped by the heart. The higher the pressure, the harder the heart must pump.

Table 1. Blood pressure guidelines.

<table>
<thead>
<tr>
<th>Blood Pressure</th>
<th>Systolic mm HG</th>
<th>Diastolic mm HG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>&lt;120</td>
<td>&lt;80</td>
</tr>
<tr>
<td>Elevated</td>
<td>120-129</td>
<td>&lt;80</td>
</tr>
<tr>
<td>High blood pressure-stage 1</td>
<td>130-139</td>
<td>80-89</td>
</tr>
<tr>
<td>High blood pressure-stage 2</td>
<td>&lt;=140</td>
<td>&lt;90</td>
</tr>
<tr>
<td>Hypertensive crisis</td>
<td>&lt;180</td>
<td>&lt;120</td>
</tr>
</tbody>
</table>

1.2 Types of Hypertension:
There are two primary hypertension types. For 95 percent of people with high blood pressure the cause of their hypertension is unknown; this is called essential or primary hypertension. When a cause can be found, the condition is called secondary hypertension.

1.2.1 Essential Hypertension:
This type of hypertension is diagnosed after a doctor notices that your blood pressure is high on three or more visits and eliminates all other causes of hypertension. Usually people with essential hypertension have no symptoms, but you may experience frequent headaches, tiredness, dizziness, or nosebleeds. Although the cause is unknown, researchers do know that obesity, smoking, alcohol, diet, and heredity all play a role in essential hypertension.

1.2.2 Secondary Hypertension:
The most common cause of secondary hypertension is an abnormality in the arteries supplying blood to the kidneys. Other causes include airway obstruction during sleep, diseases and tumors of the adrenal glands, hormone abnormalities, thyroid disease, and too much salt or alcohol in the diet. Drugs can cause secondary hypertension, including over-the-counter medications such as ibuprofen (Motrin, Advil, and others) and pseudoephedrine (Afrin, Sudafed, and others).

1.2.3 Additional Hypertension Types:
Isolated systolic hypertension, malignant hypertension, and resistant hypertension are all recognized hypertension types with specific diagnostic criteria.

1.3 Epidemiology:
High blood pressure (BP) is ranked as the third most important risk factor for attributable burden of disease in south Asia (2010). Hypertension (HTN) exerts a substantial public health burden on cardiovascular health status and healthcare systems in India. HTN is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease (CHD) deaths in India. According to the WHO 2008 estimates, the prevalence of raised BP in Indians was 32.5% (33.2% in men and 31.7% in women). However, only about 25.6% of treated patients had their BP under control, in a multicentre study from India on awareness, treatment, and adequacy of control of HTN.

1.4 Etiology:
Primary or essential hypertension: Diabetes mellitus, obesity, excessive alcohol intake, smoking, sodium retaining increased hormones and vasoconstrictors, increased SNS activity, stress, hereditary.
Secondary hypertension: Chronic renal diseases, endocrine disorders, sleep apnea, sodium retention.
Drugs causing hypertension: Nonsteroidal anti-inflammatory drugs, Corticosteroids, Oral contraceptives, Sympathomimetics, Erythropoietin, Cyclosporin.

1.5 Risk factors:
Age, overweight, obesity, Alcohol and tobacco use, men are more prone to hypertension at a younger age. Existing health conditions like Cardiovascular
disease, diabetes, chronic kidney disease, and high cholesterol levels can lead to hypertension, especially as people get older.

### 1.6 Pathophysiology:

![Pathophysiology of Hypertension](image)

### 1.7 Signs and Symptoms:

Severe headache, fatigue or confusion, vision problems, chest pain, difficulty breathing, irregular heartbeat, blood in the urine, pounding in your chest, neck, or ears.

### 1.8 Diagnosis:

Blood pressure measurement is done by a sphygmomanometer.

### 1.9 Non-pharmacological treatment:

Hypertension is one of the most common conditions encountered in primary care. Non-pharmacologic strategies have been shown to help lower blood pressure. Lifestyle modifications are recommended for all patients with hypertension. The American Heart Association/American College of Cardiology lifestyle management guidelines recommend dietary emphasis on vegetables, fruits, and whole grains; limiting sodium intake to less than 2,400 mg per day; and exercising three or four times per week for an average of 40 minutes per session. Other non-pharmacologic strategies include weight loss, tobacco cessation, decreased alcohol consumption, biofeedback, and self-measured blood pressure monitoring. For patients with obstructive sleep apnea, the use of continuous positive airway pressure has been shown to improve blood pressure.

### 1.10 Pharmacological treatment:

#### 1.10.1 Diuretics:

- **Thiazide diuretics:** Chlorothalidone, hydrochlorothiazide
- **Potassium-sparing diuretics:** Amiloride, hydrochlorothiazide, spironolactone, triamterene.

#### 1.10.2 Beta-blockers:

- Acebutolol, Atenolol, Bisoprolol fumarate,
- **Combination diuretics:** Amiloride + hydrochlorothiazide, spironolactone + hydrochlorothiazide, triamterene + hydrochlorothiazide.

### 1.10.3 Loop diuretic:

Furosemide

### 1.10.4 Thiazide diuretics:

Chlorothalidone, hydrochlorothiazide
Cartelohydrochloride, Metoprolol tartrate, Metoprolol succinate, Nadolol, Penbutololsulphate, Pindolol, Propranolol hydrochloride.

1.10.2.1 **Combination beta-blocker/diuretic:** Hydrochlorothiazide, bisoprolol
1.10.3 **ACEinhibitors:** Benazepril hydrochloride, Captopril, Enalapril maleate, Lisinopril, Perindopril, Ramipril, Trandolapril.
1.10.4 **AngiotensinIIreceptorblockers:** Candesartan, Eprosartanmesylate, Irbesartan, Losartan potassium, Telmisartan, Valsartan.
1.10.5 **Calciumchannelblockers:** Amlodipinebesylate, Bepridil, Diltiazemhydrochloride, Felodipine, Isradipine, Nifedipine, Nisoldipine, Verapamilhydrochloride.
1.10.6 **Alphabloccers:** Doxazosinmesylate, Prazosinhydrochloride, Terazosinhydrochloride.
1.10.7 **Alpha-2ReceptorAgonists:** Methyldopa.
1.10.8 **Combinedalphaandbeta-blockers:** Carvedilol, Labetalolhydrochloride.
1.10.9 **Centralagonists:** Alpha methyldopa, Clonidinehydrochloride, Guanabenz acetate, Guanfacine hydrochloride.
1.10.10 **Peripheraladrenergicinhibitors:** Guanadrel, Guanethidinemonosulfate, Reserpine.

1.11 **KAPQUESTIONNAIRE:**

**Introduction:** The KAP isrepresentativesurveycondductedonaparticularpopulationtoidentifytheknowledgetheknowledge(K),attitudes(A)andpractices(P)ofapopulation on a specific topic: Hypertension in our case. In the majority of KAP studies, data aregathered orally by an interviewer who uses a structured, standardized questionnaire. Thesedatacanthenbequantitativelyoryqueryanalyzedaccordingtotheobjectivesofthesurvey. AKAPsurveycanbespeciallydesignedtocollect informationontheissueof, butitis also, possible to include general questions on practices and beliefs.

The KAP survey can identify a lack of knowledge, operating procedures or cultural beliefs, thereby enhancing understanding and action targeting stumbling blocks in the reduction of hypertensive cases. In a way, this survey can highlight factors which influence HTN and also the reasons behind certain attitudes, reasons and methods behind certain practices relating to HTN. These networks are vital for the preparation and dissemination of prevention messages. KAP studies are used to identify needs and problems and can also provide solutions to improve the quality and accessibility of HTN.

1.11.1 **KNOWLEDGE:**

The knowledge questionnaire assess the knowledge and understanding of the patient regarding the hypertension in the patient was asked with the questions mentioned and the responses were recorded as a score if the patient gives correct answer or if the patient gives wrong answers scored as 0 and the percentage can be made at the end to know what percentage of the sample population had the correct knowledge regarding the disease.

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>QUESTIONS</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you know hypertension is a disease?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What is the normal level of blood pressure?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What are the symptoms of hypertension?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Is dietary salt causing hypertension?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>What are the complications of hypertension?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Is aging a risk factor for hypertension?</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Is blood pressure heritable?</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Is smoking a major cause of hypertension?</td>
<td></td>
</tr>
</tbody>
</table>
Is obesity associated with hypertension?

Is exercise having a beneficial role in hypertension?

Are analgesic drugs one of the risk factors for high blood pressure?

### Table 1.2 Knowledge Questionnaire

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>Questions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Should we reduce salt intake to prevent hypertension?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Do you think regular checking of your blood pressure levels is important?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Should we keep in touch with physicians regularly?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Do you think regular medication is important in hypertension?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Should we exercise regularly for a healthy life?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Do you think that excess alcohol can worsen the blood pressure level?</td>
<td></td>
</tr>
</tbody>
</table>

### 1.11.2 Attitude:
Attitude involves the assessment of the patient's understanding.

### Table 1.3 Attitude Questionnaire

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>Questions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Should we reduce salt intake to prevent hypertension?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Do you think regular checking of your blood pressure levels is important?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Should we keep in touch with physicians regularly?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Do you think regular medication is important in hypertension?</td>
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</tr>
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<td>5</td>
<td>Should we exercise regularly for a healthy life?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Do you think that excess alcohol can worsen the blood pressure level?</td>
<td></td>
</tr>
</tbody>
</table>

### 1.11.3 Practice:
Practice is the outcome/result of the counselling/knowledge imparted due to the KAP questionnaire to the patient.

### Table 1.4 Practice Questionnaire

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>Questions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you check your blood pressure regularly?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Do you visit your physician regularly?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Do you use your anti-hypertensive drugs according to physician order?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Are you doing physical exercise to maintain your weight?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Are you avoiding extra added salt in your daily diet?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Are you taking healthy diet?</td>
<td></td>
</tr>
</tbody>
</table>
II. AIM AND OBJECTIVES

2.1 Aim of the study:
To perform knowledge, attitude and practice on hypertensive patients at tertiary care hospital – Across sectional study.

2.2 Objective of the study:
1. To study the knowledge, attitude and practice about hypertension in hypertensive patients.
2. To describe the level of knowledge on the disease.
3. To assess and explain the knowledge, attitude and practice of risk factors in hypertensive patients.
4. To explain complications and management strategies of hypertension.
5. To provide information regarding hypertension to patients.
6. To find out the level of knowledge about control of blood pressure among the public.
7. The study was conducted by using KAP questionnaires on hypertension.

NEED OF THE STUDY
The prevalence of hypertension has an increasing trend globally. Often, problem of poor medication of anti-hypertensive patient is due to the poor knowledge, attitude and practice of the patient regarding their treatment and disease. The status of overall KAP on hypertension among anti-hypertensive users need improvement to reduce the burden. A proper educational intervention is essential to improve their practice. Our study also highlights the necessity to focus such intervention related to knowledge, attitude and practice-oriented intervention to all the patient groups, patient with a higher onset of hypertension might respond to the intervention better. As the patient with hypertension may have inadequate knowledge on the disease, it's complications and management strategies, health care providers need to deliver appropriate knowledge to patients with hypertension on control measures, adverse consequences of hypertension and management strategies. There is a need to investigate KAP among general population to aid in future development of programs and techniques for effective health education, KAP surveys are effective in improving baseline for evaluating intervention programmes. This study aims to assess the baseline levels of knowledge, attitude and practice of general population towards hypertension. In view of this, we selected this topic for the betterment of patient community and to create awareness among hypertensive patients.

EXPECTED OUTCOME
These studies improve patient care and safety in related to disease and use of medicines and promote understanding, education about hypertension and its effective communication to public. These studies maximize the efficiency of hypertension prevention. These studies act as control programs so that delay inachieving effective hypertension control in minimized countries experiencing recent emergence of disease as major problem. There are more opportunities existed for improving the information, education and communication about high blood pressure in health care. These studies increase the knowledge, awareness and control of hypertension and will reduce the mortality and morbidity. The healthcare providers should motivate and enable the patients to control their blood pressure by giving consistent advice on lifestyle modifications.

III. MATERIALS AND METHODS

3.1 Study site: This study was conducted at a tertiary care hospital. The patients who visited this hospital were taken into study.

3.2 Study design: A hospital-based cross-sectional study.

3.3 Study size: A total of 150 patients from the outpatient department of neurology. Those who fulfilled the inclusion criteria were selected for the study.

3.4 Study period: The study was conducted for a period of 6 months.

3.5 Study criteria: The study was carried out by considering the following criteria:

3.5.1 Inclusion criteria:
3.5.1.1 All the persons who have been diagnosed with hypertension regardless of whether they are taking anti-hypertensive medications or not.
3.5.1.2 Both genders are included.
3.5.1.3 Hypertensive patients who are willing to participate in the study.
3.5.1.4 Hypertensive patients who are with or without co-morbid conditions and who give
verbal consent to participate in the study.

3.5.2 Exclusion criteria:

3.5.2.1 Patients who are not fully alert or those who have psychological problems are excluded.
3.5.2.2 Pregnant and lactating women are excluded.
3.5.2.3 Patients who are not willing to participate in the study.

3.6 Ethical approval: This study was approved by the institutional ethics committee of Narasaraopeta institution of pharmaceutical sciences, Narasaraopet.

3.7 Source of data: The patient’s demographic data and various relevant necessary data were obtained every day from the medical records and relevant data of KAP questionnaires were documented.

3.8 Data handling and management: Data collection form is enclosed. MSExcel format will be used for collecting data. Strict privacy and confidentiality are maintained during data collection.

3.9 Study procedure: All the patients who attended the department of neurology were reviewed daily to collect KAP questionnaires. Those patients whom the study criteria a were enrolled into the study. A suitable data collection form was designed to collect all the necessary and relevant information.

The demographic details of the patient such as name, age, gender, locality, literacy, and other relevant details were collected by reviewing the case sheets and by interviewing the patients. Social histories of the patients were also taken by interviewing the patients. The patient’s knowledge, attitude, and practices regarding hypertension were assessed using these self-designed KAP questionnaires provided in the Review-1. In the Review-2, the same KAP questionnaire was taken from the patient.

3.10 Statistical analysis: Demographic characteristics, KAP scores are summarized using descriptive statistics. Frequencies, averages, means, medians, standard deviations and percentages were obtained using Graph pad prism statistical software.

IV. RESULTS

The present cross-sectional study was done at a tertiary care hospital for a period of 6 months. A total of 150 cases were collected and analyzed in hypertensive patients.

4.1 Gender-based distribution:

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. of persons</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>64</td>
<td>42.6%</td>
</tr>
<tr>
<td>Females</td>
<td>86</td>
<td>57.3%</td>
</tr>
</tbody>
</table>

Table 5.1 Gender-based distribution

The above table shows the gender-based distribution of patients. Among them, males were 42.6% (n=64) and females were 57.3% (n=86). Hypertension was mainly observed in females than males.

4.2 Age-based distribution:

4.3 Literacy-based distribution:

<table>
<thead>
<tr>
<th>Literacy status</th>
<th>No. of persons</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literate</td>
<td>50</td>
<td>33.3%</td>
</tr>
<tr>
<td>Illiterate</td>
<td>100</td>
<td>66.6%</td>
</tr>
</tbody>
</table>

Table 5.3 Literacy-based distribution
The above table indicates the literacy-based distribution of patients showing that illiterate people (66.6% (n=100)) are more than literate people (33.3% (n=50)).

### 4.4 Category-based distribution:

<table>
<thead>
<tr>
<th>Types of Hypertension</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systemic Hypertension</td>
<td>95.3%</td>
</tr>
<tr>
<td>Malignant Hypertension</td>
<td>3.3%</td>
</tr>
<tr>
<td>Pulmonary Hypertension</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Table 5.4 Category-based distribution.

The above table of the category-based distribution of hypertension shows that 95.3% of the population were having systemic related hypertension, 3.3% having malignant hypertension, and 1.3% having pulmonary hypertension.

Figure 5.4 Study of category-based distribution.

### 4.5 Duration of disease-based distribution:

<table>
<thead>
<tr>
<th>Duration of Disease</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>21.3%</td>
</tr>
<tr>
<td>1-5 years</td>
<td>44.6%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>24.6%</td>
</tr>
<tr>
<td>&gt;10 years</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

Table 5.5 Duration of disease-based distribution.
4.6 Level of overall KAP included subjects in review 1:

<table>
<thead>
<tr>
<th>Category</th>
<th>Knowledge (%)</th>
<th>Attitude (%)</th>
<th>Practice (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>32.5%</td>
<td>35.9%</td>
<td>39.2%</td>
</tr>
</tbody>
</table>

Table 5.9 Overall response to KAP in review 1.

The above table indicates the overall first review of KAP questionnaire reveals that patients are more aware with practice (39.2%) then attitude (35.9%) followed by knowledge (32.5%).

4.7 Level of overall KAP of included subjects in review 2:

<table>
<thead>
<tr>
<th>Category</th>
<th>Knowledge (%)</th>
<th>Attitude (%)</th>
<th>Practice (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>38.3%</td>
<td>39.3%</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

Table 5.13 Overall response to KAP in review 2.

The above table indicates the overall second review of the KAP questionnaire reveals that patients are more aware with practice (42.9%) then attitude (39.3%) followed by knowledge (38.8%).

4.8 Knowledge comparison of both review 1 & 2:

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 1</td>
<td>32.5%</td>
</tr>
<tr>
<td>Review 2</td>
<td>38.8%</td>
</tr>
</tbody>
</table>

Table 5.14 Knowledge comparison of both review 1 & 2.

Figure 5.13 Overall response to KAP in review 2.

Figure 5.5 Study of duration of disease-based distribution.
The table indicates the comparison of the first and second reviews for knowledge reveals that the results of the second KAP review was 38.8% and the first KAP review was 32.5%. In which the second review has a greater result percentage.

Figure 5.14 Knowledge comparison of review 1 & 2.

4.9 Attitude comparison of both review 1 & 2:

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 1</td>
<td>35.9%</td>
</tr>
<tr>
<td>Review 2</td>
<td>39.3%</td>
</tr>
</tbody>
</table>

Table 5.15 Attitude comparison of review 1 & 2.

The table indicates the comparison of review 1 & 2 for attitude shows that the results for first review was 35.9% and for second review was 39.3% in which the second review has greater result in percentage.

Figure 5.15 Attitude comparison of review 1 & 2.

4.10 Practice comparison of both review 1 & 2:

<table>
<thead>
<tr>
<th>Practice</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 1</td>
<td>39.2%</td>
</tr>
<tr>
<td>Review 2</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

Table 5.16 Practice comparison of review 1 & 2.

The table indicates the comparison of the first and second reviews for practice reveals that the results of the second KAP review was 42.9% and the first KAP review was 39.2%. In which the second review has greater result percentage.

Figure 5.16 Practice comparison of review 1 & 2.

V. DISCUSSION

Our study evaluated the knowledge, attitude, and practice of hypertensive patients. A total of 150 consulting patients participated in the study of the corresponding study site hospital. In this study, majority of patients are in the age group of 51-60 years (24.6%) and less likely in the age group of 81-90 years (5.3%).

Inclusion criteria were suitable for both male patients and female patients. Among 150 patients, the duration of disease based distribution is as follows: 1-5 years have higher duration of disease, >10 years have lower duration of disease.

Literacy based distribution, literate people are lower (33.3%) than illiterate people (66.6%). This study, KAP of patients were estimated by giving the scores to the patients in the pre-counselling and post-counselling sessions which were done in the hospital.

In the first review of knowledge, there was moderate knowledge. This condition was due to lack of awareness among patients, patient education, and counselling.
VI. CONCLUSION
The prevalence of hypertension has an increasing trend globally. First and foremost, we studied the knowledge, attitude, and practice in hypertensive patients - across sectional study. In this study a total 150 cases were collected, among 60 to 69 years age groups were higher and easily susceptible to hypertension and females were in large proportion.

In this study we validated the KAP Questionnaire, based on a self-prepared questionnaire which may be used to apply inoutpatientsandinpatients.KAPQuestionnairehasbeenshownntobeanexcellentpredictorofKnowledge, AttitudeandPracticeof hypertension. Many of these KAP studies were conducted earlier in hypertensive patients. Welsounderwent studientotest the hypothesis. westatet hat Knowledge was improved by 6%, Attitude was improved by 4%, Practice was improved by 3% from first review to second review.

In our study we found that there is a lack of knowledge and attitude compared to the practice. Recommendations of the study was that there is an urgent need for increasing awareness of hypertension. Combined educational and behavioural approach with continuous motivation increases drug compliance. Health professionals must educate hypertensive patients about their disease, their medications and the consequences of non-compliance with treatment.

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