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An Exploratory Analysis of Hypertension Awareness Among Patients with High Blood Pressure

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Abstract

Introduction: *Hypertension stands as a persistent health issue, significantly contributing to the development of coronary heart disease, stroke, and various other vascular conditions. As the most prevalent cardiovascular disorder, it represents a significant public health dilemma. According to the World Health Organization, hypertension is a leading cause of death, responsible for 20.5% of total global mortality. Hypertension is termed the "silent killer," as hypertension is often asymptomatic. It is the major risk factor for the main cause of death in the adult population worldwide. So, creating a safe and supportive environment and adapting the living situation to the needs of the person with hypertension disease is an important statement of the problem.* ***Objectives:*** *The objectives of this study are to evaluate the understanding of hypertension among patients with this condition in a chosen location in Guntur and to investigate any correlations between patients' knowledge levels about hypertension and various demographic factors.* ***Methodology****: This study utilized a descriptive approach, selecting participants through convenience sampling methods. Information was gathered from individuals diagnosed with hypertension living in Gullapalli. Data analysis consists of descriptive and inferential statistics.* ***Result****: The results revealed that out of 60 hypertensive patients, 22 (36.67%) had an inadequate level of knowledge, 24 (40%) had a moderate level of knowledge, and 14 (23.33%) had an adequate level of knowledge on hypertension. In demographic variables, education, family income, duration of suffering, sources of health information, and taking regular medication were significantly associated at* $p < 0.05$. ***Conclusion:*** *Even though hypertension is one of the most dangerous diseases, it can be controlled by a self-limiting condition where the individual has to follow regular health checkups, complete treatment, dietary changes, and lifestyle modification. Therefore, knowledge of hypertension among hypertensive patients plays a vital role in controlling and preventing further complications.*

Keywords: Hypertension, coronary heart disease, stroke, hypertensive patients, vascular conditions

INTRODUCTION

"Health" is one of those terms that most people find difficult to define, although they are confident of its meaning. Heath is the level of functional or metabolic efficiency of a living organism. In humans, resilience refers to the capacity of individuals or communities to adjust and independently cope with various challenges across physical, mental, or social aspects of life. The World Health Organization (WHO) has broadly characterized health as a condition of total physical, mental, and social well-being rather than simply the lack of disease or weakness [1, 2].

Hypertension is a chronic health issue of significant concern due to its involvement in the development of coronary heart disease, stroke, and additional vascular complications. It stands as one of the most prevalent cardiovascular disorders, presenting a substantial public health challenge to

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populations undergoing socioeconomic and epidemiological transitions. Furthermore, it is a leading cause of mortality, contributing to 20.5% of all deaths. Hypertension disease was the fifth leading cause of death in 2000, and it should be noted that the leading causes of death in cerebrovascular disease include stroke, heart failure, and ischemic heart disease. Hypertension is termed the "silent killer," as hypertension is often asymptomatic. It is the major risk factor for the main cause of death in the adult population worldwide.

Hypertension occurs when there is consistently high pressure in the arteries, which are the vessels that carry blood from the heart to the rest of the body. Each heartbeat sends blood through these vessels, and hypertension is identified when the systolic blood pressure exceeds 140 mm Hg or the diastolic pressure is over 90 mm Hg. Blood pressure categories include normal (systolic below 120 mm Hg and diastolic below 80 mm Hg), prehypertension (systolic between 120 and 139 mm Hg or diastolic between 80 and 89 mm Hg), stage 1 hypertension (systolic between 140 and 159 mm Hg or diastolic between 90 and 99 mm Hg), and stage 2 hypertension (systolic 160 mm Hg or higher, diastolic 100 mm Hg or higher) [3–5].

NEED FOR THE STUDY

Blood pressure trends shift with age, and the likelihood of developing hypertension is comparable between men and women over a lifetime. Nonetheless, individuals under 45 years tend to see higher rates of hypertension in men compared to women. Conversely, in those aged 65 and above, the prevalence of high blood pressure is greater in women than in men.

The optimal blood pressure target for maintaining good health is typically below 120 over 80 mm Hg, as it significantly reduces the risk of heart disease or stroke. The primary goal is to raise awareness about the importance of monitoring blood pressure, recognizing the seriousness of high blood pressure, and taking proactive measures to manage it. Early identification of hypertension and subsequent reduction of heart attack and stroke risks are considerably more cost-effective for individuals and governments than the expenses associated with later interventions such as heart surgery, stroke treatment, or dialysis that may become necessary if high blood pressure remains unchecked and unmanaged.

OBJECTIVES

- To assess the level of knowledge on hypertension among hypertensive patients.
- To find out the association between the level of knowledge on hypertension with related demographic variables.

LIMITATION

The study is limited to 60 patients in selected areas.

SAMPLING CRITERIA

Inclusion Criteria

- Having hypertension.
- Willing to participate in the study.
- Present at the time of data collection.
- Able to understand Telugu.

Exclusion Criteria

- Not present at the time of data collection.
- Not willing to participate in the study.
- Not able to understand Telugu.
- Mentally ill.

RESEARCH METHODOLOGY

Research Approach

The research approach of the study is the non-experimental survey approach.

Research Design

Considering the study's aims, the researcher opted for a "descriptive research design".

Setting of the Study

Gullapalli is 100 m away from our college. The total population was composed of males, females, and children.

Demographic Variables

The demographic variables consist of gender, age, education, marital status, types of family, religion, occupation, family income, habits, and medication.

Sample and Sampling Size

For this research, the participants consist of hypertensive individuals living in Gullapalli, Guntur. The researcher employed a non-probability convenient sampling method to select a sample size of 60 hypertensive patients.

DEVELOPMENT OF THE TOOL

The structured questionnaire was used for data collection and was comprised of Sections A and B.

*Section A***:** It ncluded demographic factors, such as age, gender, family structure, religious affiliation, marital status, level of education, occupation, and household income.

Section B: It consists of 30 multiple-choice questions. Each question has four responses, one of which is the correct answer and the remaining wrong. Each correct answer carries one mark, and the wrong answer carries zero marks. The total tool was prepared for 30 marks. A further tool is divided into the following headings.

- General information on hypertension.
- Causes of hypertension.
- Symptoms of hypertension.
- Treatment and management of hypertension.
- Complications of hypertension.

DATA ANALYSIS

Section I. Frequency and Percentage Distribution of Hypertensive Patients Revealed According to Various Demographic Factors

Frequency and percentage distribution of hypertensive patients are revealed according to various demographic factors such as age, gender, family structure, religious affiliation, marital status, level of education, occupation, household income, etc. (Figures 1 to 13)] (N = 60).

Section II. Association Between Knowledge of Hypertension Among the Hypertensive Patients with Their Selected Knowledge Score

Frequency and percentage distribution of hypertensive patients revealed that the majority of the hypertensive patients (40%) had moderate knowledge, (36.67%) of them had inadequate knowledge, (23.33%) of them had adequate knowledge, and the mean score was14.9 ± 5.52.

Section III: Association Between Knowledge of Hypertension Among the Hypertensive Patients with Their Selected Demographic Variables

There is a significant association between levels of knowledge about hypertension among hypertensive patients and their education (χ^2=39.35, df=6, $p < 0.05$), occupation (χ^2=7.00, df=8, p <

0.05), income (χ^2=41.63, df=10, $p < 0.05$), duration of suffering with hypertension (χ^2=10.05, df=4, $p < 0.05$), sources of information (χ^2=18.18, df=6, $p < 0.05$), and taking regular medication (χ^2=11.35, df=4, $p < 0.05$). Demographic variables such as gender, age, marital status, types of family, religion, food habits, and awareness of hypertensive management had no association with the level of knowledge among hypertensive patients.

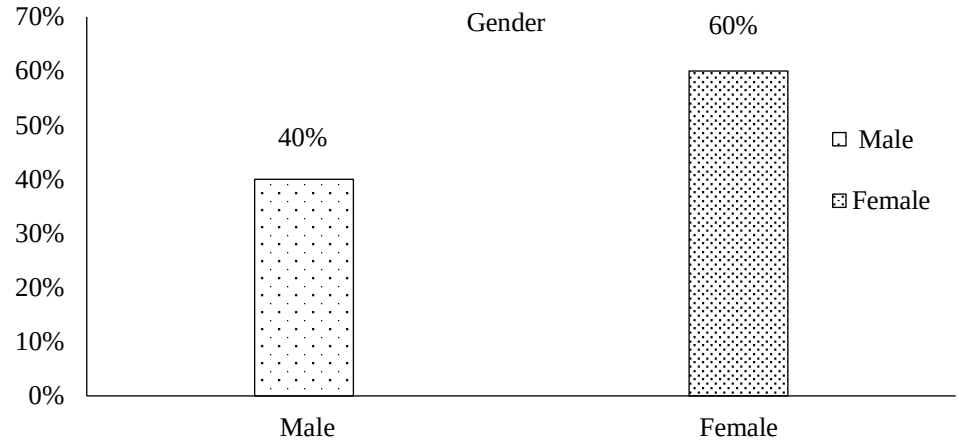

Figure 1. Percentage distribution of hypertensive patients according to gender (N = 60).

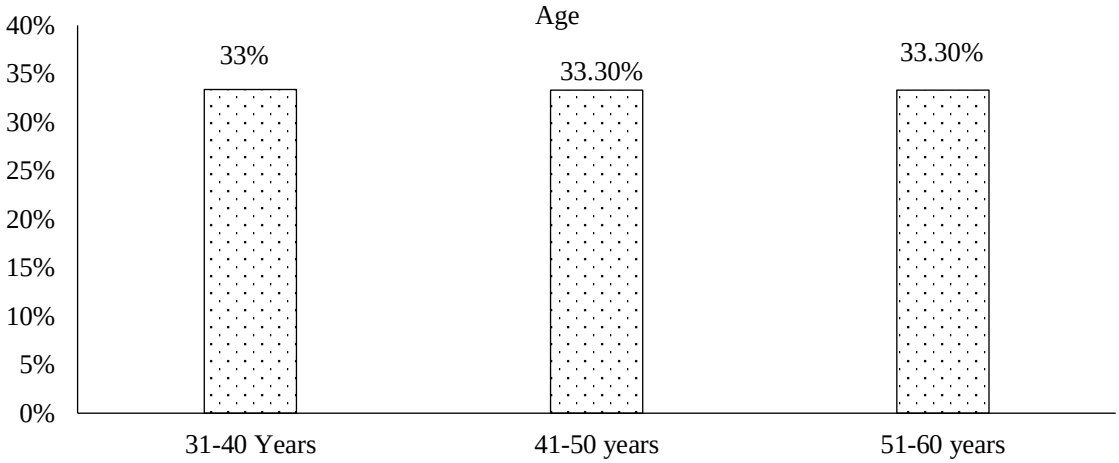

Figure 2. Percentage distribution of hypertension according to their age (in years) (N = 60).

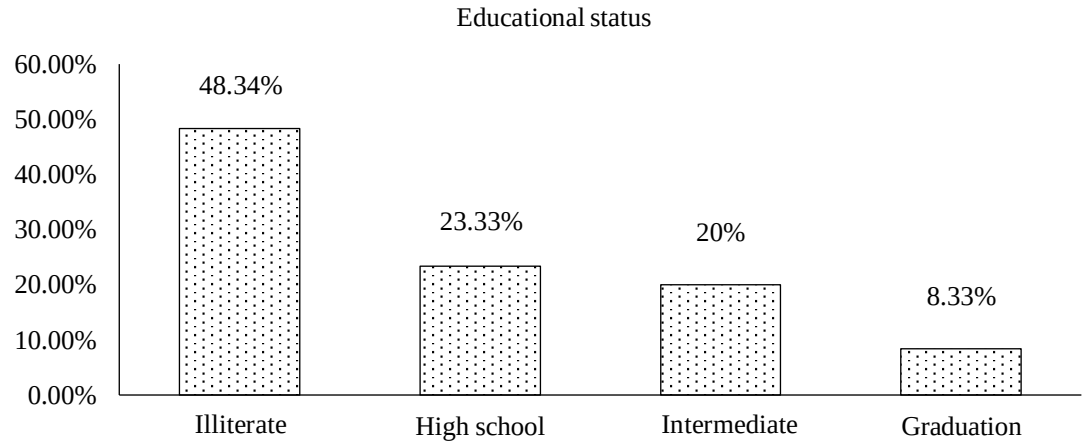

Figure 3. Percentage distribution of hypertensive patients according to educational status (N = 60).

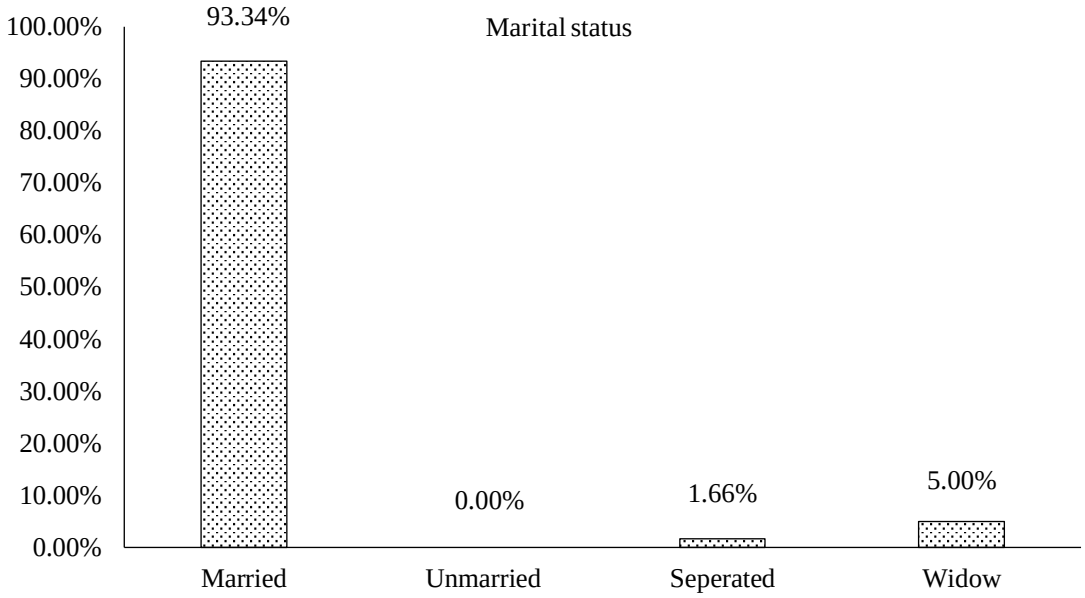

Figure 4. Percentage distribution of hypertensive patients according to their marital status (N = 60).

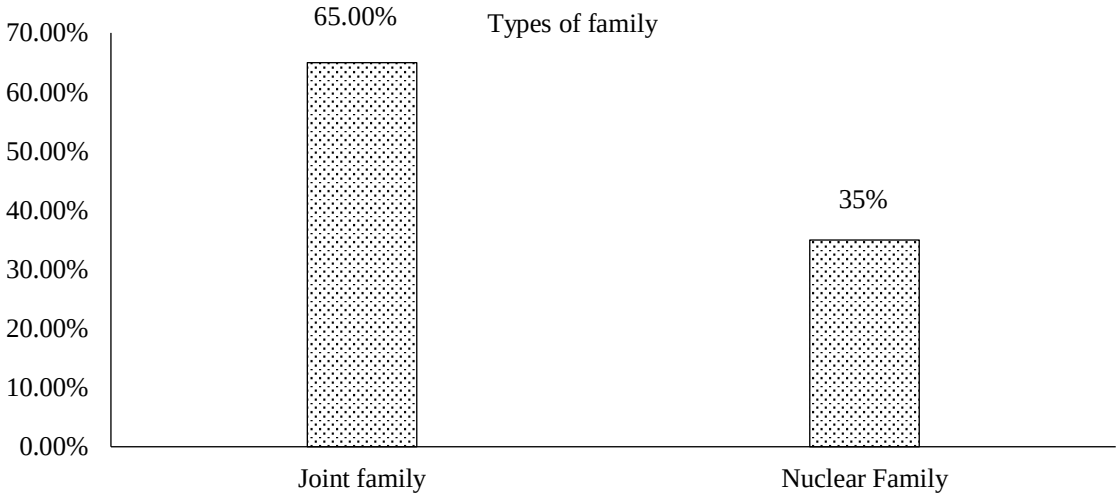

Figure 5. Percentage distribution of hypertensive patients according to their family type (N = 60).

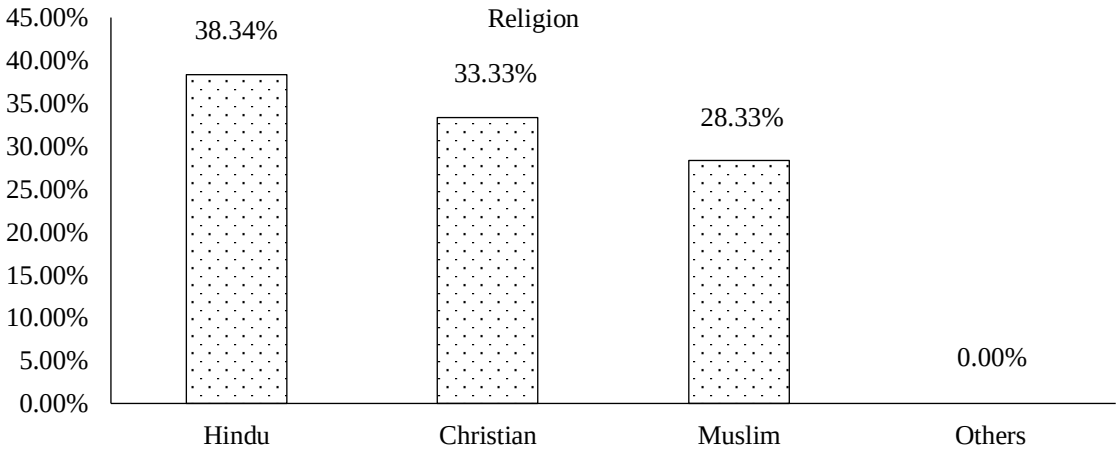

Figure 6. Percentage distribution of hypertensive patients according to their religion (N = 60).

Figure 7. Percentage distribution of hypertensive patients according to their occupation (N = 60).

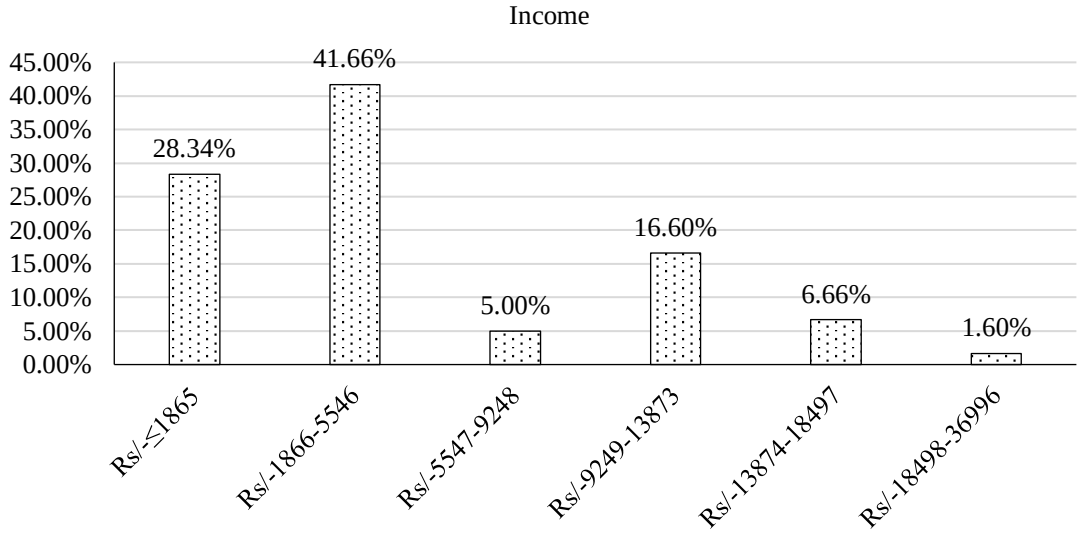

Figure 8. Percentage distribution of hypertensive patients according to their income (N = 60).

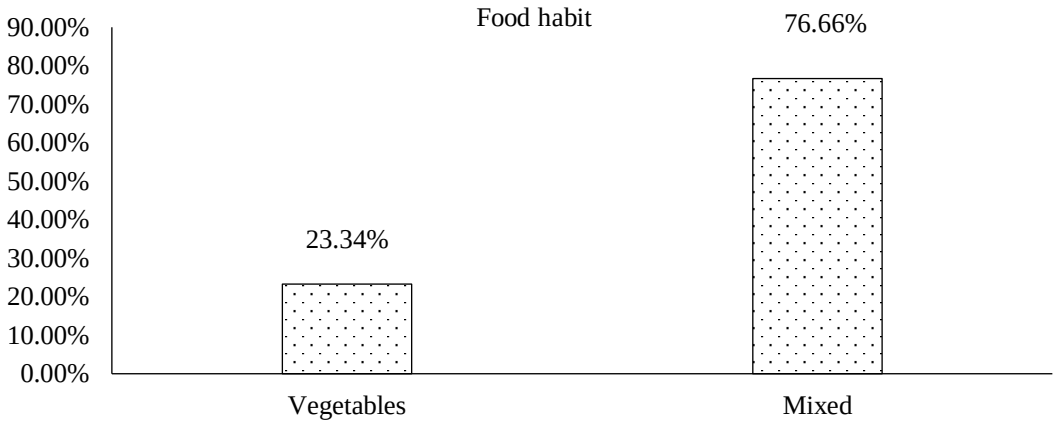

Figure 9. Percentage distribution of hypertensive patients according to their food habits (N = 60).

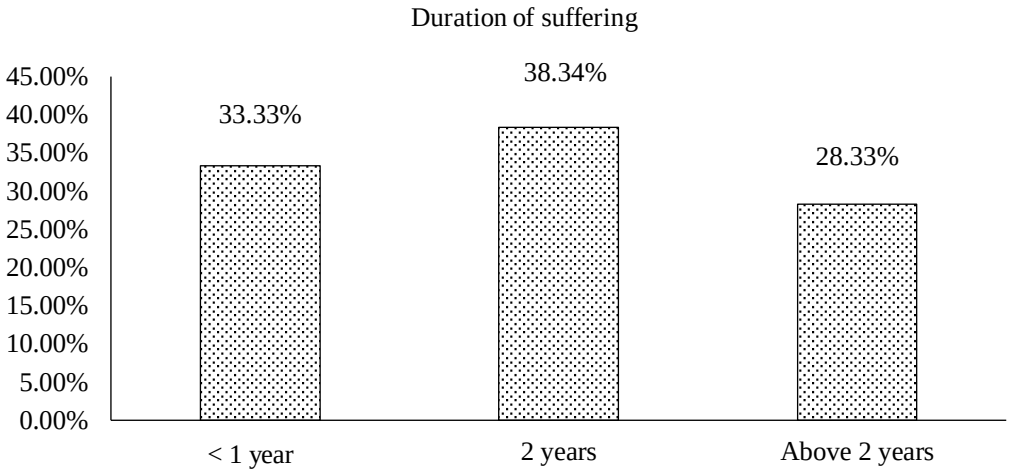

Figure 10. Percentage distribution of hypertensive patients according to their duration of suffering from hypertension (N = 60).

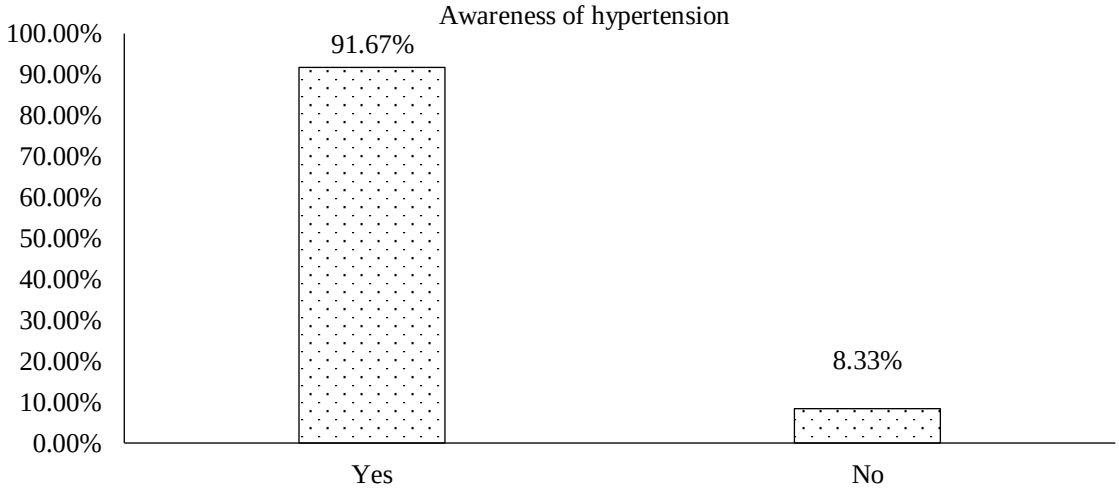

Figure 11. Percentage distribution of hypertensive patients according to their awareness of hypertension (N = 60).

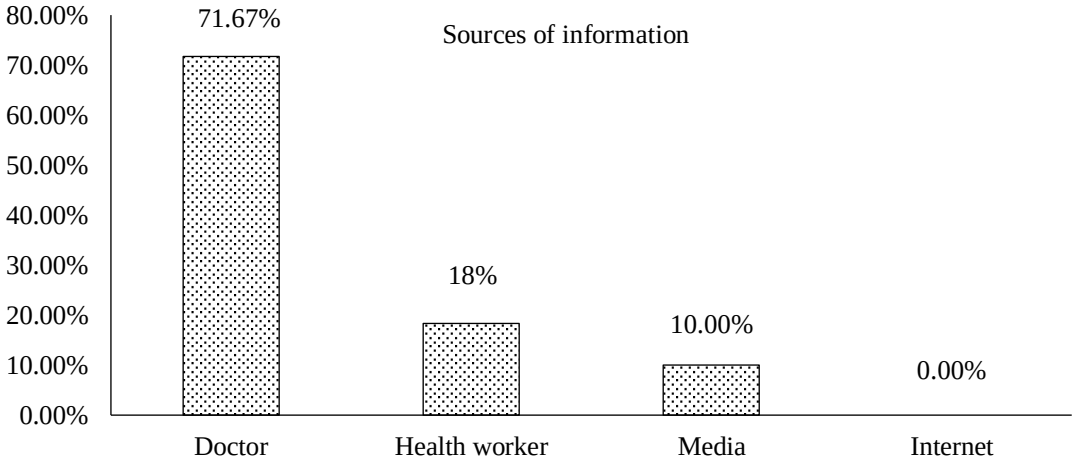

Figure 12. Percentage distribution of hypertensive patients according to their sources of information (N = 60).

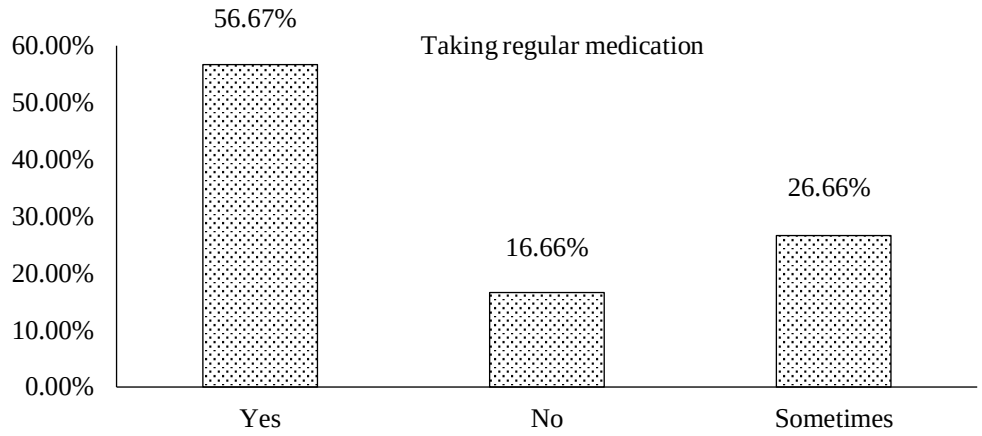

Figure 13. Percentage distribution of hypertensive patients according to their regular medication intake.

DISCUSSION

The first objective was to assess the level of knowledge on hypertension among hypertensive patients.

Data analysis revealed that the level of knowledge on hypertension among hypertensive patients among 60 samples, 22 (36.67%) were with an inadequate level of knowledge, 24 (40%) were with a moderate level of knowledge, and 14 (23.33%) were with an adequate level of knowledge. These findings align with research conducted by Bilal in 2015, examining hypertension awareness and self-care practices among cardiac hypertensive patients in Kathmandu, Nepal. The study found that 81.8% were unaware that hypertension is characterized by elevated blood pressure. Furthermore, 97.1% of participants did not know that the upper blood pressure number is called systolic pressure, and only 25% correctly identified the normal systolic pressure as below 140 mm Hg. Additionally, 7.4% of the patients reported consulting their doctor about hypertension once or twice monthly. Consequently, the hypothesis stating a significant level of hypertension knowledge among patients was not supported [6].

The second objective was to find out the association between the levels of knowledge of hypertension and related demographic variables.

Data analysis revealed that there was a significant association between level of knowledge on hypertensive patients with their education $\chi^2 = 39.35$, $p < 0.05$*, occupation $\chi^2 = 37.00$, $p < 0.05$*, income $\chi^2 = 41.63$, $p < 0.05$*, duration of suffering with hypertension $\chi^2 = 10.05$, $p < 0.05$*, sources of information, $\chi^2 = 18.18$, $p < 0.05$* and taking regular medication $\chi^2 = 11.36$, $p < 0.05$* and other variables such as gender, age, and hypertension management had no association among hypertensive.

Patients with their knowledge. This result was consistent with a study on the prevalence of hypertension among elderly patients and their knowledge of the control of hypertension in Zhejiang Hospital, Hangzhou, China. The sample was 200 elderly patients attending the medical ward. The prevalence of hypertension was 30.1%, among men 30.2%, and 28.1% were women. There was significant knowledge of management and control; 68% of patients had adequate knowledge. There were statistically significant associations with education $\chi = 14.24$ ($p < 0.05$), dietary food habits $\chi = 6.02$ ($p < 0.05$), socioeconomic conditions, $\chi = 19.10$ ($p < 0.05$) among elderly patients. As a result, hypothesis H2, which suggests a notable correlation between hypertension knowledge levels and specific demographic variables among hypertensive patients, was confirmed [7–10].

SUMMARY

A research design adopted for the study was a descriptive nonexperimental study to assess the level of knowledge on hypertension among hypertensive patients who were residing at Gullapalli, Guntur. The study employed the health promotion model as its conceptual framework. The research variable in the present study was knowledge of hypertension regarding causes, medical management, lifestyle and dietary pattern modification, and complications. A total of 60 samples were selected using a

nonprobability convenient sampling technique with inclusion and exclusion criteria. Data was collected by using a structured self-administer questionnaire, which was prepared by an investigator to assess the level of knowledge on hypertension. The instrument underwent validation by experts, and its reliability was assessed through the test–retest method. A pilot study was conducted over a period of 7 days, during which the tools were adjusted based on expert feedback. Formal approval was obtained from the Medical Officer of the Urban Health Center and the college principal. Data collection took place from June 2, 2016, to July 31, 2016, following an explanation of the study's purpose and procedures. Informed consent was obtained before data collection. Descriptive and inferential statistical methods were employed for data analysis.

IMPLICATION

The study's results carry significant implications for nursing education, practice, administration, and research, highlighting its crucial relevance in these areas.

Nursing Education

To provide effective nursing care in contemporary practice settings, nurses require a broad knowledge base. This knowledge base for nursing practice can be developed through nursing education, making aware of hypertension among hypertensive patients. The nursing curriculum needs to be strengthened to enable nursing students to understand the implications of health education among hypertensive patients.

Nursing Practice

It helps to bring healthcare reform in nursing to provide cost-effective care, to provide supportive lifestyle modifications and dietary patterns, and to be regular participants in physical exercise. In spite of knowing and having knowledge regarding hypertension, it is important that hypertensive patients should not neglect that theoretical knowledge is sufficient. As the proverb says, practice makes the man perfect, so student nurses should be given the opportunity and facilities to put into practice their theoretical knowledge.

Nursing Administration

Nursing leadership should begin developing policies and strategies aimed at educating hypertensive patients about their condition to enhance their understanding of hypertension. It should encourage the education department to be aware of medication, dietary management, and lifestyle modification as we are in a changing world. Today's needs are different than yesterday's. Being health personnel, we should know the knowledge and attitudes of the people and should be able to bring new interventions to our society. We need to have motivation and skill in nursing administration, and support should be provided for the success of such activities.

Nursing Research

The essence of support in research builds a body of knowledge in nursing as it is and involves the profession in India, where few research studies have been done. However, there is a need for an extension and to improve patient satisfaction. Further large-scale studies can be conducted in different settings.

Recommendations

Research is a never-ending process of acquiring knowledge that may evidence a result on its completion. To enhance our understanding of hypertensive patients' knowledge, the following approaches are recommended:

- Expanding the study with a larger participant pool to derive more definitive conclusions and apply them broadly.
- Conducting analogous research in varied environments and among different demographic groups to compare insights.

- Implementing longitudinal studies to observe the prevalence rates over an extended period.
- Developing educational programs, such as self-teaching modules on hypertension management, tailored for hypertensive individuals.
- Broadening the research scope to include participants from all age categories.
- Carrying out a cross-sectional analysis to evaluate the understanding of hypertension among individuals diagnosed with the condition.
- Comparing the level of hypertension awareness between individuals living in rural versus urban settings through comparative research.

Limitations

The researcher felt difficulty while collecting data due to a lack of cooperation from hypertensive patients, especially illiterate patients.

CONCLUSION

Based on the study's results, conclusions were drawn by categorizing the knowledge scores into adequate, moderate, and inadequate using a Likert scale. The analysis revealed that only 23.33% of the participants demonstrated adequate knowledge. Furthermore, the Chi-squared test indicated a significant association between knowledge levels and demographic variables. Overall, the study suggests a lack of awareness about hypertension among hypertensive patients.

REFERENCES

1. Dhar GM, Rabbani I. Foundations of Community Medicine. India: Elsevier; India. 2006.
2. Kamala G. Textbook of Community Health Nursing. Hyderabad: Florence Publishers; 2009. pp. 45–64.
3. Melanic MC Ewen, Bridgette C. A textbook of Community-based Nursing: An Introduction. 3rd edition. Missouri: Saunders Elsevier; 2009.
4. Seshu Babu VVR. A Textbook of Review in Community Medicine. 2nd edition. Hyderabad: Para's Medical Books; 2002.
5. Rao KS. An Introduction to Community Health Nursing. Revised edition. Chennai: KV Mathew for BI Publications Pvt. Ltd.; 1999.
6. Robin Poole, Oliver J Kennedy, Paul Roderick, Jonathan A Fallowfield, Peter C Hayes, Julie Parkes. Coffee consumption and health: umbrella review of meta-analyses of multiple health outcomes. BMJ. Nov 2017; 359: j5024. DOI: 10.1136/bmj. j5024.
7. Bishoy Wassef, Michelle Kohansieh, Amgad N Makaryus . Effects of energy drinks on the cardiovascular system. World Journal of Cardiology. Nov 2017; 9(11): 796–806. DOI: 10.4330/wjc. v9.i11.796.
8. Karen E Charlton, Krisela Steyn, Naomi S Levitt, Nasheeta Peer, Deborah Jonathan, Theresa Gogela, Katja Rossouw, Nomonde Gwebushe, Carl J Lombard. A food-based dietary strategy lower blood pressure in a low socio-economic setting. Public Health and Nutrition. Dec 2008; 11(12); 1397–1406. DOI: 10.1017/S136898000800342X.
9. M K Chhabra, A Lal, K K Sharma. Status of lifestyle modifications in hypertension. Journal of Indian Medical Association. Sep 2001; 99(9): 504–508.
10. Decio Mion Jr, Angela M G Pierin, Alberto P Bambirra, Jorge H Assunção, Juliana M Monteiro, Roberta Y Chinen, Roger B Coser, Vânia N Aikawa, Fernanda M Cação, Mariana Hausen, Marcelo F Vilibor, Nádia E Aikawa, Sérgio N Konno, Roger B Coser. Hypertension in employees of a University General Hospital. Revista do Hospital das Clinicas da Faculdade de Medicina da Universidade de Sao Paulo. Dec 2004; 59(6): 329–336. DOI: 10.1590/S0041-87812004000600004.

