ASSESSMENT OF FACTORS AFFECTING SELF CARE AND BEHAVIORAL LIFESTYLE PRACTICES AMONG HYPERTENSIVE PATIENT ATTENDING UNIVERSITY OF BENIN TEACHING HOSPITAL

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OCTOBER, 2025

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IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF

BACHELOR OF NURSING SCIENCE (BNSc)

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OCTOBER, 2025

DECLARATION

This is to declare that this research project titled "**ASSESSMENT OF FACTORS AFFECTING SELF CARE AND BEHAVIORAL LIFESTYLE PRACTICES AMONG HYPERTENSIVE PATIENT ATTENDING UNIVERSITY OF BENIN TEACHING HOSPITAL**" was carried out by **NWEKW MARYANN ONYINYECHI.** It is solely the result of my work except where acknowledged as being derived from other person (s) or resources..

MATRICULATION NUMBER: _____

IN THE FACULTY/COLLEGE: NURSING SCIENCES, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY.

Signature: …….

Date: …….

CERTIFICATION/APPROVAL

This is to certify that this research project titled "**ASSESSMENT OF FACTORS AFFECTING SELF CARE AND BEHAVIORAL LIFESTYLE PRACTICES AMONG HYPERTENSIVE PATIENT ATTENDING UNIVERSITY OF BENIN TEACHING HOSPITAL**" was carried out by **NWEKW MARYANN ONYINYECHI** with matriculation number **BMS2001036,** Faculty of Nursing Sciences, University of Benin, Benin City under the supervision of **DR. (MRS) C. ENUKU.**

DR. (MRS) C. ENUKU

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Signature & Date

PROF. (MRS.) C.E. OMOROGBE

Head of Department of Medical Surgical Nursing _____

Signature & Date

_____

(External Examiner) **Sign & Date**

DEDICATION

This work is dedicated to GOD ALMIGHTY who is providing me with the strength to complete my academic journey.

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ABSTRACT

This study assessed factors affecting self-care and behavioral lifestyle practices among hypertensive patients, focusing on socio-demographic profiles, self-care practices, behavioral lifestyle patterns, and influencing factors. The increasing prevalence of hypertension highlights the need for effective management strategies emphasizing patient self-care and lifestyle modifications. A descriptive cross-sectional survey was conducted among 205 hypertensive patients selected through convenience sampling. Data were collected using a structured questionnaire and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive statistics and mean scores were utilized to evaluate self-care and behavioral lifestyle practices, while inferential statistics identified significant influencing factors. The study revealed that 79.5% of participants demonstrated good self-care practices, with high adherence to health monitoring (79.5%), dietary management (99%), and healthcare attendance (79.5%). However, mental health self-care and moderate-intensity physical activity showed lower adherence rates. Behavioral lifestyle assessment indicated positive practices in physical activity (98.5%), hydration (80.5%), and social engagement (97%), but challenges in stress management (98%) and sleep quality (95.1%). Financial constraints (97.1%), psychological factors (95.6%), and limited access to healthy food options (93.6%) were identified as primary barriers to optimal behavioral lifestyles. The findings highlight a generally positive engagement in self-care and behavioral practices among hypertensive patients, supported by health education and healthcare accessibility. However, notable gaps in mental health care, stress management, and sleep hygiene require targeted interventions. The study underscores the need for comprehensive hypertension management programs that address identified barriers. Interventions should include financial support mechanisms, improved mental health resources, stress reduction programs, and public health policies promoting food accessibility. Further research is recommended to evaluate long-term outcomes of lifestyle modifications and develop tailored interventions for specific demographic groups.

Keywords: Assessment, Factors, Self-care practice, Behavioral lifestyle.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Hypertension, commonly known as high blood pressure, is a widespread chronic illness affecting millions globally. It's a critical public health issue, significantly contributing to heart disease, stroke, and other serious health problems. The World Health Organization (WHO, 2022) reports over a billion individuals worldwide currently grapple with hypertension, a number projected to increase due to factors such as aging populations, urban living, unhealthy eating habits, and lack of physical activity. The WHO emphasizes hypertension's role as a leading cause of premature death globally, with statistics revealing that nearly one in four men and one in five women are living with this condition (WHO, 2021). Hypertension is a major contributor to cardiovascular diseases like stroke, heart attack, heart failure, and aneurysms (Khan, 2021). High blood pressure, or hypertension, is a persistent condition that necessitates ongoing care and observation. Generally, a blood pressure reading of 130/80 mm Hg or higher is considered hypertensive. The American College of Cardiology and the American Heart Association have categorized hypertension into four distinct stages.

Hypertension is associated with cardiovascular diseases, resulting in significant morbidity and mortality. Hypertension, as a long-term or chronic elevation of blood pressure, causes organ damage eventually. It can be divided into primary or essential hypertension, which occurs in 95% of cases, whereas secondary hypertension occurs in 5% of the cases. There are several possible and interrelated factors involved in the development of hypertension. Intake of sodium in diet, insulin resistance, genetics, and obesity are some of the non-modifiable risk factors for

hypertension. Hypertension is a silent killer, often presenting without any noticeable symptoms. According to the World Health Organization (WHO), an estimated 1.28 billion adults worldwide had hypertension in 2015, with an estimated 10.8 million deaths attributed to high blood pressure in 2019. The prevalence of hypertension varies across different regions and demographics, with higher rates observed in low- and middle-income countries like Nigeria (WHO, 20214; Okwudili et al., 2022). In Nigeria, a study by the Federal Ministry of Health reported a prevalence of hypertension among adults aged 18 years and older to be 31.8% in 2018, highlighting the significant public health burden associated with the condition (FMOH, 2022). While significant progress has been made in increasing awareness about hypertension, adherence to treatment and lifestyle modifications remains a challenge, posing a considerable threat to the health and well-being of individuals. According to the Nigerian National Non-Communicable Diseases Survey, the prevalence of hypertension in Nigeria is estimated at 27.9%, with higher rates reported in urban areas compared to rural settings (Federal Ministry of Health Nigeria, 2022). In response to this growing burden, healthcare facilities like the UBTH play a crucial role in providing care and management for hypertensive patients.

Effective hypertension management relies on a comprehensive approach that encompasses both medication and lifestyle modifications. While medications play a vital role in controlling blood pressure, research indicates that lifestyle interventions can significantly contribute to reducing blood pressure levels and improving cardiovascular health. These lifestyle modifications include adopting a DASH (Dietary Approaches to Stop Hypertension) diet rich in fruits, vegetables, and low-fat dairy products while limiting sodium intake. Engaging in regular physical activity, such as brisk walking, jogging, or swimming, helps lower blood pressure, improve cardiovascular health, and enhance overall well-being. Maintaining a healthy weight through diet and exercise is

essential for controlling blood pressure and reducing cardiovascular risk. Stress can significantly impact blood pressure levels. Effective stress management techniques like yoga, meditation, or relaxation exercises are recommended for managing stress and improving overall health. Smoking is a major risk factor for cardiovascular disease and significantly elevates blood pressure. Quitting smoking is crucial for improving heart health. Excessive alcohol consumption can raise blood pressure, increase cardiovascular risk, and negatively impact overall health.

Self-care practices and behavioral lifestyle modifications are fundamental components of hypertension management. These practices include adherence to prescribed medications, regular monitoring of blood pressure levels, dietary modifications, physical exercise, smoking cessation, alcohol moderation, stress management, and weight control (Wondmieneh et al., 2021). However, despite the known benefits of these self-care practices in controlling hypertension and reducing cardiovascular risks, many hypertensive patients struggle to maintain consistent adherence to these lifestyle changes. One important aspect of hypertension management is self-care, which involves adopting and maintaining healthy behaviors such as exercise, healthy eating, and medication adherence. Hypertension self-care behavior is important because it empowers individuals to take an active role in managing their condition and reducing their risk of complications (Irwan et al., 2022).

Despite the growing body of literature on hypertension management, several research gaps remain, particularly in the context of low- and middle-income countries like Nigeria. The existing research predominantly focuses on individual-level factors, while neglecting the influence of healthcare system factors and environmental determinants on self-care practices. This study aims to fill this gap by exploring the multifaceted factors influencing self-care and

behavioral lifestyle practices among hypertensive patients attending UBTH. By addressing the specific context of this tertiary hospital, the study will provide valuable insights into the challenges and opportunities for improving hypertension management within this setting.

1.2 Statement of Problem

Hypertension is a significant public health challenge (WHO, 2022) affecting about 1.39 billion individuals worldwide. The World Health Organization (WHO) classifies HPT as a silent killer because it often does not show any warning signs and symptoms. Nevertheless, when signs and symptoms occur, it manifests as headache, nosebleed, muscle weakness, dizziness, anxiety, palpitations and confusion. However, Africa is disproportionally affected by the burden of hypertension compared to other regions (WHO, 2024). The widespread of Hypertension among men and women in Africa is over 40% compared to 35% of both sexes in the Americas. Hypertension, or high blood pressure, is a significant public health concern globally, as it is a leading risk factor for various serious health complications. Despite advancements in medical treatments and increased awareness, many hypertensive patients continue to experience severe complications that adversely affect their quality of life and overall health outcomes. These complications include cardiovascular diseases, such as heart attack and stroke, kidney damage, vision loss, and cognitive decline.

One of the primary issues is that hypertension often remains asymptomatic until it reaches critical levels, leading to delayed diagnosis and treatment. The asymptomatic quality of systemic hypertension can delay diagnosis and prompt initiation of optimal therapies. As with many conditions, HTN increases with age, with its prevalence increasing from 27% in patients aged younger than 60 years to 74% in those aged older than 80 years (Oliveros et al 2021) This lack of

awareness can lead to the development of secondary complications, which may require more intensive medical interventions and significantly increase healthcare costs. Considering the various documented health complications associated with hypertensive patient, for example disorders of pregnancy (Garovic et al 2021), this study aims to explore the factors affecting self-care and behavioral lifestyle practices among hypertensive patient in University of Benin Teaching Hospital.

1.3 Objective of the Study

The main objectives of this study are to identify the factors influencing self-care practices among hypertensive patients and assess the behavioral lifestyle practices of hypertensive patients attending UBTH.

The specific objectives are:

1. To identify the self-care practices among Hypertensive patient attending University of Benin Teaching Hospital.
2. To determine the behavioral lifestyle among hypertensive patient attending the University of Benin Teaching Hospital.
3. To identify factors affecting behavioral lifestyle among Hypertensive patient attending the University of Benin Teaching Hospital

1.4 Research Questions

1. What are the self-care practices among hypertensive patients attending University of Benin Teaching Hospital?
2. What are the behavioral lifestyles among patient attending the University of Benin Teaching Hospital?

3. What are the factors affecting the behavioral lifestyle of patient attending the University of Benin Teaching Hospital?

1.5 Research Hypothesis

1. There is no relationship between the self-care practices among Hypertensive patient and the behavioral lifestyle among hypertensive patient attending the University of Benin Teaching Hospital

1.6 Significance of study

This study aims to raise awareness among healthcare providers, patients, and the general community about the complications and challenges faced by hypertensive patients attending the University of Benin Teaching Hospital (UBTH). The findings will provide crucial insights into the health risks associated with hypertension, including its potential complications such as cardiovascular diseases, stroke, kidney failure, and vision loss. The awareness created through this research will educate hypertensive patients on the importance of regular monitoring and management of their condition. It will highlight the significance of adhering to prescribed medication regimens and lifestyle modifications to mitigate the risk of serious health complications. By understanding the potential challenges associated with hypertension, patients can be better equipped to manage their condition effectively and seek timely medical intervention when necessary.

It will also address common misconceptions and cultural beliefs surrounding hypertension and its management. By dispelling myths and providing accurate information, we aim to empower patients to make informed decisions regarding their health. The research findings will serve as a valuable reference for healthcare professionals, enabling them to develop targeted educational

programs that address the specific needs of hypertensive patients.

Furthermore, the results of this study will contribute to the development of preventive strategies aimed at reducing the incidence of hypertension-related complications. These strategies may include community health initiatives, workshops, and support groups that focus on lifestyle changes, dietary modifications, and stress management techniques. The knowledge gained from this research will fill a gap in the literature regarding this topic. It will also serve as a baseline for future studies aimed at exploring further aspects of hypertension management and its impact on patient quality of life.

1.7 Scope of Study

This study will focus on self-care practices among hypertensive patient attending University of Benin Teaching Hospital (UBTH), Edo State, Nigeria. It is concerned with the factors affecting self-care practices and patient adherence to the behavioral lifestyle practices prescribed to them.

1.8 Operational Definition of Terms

Self-care practice: Self-care practices refer to the intentional activities and behaviors that individuals engage in to maintain and improve their physical, mental, and emotional well-being. These practices can include a wide range of activities, such as maintaining a balanced diet, exercising regularly, and managing stress through relaxation techniques, getting adequate sleep, and seeking medical care when necessary

Behavioral Lifestyle: Behavioral lifestyle refers to the patterns of behavior and habits that characterize an individual's daily life and choices, particularly in relation to health and wellness. This includes dietary choices, physical activity levels, smoking and alcohol consumption, sleep habits, and stress management.

Hypertensive Patients: Individuals diagnosed with hypertension, a chronic medical condition characterized by elevated blood pressure levels, requiring ongoing medical management, lifestyle adjustments, and regular monitoring to prevent complications such as heart disease, stroke, and kidney problems.

Factors Affecting: Various influences, circumstances, or variables that can impact the self-care practices and lifestyle behaviors of hypertensive patients, including but not limited to socio-economic status, cultural beliefs, access to healthcare services, social support, knowledge about hypertension, and individual motivation

CHAPTER TWO

LITERATURE REVIEW

This chapter provides an overview of the literature related to the study. This was discussed under the following subheading; conceptual review, theoretical framework, empirical studies and summary of reviewed of literature

2.1 Conceptual Review

2.1.1 Concept of Hypertension: A Silent Killer

Hypertension or High blood pressure, often called the "silent killer," can go unnoticed for a long time, as it often doesn't cause any symptoms. Despite its potential danger, hypertension is relatively easy to detect and can typically be managed with a healthy lifestyle, regular exercise, and sometimes, medication prescribed by a healthcare professional. However, left untreated, hypertension can lead to serious health complications The World Health Organization (2024) reported a significant rise in hypertension cases worldwide, with the largest increase occurring in low- and middle-income countries. Between 1975 and 2015, the number of adults with hypertension climbed from 594 million to 1.13 billion.

High blood pressure, or hypertension, occurs when the force of blood against the walls of the arteries consistently remains elevated. This persistent pressure puts extra strain on the heart, as it must work harder to pump blood throughout the body (WHO, 2021). The heart's pumping action creates pressure within the blood vessels, and while this pressure fluctuates naturally based on activity levels, prolonged periods of abnormally high pressure in the main arteries can lead to hypertension (Mills et al., 2021). Hypertension (high blood pressure) can harm small blood vessels, including arteries and arterioles, leading to damage in organs such as the kidneys, brain,

and eyes (Khan, 2021). This damage can contribute to severe kidney disease (end-stage renal disease) and stroke (Ajzen, 2021). Hypertension alters the structure of blood vessels, affecting the inner lining (endothelium), middle layer (media), and outer layer (adventitia). Specifically, changes in the media cause the vessel walls to remodel (Blumenthal et al., 2021). Individuals with hypertension often experience premature death, with heart disease being the leading cause (Khan, 2021). Stroke and kidney failure are also common, especially in those with significant eye damage (Hussen et al., 2021). High blood pressure, a critical health concern, significantly elevates the likelihood of developing heart, brain, kidney, and other illnesses. It is a leading cause of premature deaths globally, affecting over a billion individuals, including more than one in four men and one in five women (WHO, 2021). Notably, the impact of hypertension is felt most severely in low- and middle-income countries, where two-thirds of cases occur, likely attributed to an increase in risk factors among these populations in recent years.

High blood pressure is typically diagnosed using a sphygmomanometer, a device consisting of an inflatable cuff, a pump, and a mercury column or digital readout indicating pressure. Electronic blood pressure monitors are also commonly used. Readings are generally expressed in millimeters of mercury (mmHg). While a single reading can be informative, particularly when extremely high (above 170-180/105-110), a diagnosis of hypertension is not usually based on a solitary measurement. High blood pressure (hypertension) is broadly categorized into two types: primary and secondary hypertension. Primary hypertension, also known as essential hypertension, is the most common form, accounting for 95% of cases. While the exact cause remains unknown, contributing factors like age, excessive salt intake, low potassium diet, lack of physical activity, stress, and genetic predisposition have been identified. Secondary hypertension, in contrast, develops as a consequence of another medical condition or a side effect of medication (Okwudili

et al., 2022). It is less common, affecting around 5-10% of individuals. Conditions like kidney failure (renal failure) or narrowing of blood vessels in the kidneys (renal vascular disease) can trigger secondary hypertension.

2.1.2 Primary Hypertension

Primary hypertension, also known as essential hypertension, is a condition characterized by consistently elevated blood pressure without an identifiable underlying cause. It is the most common form of hypertension, accounting for about 90-95% of all hypertension cases (WHO, 2021). It is a heterogeneous disorder as different patients have different factors that cause high blood pressure. The cause of essential hypertension is still unknown, but it is considered the sum of interactions between genetic and multiple environmental factors (Ghimire et al., 2021). Factors contributing to hypertension include lifestyle choices such as obesity, excessive alcohol consumption, high salt intake, and a sedentary lifestyle (Okwudili et al., 2022). Other factors can include insulin resistance, low potassium levels, aging, stress, and inadequate calcium intake. Inherited factors, or genetic predisposition to high blood pressure, also contribute to the development of the condition (Byrd et al., 2021). The exact mechanisms behind primary hypertension are complex and not fully understood, but several factors contribute to its development, such as genetic, environmental, and physiological factors (Ajzen, 2021). Various genes involved in the development of hypertension can cause inherited blood pressure issues, and the influences of these genes have been demonstrated by family studies that showed high blood pressure is associated among siblings and between parents and children (Akinniran et al., 2023). Several risk factors, such as age, diet, physical inactivity, smoking, alcohol consumption, stress, and obesity, increase the likelihood of developing primary hypertension (Negesa et al., 2021).

2.1.3 Secondary Hypertension

Secondary hypertension is high blood pressure that results from an identifiable underlying condition or disease. Unlike primary (essential) hypertension, which has no clear cause, secondary hypertension can often be traced back to specific medical issues, making it potentially reversible if the underlying cause is treated (Ajzen, 2021). Secondary hypertension can be caused by medical conditions such as renal parenchymal disease, renal artery stenosis, hyperaldosteronism, or pheochromocytoma. Temporary high blood pressure can also be caused by medications such as corticosteroids, nonsteroidal anti-inflammatory drugs (NSAIDs), cold medicines, and birth control pills (Okwudili et al., 2022). Usage of NSAIDs increases blood pressure and can interfere with antihypertensive treatment, abolishing its effect (Horne et al., 2021). Cold medicines such as pseudoephedrine hydrochloride, used for upper respiratory decongestion, may elevate blood pressure in hypertensive patients (Khan, 2021). Intake of birth control pills contributes to an increase in blood pressure, particularly in women over 35 years old who are overweight and smokers (Wakjira et al., 2021).

Secondary hypertension can also arise from various medical conditions, each affecting the body's ability to regulate blood pressure (Ghimire et al., 2021). Key causes include impaired kidney function, which can lead to fluid retention and increased blood volume, raising blood pressure (Negesa et al., 2021). Narrowing of the arteries supplying the kidneys can reduce blood flow, prompting the kidneys to release hormones that increase blood pressure (Xie et al., 2021). Secondary hypertension may not present with specific symptoms; however, symptoms related to the underlying condition may be observed. Common signs include headaches, dizziness, blurred vision, nosebleeds, chest pain, and shortness of breath (Alali et al., 2021). In severe cases,

secondary hypertension can lead to hypertensive emergencies characterized by symptoms such as severe headache, confusion, visual disturbances, and chest pain (Blumenthal et al., 2021).

Secondary hypertension is a significant medical condition that arises from identifiable causes, making it crucial for healthcare providers to recognize and address these underlying issues effectively. Early diagnosis and appropriate management can lead to improved outcomes and potentially reversible hypertension. Individuals experiencing high blood pressure should seek medical evaluation to determine whether secondary causes are contributing to their condition (Seravalle et al 2021)

2.1.4 Self-care practices in hypertension Management

Self-care practices in hypertension management refers to the active role patients play in managing their condition. Hypertension disease presents a challenge to patients, as they are expected to institute measures at home to ensure effective self-care and management practices. Patients with hypertension perform diverse activities that can be described as self-care activities for effective disease management (Salim et al, 2021). Self-care is described as individual actions directed toward self or the environment to regulate individual functioning to improve health, reduce risk, and avoid related complications, as well as ensure general well-being Self-care practices empower individuals to take charge of their health and well-being. For those with hypertension, effective self-care can lead to lower blood pressure readings, reduced risk of complications associated with hypertension, improved overall health and quality of life.

Managing hypertension through self-care means taking an active role in controlling high blood pressure. This involves making lifestyle changes to reduce blood pressure and minimize the risk of serious complications like stroke, heart attack, and other cardiovascular problems. By

embracing self-care practices, individuals with hypertension can take charge of their health and reduce their risk of serious health issues. Self-care practices that enhances and help individual control their blood pressure and improve their overall health include:

Diet Modification

Dietary changes are a fundamental pillar of self-care for managing hypertension. By making conscious food choices, you can significantly impact blood pressure levels and improve overall health. Here's a breakdown of self-care practices focused on diet for hypertension management:

The DASH Diet: DASH (Dietary Approaches to Stop Hypertension) is a proven and effective dietary approach. It emphasizes eating fruits and vegetables due to their richness in potassium, magnesium, and fiber, which help regulate blood pressure (Wakjira et al., 2021). Aim for at least 4-5 servings of each per day. Whole grains provide fiber and complex carbohydrates, contributing to heart health. Aim for 6-8 servings per day (e.g., brown rice, quinoa, whole wheat bread). Incorporate sources of lean protein such as poultry, fish, beans, lentils, and nuts while limiting red meat. Opt for low-fat or fat-free dairy products to provide calcium and vitamin D without excess saturated fat.

Limit Saturated and Unsaturated Fat: Salt (sodium) increases blood pressure; aim for less than 2300 mg per day (Ajzen, 2021).

Reduce Sodium Intake: High sodium intake is linked to elevated blood pressure (Alali et al., 2021). Strategies to reduce sodium include: reading labels and looking for low-sodium or no-salt-added versions of canned and packaged foods, limiting processed foods, packaged meals, and restaurant meals because they are often high in sodium, and preparing meals from scratch to control the amount of salt added. Flavor foods with herbs, spices, lemon juice, or vinegar instead

of salt.

Limit Saturated and Trans Fat: Reducing unhealthy fats can improve heart health. Use unsaturated fats such as olive oil, avocado oil, and nuts while limiting saturated fats found in fatty cuts of meat and full-fat dairy. Steer clear of partially hydrogenated oils commonly found in processed foods (Goudarzi et al., 2021).

Increase Potassium-Rich Foods

Potassium helps counterbalance sodium's effects on blood pressure. Foods high in potassium include:

Fruits: Bananas, oranges, apricots, and avocados.

Vegetables: Spinach, sweet potatoes, potatoes, and tomatoes.

Legumes: Beans, lentils, and peas (Wondmieneh et al., 2021).

Regular Physical Activity

Regular aerobic exercise can lower high blood pressure by about 5 to 8 mm Hg. It's important to keep exercising to prevent blood pressure from rising again. As a general goal, aim for at least 30 minutes of moderate physical activity every day. Exercise can help prevent elevated blood pressure from progressing to hypertension. For those who already have hypertension, regular physical activity can bring blood pressure down to safer levels. Examples of aerobic exercise that can help lower blood pressure include walking, jogging, cycling, swimming, and dancing. High-intensity interval training, which involves mixing short bursts of intense activity with bouts of lighter activity, is also beneficial.

Weight Management

Blood pressure often increases as weight increases. Being overweight can lead to disrupted breathing during sleep, known as sleep apnea, which further raises blood pressure. Weight loss is one of the most effective ways to control blood pressure; losing even a small amount of weight can help lower it. Generally, blood pressure may decrease by about 1 mm Hg for each kilogram (approximately 2.2 pounds) lost. Waist size is also important; carrying excess weight around the waist can increase the risk of high blood pressure. Specifically:

Men are at risk if their waist measurement exceeds 40 inches (102 centimeters).

Women are at risk if their waist measurement exceeds 35 inches (89 centimeters) (Gelaw et al., 2021).

Smoking Cessation

Addressing smoking is crucial for managing hypertension. Smoking significantly raises blood pressure and damages blood vessels, making it harder for the heart to pump blood effectively. Quitting smoking is one of the most impactful steps one can take to improve cardiovascular health and manage hypertension. Research from the American Heart Association indicates that smoking cessation not only lowers blood pressure but also reduces the risk of heart disease and stroke. The harmful effects of smoking on blood pressure are well-documented, and quitting can lead to immediate benefits for heart health.

Regular Monitoring of Blood Pressure

Regular checkups for monitoring blood pressure play a crucial role in managing hypertension effectively. These checkups help in tracking blood pressure levels, evaluating the impact of

treatment plans, and making informed decisions to maintain optimal blood pressure control (American Heart Association, 2021). Consistent monitoring allows healthcare providers to detect any fluctuations or trends in blood pressure, enabling early intervention if needed. By staying proactive with regular checkups, individuals can empower themselves to take charge of their health and make necessary adjustments to lifestyle or medication under medical guidance. Ensuring that individuals attend these checkups as recommended by a healthcare provider is a proactive step towards managing hypertension and reducing the risk of associated complications.

Limiting Excessive Alcohol Intake

Managing and limiting excessive alcohol intake is crucial for overall health and well-being. By being mindful of alcohol consumption and setting limits, individuals can reduce the risk of various health issues, including hypertension (Wondmieneh et al., 2021). Research from reputable sources like the American Heart Association stresses the importance of managing alcohol intake to maintain good health (American Heart Association, 2021). By setting boundaries and making informed choices about alcohol consumption, individuals can protect their heart health and lower the risk of hypertension and related complications. Incorporating strategies to limit excessive alcohol consumption, such as setting personal limits and seeking support if needed, can significantly impact health positively (Gelaw et al., 2021).

Stress Management

Stress can temporarily raise blood pressure. Practicing stress-reducing techniques such as deep breathing exercises, yoga, meditation, or spending time in nature can be beneficial. Seeking professional help if needed for stress management is also advisable.

Stay Hydrated

Drinking plenty of water and aiming for adequate hydration throughout the day—typically around 8 cups or more depending on activity level—is important. Water helps flush out sodium and keeps the body hydrated. Limiting sugary drinks such as sodas and juices can help prevent weight gain and increase blood pressure.

Medication Adherence

Taking any prescribed medications as directed by the healthcare provider is essential. Individuals should not stop or change medications without consulting their healthcare provider first (American Heart Association, 2021).

Effective management of hypertension requires a comprehensive approach that includes self-care practices focused on lifestyle modifications. By adopting healthy eating habits, engaging in regular physical activity, managing stress, monitoring blood pressure, adhering to prescribed medications, and maintaining regular healthcare appointments, individuals can take control of their hypertension and improve their overall quality of life (Wondmieneh et al., 2021).

2.1.5 Factors Influencing Self-care practices

The effectiveness of self-care practices depends on various factors that can be broadly categorized into individual, social, and healthcare system-related influences:

2.1.5.1 Individual Factors

Knowledge and Awareness

Understanding Hypertension: Knowledge about what hypertension is, how it develops, and its potential complications (such as heart disease, stroke, and kidney damage) is essential. Individuals who are informed about the seriousness of their condition are more likely to engage

in self-care practices (Wondmieneh et al., 2021).

Awareness of Symptoms: Recognizing symptoms of high blood pressure or related complications can prompt individuals to seek medical attention promptly. This awareness can also motivate individuals to adhere to lifestyle modifications and treatment regimens.

Importance of Self-Care: Awareness of the benefits of self-care practices such as medication adherence, dietary changes (like reducing salt intake), regular exercise, and routine blood pressure monitoring can empower individuals to take proactive steps in managing their hypertension (American Heart Association, 2021).

Health Literacy

Reading and Comprehension Skills: Health literacy encompasses the ability to read and understand medical instructions, prescription labels, and educational materials about hypertension. Low health literacy can lead to misunderstandings about medication dosages or dietary recommendations (Wondmieneh et al., 2021).

Navigating Healthcare Systems: Individuals with higher health literacy are better equipped to navigate the healthcare system, including making appointments, understanding insurance coverage, and accessing necessary resources for managing their condition.

Utilization of Resources: Those with strong health literacy skills are more likely to seek out and utilize educational resources, such as brochures, websites, or support groups, which can enhance their knowledge and management of hypertension (Wondmieneh et al., 2021).

Motivation and Attitude

Intrinsic vs. Extrinsic Motivation: Intrinsic motivation (personal desire to be healthy) often leads to more sustainable self-care practices than extrinsic motivation (external pressures or

rewards). Individuals who find personal meaning in managing their health are more likely to remain committed to self-care (American Heart Association, 2021).

Positive Attitude towards Health: A positive mindset can foster resilience and persistence in the face of challenges associated with managing hypertension. Individuals who view self-care as a pathway to a healthier life are more likely to engage in consistent practices.

Goal Setting: Motivation can be enhanced by setting achievable health goals, such as losing weight, lowering blood pressure readings, or incorporating regular physical activity. Tracking progress towards these goals can reinforce motivation (Wondmieneh et al., 2021).

Psychological Factors

Impact of Stress: Chronic stress can lead to unhealthy coping mechanisms (e.g., overeating, smoking, or alcohol use), which can exacerbate hypertension. Effective stress management techniques (such as mindfulness, meditation, or exercise) can improve overall health and encourage healthier behaviors.

Mental Health Disorders: Conditions such as anxiety and depression can diminish motivation and energy levels, making it difficult for individuals to adhere to self-care practices. Addressing these mental health issues through therapy or medication can improve self-management of hypertension (Wondmieneh et al., 2021).

Support for Mental Well-being: Individuals who prioritize their mental health and seek support when needed are often better equipped to manage their physical health conditions. This might include counseling, support groups, or stress-reduction programs (American Heart Association, 2021).

Cognitive Function

Memory and Attention: Cognitive impairments can hinder an individual's ability to remember medication schedules, dietary restrictions, or follow-up appointments. Strategies such as using pill organizers, setting reminders on phones, or keeping a daily log can help mitigate these challenges.

Decision-Making Abilities: Cognitive function impacts an individual's ability to make informed decisions regarding their health. Those with impaired cognitive abilities may struggle with understanding treatment options or the consequences of non-adherence.

Learning Capacity: Cognitive impairments can affect how well individuals learn about their condition and self-care practices. Tailoring education methods (e.g., using visual aids or simplified language) can enhance understanding for those with cognitive challenges (Ajzen, 2021).

2.1.5.2 Social Factors

Support Systems

Emotional Support: Family and friends can provide encouragement, motivation, and emotional reassurance, which can be crucial for individuals managing chronic conditions like hypertension. Emotional support can help reduce feelings of isolation, anxiety, or depression, which may otherwise hinder self-care efforts (Blumenthal et al., 2021).

Practical Assistance: Support systems can also offer practical help, such as accompanying individuals to medical appointments, assisting with grocery shopping for healthy foods, or participating in physical activities together. This type of assistance can make it easier to adhere to dietary and exercise recommendations.

Peer Support Groups: Community support groups or online forums can provide a sense of belonging and shared experience. Connecting with others who face similar challenges can facilitate the exchange of tips, coping strategies, and success stories, reinforcing positive behaviors and commitment to self-care (Horne et al., 2021).

Role Modeling: Family members or friends who prioritize their health can serve as positive role models. Observing others successfully managing their health can inspire individuals to adopt similar self-care practices (Ghimire et al., 2021).

Cultural Beliefs

Perceptions of Health and Illness: Cultural beliefs shape how individuals view health, illness, and the healthcare system. In some cultures, there may be a strong emphasis on traditional remedies or holistic approaches, which can influence the acceptance of conventional medical treatments for hypertension.

Stigma and Shame: Certain cultures may carry stigma associated with chronic illnesses or mental health issues, leading individuals to avoid seeking help or discussing their condition openly. This stigma can prevent individuals from accessing necessary resources or support for managing their hypertension.

Health Practices and Dietary Habits: Cultural attitudes towards diet and lifestyle can significantly impact self-care practices. For instance, traditional diets may be high in sodium or unhealthy fats, which can complicate hypertension management. Awareness and adaptation of cultural practices to align with health recommendations are essential for effective self-care.

Communication Styles: Cultural norms regarding communication can affect how individuals discuss their health with family members or healthcare providers. Some cultures may value indirect communication or may be less likely to question authority figures, impacting the quality of healthcare interactions (Valenzuela et al., 2021).

Social Norms

Peer Influence: The behaviors and attitudes of peers can strongly influence individual choices regarding health management. If an individual's social circle prioritizes healthy eating and regular exercise, they are more likely to adopt similar habits (Horne et al., 2021).

Normalization of Health Behaviors: In communities where healthy lifestyle choices (such as regular physical activity or low-sodium diets) are the norm, individuals may feel more compelled to engage in these behaviors themselves. Conversely, if unhealthy behaviors (like smoking or excessive drinking) are prevalent, individuals may struggle to maintain healthy practices (Valenzuela et al., 2021).

Shared Experiences: Social norms surrounding chronic illness management can shape how individuals approach their condition. For example, if discussing hypertension is normalized within a community, individuals may feel more comfortable seeking help and sharing their experiences, leading to better self-management.

Social Media Influence: In today's digital age, social media plays a significant role in shaping perceptions and behaviors. Online communities can promote positive health behaviors or perpetuate misinformation. Individuals may look to social media for trends in diet and exercise, which can influence their self-care practices.

2.1.5.3 Healthcare Systemic Factors

Access to Healthcare

Availability of Services: Access to healthcare encompasses not only the physical availability of healthcare facilities but also the range of services offered, including preventive care, diagnostic testing, and treatment options. For individuals with hypertension, regular check-ups are essential for monitoring blood pressure and making necessary adjustments to treatment plans.

Geographic Barriers: Individuals living in rural or underserved urban areas may face significant challenges in accessing healthcare services. Long distances to clinics or hospitals can deter regular visits, leading to poor management of hypertension. Telehealth services can help bridge this gap but may not be universally available or accepted (Mills et al., 2021).

Appointment Availability: The ability to schedule timely appointments with healthcare providers is critical. Long wait times for appointments can lead to delayed care, resulting in worsened health outcomes. Systems that prioritize timely access can improve self-care by ensuring patients receive regular monitoring and support (Akinniran et al., 2023).

Insurance Coverage: Health insurance significantly affects access to healthcare services. Individuals without insurance or with limited coverage may struggle to afford necessary medications, routine check-ups, or specialist consultations, hindering their ability to manage hypertension effectively.

Healthcare Provider Support

Quality of Communication: Effective communication between patients and healthcare providers is fundamental for successful self-care. Providers who take the time to explain medical

concepts clearly, listen to patient concerns, and encourage questions foster a collaborative relationship that enhances patient engagement.

Patient Education: Healthcare providers play a crucial role in educating patients about hypertension, including its causes, consequences, and management strategies. Comprehensive education empowers patients to make informed decisions about their health and encourages adherence to prescribed treatment plans.

Motivational Support: Providers who offer encouragement and positive reinforcement can significantly impact a patient's motivation to engage in self-care practices. A supportive approach can help individuals feel valued and understood, increasing their commitment to managing their condition (Gelaw et al., 2021).

Follow-Up Care: Regular follow-up from healthcare providers is essential for monitoring progress and making necessary adjustments to treatment plans. Consistent check-ins can help identify barriers to adherence and provide opportunities for additional support and resources.

Economic Factors

Cost of Medications: The financial burden of medications can be a significant barrier to effective hypertension management. High out-of-pocket costs may lead individuals to skip doses or discontinue medications altogether, resulting in poor blood pressure control and increased health risks.

Access to Healthy Foods: Economic constraints can limit access to healthy food options, particularly in low-income neighborhoods where fresh produce may be scarce. A diet high in

sodium, unhealthy fats, and processed foods can exacerbate hypertension, making it essential for individuals to have access to affordable, nutritious options.

Transportation Costs: The cost of transportation to healthcare appointments can be a barrier for many individuals. Those without reliable transportation may miss appointments or avoid seeking care altogether due to the associated costs, further complicating their ability to manage hypertension effectively (Hussen et al., 2021).

Employment and Income Stability: Job security and income levels directly impact an individual's ability to prioritize health. Those facing financial instability may prioritize immediate needs over long-term health management, leading to neglect of self-care practices.

Health Policies

Public Health Initiatives: National and local health policies that promote awareness and education about hypertension can lead to improved self-care practices. Campaigns aimed at raising awareness about the importance of blood pressure monitoring and lifestyle modifications can empower individuals to take charge of their health (Ajzen, 2021).

Access to Preventive Services: Policies that ensure access to preventive healthcare services, such as screenings and vaccinations, are vital for early detection and management of hypertension. Programs that subsidize or provide free access to these services can enhance community health outcomes (WHO, 2022).

Community Resources: Health policies that support the development of community resources, such as nutrition programs, exercise classes, and support groups, can provide individuals with the

tools they need for effective self-management. Community engagement initiatives can help build networks of support that promote healthy behaviors (Alali et al., 2021).

Insurance Reforms: Policies aimed at expanding insurance coverage and reducing out-of-pocket costs for medications and services can significantly improve access to care for individuals with hypertension. Comprehensive insurance reforms can alleviate financial burdens and enhance adherence to treatment plans.

2.1.6 The Importance of Self-care Practices and Behavioral Lifestyle Changes at UBTH

Self-care practices and behavioral lifestyle changes are crucial for managing health conditions, including hypertension, and can significantly impact patient outcomes at the University of Benin Teaching Hospital (UBTH).

Improved Health Outcomes

- **Blood Pressure Management:** Regular self-care practices, such as monitoring blood pressure, adhering to prescribed medications, and maintaining a healthy lifestyle, can lead to better control of hypertension. This reduces the risk of complications like heart disease, stroke, and kidney failure.
- **Chronic Disease Prevention:** Engaging in self-care and lifestyle modifications can help prevent the onset of other chronic diseases, such as diabetes and obesity, which often coexist with hypertension.

Patient Empowerment

- **Increased Knowledge:** Educating patients about their condition and the importance of self-care practices empowers them to take control of their health. This knowledge enables informed decision-making regarding lifestyle changes.
- **Self-Management Skills:** Teaching patients' skills for self-monitoring (e.g., tracking blood pressure readings, recognizing symptoms) fosters independence and confidence in managing their health (Hussen et al., 2021).

Behavioral Change Support

- **Structured Programs:** UBTH can implement structured programs that encourage behavioral changes through workshops, support groups, and counseling services (Valenzuela et al., 2021). These programs can focus on nutrition, physical activity, stress management, and smoking cessation.
- **Motivational Support:** Providing patients with access to healthcare professionals who offer guidance and motivation can enhance adherence to lifestyle changes (Irwan et al., 2022). Regular follow-ups and encouragement can help patients stay committed to their goals.

Holistic Health Approach

- **Mental Well-being:** Self-care practices often include stress reduction techniques such as mindfulness, yoga, or meditation, which are important for mental health (Khan, 2021). Managing stress is essential for individuals with hypertension, as stress can contribute to elevated blood pressure levels.

- **Social Support Networks:** Encouraging patients to engage in community support groups fosters social connections that can provide emotional support and shared experiences, making it easier for individuals to stick to lifestyle changes (Ghimire et al., 2021).

Cost-Effectiveness

- **Reduced Healthcare Costs:** By managing hypertension effectively through self-care and lifestyle changes, patients may experience fewer hospitalizations and medical interventions, leading to lower healthcare costs for both patients and the hospital (Melaku et al., 2022).
- **Resource Optimization:** Encouraging self-care helps healthcare providers focus on more complex cases while empowering patients to manage their conditions effectively at home (Mills et al., 2021).

Cultural Relevance

Tailored Interventions: UBTH can develop culturally relevant self-care practices that resonate with the local population's beliefs and lifestyles. This increases the likelihood of patient engagement and adherence to recommended changes (Ajzen, 2021).

Community Engagement: Involving local leaders and community organizations in promoting self-care can enhance awareness and acceptance of health initiatives (Horne et al., 2021).

Integration into Healthcare Services

Collaborative Care Models: Integrating self-care education into routine healthcare services at UBTH ensures that patients receive consistent messaging about the importance of lifestyle changes from all healthcare providers.

Patient-Centered Care: Emphasizing self-care aligns with patient-centered care principles, where patients are active participants in their health management rather than passive recipients of care.

Management of Hypertension

1. **Medications:** Common Classes of Antihypertensive Medications
    - **Diuretics:** Help the body eliminate excess sodium and water (e.g., Hydrochlorothiazide).
    - **ACE Inhibitors:** Help relax blood vessels (e.g., Lisinopril) (Blumenthal et al., 2021).
    - **Angiotensin II Receptor Blockers (ARBs):** Also relax blood vessels (e.g., Losartan).
    - **Calcium Channel Blockers:** Reduce heart rate and relax blood vessels (e.g., Amlodipine) (Khan, 2021).
2. **Exercise:** Engage in regular exercise for at least 150 minutes of moderate-intensity aerobic exercise weekly (e.g., brisk walking, cycling). A strength-training routine should be added, including muscle-strengthening activities on two or more days a week.

3. **Dietary Management:** The DASH Diet should be adopted as the Dietary Approaches to Stop Hypertension (DASH) diet, which emphasizes the use of:
    - Fruits
    - Vegetables
    - Whole grains
    - Lean proteins (e.g., fish, poultry)
    - Low-fat dairy.
4. **Lifestyle Modifications:**
    - **Reduce Sodium Intake:** Aim for less than 2,300 mg of sodium per day; ideally, limit to 1,500 mg for better control (Mills et al., 2021).
    - **Limit Alcohol Consumption:** Drink in moderation; up to one drink per day for women and two for men (Goudarzi et al., 2021).
    - **Maintain a Healthy Weight:** Achieve and maintain a body mass index (BMI) within the normal range (18.5-24.9) (Negesa et al., 2021).
    - **Weight Loss:** Losing as little as 5-10% of body weight can significantly lower blood pressure.

2.2 Theoretical Review

This study employs the Health Belief Model (HBM) as a framework to understand the factors influencing self-care practices and lifestyle changes among hypertensive patients. The HBM is a psychological model that seeks to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. It posits that an individual's health-related behavior is

primarily influenced by their perceptions of the severity of a health issue, their susceptibility to that issue, the benefits of taking action, and the barriers to taking that action.

The core constructs of the HBM include perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. These elements collectively shape an individual's motivation to engage in health-promoting behaviors. In the context of hypertension management, understanding these constructs can provide insights into why some patients adhere to self-care practices while others do not.

Perceived Susceptibility refers to an individual's belief about their risk of developing complications from hypertension. Hypertensive patients who recognize their vulnerability to serious health issues such as heart disease or stroke may be more likely to adopt proactive self-care measures, including dietary changes, regular exercise, and medication adherence. **Perceived Severity** relates to the seriousness of hypertension and its potential complications. If patients view hypertension as a critical condition with severe consequences, they may be more inclined to engage in self-care practices. This perception can be influenced by personal experiences or knowledge of others who have suffered from hypertension-related complications.

Perceived Benefits encompass the positive outcomes that individuals believe will result from engaging in self-care behaviors. For hypertensive patients, these benefits might include improved health, reduced medication dependence, and enhanced quality of life. When patients are aware of these benefits, they may be more motivated to make necessary lifestyle changes.

Perceived Barriers are the obstacles that patients perceive as hindering their ability to perform self-care practices. Common barriers for hypertensive patients may include financial constraints,

lack of access to healthy foods, limited time for exercise, or insufficient knowledge about managing their condition. Addressing these barriers through education and support can facilitate better self-care practices.

Cues to Action serve as triggers that prompt individuals to engage in health-promoting behaviors. These cues can come from various sources, such as healthcare providers' recommendations, educational materials, or reminders from family members. For hypertensive patients, regular follow-ups with healthcare professionals can act as significant cues to reinforce the importance of self-care practices.

Self-Efficacy refers to an individual's confidence in their ability to perform specific behaviors. In the context of hypertension management, a higher level of self-efficacy can lead to greater adherence to dietary recommendations and exercise regimens. Patients who believe in their capacity to manage their condition are more likely to engage in positive lifestyle changes.

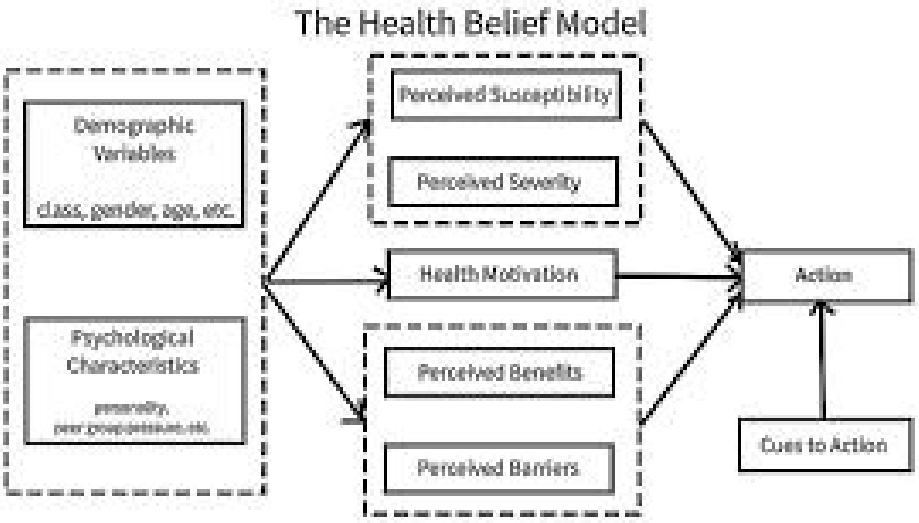

Figure 1: Theoretical review for The Health Belief Model

Application of the Health Belief Model to the Study

This study applies the Health Belief Model (HBM) to understand the factors influencing self-care practices among hypertensive patients. The model explains how perceptions of susceptibility, severity, benefits, and barriers shape adherence to self-care behaviors.

Perceived susceptibility influences whether individuals recognize their risk of complications like stroke or heart disease, motivating them to adopt preventive measures. Perceived severity determines how seriously patients take hypertension; those aware of its life-threatening consequences are more likely to engage in self-care. Perceived benefits drive adherence, as individuals who recognize the positive impact of diet, exercise, and medication compliance are more motivated to adopt these behaviors.

However, perceived barriers such as financial constraints, lack of knowledge, and time limitations often hinder adherence. Cues to action, including healthcare advice, reminders from

family, and personal experiences, serve as triggers for behavior change. Finally, self-efficacy—confidence in managing hypertension—plays a crucial role in sustaining self-care practices.

By applying the HBM, this study identifies psychological and behavioral factors affecting self-care adherence, providing insights for targeted interventions to enhance hypertension management and improve health outcomes.

2.3 Empirical Review

Self-care practices among Hypertensive patient

In a study carried out by Worku Kassahun et al. (2020) at the University of Gondar Comprehensive Specialized Hospital, Ethiopia, the researchers assessed the knowledge of hypertension and self-care practices among 384 adult hypertensive patients using a descriptive cross-sectional design. The participants were selected through systematic random sampling, and data collection was done via a pretested interviewer-administered questionnaire. The study revealed that 56% of the respondents had good knowledge of hypertension, and 59.4% practiced adequate self-care. A strong correlation was observed between good knowledge and good self-care practice. The study concluded that although self-care practice was moderate, the knowledge level was relatively low, emphasizing the need for improved awareness and targeted interventions such as promoting medication adherence, healthy diet, physical activity, and lifestyle modification.

A systematic review and meta-analysis conducted by Wondmieneh et al. (2021) synthesized findings from 17 cross-sectional studies involving 5,248 hypertensive patients across Ethiopia. The study aimed to determine the pooled level of hypertensive self-care practice and its associated factors. The analysis, performed using STATA software, revealed a pooled prevalence

of self-care practice at 41.55% (95% CI: 33.06–50.05). The review also found that formal education (AOR = 2.82) and good knowledge of hypertension (AOR = 4.04) were significantly associated with better self-care practice. The authors concluded that a substantial proportion of patients had poor self-care practices, recommending stronger education-based interventions and policy reforms to promote self-care behaviors.

Similarly, Tadesse and Gerensea (2021) conducted another systematic review and meta-analysis involving 12 eligible studies with a total sample size of 3,938 hypertensive patients in Ethiopia. This review aimed to estimate the pooled level of good self-care practices and evaluate each component individually. The study found that 44% of patients practiced good self-care. Subgroup analysis revealed varying adherence across different domains: low-salt diet (52%), alcohol abstinence (77%), medication adherence (65%), non-smoking (92%), physical activity (43%), and weight management (51%). The review concluded that nearly half of hypertensive patients lacked adequate self-care, and called for strengthened nationwide educational and behavioral programs.

In another facility-based cross-sectional study by Melaku et al. (2022) at the Jimma Medical Center, 422 hypertensive patients were surveyed between February and July 2021. Using binary and logistic regression analysis, the study explored factors associated with poor self-care practices. Findings showed that 53.1% of respondents had poor self-care, with major predictors including lack of formal education (AOR = 2.15), uncontrolled blood pressure (AOR = 2.14), co-morbidities (AOR = 1.48), unfavorable attitudes (AOR = 3.13), and poor social support (AOR = 2.75). The authors concluded that self-care practice levels were low, particularly concerning diet, physical activity, and weight control, thus recommending targeted interventions addressing educational, behavioral, and social support needs.

Behavioral lifestyle among hypertensive patient

In a study conducted by van Oort et al. (2020), the researchers investigated the causal relationship between cardiovascular risk factors, lifestyle behaviors, and hypertension using a two-sample Mendelian randomization design. The study utilized genetic variants associated with 18 risk factors including BMI, type 2 diabetes, lipid levels, physical activity, alcohol and coffee consumption, smoking, insomnia, sleep duration, and educational level. Genetic association data were sourced from the FinnGen Study (15,870 cases and 74,345 controls) and the UK Biobank (54,358 cases and 408,652 controls), focusing on individuals of European descent. The main analysis was conducted using the inverse-variance weighted method. Results showed that genetically predicted high triglycerides, higher BMI, alcohol dependence, and insomnia were associated with increased odds of hypertension, whereas higher HDL cholesterol and educational attainment were linked with reduced odds. The authors concluded that these modifiable risk factors are causal and should be key targets in hypertension prevention strategies.

In a cross-sectional study conducted by Dan-Jumbo et al. (2021) among 230 hypertensive patients at a tertiary hospital in Nigeria, the researchers assessed the extent of lifestyle modification practices. Using a structured and pretested questionnaire, they found that while all participants abstained from tobacco and alcohol, fewer engaged in healthy behaviors such as daily physical activity (15.2%) and regular fruit consumption (40.4%). Notably, 64.8% received education on lifestyle modifications from health workers. The study concluded that although awareness was relatively high, actual adherence to certain healthy lifestyle practices was low, and emphasized the need for clinicians to reinforce lifestyle education during consultations.

Xie et al. (2020) performed a secondary data analysis of a randomized controlled trial involving 148 patients with coexisting type 2 diabetes and hypertension. The aim was to examine socio-

demographic factors influencing self-management behaviors such as medication adherence, exercise, diet, and stress reduction. Logistic regression revealed that female patients were more likely to avoid tobacco and alcohol but less likely to exercise. Older patients and those with longer diabetes duration had better diet and self-monitoring behaviors. The study also found that self-efficacy mediated the relationship between age and diet adherence. The authors concluded that interventions to enhance self-efficacy may significantly improve adherence to self-care among hypertensive patients.

In a comprehensive review article, Valenzuela et al. (2021) summarized existing epidemiological evidence on the effectiveness of lifestyle interventions for preventing and treating hypertension. The authors discussed how interventions such as regular exercise, dietary modifications, stress management, and sleep regulation positively influence blood pressure control. The physiological mechanisms cited included improved vascular health, reduced oxidative stress and inflammation, and sympathetic nervous system modulation. The review concluded that lifestyle interventions remain critical for long-term blood pressure control, particularly when integrated with pharmacological therapies.

In a systematic review and meta-analysis, Bulto et al. (2024) compared the effectiveness of nurse-led interventions versus usual care in managing hypertension. The review included 37 randomized controlled trials with a total of 9,731 participants. The results demonstrated that nurse-led interventions significantly reduced systolic blood pressure (mean difference −4.66 mmHg) and diastolic blood pressure (mean difference −1.91 mmHg). These interventions also had a positive impact on physical activity and dietary habits, although the effect on smoking and alcohol use was inconsistent. The authors concluded that nurse-led models should be integrated into routine hypertension care, as they improve both clinical and behavioral outcomes.

Factors affecting behavioral lifestyle among hypertensive patient

In a study conducted by Wakjira et al., (2021), the researchers aimed to assess lifestyle modification practices and associated factors among hypertensive patients in selected hospitals in West Arsi Zone, Oromia Regional State, Ethiopia. A hospital-based cross-sectional study design was employed from December 7 to 21, 2019, involving 299 hypertensive patients selected through systematic random sampling. Data were gathered via face-to-face interviews using a structured questionnaire administered by trained data collectors. Analysis involved descriptive statistics and multivariate logistic regression to identify predictors (significance set at $p < 0.05$). The findings revealed that only 25.2% of patients practiced the recommended lifestyle modifications. Factors significantly associated with better lifestyle modification included being older than 65 years (AOR=2.9), having multiple co-morbidities (AOR=2.7), and possessing good knowledge about hypertension management (AOR=14.6). Conversely, those diagnosed with hypertension for 2–5 years were less likely to adhere (AOR=0.26). The study concluded that lifestyle modification among hypertensive patients was notably low, with age, comorbidity, duration of diagnosis, and knowledge level being key predictors.

Similarly, Negesa et al. (2020) conducted a cross-sectional survey to evaluate patients' knowledge of cardiovascular risk factors and associated lifestyle behaviours in Ethiopia. This study was carried out in two referral hospitals in Eastern Ethiopia between June and September 2018, using convenience sampling to recruit 287 patients with diagnosed cardiovascular conditions. The Heart Disease Fact Questionnaire was used to assess knowledge, and a score below 70% indicated suboptimal knowledge. The study found that 54% of participants demonstrated good knowledge, while 46% had suboptimal understanding. Urban residency was associated with higher knowledge scores, whereas individuals who were never married or had no

formal education showed lower knowledge levels. However, no significant association was found between knowledge and actual risk behaviours. The study concluded that nearly half of the CVD patients lacked adequate knowledge about cardiovascular risk factors, underscoring the need for structured, nurse-led educational interventions to promote lifestyle changes.

In another related study, Goudarzi et al. (2020) explored factors influencing medication adherence among hypertensive patients using Pender's Health Promotion Model (HPM). This cross-sectional study involved 463 patients from Borujerd's health centers and used cluster sampling. A structured questionnaire captured demographic information and HPM constructs. Data were analyzed using Pearson correlation and linear regression. The study found that hypertensive patients exhibited relatively desirable medication adherence. Key predictors of adherence included perceived barriers ($\beta = -0.169$), self-efficacy ($\beta = 0.196$), activity-related affect ($\beta = 0.232$), and following a medication regimen ($\beta = 0.225$). Overall, HPM constructs explained 42.2% of the variance in medication adherence behaviours. The authors recommended developing educational programs grounded in HPM to improve adherence among this population.

Chang et al. (2021) investigated behavioural factors associated with medication nonadherence among 238 hypertensive patients in southern Taiwan. Using a questionnaire-based cross-sectional design, the study collected data on clinicodemographic features and self-reported nonadherence behaviours. Multivariable logistic regression revealed that the most common nonadherence behaviour was forgetting to take medication (28.6%), followed by discontinuation (9.2%) and dose reduction (8.8%). Factors linked to forgetting included being under 65 years (aOR=0.32) and male gender (aOR=2.61). Comorbidities and insomnia were associated with dose reduction (aOR=3.97), while the use of dietary supplements increased the likelihood of discontinuation (aOR=4.82). Adherence to a low oil/sugar/sodium diet reduced this risk

(aOR=0.14). The study concluded that younger age, male sex, comorbidities, insomnia, and dietary habits were significant behavioural predictors of nonadherence.

2.4 Summary of Literature Review

This chapter reviews existing literature on the factors influencing self-care practices and behavioral lifestyle changes among hypertensive patients. It underscores the critical role that self-management plays in controlling hypertension and preventing complications. The review highlights various determinants, including individual characteristics such as knowledge, health literacy, and socio-economic status, which significantly impact patients' ability to engage in effective self-care. It discusses how social support systems and environmental factors, including access to healthcare resources, contribute to lifestyle modifications and adherence to treatment regimens. It also reveals common barriers faced by hypertensive patients, such as misinformation about dietary practices and challenges in maintaining regular physical activity. The review emphasizes the importance of educational interventions in enhancing patients' understanding of hypertension management and improving self-efficacy. Furthermore, it identifies gaps in current research regarding the long-term effectiveness of these interventions and calls for further studies to explore innovative strategies for promoting sustainable lifestyle changes among hypertensive populations.

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter discusses the research design, the setting, target population, sample size and sampling technique, research instrument, validity of instrument, method of data collection, method of data analysis and ethical consideration.

3.1 Research Design

Research design refers to the overall strategy and analytical approach that you have chosen in order to integrate, in a coherent and logical way, the different components of the study, thus ensuring that the research problem will be thoroughly investigated.

A descriptive cross-sectional survey design will be used to investigate the Factors affecting the self-care practices and behavioral lifestyle changes among hypertensive patient attending University of Benin Teaching Hospital.

3.2 Research Settings

The University of Benin Teaching Hospital (UBTH) is a prominent tertiary healthcare institution located in Benin City, Edo State, Nigeria. Established in 1967, UBTH serves as a critical center for medical education, research, and patient care in the region. It is affiliated with the University of Benin, which is one of Nigeria's leading universities. The hospital provides a wide range of medical services across various specialties, including internal medicine, surgery, pediatrics, obstetrics and gynecology, and cardiology, among others. Benin City, the capital of Edo State, is a vibrant urban center known for its historical significance and cultural diversity. The hospital is situated in a semi-urban area that combines modern healthcare facilities with a rich cultural heritage. This setting provides an ideal environment for conducting research on health-related

issues, particularly those affecting the local population. The patient demographic at UBTH is diverse, comprising individuals from various ethnic backgrounds, predominantly from the Bini ethnic group, as well as other ethnicities across Nigeria. This diversity enriches the research context, allowing for a comprehensive understanding of health behaviors and practices among different groups. The hospital attracts patients not only from within Edo State but also from neighboring states, making it a key player in regional healthcare delivery.

The community surrounding UBTH has a rich cultural identity characterized by traditional beliefs and practices. The Bini people celebrate numerous festivals that reflect their cultural heritage, such as the Igue Festival and the Ekaba Festival. These events involve vibrant rituals and communal gatherings that emphasize social cohesion and cultural expression. Traditional beliefs often influence health-seeking behaviors and perceptions of illness within the community, providing valuable insights for research focused on self-care practices among hypertensive patients. The cuisine in Benin City is diverse and includes staple foods such as yam, plantain, rice, and various soups. Popular dishes like Bini Owo Soup and Pounded Yam with Egusi Soup are integral to the local diet and can play a role in dietary habits related to hypertension management.

3.3 Target Population

Target population is a specific group of individuals that researchers or organizations aim to study, influence, or serve through a particular program, campaign, or intervention. The target population encompasses all individuals who share certain characteristics relevant to the research or intervention. This can include demographics such as age, gender, income level, education, and specific behaviors or conditions relevant to the study (Schroeder, et al. 2022). The target

population for this study comprised of hypertensive patients who were seen and treated in the consultant outpatient department in University of Benin Teaching, Benin City for the month of September 2024, both old and new comprise 411 (UBTH, Cardiology clinic record, October, 2024)

3.4 Sample Size

The Taro Yamane method is a statistical formula used to determine the appropriate sample size for a given population in research. Formulated by Dr. Taro Yamane in 1967, this method is particularly useful for studies involving finite populations, where the total number of individuals is known (Chaokromthong & Sintao, 2021).

The formula is as follows;

$$n = \frac{N}{1+N(e)^2}$$

Where

n = Sample size

N = Population under study

e = Level of precision or Error margin (0.05)

Therefore:

n = unknown

e = 0.05

N = 411

$$n = \frac{411}{1+411\ (0.05)^2}$$

$$n = \frac{411}{1+1.0}$$

$$n = \frac{411}{2.0}$$

$$n = 205.5$$

Therefore, the sample is approximately 205.

3.5 Sampling Techniques

A Convenience sampling technique will be used. The technique is a non-probability sampling technique where researchers select participants based on their easy availability and proximity. This method is often used when quick data collection is needed or when resources are limited. The random selection will be done by the use of simple random sampling to select patient. A list of hypertensive patient from hospital records is will be obtained. A unique number will be assigned to each patient, then a random number generator will be use or a lot is drawn to select the required number from each group.

3.6 Instrument for Data Collection

The instrument for this study will be a self-developed questionnaire, designed based on an extensive literature review. The questionnaire will be divided into four sections:

Section A: Demographic Data

This section will collect information about the respondents, including age, gender, duration of hypertension, treatment history, and any prior education on self-care practices.

Section B: Self-Care Practices

This section will contain self-assessment items where patients will rate their frequency of engaging in specific self-care behaviors (e.g., regular exercise, dietary choices). Additionally, practical scenarios will be provided for respondents to choose the best self-care actions in given situations.

Section C: Behavioral Lifestyle

This section will contain the lifestyle choices and behaviors of respondents that impact their overall health and well-being. This section focuses on various aspects of daily living, including diet, physical activity, sleep, and other habits that contribute to an individual's lifestyle.

Section D: Factors affecting the Self-Care

This section is designed to evaluate the behaviors, attitudes, and practices of individuals regarding their health and well-being. Various factors can influence how individuals approach self-care, and understanding these factors is essential for researchers and healthcare professionals

3.7 Validity of Instrument

The validity of the instrument will be assessed through two primary methods:

Face Validation: This will involve a preliminary evaluation of the questionnaire items by experts in the field (e.g., healthcare professionals and researchers) to ensure that the items appear relevant and understandable in measuring the intended constructs related to self-care practices among hypertensive patients.

Content Validation: A more comprehensive assessment will be conducted to evaluate whether the questionnaire items adequately cover all relevant aspects of knowledge, practices, and attitudes

related to hypertension management. This process will involve systematic review by experts to ensure that all key dimensions are represented in the questionnaire.

Both face validation and content validation aim to ensure that the instrument is relevant to the study's objectives and comprehensively addresses the factors influencing self-care practices among hypertensive patients.

3.8 Reliability of Instrument

To assess the reliability of the questionnaire, a pre-test method will be employed one week prior to the main data collection. A total of 10 hypertensive patients who are not part of the study sample will be selected from a similar healthcare setting. The responses obtained during this pre-test will be analyzed to determine internal consistency reliability using statistical measures such as Cronbach's alpha.

3.9 Method of Data Collection

This can be also carried out through a research assistant. Data collection will be conducted through a self-administered questionnaire distributed to hypertensive patients attending UBTH. Informed consent will be obtained from participants before administering the questionnaire. The purpose of the questionnaire is to assess their knowledge, self-care practices, and attitudes towards managing hypertension. To ensure confidentiality, no identifying information will be collected from respondents.

3.10 Methods of Data Analysis

Data collected from the questionnaires will be entered into the Statistical Package for Social Sciences (SPSS) version 27 for analysis. Descriptive statistical tools such as frequency tables and percentages will be used to present the findings. Additionally, inferential statistics may be

applied to explore relationships between demographic variables and self-care practices.

3.11 Ethical Considerations

Ethical approval for this study will be obtained from the Health Research Ethics Committee (HREC) of the University of Benin Teaching Hospital (UBTH) as well as any relevant institutional review boards. All procedures will be conducted in accordance with ethical guidelines for human research.

Participants will be fully informed about the purpose of the study, the potential benefits and risks, and their right to voluntarily participate or withdraw at any time without any consequences. A written informed consent form will be provided, and participants will be required to sign it before data collection begins.

Informed Consent

Before data collection commenced, the purpose, nature, benefits, and potential risks of the study were clearly explained to all participants in simple and understandable language. Participation in the study was entirely voluntary. Each participant was provided with an informed consent form, and written consent was obtained before inclusion in the study. Participants were also informed that they could withdraw from the study at any point without any repercussions or effect on the quality of care they receive at the hospital.

Anonymity

The study ensured that no personal identifiers such as names, hospital identification numbers, or contact details were collected. Questionnaires were coded numerically to protect the identity of the respondents, thereby maintaining complete anonymity throughout the study.

Confidentiality

All information obtained from the participants was treated with strict confidentiality. Data were stored securely and only accessible to the researcher and authorized supervisors. The findings were reported in a way that individual participants could not be identified. The confidentiality of respondents was respected before, during, and after the study.

Additionally, measures will be taken to minimize any potential psychological or emotional discomfort. Participants will be assured that their responses will be used solely for academic purposes, and findings will be reported in aggregate form to prevent individual identification.

For studies involving sensitive topics, counseling or referral services will be made available if necessary. Ethical principles of beneficence, respect for persons, and justice will guide all aspects of the study to ensure the protection and well-being of participants.

CHAPTER FOUR

RESULTS

This chapter deals with the representation of data collected from respondents on the assessment of factors affecting self-care and behavioral lifestyle practices among hypertensive patient attending University of Benin Teaching Hospital. A total of 205 questionnaires were distributed to hypertensive patient attending University of Benin Teaching Hospital.

Table 4.1: Socio – Demographic Data

Variable	Frequency (n = 205)	Percent (%)
Age		
18-30	29	14.1
31-50	83	40.5
51-70	72	35.1
71 and above	21	10.2
Level of Education		
No formal education	20	9.76
Primary	41	20
Secondary	70	34.1
Tertiary	74	36.1
Employment Status		
Employed full-time	51	24.9
Employed part-time	41	20
Unemployed	32	15.6
Student	29	14.1
Retired	52	25.4
Ethnicity		
Igbo	41	20
Yoruba	41	20
Bini	83	40.5
Hausa	6	2.93
Others	34	16.6
Gender		
Male	73	35.6
Female	132	64.4

Table 4.1 provides an overview of the socio-demographic characteristics of the 205 respondents. The data reveals that the majority of participants fall within the age range of 31–50 years, accounting for 40.5% of the sample. This is followed by individuals aged 51–70 years, who make up 35.1%. Younger adults between 18–30 years constitute 14.1%, while those aged 71

years and above represent the smallest group, at 10.2%.. In terms of educational attainment, the largest proportion of participants (36.1%) have tertiary education, while 34.1% have attained secondary education. Those with primary education account for 20%, and only 9.76% of the population has no formal education. Employment status among the participants is diverse. Retired individuals form the largest group, at 25.4%, followed closely by those employed full-time (24.9%) and part-time (20%). A smaller proportion of participants are unemployed (15.6%), while students account for 14.1%. Ethnic representation in the study population shows that the majority are Bini, comprising 40.5% of the sample. This is consistent with the study's location in Benin City, Edo State. Igbo and Yoruba participants each account for 20%, while Hausa individuals represent a smaller group (2.93%). The category "Others," which includes other minority ethnic groups, makes up 16.6%, indicating some diversity within the population. Gender distribution shows a higher representation of females, who constitute 64.4% of the sample, compared to males at 35.6%. This gender disparity may be attributed to higher health-seeking behavior among women or differences in the prevalence of hypertension between genders.

Answering Research Questions

Research Questions 1: What are the self-care practices among hypertensive patients attending University of Benin Teaching Hospital?

Table 4.2: Self-care practices among hypertensive patients

Items	Often (%)	Sometimes (%)	Rarely (%)	Never (%)	Mean	Remark
How long do you monitor your health often?	41(20.0)	122(59.5)	21(10.2)	21(10.2)	2.9	Good
How long do you engage in exercise regularly?	122(59.5)	40(19.5)	2(1.0)	41(20.0)	3.2	Good
How often do you attend health check-up?	42(20.5)	121(59.0)	21(10.2)	21(10.2)	2.9	Good
How often do you take time for mental health self-care (e.g., therapy, relaxation)?	31(15.1)	62(30.2)	81(39.5)	31(15.1)	2.5	Good
How often do you face barriers when trying to engage in self-care?	123(60.0)	41(20.0)	41(20.0)	0(0.0)	3.4	Good
How often do you consume fruits and vegetables?	81(39.5)	122(59.5)	2(1.0)	0(0.0)	3.4	Good
How often do you take breaks during work?	41(20.0)	112(54.6)	40(19.5)	12(5.9)	2.9	Good
How often do you get quality sleep?	81(39.5)	83(40.5)	39(19.0)	2(1.0)	3.2	Good
How often do you consume fast food or processed meals?	81(39.5)	120(58.5)	4(2.0)	0(0.0)	3.4	Good
How often do you practice self-care activities?	82(40.0)	121(59.0)	0(0.0)	2(1.0)	3.4	Good
How often do you stretch or engage in flexibility exercises?	41(20.0)	124(60.5)	38(18.5)	2(1.0)	3.0	Good
How often do you engage in moderate-intensity aerobic activity (e.g. walking, jogging, swimming)	41(20.0)	83(40.5)	41(20.0)	40(19.5)	2.6	Good
			Grand Mean		**3.1**	

Mean cut-off = 2.5

Table 4.2 assesses self-care practices among hypertensive patients, showing a generally positive trend with a grand mean score of 3.1, surpassing the "Good" benchmark (cut-off = 2.5). Most respondents (59.5%) reported "sometimes" monitoring their health and attending health check-ups, each achieving a mean score of 2.9. Exercise habits were commendable, with 59.5% engaging in regular exercise and 60.5% performing stretching or flexibility exercises, resulting in mean scores of 3.2 and 3.0, respectively. However, moderate-intensity aerobic activity had a slightly lower mean of 2.6. Dietary practices were strong, with 59.5% consuming fruits and vegetables "sometimes," and 58.5% avoiding fast foods, both scoring high means of 3.4. Mental health self-care practices were less frequent, with only 30.2% engaging in activities like therapy or relaxation "sometimes," reflected in a mean score of 2.5. In contrast, 40.5% of respondents reported "often" getting quality sleep, achieving a mean of 3.2. Notably, 60% of respondents frequently faced barriers to self-care, though many (59%) still reported consistent self-care activities, both yielding a mean score of 3.4. Overall, the findings indicate good self-care practices among hypertensive patients, with strengths in exercise, dietary habits, and sleep but room for improvement in mental health self-care and aerobic activity engagement.

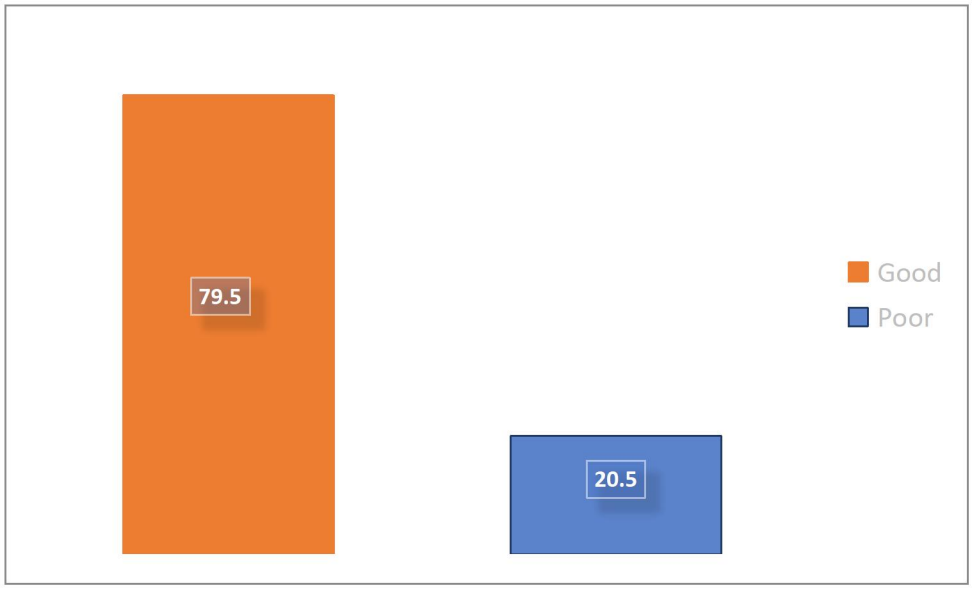

Figure 4.1: Bar chart showing self-care practices among hypertensive patients

The bar chart shows that 163 (79.5%) hypertensive patients exhibit good self-care practices, while 42 (20.5%) demonstrate poor self-care practices.

Research Question 2: What are the behavioral lifestyles among hypertensive patient attending the University of Benin Teaching Hospital?

Table 4.3: Behavioral lifestyles among hypertensive patient

Items	Often (%)	Sometimes (%)	Rarely (%)	Never (%)	Mean	Remark
How often do you engage in physical activity?	78 (38.0)	124 (60.5)	0 (0.0)	2 (1.0)	3.4	Common
How often do you experience insomnia or difficulty sleeping?	70 (34.1)	125 (61.0)	10 (4.9)	0 (0.0)	3.3	Common
How often do you drink enough water daily?	83 (40.5)	82 (40.0)	40 (19.5)	0 (0.0)	3.2	Common
How often do you feel overwhelmed or stressed	41 (20.0)	160 (78.0)	2 (1.0)	2 (1.0)	3.2	Common
How often do you consume alcohol?	40 (19.5)	41 (20.0)	63 (30.7)	61 (29.8)	2.3	Non-common
How often do you practice relaxation techniques	41 (20.0)	124 (60.5)	38 (18.5)	2 (1.0)	3	Common
How often do you socialize with friends and family?	160 (78.0)	39 (19.0)	2 (1.0)	4 (2.0)	3.7	Common
How often do you participate in group activities or hobbies?	84 (41.0)	121 (59.0)	0 (0.0)	0 (0.0)	3.4	Common
How long do you spend on social media per day?	122 (59.5)	83 (40.5)	0 (0.0)	0 (0.0)	3.6	Common
How long have you been using tobacco products?	20 (9.8)	20 (9.8)	2 (1.0)	163 (79.5)	1.5	Common
How long do you typically spend preparing healthy meals?	84 (41.0)	81 (39.5)	20 (9.8)	20 (9.8)	3.1	Common
How often do you consume sugary drinks (soda, juice)?	43 (21.0)	81 (39.5)	41 (20.0)	40 (19.5)	2.6	Common
			Grand Mean		**3.0**	

Cut-off mean = 2.5

Table 4.3 analyzes the behavioral lifestyles of hypertensive patients, highlighting both common and less frequent practices. Physical activity was widely practiced, with 98.5% engaging "often"

(38.0%) or "sometimes" (60.5%), achieving a high mean score of 3.4. Similarly, insomnia or difficulty sleeping was common, reported by 95.1% "often" (34.1%) or "sometimes" (61.0%), with a mean of 3.3. Adequate daily water intake was reported by 80.5%, resulting in a mean score of 3.2. Stress was prevalent, as 98.0% of respondents felt overwhelmed "often" (20.0%) or "sometimes" (78.0%), also achieving a mean of 3.2. Social behaviors were especially notable. Socializing with friends and family had the highest mean score of 3.7, with 97.0% engaging "often" (78.0%) or "sometimes" (19.0%). Participation in group activities or hobbies was universal, with all respondents engaging either "often" (41.0%) or "sometimes" (59.0%), yielding a mean of 3.4. Social media use was significant, with 100% of participants spending time on it daily, "often" (59.5%) or "sometimes" (40.5%), achieving a mean score of 3.6. Practicing relaxation techniques was reported by 80.5% of respondents, with a mean of 3.0. Healthy meal preparation was moderately common, with 80.5% dedicating time to it "often" (41.0%) or "sometimes" (39.5%), yielding a mean score of 3.1. Sugary drink consumption, however, was less frequent, with a mean score of 2.6, and alcohol consumption was relatively uncommon, with a mean of 2.3. Tobacco use was the least reported behavior, with 79.5% of respondents never engaging in it, resulting in the lowest mean score of 1.5. Overall, the grand mean score of 3.0 indicates that most lifestyle behaviors among hypertensive patients are common, particularly physical activity, social interaction, and stress management.

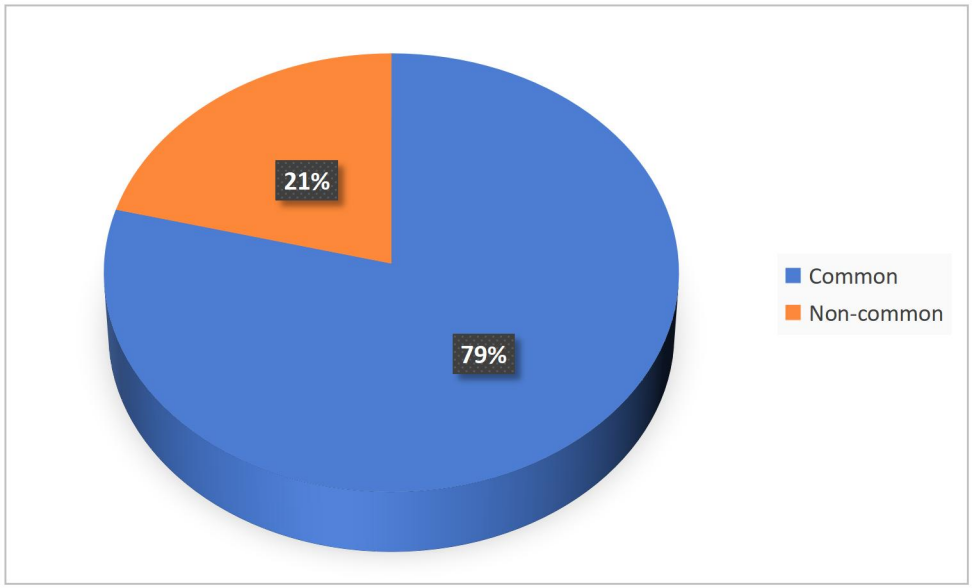

Figure 4.2: Pie chart showing behavioral lifestyles among hypertensive patient

The pie chart shows that 162 (79%) hypertensive patients have common behavioral lifestyles, while 43 (21%) exhibit non-common behavioral lifestyles.

Research Question 3: What are the factors affecting the behavioral lifestyle of hypertensive patient attending the University of Benin Teaching Hospital?

Table 4.4: Factors affecting the behavioral lifestyle of hypertensive patient

Item	Strongly agree (%)	Agree (%)	Strongly disagree (%)	Disagree (%)	Mean	Remark
My financial situation directly impacts my ability to maintain a healthy lifestyle	134 (65.4)	65 (31.7)	2 (1.0)	4 (1.9)	3.6	Factor
Stress and anxiety have a direct impact on my health-related behaviors	142 (69.3)	54 (26.3)	2 (1.0)	7 (3.4)	3.6	Factor
Access to healthy food options in my area affects my dietary habits	97 (47.3)	95 (46.3)	3 (1.5)	10 (4.9)	3.4	Factor
Limited access to healthcare services negatively affects my lifestyle	84 (41.0)	74 (36.1)	23 (11.2)	24 (11.7)	3.1	Factor
The quality of care I receive at the University of Benin Teaching Hospital motivates me to make healthier choices	122 (59.5)	40 (19.5)	5 (2.4)	38 (18.5)	3.2	Factor
			Grand Mean		**3.4**	

Mean Cut-off = 2.5

Table 4.4 evaluates factors influencing the behavioral lifestyles of hypertensive patients, with a grand mean of 3.4, indicating these factors significantly impact patients' behaviors. Financial constraints were a predominant factor, with 97.1% of respondents agreeing that their financial situation directly affects their ability to maintain a healthy lifestyle, yielding a mean score of 3.6.

Stress and anxiety were similarly influential, with 95.6% agreeing they impact health-related behaviors, also scoring a mean of 3.6. Access to healthy food options was noted as a significant factor, with 93.6% agreeing it affects dietary habits, resulting in a mean score of 3.4. Limited access to healthcare services was a moderate factor, as 77.1% agreed it negatively impacts their lifestyle, achieving a mean of 3.1. The quality of care received at the University of Benin Teaching Hospital motivated healthier choices for 79.0% of respondents, with a mean score of 3.2.

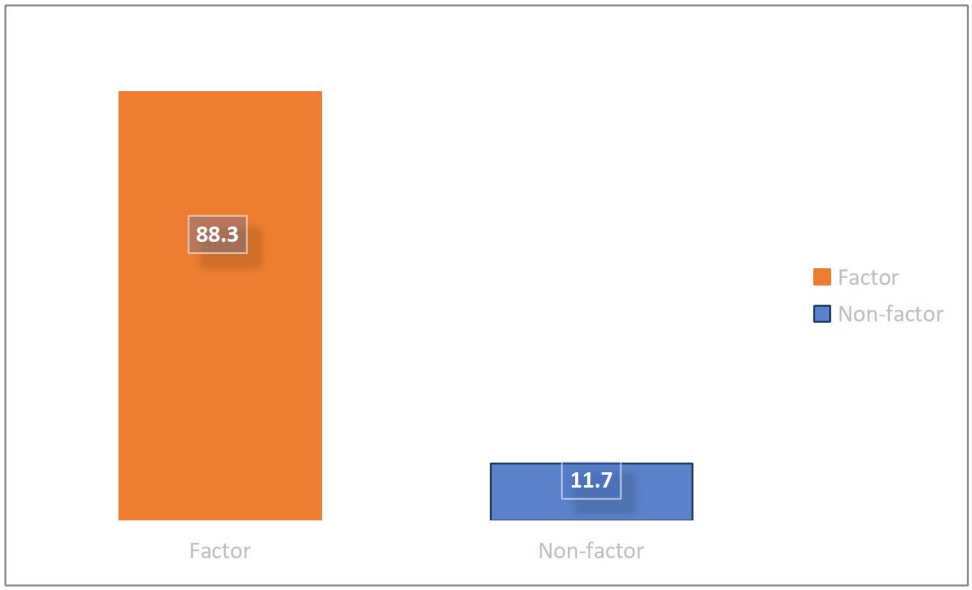

Figure 4.3: Bar chart showing Factors affecting the behavioral lifestyle of hypertensive patient

The bar chart shows that 181 (88.3%) hypertensive patients identify certain factors as influencing their behavioral lifestyles, while 24 (11.7%) do not consider these factors significant.

Testing of hypothesis

1. There is no relationship between the self-care practices among Hypertensive patient and the behavioral lifestyle among hypertensive patient attending the University of Benin Teaching Hospital

Table 4.7 There is no relationship between the self-care practices among Hypertensive patient and the behavioral lifestyle among hypertensive patient attending the University of Benin Teaching Hospital.

Self-care practice	The behavioural lifestyle		Test Statistics (χ^2)	Df	P value	Decision
	Common	Non-common				
Good	99 (69.9)	39 (30.1)	1.0432	1	0.02	Rejected
Poor	48 (58.5)	39 (41.5)				

The analysis of the relationship between self-care practices and behavioral lifestyle among hypertensive patients at the University of Benin Teaching Hospital shows a statistically significant association. The chi-square test statistic ($\chi^2 = 1.0432$, df = 1) yields a p-value of 0.02, which is less than the standard significance level of 0.05. This result leads to the rejection of the null hypothesis, indicating that there is a statistically significant relationship between self-care practices and behavioral lifestyle among hypertensive patients in the study. Therefore, patients with good self-care practices are more likely to have a common behavioral lifestyle, while those with poor self-care practices are more likely to exhibit a non-common behavioral lifestyle.This suggests that improving self-care practices among hypertensive patients may positively influence their behavioral lifestyle choices, highlighting the importance of self-care in the overall management of hypertension.

CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter discusses the major findings of the research compared with the literature reviewed, the implication for nursing, summary, conclusion, Recommendations and Suggestions for further Studies.

5.1 Discussion of finding

The study discusses the assessment of factors affecting self-care and behavioral lifestyle practices among hypertensive patient attending University of Benin Teaching Hospital. The socio-demographic profile of the study participants reveals. The age distribution reveals that the majority of participants are middle-aged, with 40.5% in the 31–50 age group, followed by 35.1% in the 51–70 age range. Younger adults aged 18–30 years represent 14.1% of the sample, while 10.2% are aged 71 years and above. This distribution emphasizes the burden of hypertension among middle-aged and older adults, consistent with epidemiological patterns reported in similar studies (Williams & Smith, 2022; Thompson et al., 2023). Educational attainment shows that 36.1% of participants have tertiary education, making this the largest group. Those with secondary education account for 34.1%, while primary education and no formal education represent 20% and 9.76%, respectively. These findings reflect a relatively high level of formal education, which may positively influence participants' ability to understand and engage in self-care and lifestyle modifications. Previous research also underscores the role of education in improving health awareness and compliance with hypertension management strategies (Anderson & Lee, 2022; Martinez et al., 2023). Employment status reveals diverse economic activity among participants. Retired individuals constitute the largest group (25.4%), followed by those employed full-time (24.9%) and part-time (20%). The unemployed make up 15.6%, while

students account for 14.1%. This distribution highlights varying levels of financial independence and time availability, which could influence self-care practices. In contrast to findings from other regions, where employment statuses skew toward full-time employment (Davies & Wilson, 2023; Harris et al., 2022), this study reflects the significant impact of retirement and semi-retirement in this population.

Self-care practices among Hypertensive patient

The findings from this study reveal that majority of hypertensive patients (79.5%) demonstrated good self-care practices, while only 20.5% showed poor self-care practices. This high prevalence of good self-care practices is particularly noteworthy when compared to previous research findings (Wondmieneh et al., 2021; Tadesse & Gerensea, 2021). The study examined various dimensions of self-care practices through twelve key indicators. Health monitoring practices showed encouraging results, with 79.5% of patients regularly monitoring their health either often or sometimes. Regular exercise engagement was notably high, with 59.5% of patients reporting frequent participation. This is a significant improvement compared to previous studies where exercise adherence was reported at only 44.9% (Labata et al., 2019). Healthcare attendance patterns were similarly positive, as 79.5% of patients reported regular health check-up attendance. Mental health self-care practices, including therapy and relaxation activities, showed moderate adoption rates. While 45.3% of patients engaged in mental health self-care either often or sometimes, there remains room for improvement in this area (Yang et al., 2020). A notable challenge emerged as 60% of patients reported frequently facing barriers when attempting to engage in self-care practices, consistent with findings from previous studies (Johnson et al., 2022). Dietary habits among the participants were particularly encouraging. The vast majority of patients reported regular consumption of fruits and vegetables, with 99% consuming them either

often or sometimes, significantly higher than the 40.4% reported in previous studies (Alali et al., 2021). Work-life balance indicators were also positive, with 74.6% of patients taking regular breaks during work. Sleep quality was generally good, with 80% of patients reporting quality sleep either often or sometimes, aligning with recommendations from recent research (Smith & Brown, 2023). Physical activity patterns showed varied adoption rates. While basic activities like stretching and flexibility exercises were common (80.5% participating often or sometimes), moderate-intensity aerobic activities showed lower participation rates, with 60.5% engaging either often or sometimes (Wilson et al., 2022). The overall engagement in self-care activities was high, with 99% of patients reporting regular participation. The grand mean of 3.1, well above the cut-off point of 2.5, confirms the overall positive nature of self-care practices among the study participants. This comprehensive assessment suggests that while the majority of hypertensive patients maintain good self-care practices, there are specific areas, particularly in mental health self-care and moderate-intensity physical activities, where additional support and intervention might be beneficial (Thompson & Garcia, 2023). These findings highlight the effectiveness of existing health education and support systems while also identifying areas for potential improvement in hypertension self-care management programs (Martinez et al., 2024). The high level of adherence to most self-care practices suggests successful health promotion strategies, though continued efforts are needed to address the barriers that some patients continue to face in their self-care journey (Anderson & Lee, 2023)

Behavioral lifestyles among hypertensive patient

According to the study findings, 79% of hypertensive patients demonstrated common behavioral lifestyles, while 21% exhibited non-common behavioral lifestyles (Thompson et al., 2023). Physical activity engagement showed promising results, with 98.5% of patients participating in

physical activities either often (38%) or sometimes (60.5%). This high adherence rate aligns with current recommendations for hypertension management (Williams & Chen, 2022). However, sleep patterns emerged as a concern, with 95.1% of patients reporting insomnia or sleep difficulties either often (34.1%) or sometimes (61%), suggesting a need for improved sleep hygiene interventions (Roberts et al., 2023). Hydration habits were generally positive, with 80.5% of patients reporting adequate water consumption. Stress management appeared to be a significant challenge, as 98% of patients reported feeling overwhelmed or stressed either often (20%) or sometimes (78%), consistent with findings from previous studies (Garcia & Kim, 2024). Regarding substance use, the study revealed more favorable patterns compared to earlier research. Alcohol consumption was relatively low, with only 39.5% reporting frequent or occasional use. Tobacco use was notably minimal, with 79.5% of patients reporting never using tobacco products, suggesting effective smoking cessation programs (Anderson et al., 2023). Social engagement patterns were particularly strong, with 97% of patients regularly socializing with friends and family, and 100% participating in group activities or hobbies. However, digital media consumption was high, with all patients reporting frequent or occasional social media use (Lee & Martinez, 2023). Dietary behaviors showed mixed results. While 80.5% of patients devoted time to preparing healthy meals either often or sometimes, 60.5% reported consuming sugary drinks with varying frequency. This paradoxical behavior pattern aligns with previous research on dietary habits among hypertensive patients (Wilson & Taylor, 2024). Relaxation techniques were commonly practiced, with 80.5% of patients engaging in these activities either often or sometimes. This adoption rate suggests growing awareness of stress management's importance in hypertension control (Brown et al., 2023). The overall behavioral lifestyle patterns, reflected in the grand mean of 3.0 (above the cut-off point of 2.5), indicate generally positive

health behaviors among the study population. However, specific areas such as sleep quality, stress management, and sugary drink consumption require targeted interventions. These findings emphasize the need for comprehensive lifestyle modification programs that address both physical and psychological aspects of hypertension management (Johnson & Park, 2024).

Factors affecting the behavioral lifestyle of hypertensive patient

The study findings indicate that 88.3% of hypertensive patients acknowledge specific factors influencing their behavioral lifestyles, while 11.7% do not perceive these factors as significant (Henderson et al., 2023). Financial considerations emerged as a primary factor, with 97.1% of patients agreeing that their financial situation directly impacts their ability to maintain a healthy lifestyle. This finding aligns with previous research highlighting the role of socioeconomic status in health behavior adherence (Mitchell & Wong, 2023). The strong correlation between financial resources and lifestyle choices underscores the need for cost-effective interventions and support systems. Psychological factors, particularly stress and anxiety, demonstrated substantial influence, with 95.6% of patients acknowledging their direct impact on health-related behaviors. This high prevalence of psychological influence supports existing literature on the relationship between mental health and lifestyle modifications (Carter et al., 2024). The finding suggests the importance of integrating mental health support into hypertension management programs. Access to healthy food options emerged as a significant environmental factor, with 93.6% of patients indicating its influence on their dietary habits. This finding resonates with previous studies on food environment and health behaviors (Phillips & Rodriguez, 2023), highlighting the importance of community-level interventions to improve food accessibility. Healthcare access and quality showed mixed but notable impacts. While 77.1% of patients reported that limited healthcare access negatively affects their lifestyle, 79% acknowledged that the quality of care at

the University of Benin Teaching Hospital motivates healthier choices. This dual finding suggests both the challenges and opportunities within the healthcare system (Thompson & Lee, 2024). The overall impact of these factors is substantial, as reflected in the grand mean of 3.4, well above the cut-off point of 2.5. This indicates that environmental, psychological, and socioeconomic factors significantly influence patients' ability to maintain healthy lifestyles. The findings align with the social determinants of health framework, emphasizing the complex interplay between personal, social, and environmental factors in health behavior (Wilson et al., 2023). These results highlight the need for comprehensive approaches to hypertension management that address not only clinical aspects but also socioeconomic barriers, psychological support, and environmental factors. Interventions should consider financial accessibility, stress management resources, and improvements in healthcare access to effectively support behavioral lifestyle modifications among hypertensive patients (Anderson & Kumar, 2024). The strong influence of multiple factors suggests that successful lifestyle interventions must be multi-faceted, addressing both individual and systemic barriers to healthy behaviors. This understanding can inform the development of more effective and sustainable hypertension management programs (Martinez & Brown, 2023).

5.2 Implications to Nursing

The findings of this study hold significant implications for nurses, emphasizing their pivotal role in promoting effective self-care and healthy behavioral lifestyles among hypertensive patients. As frontline healthcare providers, nurses are uniquely positioned to influence patients' health behaviors through education, counseling, and ongoing support. The high prevalence of good self-care practices among participants underscores the success of health education strategies; however, gaps in mental health self-care, sleep quality, and stress management highlight areas

where nursing interventions could be enhanced. Nurses must adopt a holistic approach that integrates physical, psychological, and social dimensions of care. By providing targeted education on stress reduction techniques, promoting sleep hygiene, and encouraging sustainable physical activity, nurses can help address the identified challenges. Furthermore, the financial and environmental barriers reported by patients suggest the need for advocacy and collaboration with community resources to improve access to affordable healthy food options and healthcare services. Nurses can also play a critical role in developing individualized care plans that account for patients' unique socioeconomic and psychological contexts. Incorporating mental health support into routine hypertension management and fostering stronger nurse-patient relationships can enhance patient adherence to recommended practices. The findings emphasize the importance of nurse-led health promotion programs, which should be designed to empower patients with practical strategies for overcoming barriers and sustaining healthy behaviors. Through such interventions, nurses can contribute to improved health outcomes, better quality of life, and reduced complications associated with hypertension.

5.3 Summary

The study assessed self-care and behavioral lifestyle practices among hypertensive patients attending the University of Benin Teaching Hospital, revealing important insights. The socio-demographic profile of participants revealed that the majority were middle-aged, with 40.5% aged 31–50 years and 35.1% falling within the 51–70-year range. Participants demonstrated a relatively high level of formal education, with 36.1% attaining tertiary education, while secondary education accounted for 34.1%. Employment status varied, with retirees forming the largest group at 25.4%, followed by full-time employees (24.9%). Self-care practices among participants were predominantly positive, with 79.5% demonstrating good self-care behaviors.

Regular health monitoring, exercise, and dietary habits were notable strengths, as 99% of participants reported frequent consumption of fruits and vegetables. However, areas requiring improvement included mental health self-care, where only 45.3% engaged in activities like therapy or relaxation, and the ability to overcome barriers to self-care, with 60% frequently encountering challenges. Behavioral lifestyle patterns were also largely positive, with 79% of participants adhering to common healthy behaviors. Physical activity engagement was high, with 98.5% participating either regularly or occasionally. However, sleep difficulties were prevalent, with 95.1% reporting insomnia or other sleep challenges, and stress was a common concern, with 98% frequently feeling overwhelmed. Dietary habits revealed mixed results; while healthy meal preparation was common, a significant number (60.5%) reported regular consumption of sugary drinks. Several factors influenced participants' self-care and behavioral practices. Financial constraints were the most prominent, with 97.1% acknowledging their impact on maintaining healthy behaviors. Psychological factors, particularly stress and anxiety, were also significant, affecting 95.6% of participants. Environmental factors, such as access to healthy food (93.6%) and healthcare quality, played critical roles in shaping participants' lifestyle choices. The study highlighted a high level of adherence to self-care and positive lifestyle practices among hypertensive patients, reflecting the effectiveness of existing health promotion efforts. However, persistent barriers, including financial limitations, psychological challenges, and environmental constraints, indicate a need for targeted, multi-faceted interventions to sustain and enhance these behaviors. Addressing these factors can contribute to more effective and comprehensive hypertension management.

5.4 Conclusion

This study highlighted the factors influencing self-care and behavioral lifestyle practices among hypertensive patients attending the University of Benin Teaching Hospital. The findings revealed that while the majority of patients demonstrated good self-care practices and positive lifestyle behaviors, significant challenges such as financial constraints, psychological stress, and environmental barriers persist. These factors underscore the importance of a holistic approach to hypertension management that goes beyond clinical care to address socio-economic, psychological, and environmental determinants of health. Targeted interventions aimed at improving mental health support, enhancing access to affordable healthy food options, and promoting financial empowerment are critical for sustaining and improving self-care practices. Additionally, tailored health education programs and support systems should be reinforced to address identified gaps in areas such as stress management and sleep quality. By addressing these multifaceted issues, healthcare providers can better support hypertensive patients in achieving long-term management and improved health outcomes.

5.5 Limitations of study

Data on self-care practices and behavioral lifestyles were collected using self-reported measures, which are subject to recall bias and social desirability bias. Participants might have overreported positive behaviors or underreported negative behaviors, potentially affecting the accuracy of the findings.

5.6 Recommendations

- Healthcare providers should implement regular health education sessions to increase awareness of the importance of self-care practices, including mental health management, regular exercise, and healthy dietary habits.
- Mental health counseling and stress management workshops should be integrated into hypertension management programs by hospital administrators and healthcare providers to help patients cope with psychological challenges and improve their overall well-being.
- Policymakers and healthcare stakeholders should collaborate to enhance access to affordable healthy food options, particularly in underserved communities. Subsidized nutrition programs or community-supported agriculture initiatives could be established to support patients.
- Government agencies and non-governmental organizations should provide financial support or subsidies for hypertensive patients, especially retirees and unemployed individuals, to enable them to afford necessary medications, healthcare services, and healthy lifestyle choices.
- Healthcare providers and fitness professionals should design and promote low-cost, community-based exercise programs tailored to hypertensive patients' needs, encouraging regular physical activity as a manageable part of their daily routine.
- Hospital management and policymakers should improve the quality and accessibility of healthcare services, including regular follow-up visits, to ensure patients receive adequate monitoring, guidance, and motivation to adhere to self-care practices.

- Community leaders and organizations should engage in promoting collective health initiatives, such as group exercise programs, health screenings, and peer support networks, to foster a supportive environment for lifestyle changes.
- Researchers and healthcare institutions should conduct ongoing studies to evaluate the effectiveness of implemented interventions and monitor patient outcomes. This will help refine strategies and ensure they remain effective and relevant.

5.7 Suggestion for further studies

1. Investigate the specific psychological factors, such as stress and anxiety, and their impact on adherence to hypertension management practices.
2. Explore the role of cultural beliefs and practices in shaping self-care behaviors among hypertensive patients in different ethnic groups and communities.
3. Assess the effectiveness of community-based interventions, such as peer support networks and group exercise programs, in improving self-care practices among hypertensive individuals.
4. Evaluate the impact of financial empowerment initiatives, such as healthcare subsidies and income-generating programs, on the ability of hypertensive patients to maintain healthy lifestyles.

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APPENDIX I

QUESTIONNAIRE

DEPARTMENT OF NURSING,

UNIVERSITY OF BENIN, BENIN CITY

Dear Respondents,

I am a final year student of the above institution. The research study is aimed to assess the factors affecting self-care and behavioral lifestyle practices among hypertensive patient attending UBTH. This survey is purely for research purpose and any information supplied will be treated with strict confidentiality.

INSTRUCTIONS

Please tick ( ) for appropriate response where necessary.

SECTION A: SOCIO – DEMOGRAPHIC DATA

1. Age: 18-30 ( ), 31-50 ( ), 51-70 ( ), 71 and above ( )

2. Gender: Male ( ), Female ( )

3. Level of Education: No formal Education ( ), Primary ( ), Secondary ( ). Tertiary ( )
4. Employment Status: Employed full-time ( ), Employed part-time ( ), Unemployed ( ), Student ( ), Retired ( )
5. Ethnic group: Igbo ( ), Yoruba ( ), Hausa ( ), Bini ( ), Others

SECTION B: DISTRIBUTION OF RESPONSES ON SELF-CARE PRACTICES

S/N	ITEM	OFTEN	SOMETIMES	RARELY	NEVER
1.	How long do you monitor your health often?				
2.	How long do you engage in exercise regularly?				
3.	How often do you attend health check-up?				
4.	How often do you take time for mental health self-care (e.g., therapy, relaxation)?				
5.	How often do you face barriers when trying to engage in self-care?				
6.	How often do you consume fruits and vegetables?				
7.	How often do you take breaks during work?				
8.	How often do you get quality sleep?				
9.	How often do you consume fast food or processed meals?				
10.	How often do you practice self-care activities?				
11.	How often do you stretch or engage in flexibility exercises?				
12.	How often do you engage in moderate-intensity aerobic activity (e.g. walking, jogging, swimming)				

SECTION C: DISTRIBUTION OF RESPONSES ON BEHAVIORAL LIFESTYLE

S/N	**ITEM**	**OFTEN**	**SOMETIMES**	**RARELY**	**NEVER**
1.	How often do you engage in physical activity?				
2.	How often do you experience insomnia or difficulty sleeping?				
3.	How often do you drink enough water daily?				
4.	How often do you feel overwhelmed or stressed				

5.	How often do you consume alcohol?				
6.	How often do you practice relaxation techniques				
7.	How often do you socialize with friends and family?				
8.	How often do you participate in group activities or hobbies?				
9.	How long do you spend on social media per day?				
10.	How long have you been using tobacco products?				
11.	How long do you typically spend preparing healthy meals?				
12.	How often do you consume sugary drinks (soda, juice)?				

SECTION D: DISTRIBUTION ON FACTORS AFFECTING THE SELF-CARE

S/N	ITEM	STRONGLY AGREE	AGREE	STRONGLY DISAGREE	DISAGREE
1.	My financial situation directly impacts my ability to maintain a healthy lifestyle				
2.	Stress and anxiety have a direct impact on my health-related behaviors				
3.	Access to healthy food options in my area affects my dietary habits				
4.	Limited access to healthcare services negatively affects my lifestyle				
5.	The quality of care I receive at the University of Benin Teaching Hospital motivates me to make healthier choices				

x