
**EMPOWERING HEALTH: EXPLORING SELF-MANAGEMENT STRATEGIES IN
NEWLY DIAGNOSED HYPERTENSIVE INDIVIDUALS**

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ABSTRACT

Hypertension is the most common untreated disease worldwide. If left untreated, it can lead to severe complications, increasing the risk of heart disease, stroke, and premature death. Hypertension can be managed through self-care practices. The objectives of this study were to assess the knowledge and practices related to self-management among newly diagnosed hypertensive patients. Non-probability convenient sampling was adopted for the study. The study concluded that the majority (58%) of newly diagnosed hypertensive patients had inadequate knowledge, and 56% exhibited a minimum level of practice. These results can aid newly diagnosed hypertensive patients in understanding various aspects of hypertension self-management and in following up with appropriate care. It is the responsibility of nurses to foster understanding about the self-management of hypertension, thereby reducing further complications associated with hypertension.

Key words: hypertension, self-management, medical adherence, life style modification. Self-regulation

INTRODUCTION:

Hypertension, medically known as high blood pressure, occurs when blood exerts excessive force against the walls of blood vessels. This condition can lead to severe complications and elevate the risk of coronary artery disease, peripheral arterial disease, end-stage renal failure, stroke, and all-cause mortality. The prevalence of hypertension is 1.5-2.0 times higher in individuals with diabetes, and approximately one-third of hypertensive patients may later develop diabetes, increasing the overall risk and accelerating vascular complications.

Today, hypertension is one of the most common lifestyle diseases. One in three Indians has experienced high blood pressure, and even children can fall victim to it (Times of India, May 12, 2018). According to the World Health Organization, approximately 1.13 billion people worldwide have hypertension, with two-thirds residing in low and middle-income countries. In 2015, 1 in 4 men and 1 in 5 women had hypertension, yet fewer than 1 in 5 people with hypertension have their blood pressure under control.

Background of the study:

According to the Indian Council of Medical Research (2018), elevated blood pressure has emerged as the leading risk factor for morbidity and mortality in India. Hypertension is responsible for 10.8% of all deaths in the country, directly contributing to 29% of all strokes and 24% of coronary heart attacks.

In 2017, Tamil Nadu reported the highest number of hypertension cases (962,991), followed by Rajasthan (345,770) and Uttar Pradesh (310,256) for the period from January to December. Notably, the incidence of hypertension was 44% higher than the number of patients diagnosed with diabetes.

Estimates project a significant increase in the number of blood pressure patients in the country, expected to reach about 214 million by 2030, up from approximately 118 million in 2000. Experts suggest that the prevalence of high blood pressure varies, ranging from 20 to 40 percent in urban areas to 12 to 17 percent in rural areas in India. High blood pressure, or hypertension, contributes to the annual loss of nearly 1.5 million lives in South-East Asia, although a specific figure for India alone is not immediately available. Dr. Abhi at Fortis points out that the reasons behind the elevated levels of hypertension among urban populations.

Significance of the study:

Effective management of hypertension necessitates active engagement in self-care practices. Self-management involves patients actively participating in healthcare decisions and interventions, guided by professional caregivers through educational initiatives. Key components of self-management encompass medical adherence, lifestyle modification, self-regulation, and compliance with physician orders.

This study aims to elucidate the prevention of hypertension through self-management and focuses on enhancing awareness among newly diagnosed hypertensive patients. Hypertension poses a significant risk to those affected, requiring individuals to exercise self-discipline and preventive measures. The outpatient departments of the hospital witness approximately one hundred new cases of hypertension each month. Through clinic census observations, it is evident that newly diagnosed hypertensive patients often lack fundamental knowledge and exhibit inadequate practices related to hypertension. The study seeks to explore the knowledge and practices concerning self-management among individuals recently diagnosed with

hypertension. Additionally, the goal is to raise awareness and instill a sense of self-discipline among these patients concerning hypertension.

METHODOLOGY

The study employed a non-experimental research approach with a descriptive research design to evaluate the knowledge and practices related to self-management among newly diagnosed hypertensive patients. The sample comprised 100 patients recently diagnosed with hypertension, selected through non-probability convenient sampling. Inclusive criteria for the sample encompassed patients newly diagnosed within a one-year period, those willing to participate, and individuals capable of reading, writing, or understanding Tamil or English. Exclusive criteria excluded pilot study samples, mentally ill patients, those with co-morbid illnesses other than specified conditions (diabetes mellitus, hyperlipidemia, coronary heart disease, chronic kidney disease, and thyroid disease), and pregnant women.

Instruments

The instrument consists of three parts: Part I, Part II, and Part III.

Part I: Demographic Variables such as age, gender, religion, marital status, education, occupation, family income, dietary pattern, duration of illness, personal habits, family history and clinical variables include vital signs, height, weight, BMI, treatment type, and medications.

Part II: Knowledge Questionnaire: 20 items assessing the knowledge of newly diagnosed hypertensive patients on self-management. Each correct answer scores "one," while incorrect answers score "zero."

Part III: Practice Checklist: 20 items in a "Yes/No/Not Applicable" format assessing the practice of newly diagnosed hypertensive patients in self-management. A correct answer is scored "one," and an incorrect answer is scored "zero."

RESULTS

The analysis of the demographic and clinical variables of patients managing hypertension reveals several key findings. The majority of the sampled individuals fall within the age range of 50-59 (35%), with a relatively balanced distribution between male (59%) and female (41%) participants. Hinduism is the predominant religion (62%), and a significant proportion of the respondents are married (71%) and reside in urban areas (55%). Education-wise, a substantial number have completed secondary education (23%), and a considerable portion are employed in the private sector (24%). The most common dietary pattern among participants is non-vegetarian (89%). Smoking (12%), tobacco chewing (18%), and alcoholism (19%) are prevalent personal habits. Additionally, a notable percentage of participants have a family history of hypertension (20%) and are aware of their hypertensive condition (57%). The primary source of information about hypertension is health professionals (31%). The duration of the disease condition varies, with a significant portion having been diagnosed within the last 4-6 months (35%). The analysis of BMI scores among the participants revealed a diverse distribution, with 65% falling into the overweight category and 19% classified as obese. Notably, 12% were within the normal weight range, while 4% were classified as underweight. These findings highlight a substantial proportion of the population at risk of cardiovascular and

other obesity-related health issues. In terms of treatment preferences, the overwhelming majority (100%) of participants reported opting for allopathic treatment, while none chose alternative therapies such as AYUSH, Homeopathy, Siddha, or Ayurveda. This preference for allopathic treatment underscores the predominant reliance on conventional medical approaches for managing hypertension among the surveyed individuals.

The assessment of knowledge and practice levels among 100 newly diagnosed hypertensive patients revealed varying degrees of understanding and adherence. A majority of patients, 58%, exhibited an inadequate level of knowledge, while 27% demonstrated a moderate level, and 15% had an adequate understanding of hypertension. In terms of practice, a significant portion, 56%, displayed minimal adherence to recommended practices. Additionally, 34% showed an average level of practice, and a smaller proportion, 10%, exhibited good adherence to self-management practices. These findings emphasize the need for targeted educational interventions and support strategies to enhance both knowledge and practice levels among individuals newly diagnosed with hypertension.

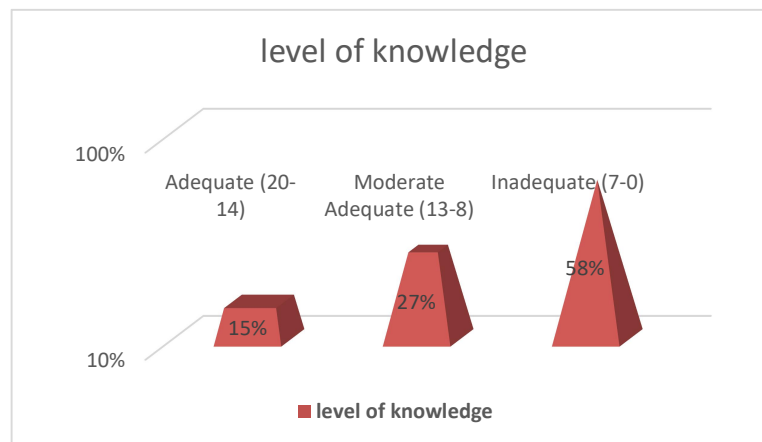


Figure 1: Percentage distribution of level of knowledge regarding self-management of hypertension newly diagnosed hypertensive

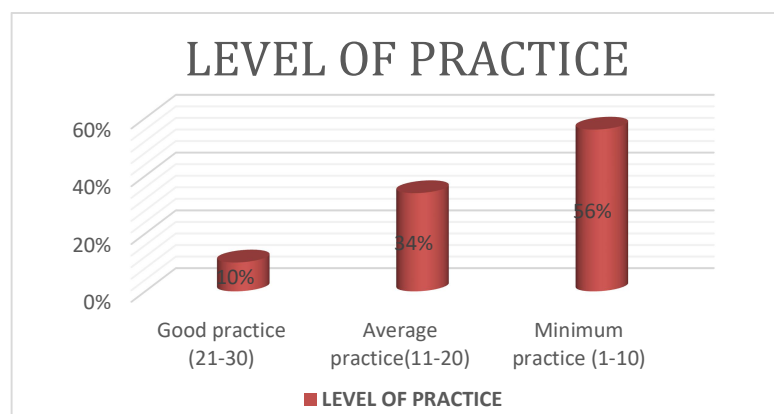


Figure 2: Percentage distribution of level of practice regarding self-management of hypertension newly diagnosed hypertensive

The item analysis for the level of practice regarding self-management of hypertension provides insightful findings. Notably, a significant portion of participants reported positive practices, such as regular intake of fruits and vegetables (28%), avoidance of high-cholesterol-rich diets (28%), and reduced salt consumption (51%). A considerable number engage in weight management practices, including taking small amounts of food per meal (25%) and checking weight regularly (34%). A substantial percentage also demonstrated commitment to exercise for weight control (42%) and attempted to quit alcohol and smoking habits (30%). Additionally, participants exhibited awareness of hypertension signs and symptoms, with 58% recognizing high blood pressure indicators and 40% identifying symptoms of low blood pressure. Regular monitoring of blood pressure (47%) and a proactive approach to seeking medical advice in response to changes in blood pressure levels (45%) were prevalent practices. The majority adhered to prescribed antihypertensive medications (59%) and sought clarification from healthcare professionals when in doubt (60%). However, it is worth noting that a notable proportion (38%) reported taking over-the-counter drugs, indicating potential areas for education and intervention..

The correlation analysis demonstrates a positive relationship (correlation score = 0.76) between knowledge and practice among newly diagnosed hypertensive patients. This suggests that there is a strong association between patients' understanding of self-management principles and their actual implementation of recommended practices. The positive correlation underscores the importance of focusing on patient education and awareness to effectively enhance both knowledge and practical application in the context of hypertension management. These findings provide valuable insights for healthcare professionals seeking to tailor interventions that address the interplay between knowledge acquisition and the implementation of self-management strategies in newly diagnosed hypertensive patients.

The assessment of the association between demographic variables and the level of knowledge regarding self-management of hypertension revealed several statistically significant findings. Age in years, gender, religion, marital status, area of residence, dietary pattern, history of personal habits, family history of disease condition, and the source of information about hypertension did not show statistically significant associations. However, family income demonstrated a statistically highly significant association with knowledge ($\chi^2=9.88354$, $df=6$, $p=0.1296$). In terms of the practice level regarding self-management of hypertension, age in years, gender, religion, marital status, occupation, family income, history of personal habits, family history of disease condition, awareness of hypertension, the source of information about hypertension, and duration of the disease condition did not show statistically significant associations. However, the clinical variable BMI score exhibited a statistically highly significant association with practice ($\chi^2=5.60344$, $df=6$, $p=0.456$). These findings highlight specific demographic and clinical factors that may influence knowledge and practice levels in individuals with newly diagnosed hypertension, providing valuable insights for targeted interventions and healthcare strategies.

DISCUSSION

The study findings underscore a concerning lack of awareness and suboptimal management of hypertension across diverse regions. Pirasanth et al.'s (2017) study in Northern Sri Lanka

revealed that while 69.9% of participants exhibited adequate knowledge about hypertension, a significant portion (40.5%) remained unaware of their condition. Forgetfulness and disruption of daily routines were prevalent reasons for poor drug compliance. Similarly, Shikha et al.'s (2017) community-based study in urban Varanasi, India, echoed these concerns, with only 38.4% of hypertensive individuals being aware of their condition, and a mere 35.08% achieving adequate blood pressure control.

Further insights were provided by Joseph et al.'s (2016) study in South India, highlighting that despite 54.4% of participants demonstrating average or good awareness, there was room for improvement. However, encouragingly, 78.7% exhibited good treatment compliance, and 72.4% achieved controlled blood pressure, emphasizing the potential impact of targeted interventions.

Wei and Omar's (2017) study in Malaysia shed light on the role of knowledge and perception in self-management, indicating that 81% of participants considered antihypertensive drugs crucial for blood pressure control. Caregivers played a significant role in managing hypertension, underlining the importance of a holistic approach.

Zhan et al.'s (2019) cross-sectional study in China added a global perspective, revealing that 67.1% of participants experienced poor blood pressure control. Self-management practices were identified as a significant factor in reducing the odds of poor control, emphasizing the potential effectiveness of individual and family self-management theories. These collective findings underscore the urgency of comprehensive interventions to enhance awareness, improve self-management practices, and achieve better hypertension control on a global scale.

CONCLUSION

In conclusion, this study sheds light on the knowledge and practices related to self-management among newly diagnosed hypertensive patients. The findings indicate a significant gap, with the majority (58%) exhibiting inadequate knowledge and 56% displaying a minimum level of practice in managing hypertension. These results underscore the urgent need for targeted interventions and educational initiatives to empower newly diagnosed hypertensive patients with the necessary information and skills for effective self-management.

The implications of this study are crucial in guiding healthcare professionals, particularly nurses, in their responsibility to foster understanding about hypertension self-management. By addressing this knowledge-practice gap, nurses can play a pivotal role in reducing further complications associated with hypertension. Empowering patients with the tools and knowledge to actively participate in their healthcare decisions is essential for long-term well-being.

Moving forward, healthcare providers should focus on developing tailored educational programs, emphasizing the importance of self-care practices and lifestyle modifications. These initiatives can contribute to improved patient outcomes, better disease management, and ultimately a reduction in the overall burden of hypertension-related complications. As healthcare continues to evolve, the role of nurses in patient education and support becomes increasingly vital in achieving optimal health outcomes for individuals diagnosed with hypertension.

CONFLICT OF INTEREST

Researcher does not have any Conflict of Interest

FUNDING SOURCES

Study was self-funded.

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