KNOWLEDGE AND PERCEPTION OF HYPERTENSION AND ITS COMPLICATIONS AMONG YOUNG ADULTS IN EGOR LOCAL GOVERNMENT AREA

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IN PARTIAL FULFILMENT OF THE AWARD OF DEGREE OF BACHELOR OF NURSING SCIENCE, FACULTY OF NURSING SCIENCE, UNIVERSITY OF BENIN, BENIN CITY.

OCTOBER, 2025

DECLARATION

This is to declare that this research project titled **KNOWLEDGE AND PERCEPTION OF HYPERTENSION AND ITS COMPLICATIONS AMONG YOUNG ADULTS IN EGOR LOCAL GOVERNMENT AREA**, was carried out by **OLUOWHO FAITH**. It was solely the result of my work except where acknowledged as being derived from another person (s) or resources.

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Date: ……

CERTIFICATION/APPROVAL

This is to certify that this research project by OLUOWHO FAITH with matriculation number BMS1903050 has been examined and approved for BACHELOR IN NURSING SCIENCE CERTIFICATE.

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ABSTRACT

Hypertension is a major global public health concern and the leading modifiable risk factor for cardiovascular morbidity and mortality. Despite its preventable nature, awareness, perception, and control of hypertension remain suboptimal, especially among young adults in developing countries like Nigeria. This study assessed the knowledge and perception of hypertension and its complications among young adults in Egor Local Government Area, Edo State. A descriptive cross-sectional survey design was adopted. A total of 316 respondents aged 18–35 years were selected using a multistage sampling technique. Data were collected with a structured and validated Knowledge, Attitude, and Practice (KAP) questionnaire and analyzed using descriptive and inferential statistics, with results presented in frequency tables and percentages. Findings revealed that 26.3% of respondents had poor knowledge of hypertension, 48.1% demonstrated fair knowledge, while 25.6% had good knowledge. Although most respondents recognized key risk factors such as obesity, stress, and salt intake, misconceptions persisted regarding the curability of hypertension and its risk among young people. Perception of hypertension was generally moderate, influenced by factors such as education level, lifestyle habits, and family history. The study found a significant relationship between knowledge and perception of hypertension among young adults ($p < 0.05$).The study concludes that while awareness of hypertension exists, comprehensive understanding and positive perception toward its prevention and management remain inadequate. It recommends targeted health education and community-based interventions focusing on young adults to enhance knowledge, correct misconceptions, and promote early screening and lifestyle modification. Strengthening nursing roles in hypertension prevention and control is essential to reducing the long-term burden of the disease in the population.

Keywords: Hypertension, Knowledge, Perception, Young Adults, Egor Local Government, Edo State, Nigeria.

DEDICATION

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

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Hypertension continues to be a significant global public health concern and is recognized as the primary risk factor for cardiovascular illness and death (Wolde *et al*., 2022). It contributes to arterial hardening, increasing the likelihood of heart disease, peripheral vascular disease, stroke, heart failure, and kidney failure. As the most prevalent non-communicable disease worldwide, hypertension affects all racial groups, though its prevalence varies. Castelli (2022) stated that the prevalence of this condition is rising in developing nations, where the adoption of Western lifestyles and the pressures of urbanization continue to grow. These factors are anticipated to contribute to an increase in morbidity linked to unhealthy living habits. Wolde *et al*., (2022) was of the opinion that hypertension produces disruptions in health, disability and death in the adult population worldwide. Macchalani *et al*., (2022) stated that hypertension causes one in every eight deaths worldwide, making it the third leading killer disease in the world. They also estimated that about one billion adults, the world over, had hypertension in the year 2020 and the number is expected to rise to 1.56 billion in the year 2025 if positive intervention programme is not made. Fifty million Americans have high blood pressure, approximately one in three adults (Macchalani et *al*., 2022)

Hypertension is becoming a major public health burden globally, because of its higher morbidity, mortality, disability and financial burden mainly among adults who have a productive life. It is the main and very important modifiable risk issue for cardiovascular problems, stroke, renal problems, and retinopathy (Anyanti *et al*., 2020). Early detection and adequate prevention strategies with proper treatment, and control must pay high attention to reduce the disease burden

(Miller *et al*., 2021). According to World Health organization (WHO), more than 80% of deaths from hypertension (HTN) and related cardiovascular diseases (CVDs) currently arise in low and middle-income countries and is predominantly common among persons of low socio-economic status (WHO, 2023). The presence of hypertension more than doubles the risk for coronary heart disease; including acute myocardial infarction and sudden death and more than triples the risk of congestive heart failure and strokes. Obesity, unhealthy diet, diabetes mellitus, excessive alcohol intake, physical inactivity and smoking are considered as risk factors for hypertension (WHO, 2023).

The trends of hypertension (HTN) are increasing every year because of the changing pattern of lifestyle behaviors (Koju *et al*., 2021), and the prevalence of HTN is reported to be increasing rapidly in the urban areas and the same trend is in rural areas too (Vaidya *et al*., 2023). Lack of knowledge about the morbidity, complications and the method of control and management of hypertension contributes to a large percentage of undetected and untreated hypertensive persons in the community (Vaidya *et al*., 2021).

In Nigeria like in many Low- and Middle-Income Countries (LMICs), hypertension is being managed both by individuals burdened by the disease and health care providers. Health seeking behaviour encompasses health care utilization including preventive and curative activities, maintenance of physiological state and well-being, or obtaining data regarding one's health status and prognosis (Latunji, & Akinyemi, 2021). The high prevalence of hypertension in Nigeria has contributed to the concomitantly high incidence and prevalence of hypertension in Africa. HBP has been found to be responsible for 10 million deaths worldwide every year and accounts for approximately 987 thousand Disability Adjusted Life Years (DALYs) (WHO, 2023). While the required workforce and medications necessary to treat hypertension are available universally

including in Nigeria, suboptimal BP control has been widely documented in both the developing and the developed world (Chijioke, 2021). Moreover, although BP is easy to measure and hypertension responds well to therapy, a considerable number of hypertensive patients on medication are not properly controlled thus, remain at risk for the complications of hypertension as a result of failure to reach the goal BP of ≤140/90 mmHg. (Ojeh-Oziegbe, & Ikhidero, 2021). Several former studies identified that there was a significant lack of awareness about the reasons of hypertension and its complications among the hypertensive patients (Sofia *et al*. 2021, Kongarasan and Shah 2022, Iyalomhe and Iyalomhe 2020). A hospital-based study conducted in Kathmandu found the respondents' knowledge regarding hypertension was poor (Acharya & Chalise, 2021). Another study had revealed that adequate knowledge of hypertension is related to better control of hypertension (Sharma *et al*., 2024). However, community-based studies have shown inadequate knowledge, poor attitude and practice among patients with hypertension in Nepal (Shrestha *et al*. 2022) and Pakistan (Almas *et al*. 2022). Such level of knowledge, attitude and practice affect the control of high blood pressure despite of appropriate treatment. Likewise, a study in peri-urban area of Nepal with cardiovascular diseases suggests that the community awareness of such diseases is poor (Vaidya, Pathak, & Pandey, 2022). Therefore, healthcare professionals must not only diagnose and treat patients with hypertension but also create awareness about prevention and management strategies to decrease the prevalence and complications of HTN. Hence, the researcher was interested to assess the knowledge and perception of hypertension and its complication among young adults in Egor LGA, Edo State.

1.2 Statement of the problem

Hypertension is one of the leading risk factors for cardiovascular diseases and other chronic conditions such as stroke, heart attack, kidney failure, and premature death (WHO, 2021). Despite the growing awareness of the condition worldwide, its prevalence remains alarmingly high, particularly in low- and middle-income countries, including Nigeria, where health systems often struggle to address non-communicable diseases (Adeloye *et al*., 2021). According to the World Health Organization (2020), approximately 1.13 billion people globally are affected by hypertension, with a prevalence rate of about 30–40% among adults. In Africa, Ogah *et al*. (2020) reported that the prevalence of hypertension remains high, ranging from 30% to 45% among adults, making it a major contributor to cardiovascular diseases and mortality in the region.

Focusing on Nigeria, Adeloye *et al*. (2021) conducted a nationwide survey and found that the overall age-standardized prevalence of hypertension was 38.1%. The prevalence varied across different geopolitical zones, with the North-Central at 20.9%, North-East at 27.5%, North-West at 26.8%, South-East at 52.8%, South-South at 44.6%, and South-West at 42.1% (Adeloye *et al*., 2021). These findings suggest that certain regions, particularly the South-East and South-South, bear a higher burden of hypertension.

In Edo State, which is located in the South-South zone, a study by Ekwunife *et al*. (2020) conducted in a rural community reported a hypertension prevalence of 27.9%. The study further highlighted that age and body mass index (BMI) were significant determinants, with older and obese individuals exhibiting higher rates of hypertension (Ekwunife *et al*., 2020).

Young adults, traditionally considered to be at the peak of their health, are increasingly at risk of developing hypertension due to lifestyle changes such as poor diet, physical inactivity, stress, and substance use (Ogah *et al*., 2023). Research has shown that inadequate knowledge and poor

perception of hypertension among young adults often result in delayed diagnosis, poor adherence to preventive measures, and ineffective management of the condition (Kayima *et al*., 2023).

Hypertension is particularly insidious because it is often asymptomatic in its early stages, making it a "silent killer" (WHO, 2021). Young adults who remain unaware of their blood pressure status may unknowingly live with undiagnosed hypertension, which silently progresses and leads to severe complications such as cardiovascular disease and organ damage (Kearney *et al*., 2021). Misconceptions, including the belief that hypertension is an “older person’s disease,” contribute to the neglect of early screening and preventive measures in this demographic group (Adeloye *et al*., 2021).

Studies in Nigeria have highlighted the need for targeted health education campaigns to improve awareness and perception of hypertension among young people (Ajayi *et al*., 2021). Furthermore, student nurses play a crucial role in health education and early detection of hypertension during their clinical experience. However, their level of knowledge, perception, and clinical exposure to managing hypertension in young adults is not well documented. Understanding their experiences can provide insights into potential gaps in nursing education and practical training related to hypertension management. Addressing the knowledge and perception gaps surrounding hypertension among young adults in Egor Local Government Area is vital to reducing the burden of this preventable condition. Therefore, this study aims to assess the knowledge and perception of hypertension and its complication among young adults in Egor Local Government, Area.

1.3 Objectives of the study

Generally, the aim of the study is to assess the level of knowledge and perception of hypertension and its complication among young adults in Egor Local Government, Area.

The specific objectives of the study are to

1. assess the level of knowledge of hypertension and its complication among young adults in Egor Local Government, Area.
2. determine the level of perception of hypertension and its complication among young adults in Egor Local Government, Area.
3. identify factors influencing the perception of hypertension among young adults in Egor Local Government, Area.

1.4 Research Questions

1. What is the level of knowledge of hypertension among and its complication among young adults in Egor Local Government, Area?
2. What is the level of perception of hypertension and its complication among young adults in Egor Local Government, Area?
3. What are factors influencing the perception of hypertension among young adults in Egor Local Government, Area?

1.5 Research Hypothesis

There is no significant relationship between the level of knowledge and their perception of hypertension **and** its complication among young adults in Egor Local Government, Area.

1.6 Significance of the study

The study holds significant implications for nursing practice, nursing education, and nursing research. Its findings have the potential to enhance nursing interventions, improve the training of

future nurses, and expand the body of evidence needed for effective health promotion and disease prevention strategies.

Nursing Practice: This study provides critical insights that can enhance nurses' roles in health promotion and early disease prevention. By identifying gaps in knowledge and misconceptions about hypertension, nurses can develop and implement community-based programs that educate young adults on the importance of healthy lifestyles, regular blood pressure monitoring, and adherence to treatment plans. Furthermore, understanding the specific perceptions and beliefs of young adults in the Egor Local Government Area will enable nurses to deliver culturally sensitive care, ensuring that health messages resonate with the target audience. These insights also empower nurses to engage effectively with the community through outreach programs, fostering trust and encouraging participation in health initiatives. Moreover, the evidence generated by this study can bolster nurses' advocacy efforts for policies that prioritize hypertension awareness and prevention, thereby influencing broader public health strategies.

Nursing Education: The findings highlight the need to incorporate hypertension awareness and prevention strategies into nursing curricula, with a particular emphasis on addressing the condition among young adults. Nursing educators can use the study to design innovative teaching strategies, such as community-focused learning experiences, case studies, and simulation exercises that prepare students to tackle real-world health challenges. The study reinforces the importance of preventive care, equipping nursing students with the knowledge and skills to educate communities about lifestyle modifications and early detection of hypertension. Furthermore, by integrating the study's insights into interdisciplinary learning, nursing education can foster collaboration among healthcare professionals, promoting a holistic approach to addressing hypertension.

Nursing Research: This study contributes valuable data to the limited body of research on young adults' knowledge and perception of hypertension. It fills critical knowledge gaps, providing a foundation for future studies that can build on its findings. The study's outcomes can guide the development of evidence-based interventions tailored to address specific misconceptions and knowledge deficiencies about hypertension. Additionally, the findings can be used to design and evaluate educational programs aimed at improving health literacy and behaviors among young adults, helping to identify best practices in health promotion. The study also sheds light on the sociocultural factors influencing health behaviors in the Egor Local Government Area, prompting further research into culturally appropriate interventions. As a baseline, it can inform longitudinal studies to track changes in knowledge, attitudes, and behaviors over time, advancing the understanding of effective strategies for hypertension prevention and management.

This study is of immense significance to nursing as it enhances the ability of nurses to provide effective, culturally relevant care, equips future nurses to address public health challenges, and expands the evidence base for managing and preventing hypertension. By contributing to nursing practice, education, and research, the study supports the overarching goal of improving health outcomes for individuals and communities, particularly young adults at risk of hypertension and its complications.

1.7 Scope of the study

This study focuses on the knowledge and perception of hypertension and its associated risk factors among young adults in Egor Local Government, Area.

1.8 Operational Definition of Terms

Hypertension; blood pressure greater or equal 140/90mmHg after a period of rest on two occasions or blood pressure greater or equal 160/110mmHG on one occasion in a respondent.

Knowledge of Hypertension and its complication: refers to the level of understanding young adults in Egor Local Government Area have about hypertension. This includes their awareness of its definition, causes, risk factors, symptoms, potential complications, prevention strategies, and treatment options.

Perception of Hypertension: refers to the beliefs, attitudes, and opinions that young adults in Egor Local Government Area hold regarding hypertension, its seriousness, risk factors, prevention, and treatment. It reflects how individuals interpret and prioritize hypertension in relation to their health and well-being.

Young adults: young adults are individuals within the age range of 18 to 35 years living in Egor Local Government Area. This demographic is selected based on the transitional stage of life characterized by the development of independence, active engagement in education or employment, and increased responsibility for personal health decisions.

Egor Local Government Area: refers to one of the administrative regions in Edo State, Nigeria. It serves as the geographical location where the research will be conducted, specifically focusing on young adults residing within this area. Egor LGA includes both urban and semi-urban communities, with a diverse population comprising students, traders, professionals, and other groups. This is the study setting where data will be collected to assess the knowledge and perception of hypertension and its complications among young adults.

CHAPTER TWO

LITERATURE REVIEW

This chapter discusses the literature about research variables in the following subheading: Conceptual Review, Theoretical Framework and Empirical Review

2.1 Conceptual Review

The Concept of Hypertension

According to Hyman and Pavlik (2021), hypertension is the persistent raised levels of blood pressure in which the systolic pressure is above 140mmHg and a diastolic pressure above 90mmHg. According to the World Health Organization (2021), young people are typically defined as individuals between the ages of 10 and 24 years. Based on the recommendation of the seventh Report of the Joint National Committee (JNC) on prevention, detection, evaluation and treatment of high blood pressure (JNC 2023). The classification of blood pressure for adults aged 18 years or older has been as follows;

- Normal systolic lower than 120mmHg, diastolic lower than 80mmHg
- Pre-Hypertension: Systolic 120-139mmHg, diastolic 80-89mmHg
- Stage I: Systolic 140-159mmHg, diastolic 90-99mmHg
- Stage II: Systolic 160mmHg, diastolic 100mmHg or greater

Hypertension affects the structures and functions of small muscular arteries, arterioles and other blood vessels and can cause damage at variable rate to various target organs including kidney, brain an eye, related with the end stage of renal disease and to be the cause of stroke (Hock *et al*. 2021, Lee *et al*, 2021).

Blood pressure is the force of blood pushing against blood vessel walls, It is measured in millimeters of mercury (mmHg). High blood pressure means that pressure in the arteries is

higher than it should be (American Heart Association (AHA), 2021). Another name for hypertension is High Blood Pressure". Hypertension is defined as an increase in blood pressure of over 140mmhg systolic and 90mmhg diastolic taken over 3 consecutive times. An estimated 1.28 billion adults aged 30-79 years worldwide have hypertension, most (two-thirds) living in low- and middle-income countries (WHO,2021). An estimated 46% of adults with hypertension are unaware that they have the condition (WHO, 2021). Less than half of adults (42%) with hypertension are diagnosed and treated (WHO, 2021). Approximately 1 in 5 adults (21%) with hypertension have it under control. Hypertension is a major cause of premature death worldwide. One of the global targets for non-communicable diseases is to reduce the prevalence of hypertension by 33% between 2010 and 2030 (WHO, 2021).

Hypertension is a pandemic health issue, affecting a large number of the world's population. There has been continuous incidence of hypertension which has been attributed to many risk factors which includes physical in-activity among others.

Classification of hypertension (AHA, 2021)

There are two types of hypertensions namely;

i. Primary/essential/idiopathic hypertension: The cause of hypertension is unknown.
ii. Secondary hypertension: This is secondary to other disease conditions such as kidney diseases, renal diseases, the use of oral contraceptive pills etc.

Hypertension is usually asymptomatic; symptoms usually occur during the chronic stage when there is damage to internal organs.

Additional Hypertension Types: Isolated Systolic, Malignant, and Resistant (AHA, 2021)

Isolated systolic hypertension, malignant hypertension, and resistant hypertension are all recognized hypertension types with specific diagnostic criteria.

Isolated systolic hypertension. Blood pressure is recorded in two numbers: The upper, or first, number is the systolic pressure, which is the pressure exerted during the heartbeat; the lower, or second, number is the diastolic pressure, which is the pressure as the heart is resting between beats. Normal blood pressure is considered under 120/80. With isolated systolic hypertension, the systolic pressure rises above 140, while the lower number stays near the normal range, below 90. This type of hypertension is most common in people over the age of 65 and is caused by the loss of elasticity in the arteries. The systolic pressure is much more important than the diastolic pressure when it comes to the risk of cardiovascular disease for an older person.

Malignant hypertension. This hypertension type occurs in only about 1 percent of people with hypertension. It is more common in younger adults, African-American men, and women who have pregnancy toxemia. Malignant hypertension occurs when your blood pressure rises extremely quickly. If your diastolic pressure goes over 130, you may have malignant hypertension. This is a medical emergency and should be treated in a hospital. Symptoms include numbness in the arms and legs, blurred vision, confusion, chest pain, and headache.

Resistant hypertension. If your doctor has prescribed three different types of antihypertensive medications and your blood pressure is still too high, you may have resistant hypertension. Resistant hypertension may occur in 20 to 30 percent of high blood pressure cases. Resistant hypertension may have a genetic component and is more common in people who are older, obese, female, African American, or have an underlying illness, such as diabetes or kidney disease.

2.2 Clinical manifestations of hypertension

Hypertension is rarely accompanied by symptoms, and its identification is usually through screening, or when seeking healthcare for an unrelated problem. Some people with high blood pressure report headaches (particularly at the back of the head and in the morning), as well as lightheadedness, vertigo, tinnitus (buzzing or hissing in the ears), altered vision or fainting episodes (Fisher & Williams, 2021). These symptoms, however, might be related to associated anxiety rather than the high blood pressure itself (Marshall *et al*, 2021).

Risk factors of hypertension

Modifiable risk factors include unhealthy diets (excessive salt consumption, a diet high in saturated fat and trans fats, low intake of fruits and vegetables), physical inactivity, consumption of tobacco and alcohol, and being overweight or obese (WHO, 2021). Non-modifiable risk factors include a family history of hypertension, age over 65 years and co-existing diseases such as diabetes or kidney disease (WHO, 2021)

2.3 Management of hypertension

Non pharmacological management of hypertension

These include:

Dietary modifications: To reduce BP, a diet consisting of whole grains, more vegetables, and fruits is recommended (Hernandez, 2022). Other recommendations include consuming low-fat dairy products, poultry, fish, legumes, non-tropical vegetable oils, and nuts; and reducing intake of sweets, sugar-sweetened beverages, and red meat. Dietary pattern is also influenced by appropriate calorie requirements, personal and cultural food preferences, and nutritional therapy for other medical conditions, such as diabetes

mellitus and chronic kidney disease. This can be achieved by various dietary plans. One way to achieve this is by following plans such as the Dietary Approaches to Stop Hypertension diet, US Department of Agriculture Food Patterns, or the American Heart Association diet. The Dietary Approaches to Stop Hypertension diet emphasized consuming more fruits and vegetables, but less dairy products, saturated fats red meat and less sweets, and sugar-sweetened beverages.

Reducing the sodium, magnesium and potassium intake: There is strong and consistent evidence that reducing sodium intake reduces BP. Adults should be advised to limit their sodium intake to no more than 2,400 mg per day (equivalent to around 5 gm/1 teaspoon of table salt per day). Further reduction of sodium intake to 1,500 mg per day is desirable because it is associated with an even greater reduction in BP. The average BP reduction in patients consuming a sodium-restricted diet of 2,400 mg per day is 2/1 mm Hg, or 7/3 mm Hg for those restricting sodium to 1,500 mg per day (Yang *et al*, 2002). Reducing baseline sodium intake by at least 1,000 mg per day will lower BP even if the desired daily sodium intake is not yet achieved. Food prepared out of home, canned foods, and prepackaged foods (dry or frozen) tend to contain more sodium than home-cooked meals or frozen vegetables, so it is best to be avoided (WHO, 2021).

Physical activities and weight loss: Adults should practice moderate to vigorous aerobic physical activity at least 4 times per week for an average of 40 min per session to lower BP (Mautaugh *et al*, 2021). Most health benefits have been reported with at least 150 min per week of moderate-intensity physical activity, such as brisk walking. Some physical activity is better than none, and more activity results in greater benefits. Health benefits of exercise include reduced rates of all-cause mortality, coronary heart disease,

hypertension, stroke, type 2 diabetes, metabolic syndrome, colon cancer, breast cancer, and depression.

Tobacco cessation: The use of tobacco is the leading preventable cause of death and significantly increases the risk of cardiovascular disease. Tobacco causes an immediate increase in sympathetic nervous activity, which in turn increases myocardial oxygen demand through increased BP, heart rate, and myocardial contractility. A meta-analysis of 20 prospective cohort studies found that quitting smoking after a heart attack or cardiac surgery decreases a patient's risk of death by more than 33% over five years (Warburton, 2021).

Alcohol consumption: Many cross-sectional epidemiologic studies have demonstrated that the prevalence of hypertension increases with higher average alcohol consumption, with longitudinal studies suggesting that BP changes are positively correlated with drinking changes (ie, reduced drinking lowers BP). More generally, due to the dependence of BP reduction on the baseline, those with the highest initial pressure experienced the greatest reduction. This finding is consistent with prior research suggesting that only about half of heavy drinkers experience a pressor effect, most of whom will experience BP reduction with reduced drinking. If maintained in the long term, such reductions would be expected to result in improved survival. This may magnify gains in life expectancy expected with reduced drinking or abstinence in alcohol-dependent populations (Stewart *et al*, 2021).

2.4 Pharmacotherapy (AHA, 2021)

Drug therapy is needed if lifestyle modifications cannot adequately bring BP to goal. First-line medications used in the treatment of hypertension include diuretics, angiotensin-converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs), beta-blockers, and calcium channel blockers (CCBs). Some patients will require 2 or more antihypertensive medications to achieve their BP target. In newly diagnosed patients with BP >20/10 mm Hg above goal, antihypertensives or a combination hypertensive may be added immediately. To minimize side effects, a second drug with a complementary mechanism of action should be added before the initial drug is used in the maximum recommended dosing.

Prevention of hypertension (AHA, 2021)

Healthy diet: Cut down on the amount of salt in the food and eat plenty of fruit and vegetables. The Eatwell Guide highlights the different types of food that make up the diet, and shows the proportions that should be eaten to have a well-balanced and healthy diet. Salt raises blood pressure. The more salt eaten, the higher the blood pressure. Aim to eat less than 6g (0.2oz) of salt a day, which is about a teaspoonful. Eating a low-fat diet that includes lots of fibre, such as wholegrain rice, bread and pasta, and plenty of fruit and vegetables also helps lower blood pressure. Aim to eat 5 portions of fruit and vegetables every day.

Limit your alcohol intake: Regularly drinking too much alcohol can raise blood pressure over time. Staying within the recommended levels is the best way to reduce the risk of developing high blood pressure. Alcohol is also high in calories, which will cause weight gain and can further increase the blood pressure.

Lose weight: Being overweight forces the heart to work harder to pump blood around the body, which can raise the blood pressure.

Get active: Being active and taking regular exercise lowers blood pressure by keeping the heart and blood vessels in good condition. Regular exercise can also help lose weight, which will also help lower the blood pressure. Adults should do at least 150 minutes (2 hours and 30 minutes) of moderate-intensity aerobic activity, such as cycling or fast walking, every week. Physical activity can include anything from sport to walking and gardening.

Cut down on caffeine: Drinking more than 4 cups of coffee a day may increase the blood pressure.

Stop smoking: Smoking does not directly cause high blood pressure, but it increases risk of a heart attack and stroke. Smoking, like high blood pressure, will cause the arteries to narrow.

2.5 Complications of Hypertension

According to WHO, 2021 complications of hypertension includes

Cardiovascular Complications

Persistent elevation of blood pressure exerts excessive force on arterial walls, leading to structural damage and the acceleration of atherosclerosis—the buildup of plaque within arteries. This process significantly heightens the risk of coronary artery disease, potentially culminating in angina, myocardial infarction (heart attack), heart failure, and sudden cardiac death. Additionally, the heart may undergo hypertrophy, particularly of the left ventricle, as it strives to counteract increased vascular resistance, further compromising cardiac function.

Cerebrovascular Complications

The brain is highly susceptible to the adverse effects of hypertension. Elevated blood pressure can precipitate transient ischemic attacks (TIAs) and strokes by causing narrowing, rupture, or blockage of cerebral blood vessels. Moreover, hypertension is implicated in the development of vascular dementia and cognitive decline due to its role in cerebral small vessel disease and white matter lesions.

Renal Complications

The kidneys' intricate network of blood vessels is vulnerable to damage from sustained high blood pressure. Such damage can impair the kidneys' ability to filter waste effectively, potentially leading to chronic kidney disease or kidney failure. This underscores the critical interplay between hypertension and renal health, where each can exacerbate the other's progression.

Ophthalmic Complications

Hypertension can adversely affect vision by damaging the delicate blood vessels in the retina, leading to hypertensive retinopathy. This condition can result in symptoms ranging from subtle vision changes to complete vision loss if not promptly addressed.

Neurological Complications

Severe hypertension can lead to hypertensive encephalopathy, a condition characterized by symptoms such as severe headache, visual disturbances, confusion, seizures, and, in extreme cases, coma. This medical emergency arises from the inability of cerebral blood vessels to regulate blood flow effectively under high pressure, leading to cerebral edema and dysfunction.

Quality of Life Considerations

Beyond the physical complications, hypertension can adversely affect health-related quality of life (HRQoL). The diagnosis and management of hypertension, including medication side effects, can impact physical, mental, and social well-being. Studies have shown that individuals with hypertension may experience declines in HRQoL, emphasizing the importance of comprehensive care approaches that address both medical and lifestyle factors.

2.6 Concept of Knowledge

Several definitions of knowledge and theories to explain it exist. Abdullah & Leung, 2021 defined knowledge as a theoretical or practical understanding of a subject. The school of philosophers known as empiricists sees knowledge as an "awareness or familiarity gained by experience (of a person, fact, or thing)". They (empiricists) believe that knowledge can only be acquired through experience (Armstrong, 2023). However, if knowledge can be gained only through experience, then this would mean that we could only claim to know certain things that we have had experienced in. Within a University context, if the empiricist view of knowledge was adopted, then students could only claim to have acquired knowledge in certain subjects if and only if the subjects they studied contained practical elements. For instance, if a lecturer taught students theoretical aspects of hypertension, and the students had no clinical experience of hypertension, then according to the empiricist school of thought, the students had no right to state that they were knowledgeable in the area of hypertension. Perhaps, though, in a subconscious way, employers and universities do lend partial support to the empiricist argument when they hold student placement schemes in high regard. Such experience is often held up as a valuable experience, something that enhances the student's education, thus perhaps reflecting a

tendency to value knowledge acquired through experience greater than theoretical knowledge. Another problem with the empiricist definition of knowledge (awareness or familiarity gained by experience) is that it makes no distinction between truth and falsehood.

According to the classical school of thought, knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. The classical definition specifies that a statement must meet three criteria in order to be considered knowledge: it must be justified, true, and believed. Thus, a belief that is incorrect or false does not qualify to be called knowledge. Furthermore, being correct is not enough. To be called knowledge the belief must not only be correct, but also must be justified. Some authors claim that these conditions are not sufficient, as Bartlett and Peterson (2021) case examples allegedly demonstrate. Knowledge can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can as well be more or less formal or systematic (Berger, 2022). Knowledge acquisition involves complex cognitive processes: perception, communication, and reasoning; while knowledge is also said to be related to the capacity of acknowledgment in human beings.

2.7 Theoretical Review

The theoretical framework of this review will focus on health belief model.

Health Belief Model

Health Belief Model is beneficial in assessing health protection or disease prevention behavior. The health belief model was conducted by social psychologists Irwin M. Rosenstock in 1950s. The Health Belief Model conceptual framework in nursing studies focuses on patient compliance

and preventive health care practices. In this study, it was used to assess the health seeking behaviors among the hypertensive patients to avert the complications of high blood pressure (health prevention behaviors). HBM is based on the understanding that a person will take a health-related action (i.e., seeking health care) if that person:

1. feels that a negative health condition (i.e., complications of hypertension) can be avoided,
2. Has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition (i.e., seeking health care will prevent hypertensive complications), and
3. Believes that he/she can successfully take a recommended health action (i.e., he/she can seek health care with confidence).

According to Health Belief Model, there are six main constructs; perceived severity, perceived susceptibility, perceived benefits, perceived barriers, cue to action and perceived self-efficacy.

Perceived susceptibility refers to the subjective risks of contracting a condition and it ranges from an individual who is in full denial of any risks to an individual who feels that danger is certain.

Perceived (severity) seriousness refers to an individual's perception of consequences of a negative health condition. These subjective beliefs of an illness causing pain, debilitation, social stigma or death are examples of seriousness perceived. The perceived seriousness can be indicated by the severity of the condition (its clinical consequences, disability, pain or death) and its impact on lifestyle (working ability, social relationship, etc) or, objective indicators might be used, such as the number of off-sick days or bed rest. Implications of severity range from emotional responses to concerns regarding possible restrictions affecting self, employment, family life and social relations.

The combination of perceived susceptibility and seriousness is termed perceived **threat**. The threat has a cognitive mental which is influenced by amount of information. It forces a person to take action but does not determine to what extent

Modifying factors or contributing factors include demographic variables of the patient's age and educational background; socio-psychological variables such as social class, personality, peer and reference group pressures as well as structural variables such as knowledge about the disease, prior experience of it, etc. In this study, these are lifestyle income levels, family history and interpretation of hypertension in their environmental setting, patient's knowledge of hypertension , what treatment they get (this could be a friend or a close relative) and the likelihood of identifying hypertension when they occur.

Perceived benefits refer to how various beneficial alternatives are believed to be feasible, acceptable and/or desirable. These are the person's beliefs about the availability and effectiveness of various sources of health care and not the objective facts about the effectiveness of action determine what course of action one will take . In addition the norms and pressures of social groups influence individual behavior on seeking care. In influencing behaviour, nurses must recognize the limits of each client's cognition, motivation and possible action.

Cues to action, stimulus that can "trigger" appropriate health behaviour these may be internal such as physical discomfort, or external such as a message communicating the seriousness of the disease

Perceived barriers : despite a belief being established that a particular course of action may reduce a health threat, indecision may still take place and if readiness is low and negative aspects of the course of action are viewed as high, barriers are constructed

preventing action Considerations such as, pain effects on family life, and effects on financial status can raise barriers in the decision-making process. (See fig 1).

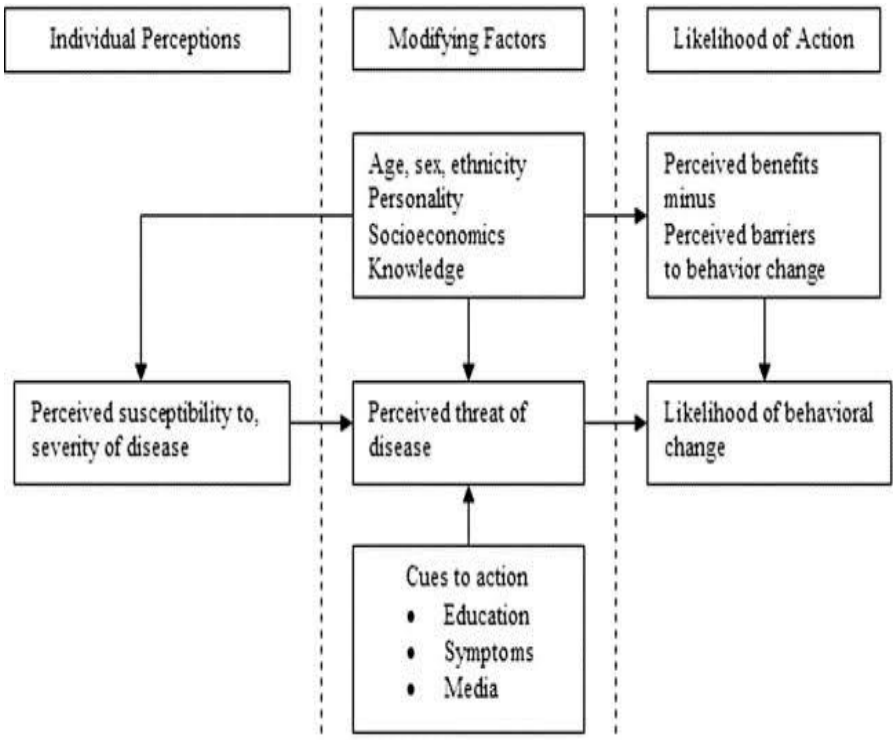

Fig 2.1 : Diagrammatic illustration of the Health Belief Model

2.8 Application of theoretical review

This framework was adapted from studies that have investigated on the prevalence of hypertension and its associated factors.

The patients' belief that might be at risk of developing hypertension is the perceived susceptibility in this study. Secondly, perceived seriousness is the seriousness with which the respondents view the preceding signs and symptoms and complication of hypertension. Thirdly, the perceived benefits is the effect of change in lifestyle, use of any of the sources of health care provision Fourthly, fear of the being diagnosed with hypertension will be a cue to action. Lastly, study barriers costs of the treatment at the hospital, cultural beliefs, value

2.9 Empirical Review

Knowledge of Hypertension and its complications

In a study conducted by Wolde *et al*., (2022) on Knowledge about hypertension and associated factors among patients with hypertension in public health facilities of Gondar city, Northwest Ethiopia: Ordinal logistic regression analysis, Facility-based cross-sectional study was conducted between March and April 2019 in Gondar town. A systematic sampling technique was applied to select a total of 389 patients. A structured interview questionnaire was used to gather the data. The data were analyzed using STATA version 14. Ordinal logistic regression analysis was performed at $P < 0.05$ with a 95% confidence interval to identify statistically significant variables. A total of 385 respondents participated giving a response rate of 98.9%. The findings from the study revealed that the majority (55.3%) of the patients had a low level of, 17.9% had a moderate level of knowledge whereas 26.8% had a high level of knowledge about hypertension. Those working in government organizations had 5.5 times higher odds of having a high level of

knowledge than other groups (AOR = 5.5; 95%CI = 1.21, 25). Patients who received longer than four years of treatment showed twice larger odds of knowledge than those with below two years of treatment (AOR = 2; 95%CI = 1.29, 3.22) Moreover, patients residing proximate to the hospital increases the odds of having a higher level of knowledge by 1.64 times versus patients living far away from the hospital (AOR = 1.64, 95% CI = 1.07–2.63). This finding revealed that knowledge about hypertension and risk factors among patients with hypertension was low. Employment in governmental organizations, longer duration of treatment, and residential proximity to hospitals/ health centers were statistically significant predictors of the participants' knowledge about hypertension. Therefore, it is important to give health education to patients working in non-governmental organizations and self-employed individuals about diseases and risk factors. In addition, emphasis should be given to patients receiving less than two years of treatment and coming from remote areas to improve their knowledge of the disease.

A study by Machaalani *et al*., (2022) on Knowledge, Attitude, and Practice Toward Hypertension Among Hypertensive Patients Residing in Lebanon, this cross-sectional study involved 342 hypertensive patients. A questionnaire form was used to collect data related to patients' characteristics. SPSS was used to determine KAP scores, descriptive statistics, and correlations. Data from HTN patients was analyzed of whom 98.2% were Lebanese and 51.2% were males. The median age was 59.15 ± 13.55 years old. The findings from this study revealed that a proportion of 40.4% had HTN duration for at least 10 years and 67.3% had HTN family history. Patients had fair HTN knowledge and practice, but good attitude toward HTN. Only 45.3% regularly checked their blood pressure. Positive correlations were observed between HTN attitude and each of knowledge and practice. HTN knowledge and attitude were associated with many studied factors, whereas no relationship was found regarding practice. The study

concluded that hypertensive patients had fair levels of knowledge and practice, and a good level of attitude concerning their disease.

A study by Chen *et al*., (2022) on Study of knowledge, attitude and practice regarding patient education in hypertension among community pharmacists in China, a multi-stage competitive sampling by convenience was used to select community pharmacists working in community pharmacies in China for the study. Based on KAP theory, the first draft of the questionnaire was designed and the Delphi method was used to improve the questionnaire and a pre-study was conducted to test the reliability of the questionnaire. In January 2020, electronic questionnaires were distributed to 143 community pharmacists in Chinese community pharmacies. SPSS24 software was used for descriptive statistics and subgroup analysis of data. One hundred and eight valid questionnaires were collected, and the efficiency rate was 75.5%. Most of the respondents were younger than 30 years old (98.1%), and had bachelor's degree (95.4%). The findings from this study revealed that only 15.7% considered themselves "very good" and even 10.2% considered themselves "very bad". Only 35%-55% of respondents answered correctly for patient education content that requires more specialized knowledge, such as treatment and medication. Respondents generally had a positive attitude on the effect of hypertension patient education, but slightly less recognition of their role in patient education. In terms of practice, programs related to patient education have been conducted to different degrees. More than 30% of the community pharmacists interviewed implemented them occasionally or never. The study concluded that despite a positive attitude, most of the respondents did not have a high level of knowledge or practice. In China, more research evidence and new guidelines are needed to emphasize the importance and responsibilities of community pharmacists. Continuing education should be

certificated at the national level and meet the various needs of community pharmacists. And salary incentives can be tried to motivate them.

Another study carried out by Dean *et al*. (2020) On Hypertension-Related Knowledge, Attitudes, and Behaviors among Community-Dwellers at Risk for High Blood Pressure in Shanghai, China. A cross-sectional survey was conducted in a district of Shanghai using multi-stage cluster sampling, including 611 participants who were at risk for hypertension. Questionnaires were used to investigate KAB regarding hypertension prevention. Multivariable logistic regression was performed to examine the relationship between socio-demographic factors and hypertension-related KAB. The results indicated that more than 75% of the study population had accurate knowledge, but only 48.4% knew the Recommended Daily Intake of salt for adults; over 80% formed health beliefs, while less than 50% were keeping a healthy diet, maintaining regular physical activity and/or bodyweight control. Better knowledge was found in the below 60 age group ($p < 0.01$) and the 60–69 age group ($p = 0.03$) than in the ≥70 age group. The behaviors in females ($p < 0.01$) were better than in males and were better in those covered by the Urban Employee Basic Medical Insurance ($p = 0.01$) than in those with the New Rural Cooperative Medical Insurance.

A study conducted by Kongarasan & Shah (2021) on Knowledge and perception of hypertension among hypertensive patients attending rural health and training centre, department of community medicine, SRMC & RI . It is a hospital based cross-sectional, observational study to assess the awareness of hypertension among hypertensive patients attending NCD .After IEC approval, fifty participants who gave written consent were included and the study was conducted using a questionnaire covering knowledge and perception aspects of hypertension in one-to-one interviews. The mean age of participants is 55.6±10.06 with illiterate of 18% and 37.1%

unemployed. More than half of the participants were female 64%. Knowledge about the causes of hypertension were 94%, Perception that hypertension can be cured completely was 78% with periodic check-up was 74%, hypertension can be controlled with treatment was 90% and medication to be taken regularly was 100%.

Another study conducted by Anyanti *et al*.(2020) on Assessment of the level of knowledge, awareness and management of hypertension and diabetes among adults in Imo and Kaduna states, Nigeria. A descriptive cross-sectional study was used. Selected ommunities across 14 local government areas in Imo and Kaduna states were included. A total of 824 adults, aged 35 years or older and resident in selected communities where the Access-N project was being implemented in Imo and Kaduna states participated in the study. Primary and secondary outcome measures. The mean age of the respondents was 48.32 years. In total, 778 (94.4%) and 746 (90.5%) of the respondents were aware of hypertension and diabetes, respectively. The mean hypertension and diabetes knowledge scores (±SD) were 4.99 (±1.99) and 8.02 (±2.61), respectively. A total of 326 (41.9%) respondents aware of hypertension had a good knowledge of hypertension while 477 (63.9%) of those aware of diabetes had a good knowledge of diabetes. Levels of hypertension and diabetes knowledge were found to be associated with physical activity and the level of education of the respondents. About two-thirds (62.6%) and less than half (41.5%) of the respondents, respectively check their BP and blood glucose (BG) levels regularly (at least once yearly). Statistically significant associations were observed between age and regular BP and BG level checks.

Perception of hypertension and its complications

A study by Barhavand *et al*., (2023) on Perception of hypertension and adherence to hypertension treatment among patients attending a hospital in western Iran: A cross-sectional

study, this is a descriptive/analytical study with a cross-sectional design. Participants were 265 patients with a history of hypertension referred to a hospital in Khorramabad, Lorestan Province in western Iran in 2020, who were selected using a convenience sampling method. A demographic form, the brief illness perception questionnaire-revised (BIPQ-R), and Morisky medication adherence scale (MMAS-8) were used for collecting data. The collected data were analyzed in SPSS v.22 software using descriptive statistics, Pearson's correlation test, independent *t*-test, one-way ANOVA, and regression analysis. The findings from this study reveald that the mean scores of BIPQ-R and MMAS-8 were 49.05 ± 15.45 (out of 80) and 3.69 ± 1.62 (out of 8), respectively. There was a significant relationship between the mean scores of MMAS-8 and BIPQ-R in total ($p < 0.001$). Perceptions of illness consequences ($B = 4.59$, $p = 0.005$), personal control ($B = 0.190$, $p = 0.047$), and symptoms ($B = 1.77$, $p = 0.005$) could significantly predict treatment adherence of patients. In illness perception, there were significant differences among patients with different places of residence ($p = 0.032$), educational levels ($p = 0.001$), and employment status ($p = 0.010$). In treatment adherence, there were significant differences among patients with different places of residence ($p = 0.042$) and educational levels ($p = 0.045$). The study concluded that treatment adherence of hypertensive patients in western Iran is at a low level, while their perception of hypertension is at a moderate level. Clinical physicians are recommended to pay attention to the perception of illness in these patients (especially unemployed and less educated patients living in rural areas) to improve their adherence to treatment and blood pressure control.

A study by Al-Rousan *et al*., (2020) on Patients' perceptions of self-management of high blood pressure in three low- and middle-income countries: findings from the BPMONITOR study, semi-structured questionnaires and focus groups was used in three LMICs; Peru, Cameroon and

Malawi to examine perceptions and attitudes of patients diagnosed with essential hypertension towards living with hypertension, BP measurement and treatment, patient–physician relationship and opinions about self-management of high blood pressure. The findings in all three countries were comparable. The findings from this study revealed that patients showed varied levels of health literacy related to hypertension. BP measurement habits were mostly affected by resources available and caregiver support. Treatment and adherence to it were primarily affected by cost. Most patients were welcoming of the idea of self-management but skeptical about the ability to do self-monitoring accurately and the safety involving self-titration of medications.

Another study on Perception of hypertension management by patients and doctors in Asia: potential to improve blood pressure control by Rahman *et al*., (2021), a mixed-methods observational study that used both qualitative and quantitative elements: qualitative interviews and focus groups with patients (N = 110), quantitative interviews with patients (N = 709), and qualitative interviews with doctors (N = 85). This study found that, although there is good understanding of the causes and consequences of hypertension among Asian patients, there is a lack of urgency to control blood pressure. Doctors and patients have different expectations of each other and a divergent view on what constitutes successful hypertension management. A fundamental gap between the beliefs of doctors and patients as to who should be most responsible for the patients' hypertension management was also identified. In addition, because patients find it difficult to comply with lifestyle modifications (often because of a decreased understanding of the changes required), adherence to medication regimens may be less of a limiting factor than doctors believe. The study concluded that doctors may provide better care by aligning with their patients on a common understanding of successful hypertension management. Doctors may also find it helpful to provide a more personalized explanation of any needed

lifestyle modifications. The willingness of the doctor to adjust their patient interaction style to form a 'doctor-patient team' is important. In addition, the study recommend that doctors should not attribute ineffectiveness of the treatment plan to patient non-adherence to medications, but rather adjust the medication regimen as needed.

A study by Kongarasan & Shah, (2021) on Knowledge and perception of hypertension among hypertensive patients attending rural health and training centre, department of community medicine, SRMC & RI, a hospital based, cross-sectional, observational study to assess the awareness of hypertension among hypertensive patients attending NCD clinic during the month of June 2016. After IEC approval, fifty participants who gave written consent were included and the study was conducted using a questionnaire covering knowledge and perception aspects of hypertension in one-to-one interviews. The mean age of participants is 55.6±10.06 with illiterate of 18% and 37.1% unemployed. More than half of the participants were female 64%. The findings from the study revealed that knowledge about the causes of hypertension were 94%, Perception that hypertension can be cured completely was 78% with periodic check-up was 74%, hypertension can be controlled with treatment was 90% and medication to be taken regularly was 100%. The findings from this study concluded that knowledge and perception about hypertension is good and the thrush has to be given regarding the practice on control of blood pressure. Thus, health education programme might help the participants to prevent the complications of hypertension and for good adherence to treatment.

Factors influencing the perception of Hypertension and its complications

A study by Almomani et al., (2022) on Public's Knowledge of Hypertension and its Associated Factors: A Cross-Sectional Study was conducted using a sample of 723 Jordanian adults. The findings from the study revealed that the participants' mean score of total hypertension

knowledge was 11.5 ±3.82 (52.2%), with 85.9% (n=621) having inadequate knowledge. Their mean scores for hypertension's risk factors, symptoms, complications, and treatment were 7.45 ±2.35 (62.1%), 2.29 ±1.21 (45.8%), 1.38 ± 0.943 (46%), and 0.391 ± 0.603 (19.6%), respectively. Four factors were found to be significant predictors of participants' knowledge, such as age (p=0.002), education level (p<0.001), family history (p<0.001), and receiving hypertension-related information (p<0.001*)*. The study concluded that the participants had inadequate knowledge regarding hypertension's complications, risk factors, symptoms, and treatment. Public health education programs that focus on hypertension knowledge are required. Nurses and other healthcare providers should take the initiative in hypertension education. Strategic planning and designing of hypertension programs are required to fit the needs of the Jordanian public to enhance their knowledge of hypertension and related preventive and control measures.

A study by Agarwal et al., (2025) on Determinants and knowledge of hypertension among adult population visited in out-patients department of a tertiary care centre: a cross-sectional study was conducted using a sample of 416 participants who visited the cardiac outpatient department of a tertiary care centre in Jharkhand. Participants > 18 years of age were selected through convenient sampling methods. Data were collected from September to November 2023, via a validated questionnaire and analyzed using SPSS version 23. The study found that 33.4% of participants were having hypertension and 40.1% of participants demonstrating inadequate knowledge about the condition. Significant associations were observed between hypertension and family history (AOR = 12.313, 95% CI 9.848–39.751), a non-vegetarian diet (AOR = 1.970, 95% CI 1.022–3.797), cigarette smoking (AOR = 2.224, 95% CI 1.111–5.453), other comorbid conditions (AOR = 9.834, 95% CI 5.145–18.799), and coronary artery disease (AOR = 0.224, 95% CI 1.954–5.348). Additionally, the awareness of hypertension was notably associated with gender,

occupation, smoking habits, and the presence of comorbidities. The study concluded that despite ongoing public health initiatives aimed at reducing hypertension rates, this study reveals a relatively high number of participants with hypertension and limited awareness within this population. These findings underscore the need for enhanced hypertension screening and targeted intervention programs to address this critical issue.

A study by Alanaitwe et al., (2024) on Prevalence of Risk Factors for Hypertension Among Faculty at an Urban University in Uganda was conducted among faculty at Makerere University in Uganda. The modified World Health Organization STEP-wise approach for non-communicable disease surveillance was used in data collection. Hypertension was defined as having a systolic blood pressure of ≥140mmHg and/or a diastolic blood pressure of ≥90mmHg, or being on antihypertensive medications. Participants were enrolled from the faculty lists by proportionate to size systematic sampling until the sample size for each college was obtained. Data was collected from January to March 2018. Multivariate logistic regression was used to determine factors associated with hypertension. A total of 141 participants were recruited into the study. The prevalent risk factors for hypertension include physical inactivity (78.7%), overweight (46.8%), obesity (20.6%), addition of extra salt to food (46.8%), current alcohol consumption (33.3%), history of smoking (10.6%), inadequate fruit and vegetable servings per day (100%), family history of hypertension (40.4%) and a family history of diabetes (22.7%). Hypertension was prevalent at 26.2% (95% CI 18.94–33.46%). The risk factors significantly associated with hypertension included a family history of hypertension (p=0.009), obesity (p=0.008) and male gender (p = 0.029). The study concluded that the prevalence of known hypertension risk factors among university teaching staff in urban Uganda is high. Majority of

these risk factors are modifiable highlighting the need for continuous screening as well as introduction of prevention and health promotion strategies to reduce the risk burden.

A study by Choi et al., (2023) on Factors Influencing the Control of Hypertension According to the Gender of Older Adults, The sample consisted of a total of 1824 with hypertension and was obtained from the Eighth Korean National Health and Nutrition Examination Survey (VIII-1, VIII-2). (3) Results: As the factors associated with hypertension control among older men, 65–74 years old (OR = 1.76, CI = 1.04–2.96), a lower education level (OR = 2.23, CI = 1.17–4.28), with obesity (OR = 2.05, CI = 1.13–2.05), and under-treatment of hypertension (OR = 22.07, CI = 6.54–7.45) increased the likelihood of rating hypertension control. As the factors associated with hypertension control among older women, trying to weight maintain (OR = 1.70, CI = 1.01–2.85) and under-treatment of hypertension (OR = 12.16, CI = 3.65–40.46) increased the likelihood of rating hypertension control. The study concluded that the factor affecting the control of hypertension differed between the two genders. To improve the control of hypertension, the guidelines for treatment interventions should be gender-specific for the early elderly. There is a need to increase control of hypertension by having health-related behavioral modifications such as reducing obesity for older men and trying weight maintenance for older women.

2.10 Summary of literature review

The literatures reviewed provide an overview on the concept of knowledge and perception of hypertension and its complications in various parts of the world including Nigeria. This study adopted health belief model (HBM). It is suitable for this work because it captures the necessary

data that investigates health behaviors, identify key health beliefs used and predict changes in health behaviors.

Empirical literature reviewed the knowledge and perception of hypertension and its complications among young adults. Reviews from previous related studies showed that many studies have been carried out on knowledge and perception of hypertension among adults but there is paucity of literature on factors influencing perception of hypertension and few were done among young adults.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter discussed the research methodology that was applied during this study to understand the knowledge and perception of hypertension and its complications among young adults in Egor Local Government Area. It entails the research design, study setting, target population, sample and sampling technique, instruments of data collection, validity and reliability of instrument, method of data collection, method of data analysis and ethical consideration.

3.1 Research Design

A cross-sectional descriptive survey design was utilized in this study. This design was chosen because it allowed the participants to be studied in their natural location. Descriptive cross-sectional studies provide data for describing the status of phenomena or relationships among phenomena at a fixed point in time. This can be thought of as a "snapshot" of the frequency and characteristics of a condition. The participants in a cross-sectional study was recruited based on the inclusion and exclusion criteria set for the study.

3.2 Research Setting

The study was carried out in Egor Local Government Area (LGA), located in Edo State, Nigeria. It is a vibrant and dynamic setting that offers a rich context for research across various disciplines. Situated within the Benin metropolitan area, Egor is an integral part of the state's urban and semi-urban landscape. Its geographical location, adjacent to Ovia North-East and

Oredo LGAs, ensures its connectedness to broader socio-economic and cultural networks, making it an ideal location for studies on urbanization, migration, and socio-economic development. The population of Egor LGA is diverse, comprising indigenous Bini people and migrants from various parts of Nigeria. This diversity reflects a tapestry of cultural practices, languages, and lifestyles that coexist, creating opportunities for research into population dynamics, ethnic integration, and the interplay between tradition and modernity. Its relatively high population density, driven by its proximity to Benin City, adds a layer of complexity to urban planning and social service delivery.

Egor LGA is home to several prominent communities, each with distinct characteristics. Uselu is known for its bustling market and cultural significance, while Ugbowo stands out as an academic hub, housing the University of Benin, a leading institution in Nigeria. Evbuotubu, with its semi-urban features, presents a setting where traditional and urban influences intersect, whereas Useh and Ogida showcase the contrasts between residential and industrial development. Smaller communities such as Isihor, Iguosa, and Upper Ekewan further enrich the diversity of Egor LGA, offering additional avenues for localized studies. Economically, Egor thrives on a mix of small-scale trading, artisanship, agriculture, and formal employment, particularly in educational and industrial sectors. The Uselu and Ugbowo markets serve as economic lifelines, drawing traders and consumers from across the region. This blend of formal and informal economic activities provides fertile ground for research into livelihood strategies, economic resilience, and gender dynamics in commerce. The cultural heritage of the Bini people is deeply embedded in the fabric of Egor LGA. Traditional festivals, arts, and governance systems coexist with modern influences, creating a unique environment for anthropological and sociological studies. The LGA also faces challenges typical of growing urban areas, such as traffic congestion, waste management,

unemployment, and disparities in access to healthcare and education. These issues highlight the need for research into public policy, urban governance, and sustainable development.

Educationally, Egor is enriched by the presence of the University of Benin, which not only contributes to the intellectual vibrancy of the area but also serves as a catalyst for local economic and social development. The presence of schools, vocational centers, and informal education hubs further underscores the importance of Egor as a setting for studies on education, literacy, and skill development. In terms of infrastructure, Egor exhibits a blend of developed and underdeveloped areas. While Ugbowo and Uselu are relatively urbanized, communities like Evbuotubu retain semi-urban characteristics, making the LGA a microcosm of Nigeria's broader urbanization challenges. Researchers can explore topics ranging from urban planning and housing to healthcare infrastructure and environmental sustainability. Overall, Egor LGA encapsulates the complexities of a rapidly urbanizing society while maintaining deep cultural roots. Its diversity of communities, economic activities, and social challenges makes it an excellent setting for multidisciplinary research, offering insights into urban dynamics, cultural heritage, and the pathways to sustainable development.

3.3 Target Population

The target population of the study represents the group that the researcher dealt with during the process of the study. This study was carried out among young adults in Egor Local Government, Area. The number of young adults in Uselu community in Egor Local Government is 1800 (Egor Local Government Area).

Inclusion criteria

i. Patients with hypertension in University of Benin teaching hospital visiting the consultant out patients department.

ii. Patients who are interested in the study.

3.4 Sample Size Determination

Sample size is the number of subjects or participants found and which the study is generalized on. The formula that was used to determine the sample size is the Sample Size Formula for a Finite Population (FPC Formula). A 95% confidence level was chosen for this study, signifying that the researcher aims to be 95% confident that the sample results accurately reflect the population. A margin of error of 5% (0.05) will be considered acceptable.

$$n = N^* Z^2 * p * (1-p) / (N-1). e^2 + Z^2 * p^* (1-p)$$

Where:

n = Required Sample Size

N = Population size (1800)

Z = The Z-score corresponding to the chosen confidence level (for 95%, Z is approximately 1.96)

p = The estimated proportion of the population (0.5) is used for maximum variability, resulting in maximum required sample size.

e = The margin of error (0.05)

$n = 1119^* 1.96^2 * 0.5 * (1-0.5) / (1119-1)^* 0.05^2 + 1.96^2 * 0.5^* (1-0.5)$

$n = 1119*3.84*0.5*0.5/1118*0.0025 + 3.84*0.5*0.5$

$n = 1074.24/3.755$

$n = 287$

10% attrition rate= 10% sample size

$= (10/100) \times 287$

$=29$

Total sample size=287 + 29 = 316

The formula was used by Udo-Anyanwu *et al*., (2015) to determine sample size of their study. It was found appropriate for determining sample size in this study.

3.5 Sampling Technique

A multistage sampling technique was used in carrying out this study and this was in three-stages. This technique involves dividing large population scattered over large area into stages to make sampling processing practical then a combination of stratified sampling technique and/or simple random are added (Levine, 2014).

First Stage: Benin Metropolis will be purposively selected from Edo State.

Second Stage: One community will be randomly selected from Egor Local Government Area.

Third Stage: Streets from the community will be selected using simple random sampling technique.

Fourth Stage: random sampling technique will be used to select alternate houses.

Fifth Stage: People with young adults age group will be selected from the houses.

3.6 Instrument for Data Collection

The instrument for data collection that was used in this study is a validated KAP questionnaire used in a survey in Eastern India. The questionnaire was adopted for this study. The questionnaire had four sections,

Section A: This contains seven items with options on social demographic data of adolescents in secondary schools. Demographic data such as: age, ethnicity, religion, level of education.

Section B: This had six multiple choice questions with options on the knowledge of hypertension and its complications. Some of the questions asked are as follows; what is hypertension, what causes hypertension an what are the complications of hypertension. To ensure objectivity of the study, the questions will be scored as follow: 1 point for correct answer and 0 for incorrect

answer. Respondents scores will be converted to percentage and graded as follows: <50%= low knowledge while 50% and above =high knowledge.

Section C: This had seven likert scale items with options on perception of hypertension and its complications among young adults. Some of the statements are as follows; hypertension is a serious health condition, young adults are not at risk of hypertension, hypertension only affects old people. To ensure objectivity of the study, a 5 -point likert scale will be used to grade the perception of respondents. The scale will be scored as follow: strongly agreed 4, agreed 3, undecided 0, disagreed 2, strongly disagreed. Minimum score will 0 while the maximum score will be 40. Respondents scores will be converted to percentage and graded as follows: <50%= poor perception while 50% and above =good perception.

Section D: This section had items on the factors influencing perception of hypertension among young adult in Edo State; with questions such as have you ever had your blood pressure checked, do you think your lifestyle puts you at risk of hypertension, do you believe young adults should be educated about hypertension?

3.7 Validity of the Instrument

Validity is defined as the extent to which an instrument measures what it is supposed to measure and perform as it designed to perform. Face and content validity was considered in the study. Face validity involves simply looking at the instrument to be used and inspecting them at face value to be sure that it measures what it is supposed to measure. Expert statisticians were consulted with questionnaire to ensure validity. The instrument for the research work was validated by a medical-surgical nurse, an expert statistician and the project supervisor, who scrutinized the content and gave approval for its use

3.8 Reliability of the Instrument

Reliability is consistency of an instrument in collecting the same data, which means appropriateness for use over time. In order to be sure that the instrument was reliable, a pre-testing was done using 10% of the proposed study subjects. 35 young adults from Ugbowo community were included in pre-testing the reliability of the instrument. Corrections were made where necessary, the reliability of the instrument was confirmed using the Cronbach's alpha test. Cronbach's alpha test was used for dichotomous data, that is questions with 'yes' or' no' answer or' male and female'. The Cronbach's value was reliable as the value gotten was >0.7. The result is 0.81.

3.9 Method of Data Collection

Data was collected through oral and written consent from the respondents, after explaining to them the purpose of the study and informed consent was obtained. Care was taken by the researcher and the research assistants to obtain a valid response by explaining the questionnaires to the youth and explaining the statements when necessary. The researcher identified the time that was conducive for data collection and data collection was done during that time. The researcher ensured that youth are comfortable, introduce self and the research assistant. The goal of the study and the need to assist the researcher, followed by written and oral consents was spelt out. The researcher and the research assistants rendered help to all the youth that encountered difficulties in the cause of ticking their presumed answers. The questionnaire was administered to the adolescents by the researcher and the research assistants. The distribution and collection of the instrument from the communities was carried out within one or two days in a week for 4-5 weeks depending on the number of time.

3.10 Method of Data Analysis

Data are pieces of information used in the course of investigation. Data analysis is the process of extracting information from data. Before the analysis of data, it must first be collated and organized. Descriptive and inferential statistics was used for this study. Frequency count, percentages, means and standard deviation were calculated and values represented using tables and bar-charts as appropriate. Descriptive statistics of frequency and percentages was used for the objectives 1 to 3 and the inferential statistics having chisquare was used for hypothesis testing.

3.11 Ethical Consideration

The researcher was aware of the ethical and moral principles associated with data collection from respondents. Privacy which is one of the most important aspects of human rights was maintained. Ethical approval was sought from Ministry of Health,Benin City,Edo State. The major ethical principles that will be upheld during this study are:

a. **Autonomy:** The respondents were not forced into participating in the research project, the respondents were allowed to make decisions for themselves without coercion.
b. **Maintenance of confidentiality:** Throughout this study, the researcher did not disclose personal details of the respondents like name, phone no and address. Confidentiality will be ensured by not divulging the information to others and giving access or control to just the supervisor and the statistician.
c. **Informed consent:** The researcher ensured that the respondents have full knowledge of the study, purpose and procedures to be followed, the possible risks and benefits and they will give their full consent before taking part in the study.

d. **Avoidance of plagiarism:** Studies was properly referenced.

e. **Freedom from exploitation:** In this study, the respondents were assured that the information they released will not be used against them, also financial exploitation will be avoided.

Right to fair treatment: All respondents was treated fairly without discrimination, and all those who were interested in the study will have the opportunity of participation.

CHAPTER FOUR

RESULTS

Table 4.1: Demographic characteristics of respondents

Variables	Attributes	Frequency	Percentage
Sex	Male	177	56.0
	Female	139	44.0
Age	<20	15	4.7
	21 – 25	72	22.8
	26 – 30	163	51.5
	31 – 35	66	20.9
Marital status	Single	183	57.9
	Married	133	42.1
Level of education	No formal	69	21.8
	Primary	48	15.2
	Secondary	108	34.2
	Tertiary	91	28.8
Occupation	Farming	115	36.4
	Trading	103	32.6
	Others	98	31.0
Religion	Christian	247	78.2
	Muslim	51	16.1
	Traditional	12	3.8
	Others	6	1.9
Ethnicity	Bini	247	78.2
	Igbo	24	7.6
	Yoruba	35	11.1
	Others	10	3.2

Table 4.1 shows that 177(56.0%) are males, 163(51.5%) are in the age cohort 31-40years, 133(42.1%) are married, 108(34.2%) have secondary level of education, 115(36.4%) are into farming, 247(78.2%) are Christians, while 247(78.2%) are Binis.

Table 4.2: Knowledge of hypertension and its associated risk factors among young adults

	Frequency (Percentage)	
	Wrong	**Correct**
Blood pressure of _____ is regarded as hypertension	252(79.7)	64(20.3)
Hypertension can be cured	316(100.0)	0(0.0)
Hypertension can be managed	105(33.2)	211(66.8)
Which of the following is a risk factor of hypertension	104(32.9)	212(67.1)
Hypertension can lead to which of the following	67(21.2)	249(78.8)
Which of the following is a risk factor of hypertension	95(30.1)	221(69.9)
The following are lifestyle practices that increases the risk of hypertension except	90(28.5)	226(71.5)
Which of the following reduces the risk of hypertension	86(27.2)	230(72.8)
Adding table salt to already cooked meal is a risk factor of hypertension	126(39.9)	190(60.1)
Obesity can increase the risk of hypertension	108(34.2)	208(65.8)
Which of the following lifestyle modification help in management of hypertension	58(18.4)	258(81.6)
Psychological factors such as stress can increase the risk of hypertension	144(45.6)	172(54.4)
Which of the following is correct	95(30.1)	221(69.9)

Table 4.2 shows that 64(20.3%) correctly answered the question on the blood pressure that defines hypertension, 0(0.0%) could correctly answer if hypertension can be cured, 211(66.8%) correctly answered the question hypertension can be managed, 212(67.1%) correction identified the risk factors of hypertension, 249(78.8%) correctly answered that what hypertension can lead to, 221(69.9%) correctly answered the risk factors of hypertension, 226(71.5%) correctly answered the lifestyle practices that increases the risk of hypertension, 230(71.5%) correctly answered what reduces the risk of hypertension, 190(60.1%) correctly answered the question on addition of table salt to already cooked meal as a risk factor of hypertension, 208(65.8%) correction answered the question on obesity as a risk factor of hypertension, 258(81.6%) correctly identified the lifestyle modification that can help in managing of hypertension,

172(54.4%) correctly answered that psychological factors such as stress can increase the risk of hypertension, while 221(69.9%) correctly answered the correct options about hypertension.

Table 4.3: Level of knowledge

Table 4.3 shows that 83(26.3%) have poor level of knowledge, 152(48.1%) have fair knowledge, while 81(25.6%) have good level of knowledge.

Level of Knowledge	**Frequency (Percent)**
Poor	83(26.3%)
Fair	152(48.1%)
Good	81(25.6%)

Table 4.4: Perception of hypertension among young adults

	Never (1)	Sometimes (2)	Always(3)	Mean	S.D	Remark
Fatty food consumption	39(12.3)	179(56.6)	98(31.0)	2.19	0.63	PAH
Alcohol consumption	104(32.9)	117(37.0)	95(30.1)	1.97	0.79	PNAH
Addition of salt to food while eating	64(20.3)	134(42.4)	118(37.3)	2.17	0.74	PAH
Sugar consumption	94(29.7)	134(42.4)	88(27.8)	1.98	0.76	PNAH
Sedentary lifestyle	130(41.1)	156(49.4)	30(9.5)	**1.68**	0.64	PNAH
Smoke cigarettes	206(65.2)	49(15.5)	61(19.3)	1.54	0.79	PNAH
Tobacco inhalation	201(63.6)	75(23.7)	40(12.7)	1.49	0.71	PNAH
Perform stressful activities	15(4.7)	171(54.1)	130(41.1)	2.36	0.57	PAH
Red meat consumption	3(0.9)	133(42.1)	180(57.0)	2.56	0.52	PAH
Take caffeinated drink	127(40.2)	132(41.8)	57(18.0)	1.78	0.73	PNAH
Processed and canned foods consumption	48(15.2)	204(64.6)	64(20.3)	2.05	0.59	PAH
Addition of condiments to foods	92(29.1)	102(32.3)	122(38.6)	2.09	0.82	PAH

Mean cut- off >2.0 PAH (perception associated with hypertension; <2.0 PNAH (perception not associated with hypertension.

Table 4.4 shows the perception associated with risk factors of hypertension. It shows that consumption, 64(20.3%) never perceived addition of salt to food while eating, 94(29.7%) never perceived sugar consumption, 130(441.1%) never perceived sedentary lifestyle, 206(65.2%) never perceived smoking cigarettes, 201(63.6%) never perceived inhaled tobacco, 15(4.7%) never perceived performing stressful activities as risk factors of hypertension while 180(57.0%) always perceived eating red meat, 57(18.0%) always perceived taking caffeinated drink, 64(20.3%) always perceived consuming processed and canned foods, while 122(38.6%) always perceived addition of condiments to foods.

Table 4.5: perception of hypertension

Table 4.5 shows that 285(90 %) have good perception of hypertension, while 31(10%) have poor perception of hypertension.

Perception	**Frequency (Percent)**
Poor	31(10%)
Good	285(90%)

Table 4.6: Perceived factors influencing the perception of hypertension

	Disagree (1)	**Strongly disagree (2)**	**Agree (3)**	**Strongly agree (4)**	Mean	St.D	Remark
Smoking help me to think well	65(20.6)	144(45.6)	83(26.3)	24(7.6)	2.21	0.86	NPF
Taking alcohol helps me cope with depression	81(25.6)	105(33.2)	112(35.4)	18(5.7)	2.21	0.89	NPF
I take tobacco because it increases my self esteem	102(32.3)	141(44.6)	64(20.3)	9(2.8)	1.94	0.80	NPF
I take caffeinated drinks because it keeps me alert	93(29.4)	78(24.7)	77(24.4)	68(21.5)	2.38	1.12	NPF
I learnt tobacco inhalation by watching my parent	65(20.6)	218(69.0)	24(7.6)	9(2.8)	1.93	0.63	NPF
I was exposed to drinking by my friends	54(17.1)	109(34.5)	107(33.9)	46(14.6)	2.46	0.94	NPF
I eat everything available to me because I believe fat people are well to do	41(13.0)	70(22.2)	128(40.5)	77(24.4)	2.76	0.97	PF
I add salt to food while eating because its a norm in my community	50(15.8)	86(27.2)	97(30.7)	83(26.3)	2.67	1.03	PF
I consume red meat because they are affordable	3(0.9)	47(14.9)	126(39.9)	140(44.3)	3.28	0.75	PF
I add condiments to my food because they are less expensive	10(3.2)	82(25.9)	126(39.9)	98(31.0)	2.99	0.84	PF
I consume fatty foods because they are affordable	6(1.9)	30(9.5)	131(41.5)	149(47.2)	3.34	0.73	PF

Mean cut- off >2.50 indicates perceived factor (PF); while cut off <2.50 indicates Not perceived factor (NPF)

Table 4.5 showed “I consume red meat because they are affordable” is a major perceived factor associated with risk of hypertension with a mean of 3.28, while the least is tobacco inhalation by watching parents inhale it with a mean of 1.93.

Hypotheses Testing

Hypothesis One: There is no significant relationship between the knowledge and perception of hypertension among young adults

Table 4.6: Relationship between the knowledge and perception of hypertension among young adults

	Perception			
	Good	**Poor**	**χ^2**	**P**
Level of knowledge				
Poor	61(73.5)	22(26.5)	37.228	0.006
Fair	149(98.0)	3(2.0)		
Good	75(92.5)	6(7.4)		

Table 4.6 shows that there is a significant association between level of knowledge and level of practice. We therefore reject the null hypothesis.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter provides the discussion of findings in accordance to the stated objectives and hypothesis, implications to nursing, summary, conclusion, recommendation and suggestion for further studies.

5.1 Discussion of finding

Objective 1 - Knowledge of hypertension and its complication

The level of knowledge of hypertension and its complications in this study is fair. This may be due to lack of proper enlightenment and low level of education among respondents. This is in contrast with a study carried out by Chimberengwa & Naidoo (2021) on Knowledge, attitudes and practices related to hypertension among residents of a disadvantaged rural community in southern Zimbabwe which revealed that knowledge on hypertension was poor. This could be due to the fact that more than half of the participants (51%) were not educated beyond primary school and 11% had no formal education all and also a weak community health education. Our value is slightly higher than a study reported by Ehwarieme et al. (2020) among rural dwellers in oka community, Ikpoba okha local government area in Edo State which reported that the respondents had high awareness level of hypertension. This could be due to the fact that the study was conducted in a rural environment.

However, Dan et al. (2020) On Hypertension-Related Knowledge, Attitudes, and Behaviors among Community-Dwellers at Risk for High Blood Pressure in Shanghai, China reported 75% of the study population had accurate knowledge. This difference in level of knowledge could be due to difference in study area and educational level of respondents as china is a developed country. Another study carried out by Kongarasan & Shah (2021) on Knowledge and perception of hypertension among

hypertensive patients attending rural health and training centre, department of community medicine, SRMC & RI showed that knowledge about the causes of hypertension were 94%, Perception that hypertension can be cured completely was 78% . This could be due to the fact that the study was undertaken among hypertensive patients in a medical centre.

Objective 2 - Perception of hypertension

In this study perception of risk factors of hypertension were positive. This is in contrast with a study carried out by Ehwarieme et al. (2020) among rural dwellers in oka community, ikpoba okha local government area in Edo State which revealed that respondents have negative perception of hypertension. This may also be due to lack of health education to enlighten the rural dwellers on the causes and prevention of hypertension.

However, this study is in line with a study carried out by Sefah et al. (2021) on Knowledge, Attitude and Lifestyle Practices Pertaining to Hypertension among the People of Ahoe-Ho,Ghana which showed that respondents have positive perception. The could be due to the fact that majority (96.9%) of the respondents were educated.

Objective 4 - Factors influencing the perception of hypertension

The factors influencing the perception of hypertension in this study were excessive eating, consumption of raw salt, consumption of red meat, Use of condiments and consumption of fatty foods. These are socio-cultural and economical influence and could be due to the fact that the respondents major occupations were farming and trading. This study is in contrast with a study conducted by Ehwarieme et al. (2020) among rural dwellers in oka community, ikpoba okha local government area in Edo State where lifestyle, lack of knowledge, cultural belief and peer group influences are some of the factors which influence practices that increase the risk for hypertension

among the respondents. This may be due to the fact that the respondents lack of knowledge of hypertension.

Hypothesis one - There is no significant relationship between the knowledge and perception of hypertension

This result of this study shows that there was a significant association between level of knowledge and level of practice ($p < 0.05$). This is in line with a study carried out by Ukoha -kalu et al. (2021) on prevalence of hypertension self-care activities among hypertensive patients receiving care in a secondary health care facility in Kogi state Nigeria where there is a fair positive correlation between Knowledge and practice ($r = 0.254$, $p = <0.05$).

5.2 Implications to Nursing

1. Nurses should ensure programs needed to improve the surveillance systems and implementation of community-based screening for early detection of hypertension are provided.
2. The nurse should encourage the peoples to actively participate health programmes regarding life style modifications in hypertension.
3. The nurse should help in getting funds from higher authorities for subsidizing the test costs to encourage testing among low-income earners.
4. The nurse can act as a change agent in utilizing the research findings.

5.3 Limitations of study

The constraints the researcher experienced during the course of the research study include;

1. This study did not evaluate biochemical parameters (blood glucose and lipid profile) due to funding challenge.

2. Distance also posed a problem.

5.4 Summary

This work was carried out to determine the Knowledge and perception hypertension and its associated risk factors among young adult in Egor Local Government, Edo state the study was outlined into five chapters. Chapter one of these studies dealt with the introduction of the topic, statement of problem, objectives of the study, research questions, hypotheses and scope of study, the significance of the study and operational definition of terms. Relevant literatures were reviewed in chapter two on the subject under discourse; theoretical framework and empirical review of related studies were also discussed in this chapter. Chapter three dealt with research methodology which adopted a cross-sectional study design and three hundred and sixteen respondents participated. A well-structured questionnaire were used as instruments of data collection based on the research objectives.

5.5 Conclusion

This study assessed Knowledge and perception hypertension and its complications among young adult in Egor Local Government, Edo state. The result shows low knowledge of hypertension and its complication. Sensitization of the population on hypertension and its complications is important. There is therefore need for special health care programs in the hospital targeted more at the older and obese individuals.

5.7 Recommendations

Based on the findings from this study, the following recommendations are made:

1. Health worker should make anthropometric measurement a routine service for all patients

attending health facility in order to identify those that are overweight and obese and give them health education and counseling.

2. Routine blood pressure should be done at the community level by the local health authority in order ensure early detection and prompt treatment of hypertension in the affected individuals.
3. The local health authority should ensure community mobilization and education on the importance of maintaining appropriate body weight and mobilize individuals to adopt nutritional practices and other life style modifications that will promote their health.
4. Health policies must also be put in place to avail antihypertensive drugs accessible and affordable to rural dwellers.
5. It is recommended that all Federal and State Governments, Non-governmental organizations, and private organizations support the Local Government by providing necessary resources required for effective health monitoring and management..
6. Government and donor funded programmes should consider subsidising the test costs to encourage testing among low-income earners.

5.8 Suggestions for further studies

1. The study may be replicated with randomization in selection of a larger sample size
2. A study can be conducted by including more number of variables.
3. Finally, Future studies should be carried out to recruit participants from other communities and local government areas to allow for generalization in Edo state.

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INFORMED CONSENT FORM

“Dear Respondent,

I am a 500level student of the department of Nursing in the above-named institution. I am carrying out a research study on the topic; “Knowledge and Perception of Hypertension and Its Complications among Young Adults in Egor Local Government Area, Benin City**."** Please kindly assist me by indicating your opinion where necessary.

Yours Faithfully,

Oluowho Faith

I have read the above information. I had the opportunity to ask questions and I got clear answers.

1. I consent voluntarily to take part as a participant in this study [ ]
2. I do not consent to participate in this study [ ]

Signature of participant:———————————

Date:————————-

APPENDIX I

QUESTIONNAIRE

DEPARTMENT OF NURSING SCIENCE
SCHOOL OF BASIC MEDICAL SCIENCES
UNIVERSITY OF BENIN,
BENIN CITY

Dear Respondents,

The researcher is a 500 level student of the institution mentioned above , carrying out a research titled ' knowledge and perception of hypertension and its complication among young adults in Egor Local Government, Area . Kindly assist me by indicating where necessary. This study is strictly for academic purpose and all informations are strictly confidential.

Thanks.

Yours faithfully,

INSTRUCTIONS

Do not write personal details not asked, e.g names, addresses or phone number.

Please answer all questions and tick (√) where appropriate

Section A

Bio Data

Sex: male ( ) female ( )

Age (years): 15 - 20 ( ) 21-30 ( ) 31-40 ( ) 41-50 ( ) ≥51 ( )

Marital status: Single ( ) Married ( ) Divorced ( ) Widowed ( )

Level of Education: No Formal ( ) Primary ( ) Secondary ( ) Tertiary ( )

Occupation: Farming ( ) Trading ( ) Others.....

Religion: Christian ( ) Muslim ( ) Traditional ( ) Others.....

Ethnicity: Yoruba ( ) Igbo ( ) Hausa. ( ) Others.....

Section B

Knowledge of hypertension and its associated factors

1. Have you heard of hypertension a. yes b. no c. I am not sure

2. Have you been diagnosed of hypertension a. Yes b. No c. I don't know

3. Blood pressure of …… is regarded as hypertension a. 120/80mmHg b. 110/ 80mmHg c. 140/90mmHg

4. Hypertension can be cured a .true b. false c I don't know

5. Hypertension can be managed a. true b. false c. I don't know

6. Which of the following is a risk factor of hypertension a. eating vegetables b. exercising c. obesity

7. Hypertension can lead to which of the following (tick as many as applied) a. stroke b. HIV/AIDS c. kidney problem d. death e. none

8. Which of the following is **not** correct about hypertension a. aging is a risk factor b. hypertension can be diagnosed by measuring blood pressure c. hypertension is sexually transmitted

9. The following are life style practices that increases the risk of hypertension except …….. a. eating balanced diet b. excessive alcohol consumption c. not exercising

10. Which of the following reduces the risk of hypertension a. exercising b. eating fatty food c. smoking tobacco

11. Adding table salt to already cooked meal is a risk factor of hypertension a. true b. false c. I don't know

12. Obesity can increase the risk of hypertension a. true b. false c. I don't know

13. Which of the following life style modification help in management of hypertension

a. smoking cigarrete b. sniffing tobacco c. none of the above

14. Psychological factors such as stress can increase the risk of hypertension a. true b. false c. I don't know

15. Which of the following is correct a. hypertension is mostly asymptomatic b. eating moderately is a risk factor of hypertension c. maintaining a moderate weight increase risk for hypertension

Section C

Perception of hypertension

How often do you think doing the following habits leads to hypertension	**Always**	**Sometimes**	**Never**
1 Fatty food consumption			
2. Alcohol consumption			
3. Addition of salt to food while eating			
4. Sugar consumption			
5. Sedentary lifestyle			
6. Smoke cigarettes			
7. Tobacco inhalation			
8. Perform stressful activities			
9. Red meat consumption			
10.Take caffeinated drinks			
11 Processed & Canned foods consumption			
12. Addition of Condiments to foods			

SECTION D

Factors influencing the perception of hypertension

Please tick either S**A**- Strongly Agree; **A**- Agree; **D**- Disagree; **SD**- Strongly Disagree

Psychological influence

	SA	**A**	**D**	**SD**
1. Smoking help me to think well				
2. Taking alcohol helps me cope with depression				
3. I take tobacco because it increases my self esteem				
4. I take caffeinated drinks because it helps me cope with stress				

Socio- cultural influence

	SA	**A**	**D**	**SD**
1. I learnt tobacco inhalation by watching my parent				
2. I was exposed to drinking by my friends				
3. I eat everything available to me because I believe fat people are well-to-do				
4. I add salt to food while eating because it's a norm in my community				

Economical influence

	SA	**A**	**D**	**SD**
1. I consume red meat because they are affordable				
2. I add condiments to my food because they are inexpensive				
3.. I consume fatty foods because they are affordable				

APPENDIX II

CRONBACH ALPHA RESULT

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.810	.794	18

Cronbach's Alpha = 0.810