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SCHOOL OF MEDICINE AND HEALTH SCIENCES

**Assessing the Factors Influencing Hypertension Self-Management Practices
among Adults in Urban Lusaka: A Cross-Sectional Study**

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**A research dissertation submitted to the University of Lusaka in partial fulfilment of the
requirements of a Degree in Bachelor of Science in Public Health**

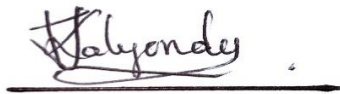
2025

DECLARATION

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I declare that this dissertation is my creative work and to the best of my acquaintance has not been presented for a degree in any other institution.

Signature:

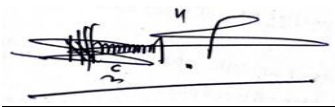


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Date: 12th November, 2025

DEDICATION

I dedicate this dissertation to my beloved parents, Mr. and Mrs. Kalyondo, who have been the greatest pillars in my educational journey. Your unwavering love, prayers, and belief in my potential have given me the strength to persevere even in challenging times. When the odds were against me, you stood by my side and encouraged me to keep striving for excellence.

Dad and Mum, I will forever cherish the words of wisdom and motivation you have shared with me. Your guidance has shaped my path and inspired me to keep pushing forward.

I also dedicate this work to my siblings, who continue to motivate me to be a role model and an example of hard work, perseverance, and faith.

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LIST OF ACRONYMS

DHIS	District Health Information System
DHO	District Health Office
KAP	Knowledge, Attitude, and Practice
LMICs	Low- and Middle-Income Countries
mHealth	Mobile Health
MOH	Ministry of Health
NHRA	National Health Research Authority
NCDs	Non-Communicable Diseases
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
UNILUS	University of Lusaka
WHO	World Health Organisation
Z	Z-score
ZamStat	Zambia Statistical Agency

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ABSTRACT

Introduction: Hypertension remains a significant public health challenge in urban Lusaka, contributing to high morbidity and mortality, a trend evidenced by the steady increase in reported cases. Effective management is crucial, yet poor control indicates potential gaps in individual self-care.

Objective: To assess the factors influencing hypertension self-management practices among adults in urban Lusaka.

Methodology: A cross-sectional study was conducted among 151 adults diagnosed with hypertension. Convenience sampling was used to select Kanyama, Chawama and Matero Level 1 Hospitals while a stratified random sampling technique was used to select study participants. Data was collected using a self-administered questionnaire. SPSS version 25 was used to analyse data. Before data collection, ethical approval was obtained from university ethics committee and National Health Research Authority.

Results: The findings revealed a moderate overall knowledge level among participants (mean score of 67.9%), with a high standard deviation (20.63) indicating significant variability. While most respondents (90%) understood the general seriousness of the condition. Attitudes were moderately positive (mean 3.58), with strong agreement on seriousness, exercise, and medication importance.

Conclusion: In conclusion a significant gap exists between what adults with hypertension in urban Lusaka know and how they actually manage the condition. High non-adherence rates are largely driven by structural barriers such as medication cost and accessibility, behavioural challenges like forgetfulness and low self-efficacy, and weak patient follow-up systems. To improve hypertension control, the study recommends sustained, targeted health education, stronger patient counselling to build confidence, and practical interventions to reduce barriers to medication adherence.

Key Words: Knowledge, Attitude, Practice, Hypertension, self-medication

CHAPTER ONE

INTRODUCTION

1.0 Background

Hypertension, often referred to as the "silent killer," was a significant public health challenge worldwide due to its high prevalence and association with major cardiovascular diseases, stroke, and kidney failure. It was a condition characterized by elevated blood pressure, which, if left untreated, could lead to severe health complications. The global prevalence of hypertension had been steadily increasing, and it was a leading cause of morbidity and mortality in both developed and developing countries (World Health Organization [WHO], 2021). Effective management of hypertension, which involved regular monitoring, medication adherence, and lifestyle modifications, was crucial in preventing these complications. However, the success of hypertension management largely depended on the knowledge, attitudes, and practices of individuals affected by the condition.

Globally, hypertension affected over 1.13 billion people, with an estimated 40% of the adult population living with the condition (WHO, 2021). The World Health Organization had identified hypertension as a key factor contributing to the global burden of cardiovascular diseases. In high-income countries, hypertension was often managed through medical interventions, but in low- and middle-income countries, where healthcare resources were limited, the effective management of hypertension remained a significant challenge. Poor awareness, limited access to healthcare, and lack of proper self-management practices among individuals were major factors hindering effective control of the condition globally. Studies showed that nearly half of people with hypertension worldwide remained undiagnosed or untreated, contributing to the rising incidence of cardiovascular events (Tareh et al., 2018).

In Sub-Saharan Africa, the prevalence of hypertension was increasing rapidly due to urbanization, dietary changes, physical inactivity, and other lifestyle factors (Adeloye et al., 2021). It **was** estimated that over 30% of adults in the region had hypertension, with a significant proportion remaining undiagnosed and untreated. Poor health literacy, inadequate healthcare infrastructure, and limited access to antihypertensive medications contributed to poor hypertension self-

management (Dzudie et al., 2020). Studies suggested that hypertension-related complications such as stroke and heart failure accounted for a high proportion of hospital admissions and mortality in the region, further emphasizing the need for effective self-management interventions.

According to the World Hypertension League, the prevalence of hypertension in African adults was estimated to be 27%, with varying rates across different countries and regions (Ogah, 2019). In many African countries, including Zambia, hypertension was often underdiagnosed, and the awareness of the condition was generally low. Many individuals did not recognize the importance of controlling their blood pressure, leading to poor self-management practices. Moreover, healthcare systems in many African countries were constrained by limited resources, which exacerbated the challenge of managing chronic diseases such as hypertension. The African Region had reported increasing rates of cardiovascular diseases, and hypertension was a major contributor to this trend (Adebayo et al., 2021). While there had been efforts to improve awareness and management of hypertension, these challenges persisted, especially in rural and underserved urban areas.

In Zambia, hypertension was a significant public health issue, with studies indicating that it affected approximately 25% of the adult population (Zambian Ministry of Health, 2017). Despite this, there was still a high level of hypertension-related morbidity and mortality, particularly in urban areas, where lifestyle changes such as poor diet and lack of physical activity contributed to the rising burden of the disease. A study conducted in Lusaka, the capital city of Zambia, revealed that only 47% of individuals with hypertension had adequate knowledge of the condition, and many lacked the necessary practices for effective self-management, such as regular blood pressure monitoring and medication adherence (Mweemba et al., 2020). This gap in knowledge and attitudes was attributed to insufficient health education and the stigma surrounding chronic diseases like hypertension.

The Zambian healthcare system, though improving, faced challenges such as limited healthcare infrastructure, a shortage of trained healthcare workers, and the high cost of healthcare services. As a result, many individuals with hypertension may not have received the necessary education or support to manage their condition effectively. Public health initiatives had been launched to increase awareness and promote healthier lifestyles, but there remained a need for more targeted interventions that addressed the specific knowledge, attitudes, and practices of individuals with

hypertension in urban settings (Zambian Ministry of Health, 2021). This study aimed to evaluate the knowledge and awareness of hypertension self-management among adults in urban Lusaka.

1.1 Statement of the Problem

Hypertension remained a major public health challenge in urban Lusaka, contributing significantly to morbidity and mortality due to its association with cardiovascular diseases, stroke, and kidney failure. Despite various health interventions, the prevalence of hypertension continued to rise, indicating potential gaps in awareness, knowledge, and self-management practices among affected individuals. According to data from the District Health Information System (DHIS, 2023), the number of reported hypertension cases steadily increased over the past three years, from 9,843 cases in 2021 to 10,549 in 2022 and 11,201 in 2023. This upward trend highlighted a growing burden of hypertension and raised concerns about the effectiveness of existing public health strategies in promoting hypertension prevention and self-management.

Effective self-management of hypertension, including adherence to medication, lifestyle modifications, and routine monitoring, played a crucial role in preventing complications. However, limited knowledge and awareness of these strategies contributed to poor disease control, increased hospitalizations, and a higher risk of cardiovascular complications (Lusaka District Action Plan, 2022). Understanding the level of knowledge and awareness of hypertension self-management among adults in urban Lusaka was therefore essential in identifying gaps and designing targeted interventions to improve health outcomes. This study sought to evaluate the knowledge and awareness of hypertension self-management practices among adults in urban Lusaka, with the goal of informing policies and programs that enhanced hypertension control and reduced the growing disease burden.

1.2 Significance of the Study

Hypertension, a leading cause of cardiovascular diseases, stroke, and kidney failure, had emerged as a major public health issue in Zambia. The management of hypertension was vital for preventing its complications and improving quality of life. In many urban settings, despite the availability of healthcare resources, hypertension remained inadequately controlled due to various factors, such

as poor knowledge, negative attitudes, and insufficient self-management practices among affected individuals. This study assessed the levels of knowledge, attitudes, and practices regarding hypertension self-management among adults in urban areas, aiming to provide a comprehensive understanding of these factors. The findings of this study are significant in informing improved health interventions and policies, enhancing patient education, promoting healthy lifestyles, and empowering patients.

1.3 General Objective

To assess the factors influencing hypertension self-management practices among adults in urban Lusaka.

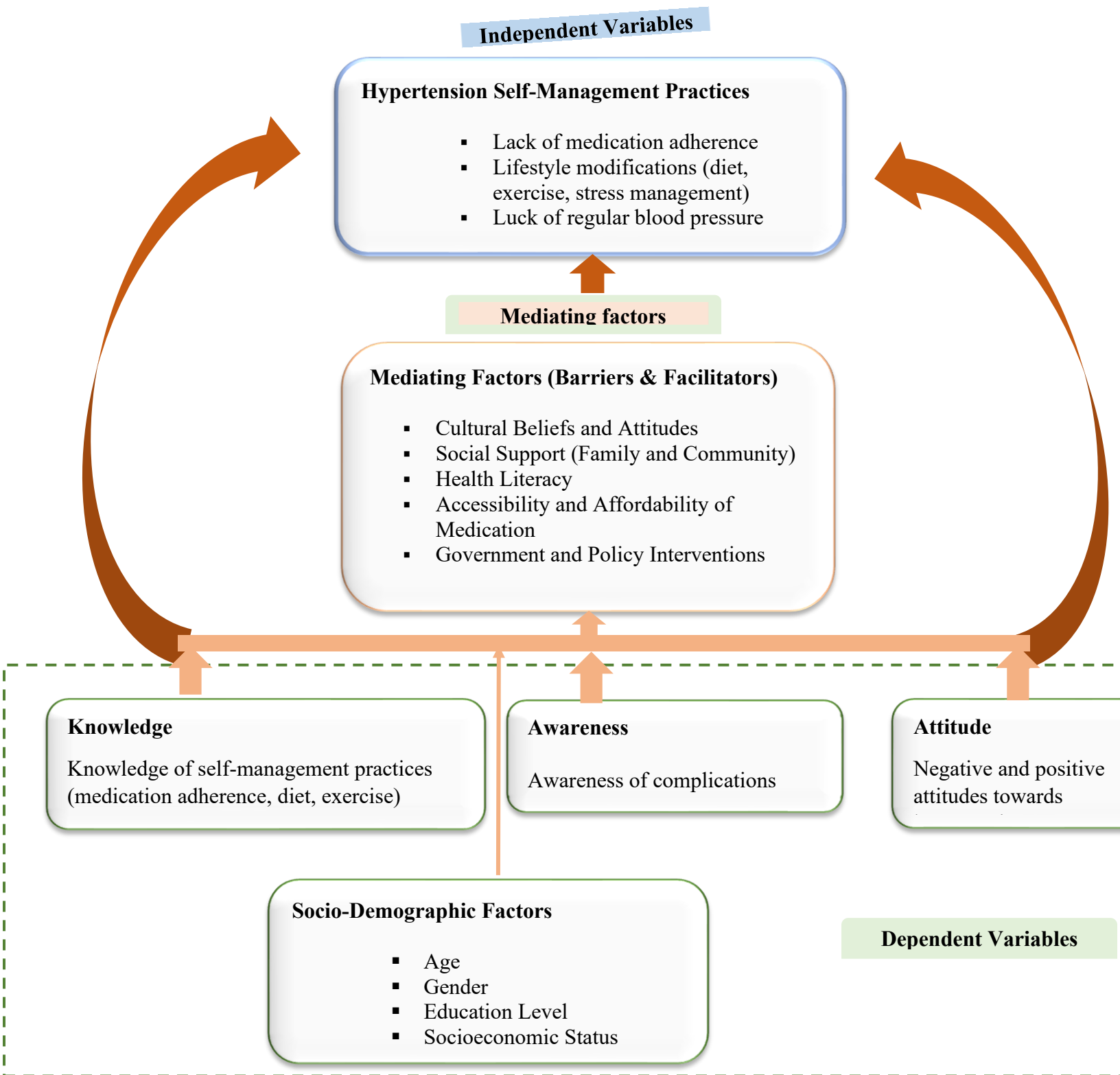
1.3.1 Specific Objectives

1. To assess the level of awareness among adults in urban Lusaka regarding hypertension self-management practices.
2. To assess the knowledge levels related to hypertension self-management among adults in urban Lusaka.
3. To assess the attitude of adults in urban Lusaka regarding hypertension self-management practices

1.3.2 Research Questions

1. What is the level of awareness regarding hypertension self-management among adults in urban Lusaka?
2. What are the knowledge levels of hypertension self-management among adults in urban Lusaka?
3. How does attitude towards hypertension self-management relate to adherence to recommended health practices?

Figure 1, 1.3 Conceptual Framework



CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Knowledge Levels Related to Hypertension Self-Management

Hypertension remains a significant public health challenge worldwide, with increasing prevalence in both developed and developing countries (WHO, 2021). Effective self-management of hypertension is crucial in reducing complications such as stroke, heart disease, and kidney failure. However, knowledge levels related to hypertension self-management vary significantly across populations, influencing adherence to treatment and lifestyle modifications (Odili et al., 2020). Several studies have examined the extent of knowledge among hypertensive patients, identifying gaps that impact overall disease control.

A study by Wang et al. (2019) in China further examined knowledge disparities among hypertensive individuals, noting that older adults had lower awareness levels regarding dietary and lifestyle modifications compared to younger individuals. The study found that while 80% of younger hypertensive patients (aged 30–50) understood the importance of exercise in managing hypertension, only 55% of older patients (aged 60 and above) shared the same knowledge. The findings suggest that age-specific educational interventions may be necessary to bridge these knowledge gaps. In India, Gupta et al. (2020) highlighted that while urban populations demonstrated higher awareness levels regarding hypertension self-management than rural populations, knowledge gaps persisted in areas such as regular blood pressure monitoring and the importance of physical activity. The study revealed that 68% of urban hypertensive patients monitored their blood pressure regularly, compared to only 33% in rural areas. However, knowledge about stress management techniques and weight control remained low, with only 40% of respondents recognizing these factors as critical components of hypertension self-care.

Community-based interventions have also been shown to improve knowledge levels and adherence to hypertension self-management. Pereira et al. (2020) found that educational programs incorporating peer support and culturally tailored messages significantly enhanced patients' understanding of hypertension management. The study, conducted in Brazil, revealed that patients who participated in structured health education sessions demonstrated a 30% improvement in their knowledge of dietary modifications and medication adherence compared to those who did not receive education. Similarly, a randomized controlled trial in the United States by Johnson et al.

(2021) found that self-management education programs, particularly those using digital health tools, improved hypertension knowledge levels and blood pressure outcomes among participants.

Health literacy has also been identified as a key determinant of knowledge levels related to hypertension self-management. According to Nutbeam and Lloyd (2021), individuals with higher health literacy are more likely to understand medical instructions, adhere to prescribed treatments, and adopt lifestyle changes that contribute to better hypertension control. However, in many low- and middle-income countries, low health literacy remains a barrier, limiting the effectiveness of self-management strategies.

In the African context, several studies have explored knowledge levels among hypertensive patients. A study conducted in Nigeria by Iloh et al. (2019) found that while 75% of hypertensive patients were aware of the need for medication adherence, only 45% understood the role of dietary modifications such as salt reduction and increased fruit and vegetable consumption. This limited knowledge contributed to poor blood pressure control, emphasizing the need for patient education. Similarly, in South Africa, Peltzer et al. (2018) reported that although patients were aware of hypertension as a chronic disease, misconceptions about its management were common, with many believing that medication alone was sufficient for blood pressure regulation.

Moreover, knowledge levels are influenced by factors such as age, gender, education, and economic status. A study in South Africa found that individuals with higher educational backgrounds demonstrated better understanding and adherence to hypertension self-management practices than those with lower education levels (Schutte et al., 2019). These findings indicate that public health interventions should be tailored to different demographic groups to enhance knowledge dissemination. In Kenya, Kimani et al. (2021) found that only 50% of hypertensive patients correctly interpreted medical advice on dietary changes, leading to inconsistent adherence to recommended practices.

In Zambia, a study by Mulenga et al. (2020) revealed that while many adults in urban areas were aware of hypertension, their knowledge about self-management strategies, such as regular blood pressure monitoring, medication adherence, and dietary modifications, was inadequate. Similar findings were reported in Nigeria, where a study found that although 70% of hypertensive patients were aware of their condition, only 30% had comprehensive knowledge of effective self-

management strategies (Oladele et al., 2020). This highlights the need for enhanced educational interventions to improve knowledge levels among hypertensive individuals.

The role of healthcare providers in enhancing knowledge related to hypertension self-management cannot be overlooked. Studies have shown that effective physician–patient communication leads to improved patient understanding and better adherence to self-care behaviors (Bosworth et al., 2019). However, in many resource-limited settings, high patient loads and time constraints limit the extent of patient education provided during consultations. Strategies such as integrating health education into routine clinical visits and using trained community health workers to reinforce self-management knowledge could be effective in addressing these challenges.

2.2 Attitudes Towards Hypertension Self-Management Practices

Globally, attitudes towards hypertension self-management play a crucial role in determining patients' adherence to recommended lifestyle modifications and medication regimens. A positive attitude towards self-management is associated with better hypertension control, while negative perceptions can lead to poor adherence and increased risk of complications (Bosworth et al., 2019). Studies have shown that despite having adequate knowledge of hypertension management, many individuals exhibit poor self-care behaviors due to negative attitudes, misconceptions, and cultural beliefs (Peltzer et al., 2018).

Psychological factors also influence attitudes towards hypertension self-management. A study by Wang et al. (2019) in China found that patients with higher levels of stress and anxiety exhibited poorer self-management behaviors. Negative emotional states were linked to decreased motivation for engaging in lifestyle modifications such as regular exercise and dietary restrictions.

In the African region, Odili et al. (2020) in Nigeria found that while 70% of hypertensive patients acknowledged the importance of medication adherence, only 50% consistently took their prescribed drugs due to concerns about side effects and perceived dependence. Similarly, in South Africa, Peltzer et al. (2018) found that cultural food preferences significantly influenced adherence. Despite knowing the risks associated with high salt intake, many patients continued consuming traditional high-sodium diets, citing cultural norms and taste preferences as barriers.

A study conducted in Kenya by Kimani et al. (2021) indicated that although patients were aware of the benefits of exercise and dietary modifications, only a small percentage actively engaged in these practices. The study found that 60% of participants perceived lifestyle changes as unnecessary or burdensome, with some believing that hypertension was an inevitable consequence of aging and therefore required minimal intervention.

Additionally, social support and family involvement play a significant role in shaping attitudes toward hypertension management. A study by Pereira et al. (2020) in Brazil found that patients who received encouragement and support from family members and peers were more likely to adhere to self-management practices.

Locally, in Lusaka, attitudes towards hypertension self-management may be influenced by cultural beliefs, economic constraints, and healthcare accessibility. A study in Kenya found that some individuals believed hypertension was a temporary condition that could be cured with herbal remedies, leading to poor adherence to prescribed treatments (Ndinda et al., 2020). Similarly, in Zambia, research has shown that stigma associated with chronic disease management often discourages individuals from actively seeking medical interventions (Mweene et al., 2021).

Social support and healthcare provider interactions also influence attitudes towards self-management. Studies have demonstrated that patients who receive counseling and continuous education from healthcare providers are more likely to adopt positive attitudes towards self-management (Bosu et al., 2020).

2.3 Awareness of Hypertension Self-Management Practices Among Adults in Urban Areas

Hypertension is a major global public health concern, with urban areas experiencing a higher prevalence due to lifestyle factors such as poor diet, physical inactivity, and stress (WHO, 2021). Awareness of hypertension self-management practices plays a crucial role in reducing morbidity and mortality associated with the condition.

Globally, studies have shown that despite the availability of information, awareness among urban adults remains suboptimal. Research in India by Gupta et al. (2020) highlighted that while urban populations have greater access to healthcare services and information compared to rural areas,

misconceptions about hypertension management persist. Similarly, a study in China by Wang et al. (2019) showed that over 60% of hypertensive adults believed medication alone was sufficient for blood pressure control.

In the African region, a study conducted in South Africa reported that only 57% of hypertensive patients were aware of the importance of lifestyle modifications such as salt reduction and medication adherence (Peltzer et al., 2018). In Nigeria, Iloh et al. (2019) found that while 70% of respondents knew about the role of medication adherence, only 40% were aware of the importance of reducing salt intake and maintaining a healthy diet. Likewise, in Kenya, Kimani et al. (2021) noted that although patients were aware of the need for regular blood pressure monitoring, few understood the role of stress management and exercise.

A systematic review by Nutbeam and Lloyd (2021) emphasized that individuals with low health literacy struggle to interpret and apply health information effectively, leading to poor self-management outcomes.

In Zambia, urban areas such as Lusaka have a relatively better healthcare infrastructure compared to rural regions. However, gaps in hypertension awareness still exist due to disparities in socioeconomic status and healthcare accessibility (Tembo et al., 2021). A study conducted in sub-Saharan Africa revealed that while urban populations had greater exposure to health information, there was still inadequate knowledge regarding lifestyle modifications, including dietary adjustments and physical activity (Adeloye et al., 2019).

Community-based interventions have been shown to enhance awareness and adherence to hypertension self-management. A study conducted in Brazil by Pereira et al. (2020) found that educational programs incorporating peer support and culturally relevant messaging significantly improved patients' knowledge and adherence to lifestyle changes. Similarly, Johnson et al. (2021) demonstrated that patients who participated in structured self-management education programs had significantly lower blood pressure levels compared to those who received standard care.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Approach

The researcher used a quantitative research approach because the study involved the collection and analysis of numerical data related to the knowledge, attitudes, and self-management practices of adults diagnosed with hypertension in Lusaka District. This approach enabled the researcher to obtain measurable and objective data, such as the number of respondents practicing lifestyle modifications, the proportion of participants with adequate knowledge, and the frequency of self-management behaviors.

3.2 study Design

This was a cross-sectional study design, which allowed for the collection of data at a specific point in time from a sample of individuals in order to assess their knowledge, attitudes, and practices related to hypertension self-management in Lusaka District. The cross-sectional design was suitable for this study as it provided insights into the current state of hypertension management within a defined population, without manipulating the variables.

3.3 Study Population

The study was conducted at Kanyama, Chawama, and Matero Level 1 Hospitals in Lusaka District. Lusaka District, with a population of 3,093,617, is located in Lusaka Province and serves as the administrative and commercial capital of the country. It is one of the most urbanized and densely populated districts in Zambia, comprising several constituencies, including Kanyama, Chawama, and Matero. These three areas are among the most populated in the district, each with large catchment populations and a significant burden of non-communicable diseases, particularly hypertension.

According to the Zambia Statistical Agency [ZamStat] (2022), Kanyama Constituency had a population of 366,102; Matero, 275,353; and Chawama, 234,692. The three Level 1 hospitals—Kanyama, Chawama, and Matero—served as primary referral centers for these communities and managed a high number of hypertensive patients through outpatient clinics. These facilities

provided a suitable setting for investigating hypertension self-management practices among patients due to their wide coverage, accessibility, and integration of chronic care services.

Target Population

The study population consisted of adults aged 18 years and above who had been diagnosed with hypertension and were receiving care in urban healthcare facilities. These facilities hospitals, and outpatient clinics in urban areas.

The inclusion criteria:

1. Adults aged 18 years and above
2. Diagnosed with hypertension (based on clinical diagnosis)
3. Receiving treatment for hypertension within the last 12 months
4. Able to provide informed consent

The Exclusion criteria:

1. Pregnant women
2. Individuals with severe cognitive impairments
3. Patients unable to communicate effectively or provide informed consent.

3.4 Sample size

The sample size was calculated using the formula below:

$$n = \frac{Z^2 P(1 - P)}{d^2}$$

Where: n = sample size z = level of confidence = 1.96, p = 0.1, q = 1-p = 0.9, d = desired margin of error = 0.05. The sample size will be: $(1.96) (1.96) (0.1) (0.9) / (0.05)^2 = 139$ participants; 10% of the calculated sample size was added to guard non-response. Thus, the sample sizes will be 155 participants

Sampling Method

Convenience sampling method to select Kanyama, Chawama and Matero Level 1 Hospitals as study facilities will be employed since these are facilities with bigger catchment population in the district and also for ease of access by the researchers. A stratified random sampling technique will be used to select participants from these facilities. Stratification will ensure that various subgroups (such as age, gender, and treatment status) are represented proportionally in the sample. For instance, individuals will be grouped based on their age (e.g., 18-39, 40-59, 60+), gender, and the duration of hypertension diagnosis. A sample size of 155 participants will be targeted to ensure statistical validity and to account for possible non-responses.

3.5 Data collection method and tool

Data were be collected through self-administered structured questionnaires and an interview schedule (face to face), depending on the participants' literacy levels. The questionnaires will be designed to collect data on:

- **Demographic information:** Age, gender, education level, marital status, occupation, and income level.
- **Knowledge of hypertension self-management:** Participants will be asked to respond to questions about the causes of hypertension, risk factors, and the role of lifestyle modifications (diet, exercise, medication adherence) in hypertension control. The knowledge score will be determined by correct responses to these questions.
- **Attitudes towards hypertension self-management:** This will assess participants' beliefs and perceptions about managing hypertension, including their views on medication adherence, dietary changes, exercise, and regular blood pressure monitoring. A Likert scale (1-5) will be used to assess the strength of participants' attitudes.
- **Self-management practices:** This section will examine participants' actual practices regarding hypertension control, such as medication adherence, diet, physical activity, and regular monitoring of blood pressure. These will be assessed using closed-ended questions.
- **Barriers to hypertension self-management:** Participants will be asked about challenges they face in managing their hypertension, such as cost, lack of social support, or misconceptions about the disease.

Data collection took place over a period of 6 weeks. Research assistants were trained on ethical considerations, administering the questionnaire, and ensuring participant confidentiality. The process **was** as follows:

1. **Recruitment:** Participants were informed about the study during their routine visits to healthcare facilities. If they met the inclusion criteria and consented to participate, they were invited to complete the questionnaire or have it administered by an interviewer.
2. **Consent:** Written informed consent was obtained from all participants. This included an explanation of the study purpose, data collection methods, and the confidentiality of responses.
3. **Survey administration:** Surveys were distributed in person, and a research assistant assisted participants in completing the questionnaires if needed. Interviews were conducted for illiterate participants or those requiring assistance.

3.6 Pilot Study

A pilot study was conducted at Mutendere Clinic within Lusaka District. The sample size comprised 15 participants. The major reasons for conducting the pilot study were to get a general overview of the likely response to the actual study. It also served as a means of testing the data collection instrument. This enabled necessary adjustments to be made to the instrument.

3.7 Data Management and Analysis

Data management: Data were entered into a secure electronic database which was password protected for analysis. All identifying information was removed to ensure confidentiality, and all paper-based data were stored securely.

Data entry: Data were entered in the database and only the people involved in this study had access to the data.

Coding: Numerical codes were assigned to answers so that responses could be put into a limited number of categories or classes. Coding was necessary for efficient analysis. The questionnaire **was** entered in the data analysis tool. Only numerical codes were entered in the data analysis tool.

Editing: Questionnaires were checked for errors and completeness before entry into Statistical Package for Social Sciences (SPSS). Editing was done to ensure that the data were accurate and consistent with other facts gathered.

Classification: A large volume of data was reduced into homogeneous groups to make meaningful relationships. This meant that data having common characteristics were placed in one class.

Data analysis: Data were entered into the database whereby summary statistics were analyzed using SPSS statistical software, version 25.0. Normality tests were conducted to determine data distribution before final data analysis. Descriptive statistics to calculate frequencies and means were used, while the Chi-square test was used to test the association between variables of interest at a statistical significance of $p < 0.05$. Simple linear regression was also used to measure relationships between independent and dependent variables.

3.8 Ethical Consideration

Prior to the study, official approval to conduct the study was obtained from the University of Lusaka ethics committee. The research proposal was first presented to the Department of Public Health for approval, and later ethical clearance for conducting the study was sought from the ethics committee. Consent to carry out the study at Kanyama, Chawama, and Matero Level 1 Hospitals was obtained from the Lusaka District Health Director. The protocol and importance of the study were explained to the participants before recruitment into the study, followed by signed informed consent. All information regarding the participants remained confidential. Participants' records were kept in such a way that their identities were not disclosed. Those who refused to participate in the study were given services equal to those of all other women of childbearing age, regardless of their inclusion status.

3.9 Plans for Dissemination of Findings

Since this was an academic research project, after analyzing the data, the researchers wrote the research findings and submitted them to the supervisor for corrections and guidance before subsequent submission to the School. Copies of the research report were submitted to the

University of Lusaka Department of Public Health and Library for future reference. Dissemination was also done at conferences and through journals.

CHAPTER FOUR

4.0 RESULTS

Introduction

This chapter presents the descriptive analysis of data collected from 151 adults in urban Lusaka, addressing the study's three specific objectives and corresponding research questions. The analysis focuses on respondents' knowledge, attitudes, and self-management practices related to hypertension. The analysis was conducted using SPSS version 25, and the results were presented in the form of frequency tables. The chapter provides interpretation of the findings.

4.1 Demographic of the study sample

Table 1: Demographic Characteristics

Variable	Frequency (%) n=151
Age	
18-29	28 (18.5%)
30-39	52 (34.4%)
40-49	48 (31.8%)
50-59	16 (10.6%)
60 and above	7 (4.6%)
Gender	
Male	65 (43.0%)
Female	86 (57.0%)
Marital Status	
Married	43 (28.5%)
Single	61 (40.3%)
Divorced	22 (14.6%)
Widowed	24 (15.9%)
Education	

Variable	Frequency (%) n=151
Secondary	47 (31.1%)
Primary	17 (11.3%)
No Formal	30 (19.9%)
Tertiary	56 (37.1%)
Occupation	
Self-Employed	36 (23.8%)
Unemployed	44 (29.1%)
Employed Full-Time	17 (11.3%)
Retired	15 (9.9%)
Employed Part-Time	12 (7.9%)
Student	27 (17.9%)

A total of 151 participants took part in the study. Table 1 presents the demographic characteristics of the sample. The age profile of respondents indicates a broad representation across the life course. The largest proportion (26.5%) fell within the 18–29 age group, followed by those aged 30–39 years (23.6%). Participants aged 40–49 accounted for 20.5%, while 15.2% were within the 50–59 age range. Individuals aged 60 years and above represented 14.6% of the sample. The study sample comprised 86 females (57.0%) and 65 males (43.0%).

The marital status of respondents varied considerably. Single participants constituted the largest group at 40.3%, followed by married individuals at 28.5%. Divorced respondents accounted for 14.6%, while widowed individuals represented 15.9% of the sample. Regarding the education status, those with tertiary education made up 37.1% of the sample, while 31.1% reported secondary education as their highest attainment. Primary-level education accounted for 11.3% of respondents, and 19.9% had no formal education.

Occupational status showed notable variation. The unemployed category, comprising 29.1% of participants, followed by self-employed individuals at 23.8%. Students accounted for 17.9%, and

11.3% were employed full-time. Retired individuals represented 9.9%, while those in part-time employment made up 7.9%.

The age distribution revealed that the majority of participants were adults within the mid-life age range. The largest proportion of respondents (34.4%) were aged 30–39 years, followed closely by those aged 40–49 years, who accounted for 31.8% of the sample. Younger participants aged 18–29 constituted 18.5%, while 10.6% were aged 50–59. Only a small fraction (4.6%) were aged 60 years and above.

Table 2: Knowledge, Risk Factors, and Lifestyle Changes for Managing Hypertension

Category	Item / Response	Frequency (%) n = 151
Knowledge on Hypertension	High blood pressure	141 (93%)
	I do not know	10 (7%)
Risk Factors of Hypertension	High salt intake	78 (52%)
	Lack of exercise	20 (13%)
	Family history	15 (10%)
	Obesity	23 (15%)
	Age	11 (7%)
	Stress	4 (3%)
Lifestyle Changes for Management	Reducing salt intake	42 (28%)
	Increasing physical activity	30 (20%)
	Eating a balanced diet with fruits	23 (15%)
	Taking medication regularly	56 (37%)
Monitoring of BP	Daily	50 (33%)
	Weekly	90 (60%)
	Monthly	11 (7%)
Potential complication of hypertension	Stroke	100 (66%)
	Heart attack	51 (34%)

The findings indicate that participants demonstrated a strong understanding of hypertension, with 93% correctly identifying it as high blood pressure, while only 7% reported not knowing what hypertension was. When assessing perceived risk factors, more than half of the respondents (52%) cited high salt intake as a major contributor, followed by obesity (15%), lack of exercise (13%), family history (10%), age (7%), and stress (3%).

Regarding lifestyle modification practices, 37% of the participants indicated that they manage their condition by taking medication regularly, whereas 28% reduce salt intake and 20% increase physical activity. Eating a balanced diet with fruits was mentioned by 15% of respondents. Monitoring of blood pressure was most commonly done on a weekly basis (60%), with 33% checking daily and 7% doing so monthly.

Participants also demonstrated awareness of the potential consequences of uncontrolled hypertension. A significant proportion (66%) identified stroke as a major complication, while 34% recognized the risk of heart attack.

Table 3: Assessment of attitude toward hypertension self-management

Attitude Statement	Mean (1–5)
Hypertension is a serious health condition.	4.50
Exercise is effective in managing hypertension.	3.93
Taking medication is important for my health.	3.92
I find it difficult to make dietary changes.	3.55
I feel confident in my ability to manage my hypertension.	3.44
I am worried about the side effects of medication.	3.43
I would prefer to avoid medication and rely on natural methods.	2.38

Attitudes toward hypertension self-management were assessed using eight Likert-scale items designed to measure respondents' beliefs, confidence, and perceptions regarding treatment and lifestyle modification. Each statement was rated on a five-point scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Numerical values were assigned to each response, allowing for quantitative analysis of subjective opinions.

For each attitude statement, the mean score was calculated to determine the general level of agreement among participants. The results are presented in Table 3.

To determine overall attitude, the mean attitude score for each respondent was computed by averaging all eight Likert-scale responses. The resulting overall mean attitude score was 3.58, indicating a moderately positive attitude toward hypertension self-management among participants.

For comparative analysis in subsequent sections, participants were categorized based on their individual mean scores into two groups:

- Positive Attitude (Mean > 3.5): Respondents who generally agreed or strongly agreed with positive attitude statements, reflecting favorable beliefs toward hypertension control and adherence.
- Neutral/Negative Attitude (Mean ≤ 3.5): Respondents who were neutral, disagreed, or strongly disagreed with the attitude items, indicating less favorable or uncertain attitudes toward self-management.

Table 4: Self -Medication Practice

Category	Item / Response	Frequency (%) n = 151
Currently taking Medication for Hypertension	Yes	130 (86%)
	No	21 (14%)
How often medicine is taken	Every day as prescribed	130 (86%)
	Occasionally	5 (3%)
	Not yet started put on drugs	16 (11%)

Adherence to prescribed diet	Yes	130 (86%)
	No	21 (14%)
What diet do	Low sodium diet	110 (73%)
	Low fat diet	22 (15%)
	High fiber diet	10 (7%)
	I don't follow a specific diet	9 (5%)
Engagement in physical exercise	Daily	100 (66%)
	Once a week	40 (26%)
	Once in a while	11 (8%)
Smoke Cigarette	Yes	61 (40%)
	No	90 (60%)
Drink Alcohol	Yes	82 (54%)
	No	69 (46%)

Table 4 above, shows that a large majority of participants (86%) reported currently taking medication for hypertension, while 14% were not on any medication. Among those prescribed antihypertensive drugs, adherence was notably high, with 86% taking their medication daily as instructed. However, a small proportion took medicines only occasionally (3%), and 11% had not yet started treatment medication they are still on observation.

Dietary adherence followed a similar pattern, with 86% of respondents stating that they follow the prescribed diet. When describing the type of diet adopted, 73% reported adhering to a low-sodium diet. A further 15% followed a low-fat diet, 7% reported consuming a high-fiber diet, while 5% did not follow any specific dietary recommendations.

Physical activity patterns varied, with two-thirds (66%) of participants engaging in daily exercise. About 26% exercised once a week, and 8% did so only occasionally. More than half (60%) of the participants reported that they do not smoke cigarette while 40% smokes cigarette. Regarding alcohol, 54% drink alcohol and 46% report that they do not drink alcohol.

Barriers to hypertension self – medication

Participant were further asked what they thought could be the biggest challenge in managing hypertension. Participants explained that:

“The limited access to consistent healthcare services, especially for those living in rural or underserved areas where health facilities are distant and lack Blood pressure drugs. The cost of regular clinic visits and laboratory tests is a burdensome for individuals like some of us with low income or irregular employment. Adhering to recommended lifestyle changes, such as maintaining a low-salt diet is sometimes challenging, limited availability of healthier food options. Stress from socioeconomic challenges due to unemployment with a family responsibilities to take care sometimes makes our Blood Pressure to shot.”

Table 5: Cross-Tabulation of Gender and Attitude Towards Hypertension Self-Management

Gender	Positive Attitude n (%)	Neutral/Negative Attitude n (%)	Total n (%)
Male (43.0%)	25 (38.5%)	40 (61.5%)	65 (100.0%)
Female (57.0%)	55 (64.0%)	31 (36.0%)	86 (100.0%)
Total	80 (53.0%)	71 (47.0%)	151 (100.0%)

A Chi-Square test of independence was carried out to explore whether respondents' gender was associated with their overall attitude toward hypertension self-management. The overall mean attitude score (3.58) served as the cut-off for categorizing participants: those scoring above 3.5 were classified as having a *Positive Attitude*, while those with scores of 3.5 or below were categorized as having a *Neutral/Negative Attitude*.

The Chi-Square results indicated a statistically significant association between gender and attitude toward hypertension self-management ($\chi^2=10.970$, $df=1$, $p=0.001$). Since the p-value is well below the conventional significance level of $\alpha=0.05$, the null hypothesis of no association is rejected.

The magnitude of this association was moderate, as shown by Cramer's $V = 0.269$. Examination of Table 5 shows that a substantially higher proportion of female respondents (64.0%)

demonstrated a positive attitude compared to male respondents (38.5%). In contrast, male participants were almost twice as likely to report a neutral or negative attitude (61.5%) compared to females (36.0%). These findings suggest that female gender is significantly associated with more favorable attitudes toward hypertension self-management.

CHAPTER FIVE

5.0 Discussion

The findings of this study provide important insights into the demographic distribution, knowledge levels, and self-management practices among individuals living with hypertension. The sample was predominantly composed of adults aged 30–49 years, which aligns with global evidence indicating that hypertension increasingly affects individuals in their most economically productive years (World Health Organization [WHO], 2021). The higher proportion of female participants is consistent with other community-based studies in Africa, where women tend to utilize health services more frequently than men, thus increasing their representation in health surveys (Addo et al., 2018).

Participants demonstrated a high level of knowledge regarding hypertension, with 93% correctly identifying it as high blood pressure. This level of awareness is higher than that reported in several African studies, where misconceptions about hypertension remain common (Ataklte et al., 2015). Awareness of key risk factors such as high salt intake and obesity was also prominent. The emphasis on dietary salt mirrors findings from studies in sub-Saharan Africa, where high salt intake remains a major modifiable contributor to hypertension (Mills et al., 2016). However, awareness of other risk factors such as stress and physical inactivity was relatively low, suggesting persistent gaps in comprehensive risk perception.

Lifestyle modification practices, although moderately adopted, reflect mixed adherence. While 37% reported regular medication use and a considerable proportion monitored their blood pressure weekly, only a minority adhered fully to recommended lifestyle changes such as reducing salt intake and increasing physical activity. These findings are similar to those of Bosu (2016), who noted that despite adequate knowledge, translating awareness into practice remains a major challenge among hypertensive patients in Africa. High adherence to medication (86%) in the present study contrasts with findings from many African countries, where poor adherence has been associated with medication costs, side effects, and limited access to healthcare (Soubeiga et al., 2017).

The assessment of participants' attitudes toward hypertension self-management revealed important insights that complement the findings on knowledge and behavioral practices. Overall, participants demonstrated a moderately positive attitude, with an average mean score of 3.58 across the eight Likert-scale statements. The strongest agreement was observed for the statement

affirming hypertension as a serious condition ($M = 4.50$), suggesting that most respondents recognize the potential severity of uncontrolled blood pressure. This level of perceived seriousness is consistent with previous studies showing that risk perception is a crucial motivator for adherence and lifestyle modification (Adebayo et al., 2015). Participants also expressed favorable attitudes toward the effectiveness of exercise ($M = 3.93$) and the importance of taking medication ($M = 3.92$), aligning with the high rates of reported medication adherence in this study. However, the moderate mean score for confidence in self-management ($M = 3.44$) and concerns regarding medication side effects ($M = 3.43$) indicate lingering uncertainties that may hinder optimal disease control. These findings mirror observations in similar African contexts, where fear of side effects and limited counselling reduce confidence in long-term management (Osamor & Owumi, 2011). Additionally, the relatively high difficulty reported in making dietary changes ($M = 3.55$) underscores the influence of cultural food practices and economic constraints on dietary adherence. Notably, the low level of agreement toward preferring natural remedies and avoiding medication ($M = 2.38$) suggests that reliance on alternative treatments is not dominant in this population, differing from some studies in sub-Saharan Africa where traditional remedies are commonly used as substitutes for biomedical treatment (Mucumbitsi et al., 2018). Categorizing participants based on their individual mean scores revealed that those with a positive attitude (mean > 3.5) were more likely to demonstrate better self-management behaviors, reinforcing the established link between attitude and adherence. Overall, the attitude findings highlight that while participants generally value formal treatment and recognize the seriousness of hypertension, challenges related to confidence, perceived difficulty of lifestyle changes, and concerns about medications persist, indicating the need for strengthened patient counselling and continuous psychosocial support.

Self-medication practices and lifestyle behaviors further reveal areas requiring intervention. The high prevalence of alcohol consumption (54%) and cigarette smoking (40%) poses an added risk, as these behaviors are known to exacerbate hypertension and increase cardiovascular morbidity (Kearney et al., 2015). Although dietary adherence was high, socioeconomic barriers such as limited access to affordable healthy foods were frequently cited by participants. This reflects broader structural determinants of health commonly documented in African settings, where poverty and food insecurity hinder effective chronic disease management (Hendriks et al., 2012).

Participants identified several barriers to optimal hypertension self-management, including limited access to consistent healthcare, high costs of medical care, and challenges in adhering to lifestyle

recommendations. These barriers are consistent with findings from rural and peri-urban African populations, where inadequate healthcare infrastructure and socioeconomic constraints are key impediments to hypertension control (Gomez-Olive et al., 2017). The reported stress related to unemployment and family responsibilities underscores the role of social determinants of health, affirming evidence that psychosocial stress significantly contributes to uncontrolled blood pressure (Weber et al., 2014).

Limitations of the Study

1. **Self-reported data:** Most information, including lifestyle behaviors, medication adherence, and dietary practices, was self-reported, which may be subject to recall bias and social desirability bias.
2. **Lack of clinical verification:** Blood pressure measurements and medical histories were not clinically confirmed in this dataset, relying instead on participant reporting, which may lead to inaccuracies.
3. **Potential selection bias:** Individuals who attend healthcare facilities or participate in surveys may be more health-conscious than those who do not, influencing the level of knowledge and self-management practices observed.
4. **No longitudinal follow-up:** The study did not track changes over time, making it difficult to determine whether knowledge and practices translate to improved blood pressure control in the long term.
5. **Self-financed:** Limited resources delayed start of data collection on time.

CHAPTER SIX

6.0 Conclusion

This study provides valuable insights into the knowledge, self-management practices, and challenges experienced by individuals living with hypertension. The findings demonstrate that while most participants possess a good understanding of hypertension and its risk factors, significant gaps remain in translating this knowledge into consistent lifestyle modification. Medication adherence was high, yet behaviors such as reducing salt intake, engaging in regular exercise, and avoiding harmful habits like alcohol use and smoking were inconsistent. Structural and socioeconomic barriers including limited access to healthcare services, financial constraints, and difficulty maintaining healthy diets further hinder effective management of hypertension. These challenges underscore the need for strengthened health education, improved access to essential medications, and community-based interventions tailored to local contexts. Overall, the study highlights that effective hypertension control requires not only individual behavioral change but also broader health system support and socio-economic improvements to sustain long-term management outcomes.

6.1 Recommendations

Based on the study findings and conclusions, the following recommendations are made:

Ministry of Health and Policy Makers

- i. **Strengthen Health Education Programs**
Develop and implement structured, community-based hypertension education programs focusing on lifestyle modification, medication adherence, and regular blood pressure monitoring.
- ii. **Integrate Hypertension Education into Primary Health Care**
Ensure that every visit to primary health centers includes counseling on hypertension prevention and management.
- iii. **Enhance Access to Affordable Medication**
Partner with local and international stakeholders to ensure consistent availability and affordability of antihypertensive drugs in public health facilities.
- iv. **Develop National Guidelines for Hypertension Self-Management**
Standardize patient education materials and self-care guidelines to promote consistent messaging across healthcare settings.

Healthcare Providers

- i. **Increase Patient Counseling and Follow-Up**
Encourage nurses and clinicians to provide personalized education and regular follow-ups to reinforce patient adherence.
- ii. **Adopt a Patient-Centered Approach**
Tailor health messages and interventions to patients' literacy levels, cultural backgrounds, and socioeconomic conditions.
- iii. **Use Technology in Patient Engagement**
Introduce reminder systems via mobile phones or community health worker visits to promote adherence and follow-up attendance.

Community and Individuals

- i. **Promote Peer Support and Community Groups**
Establish hypertension clubs or community-based support groups to facilitate peer learning, encouragement, and accountability.
- ii. **Encourage Lifestyle Modification**
Individuals should prioritize healthy eating, reduced salt intake, regular physical activity, and stress management as part of daily routines.
- iii. **Regular Health Screening**
Adults, especially those over 35 years, should make routine blood pressure checks part of their health-seeking behavior.

Future Research

- i. **Conduct qualitative studies to explore the socio-cultural and behavioral barriers to hypertension self-management in greater depth.**
- ii. **Undertake longitudinal studies to assess the long-term effects of education and awareness interventions on blood pressure control outcomes.**
- iii. **Expand the scope to include rural settings to compare self-management practices between urban and rural populations.**

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Appendix I: Consent form and Questionnaire

Questionnaire ID no.....

Consent form

Hello,

My Name is **Jonathan Musonda Kalyondo**, a student at University of Lusaka. I am conducting a study on entitled “**Assessing the Factors Influencing hypertension Self-Management practices among Adults in Urban Lusaka: A Cross-Sectional Study**”.

Procedure: Your involvement will entail answering a structured questionnaire through a brief interview at the health facility where you receive healthcare services. Your participation will not exceed 30 minutes.

Purpose: Your responses will help improve the understanding of hypertension self-management practices and contribute to better healthcare interventions.

Voluntary Participation: Participation in this study is entirely voluntary. You may refuse to answer any question or withdraw from the study at any time without consequences.

Confidentiality: Your responses will be kept confidential and only used for research purposes. No personal identifiable information will be shared or published.

Contact Information: For any inquiries or concerns about the study, please contact my research Supervisor **MR. Clinsmann Nalishebo Nawa** on +260974374862 or student **Jonathan Musonda Kalyondo** on +260777178364

I have read and understood the information provided above and consent to participate in this study.

Participant's Signature: _____ Date _____

Name of data collector: _____ Signature _____ Date _____

Appendix II: Questionnaire

Section 1: Demographic Information

Please answer the following questions about yourself:

1. **Age:**

☐ 18-29

☐ 30-39

☐ 40-49

☐ 50-59

☐ 60 and above

2. **Gender:**

☐ Male

☐ Female

3. **Marital Status:**

☐ Single

☐ Married

☐ Divorced

☐ Widowed

4. **Highest Level of Education:**

☐ No formal education

☐ Primary school

☐ Secondary school

☐ Tertiary (College/University)

5. **Occupation:**

☐ Employed full-time

☐ Employed part-time

☐ Unemployed

☐ Self-employed

☐ Retired

☐ Student

☐ Other, please specify: _____

Section 2: Knowledge of Hypertension Self-Management

Please answer the following questions based on what you know about hypertension and its management.

1. **What is hypertension?**

- ☐ High blood sugar
- ☐ High blood pressure
- ☐ High cholesterol
- ☐ High body temperature
- ☐ I don't know

2. Which of the following are risk factors for hypertension? (Select all that apply)

- ☐ High salt intake
- ☐ Lack of exercise
- ☐ Excessive alcohol consumption
- ☐ Smoking
- ☐ Obesity
- ☐ Age
- ☐ Family history
- ☐ Stress
- ☐ I don't know

3. What are the recommended lifestyle changes for managing hypertension? (Select all that apply)

- ☐ Reducing salt intake
- ☐ Increasing physical activity
- ☐ Eating a balanced diet with fruits and vegetables
- ☐ Taking prescribed medications regularly
- ☐ Reducing alcohol consumption
- ☐ Smoking cessation
- ☐ I don't know

4. **How often should you monitor your blood pressure if you have hypertension?**
- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Only when I feel symptoms
- ☐ I don't know
5. **Do you think exercise is important for controlling hypertension?**
- ☐ Yes
- ☐ No
- ☐ I don't know
6. **What are the potential complications of uncontrolled hypertension? (Select all that apply)**
- ☐ Heart attack
- ☐ Stroke
- ☐ Kidney damage
- ☐ Eye problems
- ☐ I don't know

Section 3: Attitudes towards Hypertension Self-Management

Please indicate how much you agree with the following statements about hypertension and its management (1 = Strongly Disagree, 5 = Strongly Agree).

Statement	1	2	3	4	5
1. I believe that hypertension is a serious health condition.	☐	☐	☐	☐	☐
2. I feel that taking medication for hypertension is important for my health.	☐	☐	☐	☐	☐
3. I find it difficult to make dietary changes to manage my hypertension.	☐	☐	☐	☐	☐

Statement	1	2	3	4	5
4. I believe that exercise is effective in managing hypertension.	☐	☐	☐	☐	☐
5. I think hypertension can be controlled with lifestyle changes alone, without medication.	☐	☐	☐	☐	☐
6. I feel confident in my ability to manage my hypertension through self-care.	☐	☐	☐	☐	☐
7. I am worried about the side effects of hypertension medication.	☐	☐	☐	☐	☐
8. I would prefer to avoid medication for hypertension and rely on natural methods.	☐	☐	☐	☐	☐

Section 4: Self-Management Practices

Please answer the following questions about your current practices for managing hypertension.

1. Are you currently taking medication for hypertension?

- ☐ Yes
☐ No

2. How often do you take your prescribed hypertension medication?

- ☐ Every day as prescribed
☐ Occasionally
☐ I forget to take my medication
☐ I do not take medication for hypertension

3. How often do you monitor your blood pressure?

- ☐ Daily
☐ Weekly
☐ Monthly
☐ Rarely
☐ Never

4. **Do you follow a specific diet to control your hypertension?**

☐ Yes

☐ No

5. **If yes, what type of diet do you follow? (Select all that apply)**

☐ Low-sodium diet

☐ Low-fat diet

☐ Dietary Approaches to Stop Hypertension

☐ High-fiber diet

☐ I don't follow a specific diet

6. **How often do you engage in physical exercise?**

☐ Daily

☐ 3-4 times a week

☐ Once a week

☐ Never

7. **Do you smoke?**

☐ Yes

☐ No

8. **Do you drink alcohol?**

☐ Yes

☐ No

9. **Have you experienced any barriers to managing your hypertension effectively?
(Select all that apply)**

☐ Lack of knowledge about the condition

☐ Cost of medications

☐ Lack of time to exercise

☐ Lack of social support

☐ Difficulty adhering to dietary changes

- ☐ Fear of side effects from medications
- ☐ Lack of access to healthcare services
- ☐ Other, please specify: _____

Section 5: Barriers to Hypertension Self-Management

Please describe any challenges you face in managing your hypertension effectively.

- 1. What do you think are the biggest challenges in managing hypertension in your life?**

- 2. How could healthcare provider's help you better manage your hypertension?**

Thank You for Participating!

Appendix III: Budget

SN	BUDGET CATEGORY	UNIT COST (K)	FREQUENCY	TOTAL(K)
1	Transport for five data collector assistants	25	14	1,750
	Data assistant 1	100	14	1,400
	Data assistant 2	100	14	1,400
			Total	2,800
2	Stationary			
	Pens	10	5	150
	Pencils	5	5	25
	Reams of paper	150	1	150
	Photocopying (Questionnaires)	2	180	360
	Printing and binding	400	3	1,200
			Total	1135
3	Unforeseen costs	500	1	1000
			Grand Total	5,685

Appendix IV: Gantt chart

SN	Activities	Feb 2025	Mar 2025	Apr 2025	May 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025
1	Proposal development and Submission								
2	Proposal defense								
3	Piloting								
4	Data collection								
5	Data analysis								
6	Final document and presentation of findings								

Appendix V: NATIONAL HEALTH RESEARCH AUTHORITY PERMIT



NATIONAL HEALTH RESEARCH AUTHORITY

Lot No. 18961/M, off Kasama Road, Chalala, P.O. Box 30075, LUSAKA
Tell: +260211 250309 | Email: znhrasec@nhra.org.zm | www.nhra.org.zm

NHRA10312/30/09/2025

30th September 2025

The Principal Investigator,
Jonathan kalyondo,
University of Lusaka,

Dear Jonathan kalyondo,

Re: Request for Authority to Conduct Research

The National Health Research Authority Is in Receipt of Your Request for Authority to Conduct Research Titled **“Assessing the Factors Influencing Hypertension Self-Management Practices among Adults in Urban Lusaka: A Cross-Sectional Study”**

I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been **approved** on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised.
2. Progress updates are provided to NHRA bi-annually from the date of commencement of the study.
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country.
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,

National Health Research Authority


Prof Victor Chalwe,
Director and Chief Executive Officer

All correspondences should be addressed to the Director/CEO National Health Research Authority

Appendix VI: UNIVERSITY OF LUSAKA PERMIT



UNIVERSITY of LUSAKA

Passion for Quality Education: Our Driving Force

**UNIVERSITY OF LUSAKA RESEARCH ETHICS COMMITTEE
(UNILUS-REC)**

Plot No. 37413, Off Alick Nkhata Mass Media, P. O Box 36711, Lusaka.

Phone: +260211258505, 258409 Fax +260211233409; Cell +260976075850,961917862,

E-mail: unilus@zamnet.zm, ictar@zamnet.zm

UNILUS-RESEARCH ETHICS COMMITTEE

Ref no: FWA00033228-1014(08)/(08)/{2024}

Date: 19 August 2025

STUDENT NAME: **Mr. Jonathan Kalyondo**

Assessing the Factors Influencing Hypertension Self-Management Practices among Adults in Urban Lusaka: A Cross-Sectional Study

The above research was submitted to the research ethics committee for review. The study has no major ethical problems and is approved subject to the following:

1. The study cannot be changed without express permission of the UNILUS research ethics committee.
2. Approval from the necessary authority should be sought.

1 of 2



Professor Kasonde Bowa

MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)

Chairman- UNILUS REC

Professor of Urology and Consultant Urologist

Deputy Vice-Chancellor – Research and Innovation

Executive Dean - School of Medicine and Health Sciences

Appendix VII: CHAWAMA LEVEL ONE PERMIT



[Signature]

The Medical Superintendent
Chawama First Level Hospital
Chifundo Road, 10101
Lusaka, Zambia

Dear Sir/ Madam,

REF: Application for Permission to Conduct Research at Chawama First Level Hospital

I am writing to kindly request permission to conduct my research study at Chawama First Level Hospital as part of the requirements for my Bachelor of Science in Public Health degree at the University of Lusaka. I am a fourth-year student undertaking this research under the supervision of Mr Clinnsmann Nalishebo Nawa

The study is titled: "Assessing the Factors Influencing Hypertension Self-Management Practices among Adults in Urban Lusaka." The main objective of the study is to assess the levels of knowledge, attitudes, and practices regarding hypertension self-management among adults in urban areas, in order to inform improved health interventions, patient education, and lifestyle promotion strategies. The study will employ a quantitative, A cross sectional analytical study design using a structured questionnaire as a method of data collection. The study will employ a quantitative cross-sectional design, and data will be collected using a structured questionnaire administered to adult participants. A total of 155 respondents will be selected

Jonathan Kalyondo

Student ID: BSPH22113655

University of Lusaka

School of Medicine and Health Sciences

260777178364

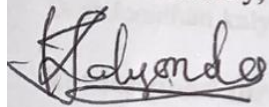
Jonathankalyondo5@gmail.com

16th November, 2025.
01

using stratified sampling from selected urban areas in Lusaka. Data collection is scheduled to commence in October 2025, followed by data analysis and report writing. The completed dissertation will be submitted to the University of Lusaka in November 2025 as part of the degree requirements. Attached to this letter are copies of the ethical clearance approval letters obtained from the University of Lusaka Research and Ethics Committee and the National Health Research Authority (NHRA). I assure you that all ethical principles including informed consent, confidentiality, and privacy will be strictly observed throughout the study. I kindly request your approval to conduct this research at your institution. Your support will greatly contribute to the successful completion of my study and provide valuable insights for improving hypertension management and patient outcomes in urban Lusaka.

Thank you in advance for your kind consideration

Yours faithfully,



Jonathan kalyondo

BSc Public Health (fourth year)

University of Lusaka