HEALTH-SEEKING BEHAVIOURS RELATED TO HYPERTENSION AMONG ELDERLY IMMIGRANTS IN THE HAUSA COMMUNITY OF IBADAN NORTH LOCAL GOVERNMENT AREA, OYO STATE NIGERIA

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DEDICATION

This work is dedicated to God Almighty and to our Lady Mediatrix of all graces; my parents Mr and Mrs Paul Ihiable, my husband Mr Adakole Adikwu and to my sister Mrs Esther Akut.

CERTIFICATION

I certify that this work was carried out by PAUL, Ojone Ruth in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan under my supervision

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ABSTRACT

Hypertension is a leading cause of morbidity and mortality especially among the elderly. Vulnerable individuals such as immigrants are at disadvantage health-wise because they are less likely to have access to good quality health care, utilise available health care service and have adequate health insurance coverage. Good Health-Seeking Behaviours (HSB) and adherence to medication affects hypertension related health outcomes. Only a few studies on hypertension have been linked with HSBs among elderly immigrants. This study was therefore designed to assess health -seeking behaviours related to hypertension among elderly immigrants in the Hausa community of Ibadan North Local Government Area (IBNLGA) in Oyo State, Nigeria.

A descriptive cross-sectional design was adopted and 198 respondents (≥60 years and above) were selected using a purposive sampling technique. Data were collected using pre-tested, interviewer-administered, semi-structured questionnaires and a Focus Group Discussion (FGD) guide. The questionnaire includes a 24-point knowledge of hypertension and a 6-point HSB scale. Knowledge scores 0-11 and > 11 were rated poor and good knowledge respectively and HSB scores 0-3 and >3 as poor and good HSB respectively. Five FGDs were conducted among respondents. Descriptive statistics and Chi-square test were used for analysis at p= 0.05, while qualitative data were analysed using the thematic approach.

Age of respondents was 62.40±2.5 years, 50.0% were males. 64.0% were married, and 49.4% had Arabic education. Thirty-two percent had primary education and 90.0% were Muslims. Majority of the respondents (88.0%) reported that they were hypertensive. Knowledge score about hypertension was 10.8±1.1 while HSB score was 3.3±0.6. Reasons given by the participants for their hypertension were; high blood pressure (92.0%), consumption of fatty foods (86.0%), and attacks from witches and wizards (50.0%). The most frequently mentioned HSB were treatment with herbs (82.0%), prayers to God (80.0%) and over the counter drug procurement (70.0%). As regards the reasons for choice of HSB, majority (80.0%) said they had nobody to take them to the hospital and 84.0% stated that they were not financially buoyant. Almost one quarter (24.0%) claimed their behavior was because of the proximity and accessibility of health services. Respondents aged 60-65 years (32.0%) significantly exhibited good HSB compared with those aged 66 years and above (16.0%). The FGDs revealed that the

elderly in the community had problems such as hypertension, leg pain and stroke. Also, majority of the respondents relied on prayers and patent medicine vendors for treatment because they were cheaper, accessible, available and the vendors had good interpersonal relationships with the respondents.

Hypertension-related Health-Seeking Behaviours among the elderly immigrants in the Hausa community of Ibadan North Local Government Area were poor and there was a high reliance on patent medicine vendors for procurement of drugs. There is therefore a need for government to provide accessible, affordable, and user friendly health care options to improve Health-Seeking Behaviours for the elderly people so as to reduce the great reliance on patent medicine vendors for procurement of drugs.

Keywords: Health Seeking-Behaviour, Hypertension, Elderly Hausa immigrants.
Word count: 483

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DEFINITION OF TERMS

Elderly: The World Health Organization (WHO) defines elderly persons as those aged 65 years and older. However, in Nigeria, anyone 60 years and older is regarded an elderly person Nigerian Demographic and Health Survey (2008).

Health seeking behaviour: sequence of remedial actions taken to rectify 'perceived ill-health' (Ahmed, Adams, Chowdhury, and Bhuiya, 2000).

Hypertension: High blood pressure, defined as a repeatedly elevated blood pressure exceeding 140 over 90 mmHg -- a systolic pressure above 140 with a diastolic pressure above 90 (WHO, 2003)

ABBREVIATIONS

BP	Blood Pressure
CHD	Coronary Heart Disease
CVDs	Cardiovascular Diseases
DALYs	Disability Adjusted Life Years
DASH	Dietary Approaches to Stop Hypertension
DBP	Diastolic Blood Pressure
HSBs	Health-Seeking Behaviours
HTN	Hypertension
JNC	Joint National Committee
NCDs	Non Communicable Diseases
NDHS	Nigerian Demographic and Health Survey (NDHS).
SBP	Systolic Blood Pressure
UN	United Nations
WHO	World Health Organization
WHS	World Health Statistics

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The 2012 World Health Statistics (WHS), reported that one in three adults worldwide, has a raised blood pressure - a condition that causes around half of all deaths from stroke and heart disease while one in 10 adults has diabetes (World Health Organization, 2012). Hypertension is the commonest co-morbidity of diabetes and verse versa. Both conditions exert a huge financial burden on individuals, families, communities and the health system of any country. The African region of the world is experiencing a double epidemic of both communicable and non-communicable diseases (NCDs). Hypertension and diabetes are among the leading cause of the burden of non-communicable diseases in developing countries. Current projections indicate that by 2020, the largest increases in NCDs deaths will occur in Africa which currently has a heavy burden of infectious diseases (Tagurum, Okoh, Inalegwu, Ozoilo, Banwat and Zoakab, 2015).

In Nigeria, hypertension is the commonest cardiovascular disease reported as cited by Mukadas and Misbau, (2009). Many community based studies have reported varying prevalence rates of hypertension in various parts of the country. Hypertension (HTN) or high blood pressure is one of the chronic non-communicable diseases that are being recognised as an emerging public health problem in the developing countries including Nigeria.

Defining hypertension can be arbitrary because there is no clear dividing line between normal blood pressure and mised blood pressure in the general population or between levels of blood pressure which are armful and those which are not. In adults, it is generally agreed that a blood pressure is abnormal when the systolic pressure is equal to or greater than 140 mmHg and diastolic pressure is equal to or greater than 90 mmHg repeatedly (Oscar, Carretero, Suzanne and Oparil, 2000).

Hypertension, defined as systolic blood pressure (BP) ≥140 mm Hg, diastolic BP ≥90 mm Hg. increases with age, affecting more than 50% of patients aged ≥60 years, and approximately 66% of those aged ≥65 years. It is well known that by 2030, 1 of 5 Americans is expected to be 65 years or older. (Quang, Scott, Lindsay and Loida, 2012).

The prevalence of hypertension increases progressively with age. Results from the Framingham study cited by Mohammed and Rafey (2013) revealed that among middle-aged and elderly persons, the residual lifetime risk of developing hypertension is 90% because systolic BP rises throughout life, whereas diastolic BP rises until age 55 to 60 years. The greater increase in prevalence of hypertension among the elderly is mainly due to systolic hypertension while the risk of developing coronary heart diseases rises progressively with increasing systolic pressure or diastolic pressure both in middle aged and the elderly (Oscar et.al, 2000).

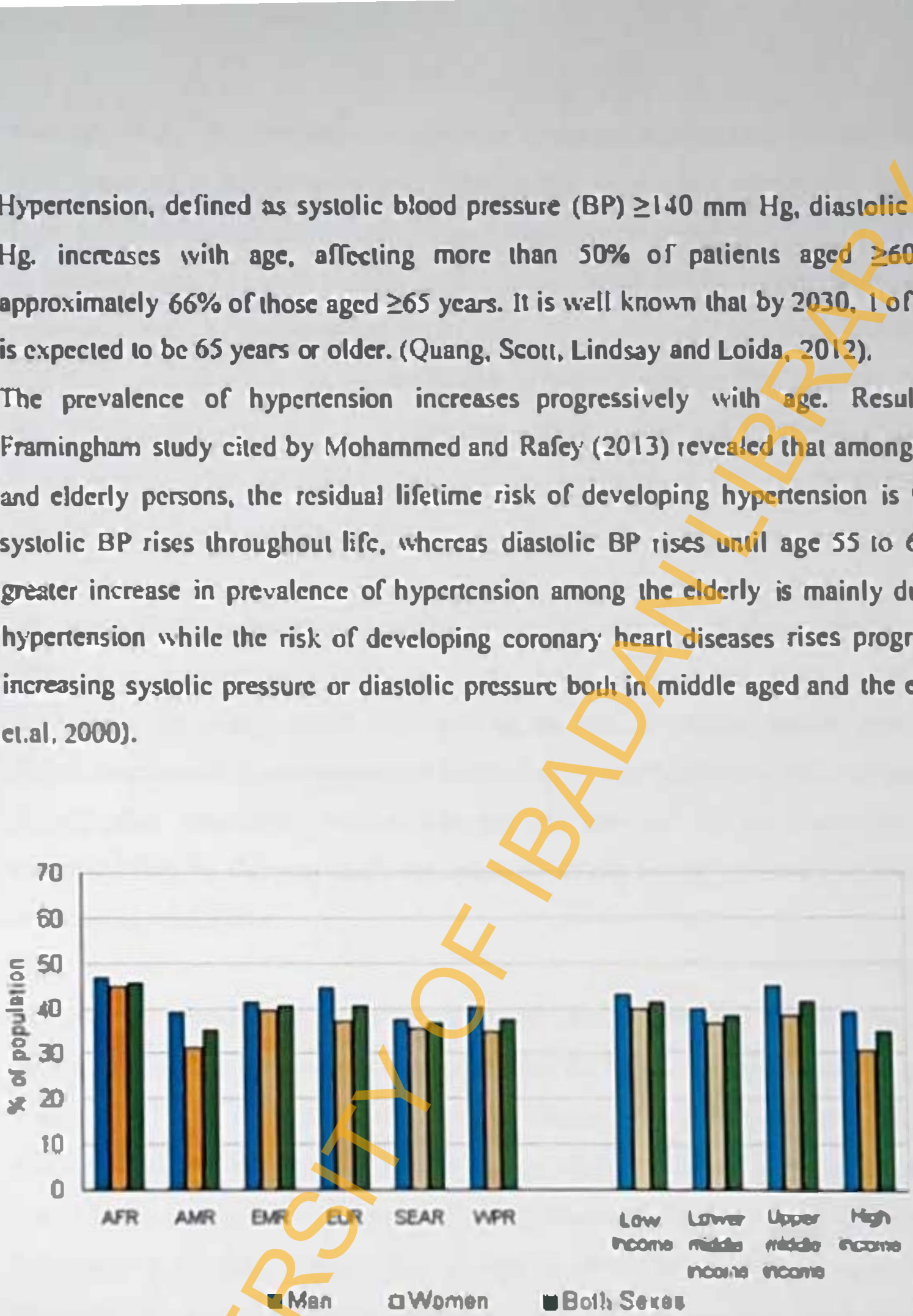

Figure 1.1: Percentage raised blood pressure (SBP 140+and/or DBP 90 + On meds) age 25, age std.

Ageing is an inevitable, natural process that comes with its concomitant health problems which need to be addressed because healthy ageing is necessary for economic and national growth and development. The inevitability of ageing and the fear of dying have haunted the human race and it has been a human dream to retard ageing and defy death (Sainaru and

Sainani, 2005). A changing demographic structure is occurring worldwide with a gradual shift towards a higher proportion of older people. With a few exceptions, more people in both high- and low-income regions are living longer than ever before.

A declining trend in both fertility and mortality rates has increased average life expectancy especially with the access to improved medical care brought about by technological progress and thus, created a new set of challenges in today's society. The number of older people in the low-income countries is expanding rapidly. The net increase of older population worldwide is about one million every month two-thirds of them in the low-income countries (Global Health and Ageing, 2011).

In recent years, as population ageing has grown into a "defining global issue" according to Help Age International 2002, concerns have emerged regarding policy interventions appropriate for older people especially in the area of elderly health care. The size of the elderly segment of the population is increasing in developing countries as the latter undergo a demographic transition, with a concomitant increase in life expectancy. Indeed, it is estimated that by the year 2025 the majority of the elderly people worldwide will reside in developing countries.

In 2008, worldwide, approximately 40% of adults aged 25 and above had been diagnosed with hypertension; the number of people with the condition rose from 600 million in 1980 to 1 billion in 2008 (WHO, 2010). The prevalence of hypertension is highest in the African Region at 46% of adults aged 25 and above, while the lowest prevalence at 35% is found in the Americans (figure 1.1). Overall, high-income countries have a lower prevalence of hypertension - 35% - than other groups at 40%. Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all deaths. Raised blood pressure is a major risk factor for coronary heart disease and ischemic as well as hemorrhagic stroke. Blood pressure levels have been shown to be positively and continuously related to the risk for stroke and coronary heart disease. In some age groups, the risk of cardiovascular disease doubles for each increment of 20/10 mmHg of blood pressure, starting as low as 115/75 mmHg.

Across the WHO regions, the prevalence of raised blood pressure was highest in Africa, where it was 46% for both sexes combined. Both men and women have high rates of raised blood pressure in the Africa region, with prevalence rates over 40%. The lowest prevalence of raised blood pressure was in the WHO Region of the Americas at 35% for both sexes. Men in this region had higher prevalence than women (39% for men and 32% for women). Developing countries are thus likely to face an enormous burden of chronic non-communicable diseases in the near future. Of these diseases, hypertension is one of the most important treatable causes of mortality and morbidity in the elderly population and accounts for a large proportion of cardiovascular diseases in the elderly population (Edirin, 2013).

Older people's lives are characterised by growing inadequacies in customary family supports, social exclusion and non-existent social security targeted at them, thus being very vulnerable to poverty and diseases (Ajomale, 2007). It is estimated that by 2015, there will be 64.6 million elderly in the world; this figure is expected to rise to 103 million in 2030 and by 2050, we should have over 205 million elderly people (U.N., 2002) because Nigeria has the largest number of elderly people, over the age of 60 years. United Nations 2005 had it that 5% of the total population in Nigeria are aged 60 and above.

The concern over cardiovascular disease is especially relevant in the healthcare of a developing nation like Nigeria. In Nigeria, 57 million people are estimated to be hypertensive with many still undiagnosed. There are currently 22% total deaths due to non-communicable diseases (NCD) and out of that, 9.2% is related to cardiovascular diseases. (Ogah, Okpechi, Chukwuonye, Akinyemi, Onwubere, Falase, Stewart, and Sliwa 2012). Developing countries are thus likely to face an enormous burden of chronic non-communicable diseases in the near future. Of these diseases, hypertension is one of the most important treatable causes of mortality and morbidity in the elderly population and accounts for a large proportion of cardiovascular diseases in the elderly population.

WHO defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 2011). Health in older age is therefore to a large extent a reflection of the living circumstances and actions of the individual during the entire life span. To be healthy means more than not having disease or infirmity, but to be in

harmony with oneself and the environment. In this sense, disease is a threat to harmonious functioning of the body system. Thus, the need for protective mechanism of the body to remain healthy in order to avoid sickness is imperative.

Once a person assumes a sick role, it is observed that he/she seeks medical advice, cooperate with medical experts and seek for medical care. Health seekers in Nigeria, like any developing country, tend to do so base on the resources at the disposal of the family according to HERFON, Nigerian Health Review (2006). Several other factors are involved health-seeking behaviour among households in Nigeria. These factors include; the severity of the symptoms of illness, socio-cultural influences, distance, place and cost of treatment, income, level of education and quality of health care facilities. (HERFON, Nigerian Health Review, 2006).

The health-seeking behaviour of population age determines how health services are used and in turn determines the health outcomes of populations. Factors that determine health-seeking behaviours may be physical, socio-economic, cultural or political. Indeed, the utilization of a health care system may depend on educational levels, economic factors, cultural beliefs and practices. Other factors include environmental conditions, socio-demographic factors, knowledge about the facilities, gender issues, political environment, and the health care system itself. Understanding human behaviour is prerequisite to change behaviour and improve health practices especially towards non communicable diseases. (David, Petra, Ceri and Aliph, 2014).

1.2 Statement of problem

Available data from Standard reference sample has it that the proportion of elderly population (60+) has gone up from 6 to 8 percent respectively during 1991 to 2011, and predicted that it would be 19.1% in 2050. Demographic transition is going on across globe resulting to aging of the population. And according to Alam, Soni, Jain, Verma and Panda, 2015, the world population will have increased by a factor of 3.6; those 60 and over will have increased by a factor of 10; and those 80 and over by a factor of 27 as state in the demographics of aging from 1950 to 2050.

The increase in elderly population will impose a greater burden on the already outstretched health services in the country. Elderly are most susceptible to long term illness. Of particular importance after the age of 40, are the degenerative diseases of the heart and blood vessels (Park, 2013). The World Health Organization has identified hypertension, or high blood pressure, as the leading cause of cardiovascular mortality. The World Hypertension League (WHL), an umbrella organization of 85 national hypertension societies and leagues, recognized that more than 50% of the hypertensive populations world-wide are unaware of their condition.

World Health Organization (WHO) has drawn attention to the fact that Coronary Heart Disease (CHD) is our modern "epidemic" not an unavoidable attribute of ageing. In early nineties CHD was epidemic in developed and well performing countries, but now developing countries are catching up due to modernization of society. Cardiovascular diseases (CVD) are responsible for about 25% of the Disability Adjusted Life Year lost (DALYs) due to non-communicable disease (Okechukwu, Ikechi, Innocent, Joshua, Basden, Ayodele, Simon and Karen, 2012).

Hypertension remains a major global public health challenge that has been identified as the leading risk factor for cardiovascular morbidity and mortality as well as all-causes of mortalities (WHO, 2002; Joint National Committee [JNC], 2003). Being the pivotal determinant of cardiovascular complications such as coronary heart disease, myocardial infarction, stroke or renal insufficiency, hypertension affects approximately 1 billion people worldwide (4.5% of the current global disease burden), 340 million of these in economically developed and 340 million in economically developing countries. In the UK, The National Health Service estimates that about 40% of British adults have the condition.

In the USA approximately 72 million people have high blood pressure - about 1 in every 3 adults, according to the National Heart Lung and Blood Institute. The National Institutes of Health (NIH) estimates that about two-thirds of people over the age of 65 in the USA have high blood pressure and also the number of people living with hypertension (high blood pressure) is predicted to be 1.56 billion worldwide by the year 2025. Annually, it causes 7.1 million one-third of global preventable premature deaths (Gunarathne, 2008). Hypertension

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Deaths in Nigeria reached 9,171 or 0.48% of total deaths. The age adjusted Death Rate is 13.62 per 100,000 of population ranks Nigeria as number 112 in the world. (WHO. 2014).

In almost all of the regions of the world, the older population is growing very fast according to United Nations, 2009. It is estimated that by 2015, there will be 64.6 million elderly in the world; this figure is expected to rise to 103 million in 2030 and by 2050, we should have over 205 million elderly people. Hypertension is the leading cause of cardiovascular disease worldwide. Hypertension is also a major cause of disability, causing an estimated 13% of all deaths in the world. More than 20% of adults are hypertensive with a very poor rate of control and only one third of hypertensive patients treated achieve the correct goal of blood press. The prevalence of hypertension ranges between 10 to 20% in Nigeria according to (WHO. 2009).

Several community-based investigations emphasize that hypertension increases with ageing and is rapidly emerging as a major public health problem in developing countries. In 2015, 3 years later, the older population rose by 55 million and the proportion of the older population reached 8.5 percent of the total population. Africa, for instance, is projected to still have a young population in 2050 (He, Goodkind and Kowal, 2015) yet the projected 150.5 million older Africans would be almost quadruple the 40.6 million in 2015.

The knowledge of the causes of hypertension is poor. About 90–95% of people having hypertension do not know they have hypertension. (American Heart Association Inc, 2004). However, in most communities, only about 50% of those who are hypertensive are aware of their condition and less than 50% of these are receiving adequate treatment, a situation that has been called "the rule of halves" (Marques-Vidal and Tuomilehto, 1997). In Nigeria, awareness is poor as only 33.8% of hypertensives are aware of their condition (Familoni 2002; Akinkugbe, 2003; Kadiri, 2005).

The problems in health-seeking behaviours relating to hypertension amongst the elderly are due to financial constraints in seeking health care, recognition of symptoms and interpretation of affected individuals and those around them, lack of knowledge and non-availability of investigations and screening (Ladha, Khan, Sakhan, Malik, Miullah, Kayani

and Saleem. 2009). Other attributes might be due to their poor educational background, social cultural beliefs, health belief and perception. Some people still knew that hypertension could be caused by evil spirits, enemy remote attacks, or food poisoning (Iyalomhe, and Iyalomhe, 2010). Sadly too, is the fact that majority of the hypertensive, the educated and illiterates inclusive were unaware of the symptomless nature of the diseases. These attributes may be responsible for their negative attitude to treatment together with high non-adherence and poor lifestyle adjustment (Iyalomhe, and Iyalomhe, 2010).

Nigeria is the most populous country in Africa and currently has the highest older person's population in Africa (Kinsella and Velkoff, 2001). Since hypertension increases with age it is important to document the determinant of health-seeking behaviour of the elderly as regards to hypertension (Whelton and Muntner, 2004). Proper understanding of health-seeking behaviour could reduce delay to visit health facilities, diagnosis, improve treatment compliance and improve health promotion strategies in a variety of contexts. Hence assessing the health-seeking behaviour; knowledge, perception of the risk factors of hypertension, and lifestyle practices towards prevention and management of hypertension in the elderly is vitally important in achieving hypertension control goals amongst the Elderly Immigrants in the Hausa Community and also for meeting quality standards in healthcare delivery.

1.3 Justification

The turn of the 21st century was marked by concerns over the public health burden of hypertension globally. Hypertension substantially increases the risk of cardiovascular and renal diseases such as stroke, coronary artery disease, heart failure and end-stage renal disease. The concern over cardiovascular disease is especially relevant in the healthcare of a developing nation like Nigeria. In Nigeria, 57 million people are estimated to be hypertensive with many still undiagnosed (Mapis, 2013).

Despite the huge burden of heart disease in Sub Saharan Africa, the level of awareness is very poor and as such the wrong attitudes have been adopted about the disease. There is no doubt that knowledge and attitudes of patients have impact on the management of their illnesses, and improving knowledge is known to improve compliance with treatment. According to the World Health Organization (2009), non-compliance with long-term

medication for conditions such as hypertension, dyslipidemia and diabetes is a common problem that leads to compromised health benefits and serious economic consequences in terms of wasted time, money and uncured disease.

Incorporating knowledge about health-seeking behaviour into health service delivery strategies in a way which is sensitive to the local dynamics of the community will enhance an extremely positive development. The whole area of knowledge around health-seeking behaviour is rendered of little value if not incorporated into management and system developments. The fact that health-seeking behaviour is 'not even mentioned' in widely used medical textbooks (Steen and Mazonde, 1999), perhaps reflects that many health-seeking behaviour studies are presented in a manner which delivers no effective route forward. Proper understanding of health-seeking behaviour could reduce delay in health facility visitations, diagnosis, improve treatment compliance and improve health promotion strategies in a variety of contexts.

Several community-based investigations have served to emphasize that hypertension is rapidly emerging as a major public health problem also in developing countries (Fuentes, Ilmaniemi, Laurikainen, Tuomilehto, and Nissinen, 2000). However, only a few of these studies included elderly immigrant people, and fewer still have focused exclusively on the health-seeking behaviours of this segment of the population, a gap that this study set out to fill.

Findings from this study will be useful in designing evidence based health promotion and education programmes that can be used to inform the elderly on the importance of health-seeking behaviour towards prevention and management of hypertension.

1.4 Research Questions

The following questions were answered by this study:

1. What is the level of knowledge of the risk factor, signs and symptoms of hypertension among the elderly in Sabo community of Ibadan?
2. How common is hypertension among the elderly in Sabo community of Ibadan?

3. What are the health-seeking behaviours towards hypertension among the elderly in Sabo

Comntunity of Ibadan?

4. What are the reasons for the various health-seeking behaviours among the elderly in Sabo

community of Ibadan?

1.4.1 Broad Objective

The broad objective of the study was to investigate the health-seeking behaviour towards hypertension, among the elderly immigrants in the Hausa-speaking Community, in Ibadan North Local Government Area of Oyo State.

1.4.2 Specific Objective

The specific objectives of this study were to;

1. Assess the level of knowledge on the causes, signs and symptoms of hypertension among the elderly in Sabo, community.
2. Determine the reported prevalence of hypertension among the elderly in Sabo community
3. Identify the health-seeking behaviours related to hypertension among the elderly.
4. Ascertain the reasons for the choice of the various health-seeking behaviour among the elderly.

1.6: Hypotheses

1 There is no significant association between age of respondents and their level of Health-seeking Behaviour

2 There is no significant association between age of respondents and their level of knowledge on the causes of hypertension.

CHAPTER TWO

LITERATURE REVIEW

2.1 Hypertension

High blood pressure is also known as hypertension. It is the amount of force exerted against the walls of the arteries as blood flows through them. If a person has high blood pressure it means that the walls of the arteries are receiving too much pressure repeatedly - the pressure needs to be chronically elevated for a diagnosis of hypertension to be confirmed. In medicine *chronic* means for a sustained period; persistent. (Nordqvist, 2015).

It is a condition in which the blood vessels have persistently raised pressure, putting them under increased stress. Each time the heart beats; it pumps blood into the vessels, which carry the blood throughout the body. Blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries) as it is pumped by the heart. The higher the pressure, the harder the heart has to pump. When systolic blood pressure is equal to or above 140 mm Hg and/or a diastolic blood pressure equal to or above 90 mm Hg the blood pressure is considered to be raised or high. (WHO, 2015).

This means the systolic reading (the pressure as the heart pumps blood around the body) is over 140 mmHg (millimeters of mercury) and/or the diastolic reading (as the heart relaxes and refills with blood) is over 90 mmHg. Having high blood pressure for a short amount of time is a normal physiological response to many situations. However, a systolic reading of 180 mmHg or higher OR a diastolic reading of 110 mmHG or higher could be a sign of a hypertensive crisis that warrants immediate medical attention.

Anyone who gets such a reading when testing their own blood pressure should wait a couple of minutes and repeat the test. If the reading remains at that level or increases, seek emergency medical treatment (MacGill, 2016). "American Heart Association [AHA] (2016) defines the following ranges of blood pressure (in mmHg): Normal blood pressure is below 120 systolic and below 80 diastolic. Pre-hypertension is 120-139 systolic or 80-89 diastolic. Stage I high blood pressure (hypertension) is 140-159 systolic or 90-

99 diastolic. Stage 2 high blood pressure (hypertension) is 160 or higher systolic or 100 or higher diastolic. Hypertensive crisis (a medical emergency) is when blood pressure is above 180 systolic or above 110 diastolic.

2.2 Epidemiology of Hypertension

Epidemiologic studies such as the National Health and Nutrition Examination Surveys have shown that the overall prevalence of hypertension in non-institutionalized individuals above the age of 65 is between 50% and 70%. The prevalence is highest among African-Americans relative to whites and Mexican-Americans. Unlike the younger hypertensive population in which there is a male predominance, there is no marked gender difference in the overall prevalence of hypertension in the elderly. Moreover, the age-associated increase in the prevalence of isolated systolic hypertension appears to be greater for women than for men. (Supiano, 2010).

As per the World Health Statistics 2012, of the estimated 57 million global deaths in 2008, 36 million (63%) were due to non-communicable diseases (NCDs). The largest proportion of NCD deaths is caused by cardiovascular diseases (48%). In terms of attributable deaths, raised blood pressure is one of the leading behavioral and physiological risk factor to which 13% of global deaths are attributed. Hypertension is reported to be the fourth contributor to premature death in developed countries and the seventh in developing countries.

Recent reports indicate that nearly 1 billion adults (more than a quarter of the world's population) had hypertension in 2000, and this is predicted to increase to 1.56 billion by 2025. Earlier reports also suggest that the prevalence of hypertension is rapidly increasing in developing countries and is one of the leading causes of death and disability. While mean blood pressure has decreased in nearly all high-income countries, it has been stable or increasing in most African countries. Today, mean blood pressure remains very high in many African and some European countries. The prevalence of raised blood pressure in 2008 was highest in the WHO African Region at 36.8%. (Supiano, 2010).

Hypertension is a worldwide epidemic; accordingly, its epidemiology has been well studied. Data from National Health and Nutrition Examination Survey (NHANES) spanning 2009-2012 in the United States found that in the population aged 20 years or older, an estimated 80 million adults had hypertension, with a prevalence of 32.6%. Hypertension affects US men and women nearly equally, affecting an estimated 38.3 million men and 41.7 million women. (Mozaffarian ,Benjamin and Go2015).

Globally, an estimated 26% of the world's population (972 million people) has hypertension, and the prevalence is expected to increase to 29% by 2025, driven largely by increases in economically developing nations. (Kearney, Whelton, Reynolds, Muntner, Whelton, and He, 2005).

The high prevalence of hypertension exacts a tremendous public health burden. As a primary contributor to heart disease and stroke, the first and third leading causes of death worldwide, respectively, high blood pressure was the top modifiable risk factor for disability adjusted life-years lost worldwide in 2013 (Forouzanfar , Alexander and Anderson, 2013).

Globally, black adults have among the highest rates of hypertension, with an increasing prevalence. Although white adults also have an increasing incidence of high BP, they develop this condition later in life than black adults and have much lower average BPs. In fact, compared to hypertensive white persons, hypertensive black individuals have a 1.3-fold higher rate of nonfatal stroke, a 1.8-fold higher rate of fatal stroke, a 1.5-fold higher mortality rate due to heart disease, and a 4.2-fold higher rate of end-stage renal disease. (Mozaffarian, Beojamin and Go2015).

Black individuals have a higher prevalence and incidence of hypertension than white persons, (Brown, 2006). The prevalence of hypertension has been reported to be increased by 50% in blacks. Most studies in the United Kingdom and the United States report not only a higher prevalence but also a lower awareness of hypertension in black people than in white people. Mortality from hypertension in African-Caribbean born people is 3.5 times the national rate; similar data have been published for African American citizens.The prevalence and incidence of hypertension in Mexican Americans are similar to or lower than those in non-Hispanic whites (Marik and Varon , 2007).

2.2.1 Magnitude of Hypertension

Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all deaths. This accounts for 57 million disability adjusted life years (DALYS) or 3.7% of total DALYS. Globally, the overall prevalence of raised blood pressure in adults aged 25 and over was around 40% in 2008. The proportion of the world's population with high blood pressure, or uncontrolled hypertension, fell modestly between 1980 and 2008. However, because of population growth and ageing, the number of people with uncontrolled hypertension rose from 600 million in 1980 to nearly 1 billion in 2008.

Hypertension remains a major global public health challenge that has been identified as the leading risk factor for cardiovascular morbidity and mortality (WHO, 2002). Annually, it causes 7.1 million (one-third) of global preventable premature deaths. In a three serial epidemiological studies (Criteria: ≥140/90 mm of Hg) carried out during 1994, 2001 and 2003 demonstrated rising prevalence of Hypertension (30%, 36% and 51% respectively among males and 34%, 38% and 51% among females) [Gupta, 2003]. A study conducted by the Tulane University School of Public Health stated that the prevalence of blood pressure will soar to 1.56 billion by the year 2025.

Overall, approximately 20% of the world's adults are estimated to have hypertension, when hypertension is defined as BP in excess of 140/90 mm Hg. The prevalence dramatically increases in patients older than 60 years: In many countries, 50% of individuals in this age group have hypertension. Worldwide, approximately 1 billion people have hypertension, contributing to more than 7.1 million deaths per year (World Health Organization, 2002).

Also, according to a World Health Organization (WHO) report In 2002, there is emerging evidence to show that the pattern of diseases in sub-Saharan Africa is changing, with Non-Communicable Diseases (NCD), responsible for about 22% of the total deaths in the region in 2000, cardiovascular disease alone accounting for 9.2% of the total mortality. By 2025 about 75% of the world hypertensive population will be in developing countries.

It is estimated that hypertension affects about 1 billion people all over the world and it is the main risk factor for many other cardiovascular diseases (Adeloye,Basquill, Aderemi ,Thompson , and Obi 2015). The prevalence of hypertension in Nigeria may form a substantial proportion of the total burden in Africa because of the large population of the country currently estimated to be over 170 million (World Bank Nigeria 2013). According to research, in 2010, there were more than 20 million cases of hypertension in Nigeria affecting one in-three men and one-in-four women. This is set to rise to 39 million cases by 2030 (Joyce, 2015).

In a study designed to estimate the prevalence of hypertension and understand the health-seeking-behavior among the elderly in rural Puducherry, south India. A total of 211 elderly from a rural community were selected by systematic random sampling. The study revealed that prevalence of hypertension among study participants was 40.5%. About 62% (53 out of 85 hypertensives) were already aware of their hypertensive status. (Chinnakali, Mohan, Upadhyay, Singh, Srivastava, and Yadav 2012).

The Lifestyle Promotion Project (LPP) in a study to determine Prevalence and Associated Factors of Pre-hypertension and Hypertension in Iranian Population: found that around 47.3% and 22.6% of the participants had pre-hypertension and hypertension respectively (Tabrizi, Sadeghi-Bazargani, Farahbakhsh, Nikniaz and Nikniaz, 2016). This rate reflects a significant national hypertension problem.

In the first nationwide survey of the prevalence of risk factors for NCDs in the 15–65year population of Iran in 2007, the prevalence of pre-hypertension and hypertension in East Azerbaijan was 38.1% and 20.47% respectively (Ahmadi, Mobasheri and Soori, 2014) which shows that pre-hypertension/hypertension rates in adults are growing at an alarming rate. The results revealed that nearly half of the population was classified as pre-hypertensive (Tabrizi, 2016).

The prevalence of hypertension in Nigeria may form a substantial proportion of the total burden in Africa because of the large population of the country currently estimated to be over 170 million (World Health Organisation, 2005), it is the number one risk factor for stroke

heart failure, ischemic heart disease, and kidney failure. With an increasing adult population as well as rising prevalence of hypertension. Nigeria will experience economic and health challenges due to the disease if the tide is not arrested.

A Nigerian-based study conducted by Ajayi, Sowemimo, Akpa and Ossai (2016) aimed to investigate the prevalence of hypertension and associated factors among the residents of Yemetu community in Ibadan-North Local Government Area of Oyo State, showed that among 806 respondents studied and aged from 18-90 years. The overall prevalence of hypertension was 33.1% (male 36.8% and female 31.1%). Hypertension is a public health challenge issue.

2.2.2 Classification of hypertension

Hypertension can be classified as either essential (primary) or secondary.

Essential or primary hypertension: means that no medical cause can be found to explain the raised blood pressure and represents about 90-95 per cent of hypertension cases. Primary, or essential, high blood pressure is the most common type of high blood pressure as acute stress, intense exercise and other factors can briefly elevate blood pressure even in people whose blood pressure is normal, a diagnosis of hypertension requires several readings showing high blood pressure over time.

Blood pressure does vary throughout the day, lowering during sleep and rising on awakening. It also rises in response to excitement, anxiety and physical activity.

Blood pressure also increases steadily with age as arteries become stiffer and narrower due to plaque build-up. Vascular and heart disease also contribute to rising blood pressure in older adults, and a high systolic reading is a major risk factor for cardiovascular disease in adults over 50 years old. (US National Institutes of Health, 2015.)

High blood pressure that is not caused by another condition or disease is termed primary hypertension (or essential hypertension). It is unlikely to have a specific cause but is instead usually a result of multiple factors, including blood plasma volume and activity of the renin-angiotensin system, the hormonal regulator of blood volume and pressure. Primary

hypertension is also influenced by environmental factors, including lifestyle-related issues (Mac Gill. 2016)

Secondary hypertension indicates that the high blood pressure is a result of another condition, such as kidney disease. Persistent hypertension is one of the risk factors for stroke, heart attack, heart failure and arterial aneurysm and a leading cause of chronic renal failure. Even moderate elevation of arterial blood pressure leads to shortened life expectancy (American Heart Association, 2016).

It is caused by another medical condition it has an underlying cause, such as kidney disease or use of certain medicines. This type usually resolves after the cause is treated or removed. Now thought to be one of the most common causes of treatment-resistant hypertension, is primary aldosteronism, a hormone disorder causing an imbalance between potassium and sodium levels, thus leading to high blood pressure. Hypertension results in the compromise or imbalance of the pathophysiological mechanisms, such as the hormone-regulating endocrine system, that regulate blood plasma volume and heart function. (George and Mac Gill, 2015).

Secondary hypertension. Many conditions cause hypertension; some are common and well recognized secondary causes such as Cushing's syndrome, which is a condition where the adrenal glands overproduce the hormone cortisol. In addition, hypertension is caused by other conditions that cause hormone changes such as hyperthyroidism, hypothyroidism, and certain tumors of the adrenal medulla e.g. phechromocytoma, (George and MacGill, 2015). Other common causes of secondary hypertension include kidney disease, obesity/metabolic disorder, pre-eclampsia during pregnancy, the congenital defect known as coarctation of the aorta, and certain prescription and illegal drugs (Carretero and Oparil, 2000).

Secondary hypertension can also result from; Diabetes (both due to kidney problems and nerve damage), Kidney abnormality, including a tumor on the adrenal gland, which is located on top of the kidneys. A structural abnormality of the aorta (the large blood vessel leaving the heart) that has existed since birth, Narrowing of certain arteries, Phechromocytoma (a cancer), Cushing syndrome (which can be caused by use of corticosteroid drugs), Congenital adrenal hyperplasia (disorder of the adrenal glands, which secrete the hormone

cortisol).Hyperthyroidism (overactive thyroid gland), Hyperparathyroidism (which affects calcium and phosphorous levels), Pregnancy, Sleep apnea and Obesity. (US National Institutes of Health 2014).

Blood pressure is also classified based on the systolic and diastolic blood pressures. Systolic blood pressure is the blood pressure in vessels during a heartbeat. Diastolic blood pressure is the pressure between heartbeats. A systolic or the diastolic blood pressure measurement higher than the accepted normal values for the age of the individual is classified as pre-hypertension or hypertension. Isolated systolic hypertension refers to elevated systolic pressure with normal diastolic pressure and is common in the elderly. These classifications are made after averaging a patient's resting blood pressure readings taken on two or more office visits, (American Heart Association. 2016).

2.2.3 Risk Factor for Hypertension

Even though there is no identifiable cause for essential high blood pressure, there is strong evidence linking some risk factors to the likelihood of developing the condition. Most of the causes below are essential high blood pressure risk factors; there are also a couple of secondary high blood pressure examples. Physical inactivity; Lack of exercise, as well as having a sedentary lifestyle, raises the risk of hypertension.(American Heart Association 2016).

Poor diet, especially one that includes too much salt and fatty food- Researchers from the University of Michigan Health System reported that societies where people don't eat much salt have lower blood pressures than places where people eat a lot of salt. Many health professionals say that a diet high in fat leads to a raised high blood pressure risk. However, most dietitians stress that the problem is not how much fat is consumed, but rather what type of fats. Fats sourced from plants, such as avocados, nuts, olive oil, etc., as well as omega oils which are common in some types of fish, are good for you - while, saturated fats which are common in animal sourced foods, as well as trans fats are bad for you (American Heart Association 2016).

Alcohol and tobacco use- Smoking causes the blood vessels to narrow, resulting in higher blood pressure. Smoking also reduces the blood's oxygen content so the heart has to pump faster in order to compensate, causing a rise in blood pressure. The risk may even sometimes include people who drink regularly, but not in excess. People who drink regularly have higher systolic blood pressure than people who do not, said researchers from the University of Bristol, UK. They found that systolic blood pressure levels are about 7 mmHg higher in frequent drinkers than in people who do not drink (Lackland and Egan, 2007, Djoussé and Mukamal , 2009).

Certain diseases; Psoriasis can cause high blood pressure and there are a number of general risk factors for hypertension, including:

Age - The risk of high blood pressure increases as you age. High blood pressure is more common in men who are 45 years of age and older, while women are more likely to develop the condition after age 65 (Sanjai, 2015).

Race - High blood pressure is more common in African-American adults than in Caucasian or Hispanic-American adults. African-Americans tend to develop hypertension earlier in life and often experience more severe cases that lead to serious complications, such as stroke, heart attack, and kidney failure (Sanjai, 2015).

Obesity/overweight-Overweight refers to having extra body weight from muscle, bone, fat and/or water. Obesity tends to refer just to having a high amount of extra body fat. Both overweight and obese people are more likely to develop high blood pressure, compared to people of normal weight. Lowering weight to normal can reduce blood pressure level (Umar, 2006).

Sex - males and females have different risk profiles. While lifetime risk is the same for everybody, men are more prone to hypertension at a younger age and women have a higher rate of hypertension at older ages (WHO, 2014).

Family history- If you have close family members with hypertension, your chances of developing it are significantly higher. An international scientific study involving over 150

scientists from 93 centers in Europe and the USA identified eight common genetic differences which may increase the risk of high blood pressure (Beckeiman, 2016)

Temperature - A study which monitored 8801 participants over the age of 65 in three French cities, found that systolic and diastolic blood pressure values differed significantly across the four seasons of the year and according to the distribution of outdoor temperature. Blood pressure was lower when it got warmer, and rose when it got colder (MacGill 2016).

Ethnic background- Hypertension can affect anyone. However, it occurs more often in African American adults than in Caucasian or Hispanic American adults. In relation to these groups, African Americans: Tend to get hypertension earlier in life, often have more severe hypertension, are more likely to be aware that they have hypertension and to get treatment (Kosugi et al. 2009).

Mental stress- Various studies have offered compelling evidence that mental stress, especially over the long term, can have a serious impact on blood pressure. An interesting study carried out by researchers at the University of Texas, suggested that how air traffic controllers handle stress can affect whether they are at risk of developing high blood pressure later in life. In view of this study, and many others that focus on stress management, it seems fair to assume that some levels of stress which are not managed properly can raise the risk of hypertension.

Diabetes – People with diabetes are at a higher risk of developing hypertension. Among patients with diabetes type 1, hyperglycemia (high blood sugar) is a risk factor for incident hypertension in type 1 diabetes - intensive insulin therapy reduces the long-term risk of developing hypertension. People with diabetes type 2 are at risk of hypertension due to hyperglycemia, as well as other factors, such as overweight/obesity, certain medications, and some cardiovascular diseases.

Pregnancy - Pregnant women have a higher risk of developing hypertension than women of the same age who are not pregnant. It is the most common medical problem encountered

during pregnancy, complicating 2% to 3% of all pregnancies. Most countries divide hypertensive disorders in pregnancy into four categories: Chronic Hypertension, Preeclampsia-eclampsia, Preeclampsia superimposed on chronic hypertension and Gestational hypertension. (America Heart association).

2.2.3 Pathophysiology and Symptomatology

The pathogenesis of essential hypertension is multifactorial and complex, Multiple factors modulate the blood pressure (BP) including humoral mediators, vascular reactivity, circulating blood volume, vascular caliber, blood viscosity, cardiac output, blood vessel elasticity, and neural stimulation. A possible pathogenesis of essential hypertension has been proposed in which multiple factors, including genetic predisposition, excess dietary salt intake, and adrenergic tone, may interact to produce hypertension. Although genetics appears to contribute, the exact mechanisms underlying essential hypertension have not been established, (Gandhi , Powers , Nomeir , Fowle , Kitzman and Rankin 2001).

Many age-related changes in physiology contribute to the increase in blood pressure. Lifestyle factors, such as diet, obesity, and physical activity, and the presence of comorbidities are also important contributors. A multitude of pathophysiologic mechanisms interact in the dynamic and complex regulation of arterial blood pressure. The maintenance of blood pressure homeostasis and the provision of adequate cerebral perfusion in the response to such hypotensive stimuli as volume depletion, upright posture, vasodilating medications, or a meal is an important physiologic challenge facing the aging individual. (Supiano 2010).

The most common type of hypertension in older persons is isolated systolic hypertension, defined as a systolic blood pressure of 140 mm Hg or more and a diastolic blood pressure of less than 90 mm Hg. Beyond the age of 55 years, the level of diastolic blood pressure typically decreases while the level of systolic blood pressure increases progressively. The underlying abnormality is increased vascular stiffness (decreased compliance), whereby little cushion is left to absorb and buffer the energy and pressure created by cardiac output. Both the combined (i.e., systolic blood pressure 140 mm Hg or more and diastolic blood pressure

90 mm Hg or more) and isolated systolic types of hypertension are characterized by increased total peripheral resistance (Supiano 2010).

The pathophysiology of hypertension differs in black adults. For example, hypertension in this population is commonly of the low-renin type and, often, sensitivity of blood pressure to salt intake is increased, and the ability to excrete ingested salt is impaired (60 to 70 percent). This leads to an overall expansion of intravascular volume. Obesity is especially prevalent in black women and is associated with an increase in total body sodium content (Aloia , Vaswani and Flaster 1997).

High blood pressure itself is usually asymptomatic, meaning that patients do not experience any direct symptoms of the condition. This is why hypertension is often referred to as "the silent killer." as it can quietly cause damage to the cardiovascular system. (George and Manual. 2015).People with hypertension will experience symptoms such as: sweating, nervousness, blood spots in the eyes, dizziness, difficulty sleeping or facial flushing, severe headaches, severe anxiety, shortness of breath, nosebleeds (American Heart Association 2014) If your blood pressure is extremely high, there may be certain symptoms to look out for including: Severe headache, Fatigue or confusion, Vision problems, Chest pain, Difficulty breathing, Irregular heartbeat, Blood in the urine, Pounding in your chest, neck or ears, Severe anxiety, Shortness of breath, Nosebleeds (Steve . 2016).

2.2.4 Complications of hypertension

The higher the blood pressure is, the harder the heart has to work. A stronger force of blood can damage your arteries, blood vessels, and heart muscle. This can eventually cause reduced blood flow through your body, leading to: atherosclerosis (hardening of the arteries from cholesterol buildup, which can lead to heart attack, heart failure, eye damage, kidney damage and death , (Kivi. 2015).

Emergency hypertensive crisis can result in severe complications, including fluid in the lungs, brain swelling or bleeding, a tear in the heart's main artery, stroke, or seizures for pregnant women with eclampsia. High blood pressure during pregnancy can cause the baby

to be born prematurely, detach from the placenta, or require a cesarean delivery erectile dysfunction,fluid buildup in the lungs, memory loss, death (Steve, 2016).

2.3 Rationale for Hypertension Treatment

The pathophysiologic characteristics of hypertension in blacks provide a rationale for a strong focus on lifestyle modifications for improvement of blood pressure. A reduction in body weight by an average of as little as 3.18 kg (7 lb) significantly reduces blood pressure. (Whelton , Appel Espeland , Applegate , Ettinger and Kostis, 1998).

Hypertension can be treated through lifestyle changes and medications. While medications to treat hypertension are available, research has shown that lifestyle modifications that incorporate physical activity, tobacco avoidance, and limitation of alcohol consumption along with dietary changes can help treat and often delay or prevent hypertension. Current data strongly support the idea that multiple dietary factors affect blood pressure. Proposed dietary modifications to lower blood pressure include reduced salt intake, increased potassium intake, and moderation of alcohol consumption, (Alexander and Yang 2016).

Lifestyle modifications are essential for the prevention of high BP, and these are generally the initial steps in managing hypertension. As the cardiovascular disease risk factors are assessed in individuals with hypertension, pay attention to the lifestyles that favorably affect BP level and reduce overall cardiovascular disease risk. A relatively small reduction in BP may affect the incidence of cardiovascular disease on a population basis. A decrease in BP of 2 mm Hg reduces the risk of stroke by 15% and the risk of coronary artery disease by 6% in a given population. In addition, a prospective study showed a reduction of 5 mm Hg in the nocturnal mean BP and a possibly significant (17%) reduction in future adverse cardiovascular events if at least one antihypertensive medication is taken at bedtime. (Duman. 2013)

Hypertension in blacks is usually characterized by low renin, expanded volume and sensitivity to salt. The two major types of hypertension in older persons are isolated systolic hypertension and combined systolic and diastolic hypertension. Strong data support the treatment of combined hypertension in patients 60 to 79 years of age and isolated systolic

hypertension in patients 60 to 96 years of age. Diuretics and longacting dihydropyridine calcium channel antagonists are the recommended initial therapies for isolated systolic hypertension. (Hall 1999)

In normokalemic hypertensive patients, use of oral potassium supplements (about 60 mmol daily) may also significantly reduce blood pressure. This occurs, in part, because of a natriuretic effect of potassium. Restricting dietary salt intake to less than 2,300 mg daily is particularly effective because of the salt sensitivity that is often present in these patients. Concerns about any claimed risks of clinically achievable long-term dietary salt restriction (e.g., myocardial infarction in men, mineral deficiencies, etc.) are exaggerated, (Kumanyika and Cutler 1997).

2.4 Psycho-Cognitive and Behavioral issues in Hypertension

Important moderator variables identified for behavioral and psycho cognitive issues for hypertension thus far include age, education, several biological characteristics of hypertension, and the presence of concurrent diseases. Specifically, several studies have found that the performance differentials between hypertensives and normotensives are more pronounced for young than for middle-aged groups, thus suggesting that early-onset hypertension may confer greater risk for cognitive impairment than late-onset hypertension (Waldstein 2001).

The incidence of hypertension among this cohort during 1996 to 2010 ranged from 400 to 597 participants per survey, resulting in an increase in prevalence of hypertension from 20.9% in 1996 to 41.3% in 2010. For all survey periods, women with hypertension had a significantly higher average number of visits to doctors and allied health practitioners compared with women without hypertension (P<0.005). The use of complementary medicine (practitioners and self-prescribed treatments) by women with hypertension was significantly lower compared to women without hypertension (P<0.005). Over time, conventional health-care utilization was higher for women with hypertension compared with women without hypertension (adjusted RR=1.18; 95% CI: 1.14, 1.22; P<0.0001the study showed that women with hypertension are using a range of conventional and complementary and alternative medicine: with hypertensive women using more conventional medicine and less

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complementary and alternative medicine than non-hypertensive women. (Sibbritt, Davidson, Peng, Adams and Hickman 2016)

In a study by Krzysztoszek, Wiczcjska, Paczkowska and Rotajczak (2013) Health-related behaviours and hypertension prevention showed that women see a doctor more often than men (67.3% female, 50.1% male) in order to perform preventive examinations, which is also indirectly confirmed by the studies of Mardarowicz of 2008 showing that the frequency of visiting a doctor for prophylactic examinations is smaller in the country (60% female and 54% male) than in the city (62% female and 55% male).

2.4.1 Health Literacy

Health literacy is a concept that can be used to understand what knowledge individuals have about health. Health Literacy has been defined as the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. Health Literacy means more than being able to read pamphlets and successfully make appointments. By improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment. (7th Global Conference on Health Promotion).

It first appeared in the research debate in the 1970s and referred more specifically to a patient's ability to comprehend health issues and medical instructions (Sørensen, Broucke, Fullam, Doyle, Pelikan, Slonska, and Brand 2012:1). It has, until recently, been mainly concentrated on studies in the United States and Canada, and only during the past decade has it been introduced in scholarly debates in Australia, South Korea, the Netherlands, Japan, the UK and Switzerland (ibd:1). Despite the internationalization of the concept, health literacy has arguably only been applied in the context of developed states. As a result, the various definitions that have been used for the term are often closely related to health issues that are specific to developed countries. For instance, much of the early literature, which emanated from the US, focuses on exposing the relationship between low literacy levels and a patients' ability or inability to make health decisions, self-manage diseases and comply with prescribed medication use (Nutbeam, 2006)

Factors such as context, education, communication strategies, and spheres of influence, for instance, have all been used to explain changes in behaviour. For example, as Wight, Plummer and Ross (2012) have argued, context is an important factor in behavioural changes in the way that the cultural, economic and socio-cultural context can act as both a barrier and facilitator to change. Likewise, Chin, Monroe, and Fiscella (2000) point out that behaviour must be understood in a broad social context that includes self-fulfillment, financial constraints and even stress.

In a study by Wagner, Knight, Steptoe and Wardle in 2007 on Functional health literacy and health-promoting behaviour, found that 11.4% of participants had either marginal or inadequate health literacy. Multivariable logistic regression analysis indicated that the risk of having limitations in health literacy increased with age (adjusted odds ratio 1.04; 95% confidence interval 1.02 to 1.06), being male (odds ratio _ 2.04; 95% confidence interval 1.16 to 3.55), low educational attainment (odds ratio _ 7.46; 95% confidence interval 3.35 to 16.58) and low income (odds ratio _ 5.94; 95% confidence interval 1.87 to 18.89). In a second multivariable logistic regression analysis, every point higher on the health literacy scale increased the likelihood of eating at least five portions of fruit and vegetables a day (odds ratio _ 1.02; 95% confidence interval 1.003 to 1.03), being a non-smoker (odds ratio _ 1.02; 95% confidence interval 1.0003 to 1.03) and having good self-rated health (odds ratio _ 1.02; 95% confidence interval 1.01 to 1.04), independently of age, education, gender, ethnicity and income.

2.4.2 Level of knowledge on hypertension

Several surveys, from many countries around the world shows that public awareness of blood pressure levels was very poor (Kamadjeu, Edwards and Atanga 2003). The knowledge of the causes of hypertension is poor. About 90–95% of people having hypertension do not know they have hypertension (American Heart Association Inc, 2004). However, in most communities, only about 50% of those who are hypertensive are aware of their condition and less than 50% of these are receiving adequate treatment, a situation that has been called "the rule of halves" (Marques-Vidal and Tuomilehto, 1997).

In a study conducted to determine the factors relevant to hypertension knowledge, treatment, and control in southern Iran, over 50 percent of patients had average knowledge on

hypertension (Sayed, Reza, Sayed. Mohamad, Ahmad, and Amin, 2015). In Nigeria, awareness is poor as only 33.8% of hypertensives are aware of their condition (Familoni, 2002; Akinkugbe, 2003; Kadiri, 2005). A study conducted by Niger, 2010 also revealed that about 58% and 51.8% knew smoking increases the propensity to develop complications and that exercise is beneficial for the control of blood pressure respectively.

In another study conducted to assess knowledge of heart disease and its prevention among two hundred and thirty-six patients attending a medical outpatient clinic in southern Nigeria, one hundred and seventy-eight (75.4%) respondents did not know the symptoms of heart disease while 215 (91.1%) had never been told about cardiovascular disease prevention by their doctors. A significant number (82%) had checked their blood pressure in the past 18 months while very few had checked their serum lipid levels (14.4%). Less than 50% of respondents engaged in regular exercise. This study showed that awareness of heart disease and its prevention among patients is still very poor and we need to educate them on the disease and lifestyle modification. Over 70% of the respondents did not know about heart disease symptoms while over 90% of respondents admitted that they had not been educated on heart disease prevention despite attending a specialist clinic (Uchenna, Ambakederemo and Jesuorobo, 2012).

A similar study also noted that the knowledge of possible complications of hypertension was very poor as only 41.1% and 1.8% of patients were aware that excessive salt and fat intake could adversely affect the control of hypertension respectively and was stated that it may not be unconnected with the poor knowledge of hypertension. This is closely in line with the study in the journal by National Medical Association (Vol 96, May 2004) which stated that 116 (45.5%) and 77 (30.2%) respondents respectively knew headache and palpitation were the commonest symptoms of hypertension.

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stated that it may not be unconnected with the poor knowledge of hypertension (Niger, 2010).

2.4.3 Health-seeking Behaviour

Health-seeking behaviour is a sequence of remedial actions taken to rectify 'perceived ill-health' (Ahmed, Adams, Chowdhury, and Bhuiya, 2000). There are personal actions to promote optimal wellness, recovery, and rehabilitation (Moorhead , 2009). In contrast illness behavior refers to all those activities designed to recognize and explain symptoms after one feels ill, and sick role behaviour refers to all those activities designed to cure diseases and restore health after a diagnosis has been made. There is growing recognition, in both developed and developing countries, that providing education and knowledge at the individual level is not adequate in itself to promote a change in behavior.

Understanding of the social capital and proper understanding of health-seeking behaviour could reduce delay to diagnosis, improve treatment compliance and improve health promotion strategies in a variety of contexts. Risk- and health-seeking behaviours are largely determined by an individual's knowledge, attitude, beliefs and health practice. Individuals often adjust their lifestyle within the framework of his cultural influences, economic status, knowledge and resources, regardless of clinical recommendations. (Cohen, Tripp-Reimer, Smith, Sorofman, and Lively, 1993).

In a study carried out among 108 randomly selected hypertensive patients to determine Hypertension-related knowledge, attitudes and life-style practices Reason for poor health-seeking behaviour. Among the women with normal blood pressure, 84.6% had good health-seeking behaviour whereas among women with elevated blood pressure, only 14.1% had good health-seeking behaviour; 21.8% had average health-seeking behaviour and 50 patients (64.1%) had poor health-seeking behaviour (Iyalomhe and Iyalomhe, 2010).

Odaman and Ihiezugbe (2014) in a study, explored the health-seeking behavior of the elderly in Edo Central Nigeria. The study focused on the most common health related problems of the elderly. A total of 514 subjects aged 65 years and above completed the face to face

interview administered with a questionnaire. precisely 73.7% of the elderly patronized the hospital/health centers whenever they fell sick. More elderly males than their female counterparts were found to have patronized traditional healers, resorted to self medication using local herbs or visited chemists' shops whenever they were sick.

In a similar study, Adhikari and Rijal (2014) determined the health status and the factors affecting health-seeking behavior of the senior citizens aged 60years and above. The subjects opting for health-seeking behaviour were: self treatment during illness was 45 (11.3%), visit to a private practitioner/ nursing home was 105 (26.3%), use of drug over counter from nearest pharmacy 84 (21%), visit to Hospital was 145 (36.3%), visit to health post/sub-health post/Government hospital/welfare was 13 (3.2%), visited to alternative medicine was 8 (2.%).

In rural Bangladesh, Biswas, Kabir, Nilsson and Zaman (2006) studied coping strategies in cases of illness of elderly people and the contributing factors in determining the health-seeking behavior of the elderly persons. Their findings indicated: that high costs would prevent old people from consulting qualified doctor(s); that familiarity with health care providers and easy accessibility to health facilities played important roles in health-seeking behavior of elderly persons; and that the flexibility of health care providers, in receiving payment, decided whether or not the old persons would seek treatment and the type of such treatment sought.

The study by Bourne, Morris and Charles, Eldemire-Shearer, Kerr-Campbell, and Crawford (2010) in Jamaica examined health literacy and health-seeking behavior of older men among the middle-income. It found that elderly men displayed low health literacy and poor health-seeking behavior.

Abduraheem (2007) observed, in their study of 756 households in Nigeria, that age, sex, finance, the nature of illness, and quality of service provided were the determinants of health-seeking behavior among the elderly.

2.4.1 Understanding health-seeking behaviour

Health promotion programmes worldwide have long been premised on the idea that providing knowledge about causes of ill health and choices available will go a long way towards promoting a change in individual behaviour, towards more beneficial health-seeking behaviour. However, there is growing recognition, in both developed and developing countries, that providing education and knowledge at the individual level is not sufficient in itself to promote a change in behaviour, an abundance of descriptive studies on health-seeking behaviour, highlighting similar and unique factors, demonstrate the complexity of influences on an individual's behaviour at a given time and place.

However, they focus almost exclusively on the individual as a purposive and decisive agent, and elsewhere there is a growing concern that factors promoting 'good' health-seeking behaviours are not rooted solely in the individual, they also have a more dynamic, collective, interactive element. Academics have therefore started to explore the way in which the local dynamics of communities have an influence over the well-being of the inhabitants. This reflects a growing interest across the social sciences in the contested concept of social capital. Attempts are now being made to develop this, as yet under-utilized idea, to incorporate knowledge about health-seeking behaviour into health service delivery strategies in a way which is sensitive to the local dynamics of the community. This may be an extremely positive development. The whole area of knowledge around health-seeking behaviour is rendered of little value if not incorporated into management and system developments.

The fact that health-seeking behaviour is 'not even mentioned' in widely used medical textbooks (Steen and Mazonde, 1999), perhaps reflects that many health-seeking behaviour studies are presented in a manner which delivers no effective route forward. This results in an unfortunate loss for medical practice and health systems development programmes, as proper understanding of health-seeking behaviour could reduce delay to diagnosis, improve treatment compliance and improve health promotion strategies in a variety of contexts. It suggests what may usefully be learnt from studies to date, and begins to explore how we

might make studies of health-seeking behaviour more useful from a health systems development perspective.

A study to show if ethnicity, socio-economic position and gender affect reported health-care seeking behaviour suggests inequalities in access to health care by ethnicity, socio-economic position and gender are not related to patients failing to self-refer to primary or accident and emergency care, barriers must therefore occur at the level of health care provision (Yoav, Nish. and Jenny, 2009).

A sample of 172 community-resident older adults (aged 64-96) was interviewed to show the correlates of the preventive Health Behavior in late life. Four health practice groupings were used: Information-Seeking, Regular Health Routines, Medical and Self-Examination, and Risk Avoidance. Results indicated modest associations among individual behaviors and among the four health practice groups. Gender (i.e., women) and a supportive family environment were among the consistent predictors of good health practices, although each of the four behavior groups tended to have its own set of major predictors (William, Mara, Hickey, Jeffrey, 2001).

In another survey, health behavior of the elderly, the determinants and health consequences of that behavior was carried out and the survey data was gotten from 386 respondents (138 men, 248 woman), 55 years of age and older. These elderly persons engaged in a wide variety of activities to protect their health, the most important of which were eating properly, obtaining adequate rest, and excising. By multiple regression analysis, age, sex, socioeconomic status, and marital status explained only 7.2% of the variance in health protective behavior. Of those variables, sex had the greatest association with health protective behavior and age, the least. Married men, but not married woman, practiced more health behaviors than their unmarried counterparts. Health protective behavior was not related to overall health status, but was weakly related to perceived health. The lack of association between health protective behavior and health status is interpreted in terms of the nature of the population examined (Julia, Margaret, 2007).

2.4.5 Health Behaviour to Prevent Hypertension

The degree to which hypertension can be prevented depends on a number of factors including current blood pressure level, sodium/potassium balance, detection and omission of environmental toxins, changes in end/target organs (retina, kidney, heart, among others), risk factors for cardiovascular diseases and the age at diagnosis of pre hypertension or at risk for hypertension. A prolonged assessment in which repeated measurements of blood pressure are taken provides the most accurate assessment of blood pressure levels. Following this, lifestyle changes are recommended to lower blood pressure, before the initiation of prescription drug therapy. The process of managing pre hypertension is the following lifestyle changes :(the guidelines of the British Hypertension Society suggests)

Salt restriction - typical salt intake is between 9 and 12 g a day and modest blood pressure reductions can be achieved even in people with normal levels by lowering salt to around 5 g a day - the greatest effects are seen in people with hypertension

Moderation of alcohol consumption - expert guidelines say moving from moderate to excessive drinking is "associated both with raised blood pressure and with an increased risk of stroke".

High consumption of vegetables and fruits and low-fat - people with, or at risk of, high blood pressure are advised to minimize intake of saturated fat and total fat and to eat whole-grain, high-fibre foods, at least 300 g of fruit and vegetables a day, beans, pulses, and nuts, and omega-3-rich fish twice a week.

Reducing weight and maintaining it - hypertension is closely correlated with excess body weight, and weight reduction is followed by a fall in blood pressure.

Regular physical exercise - guidelines by America Heart Association say "hypertensive patients should participate in at least 30 min of moderate-intensity dynamic aerobic exercise (walking, jogging, cycling or swimming) on 5 to 7 days a week"

Stress reduction - avoiding sources of stress, where possible, and developing healthy coping strategies for managing unavoidable stress can help with blood pressure control, especially as

many people turn to alcohol, drugs, smoking and unhealthy foods or overeating to cope with stress

Diets - dietary changes beneficial to reducing blood pressure include (according to the Dietary Approaches to Stop Hypertension) DASH diet which is rich in fruits and vegetables and low-fat or fat-free dairy products. This diet has been shown to be effective based on research sponsored by the National Heart, Lung, and Blood Institute. In addition, an increase in dietary potassium, which offsets the effect of sodium, has been shown to be highly effective in reducing blood pressure.

Smoking can also raise blood pressure, and because of its wider effects on heart health and the rest of the body, giving up smoking is highly recommended for people with high blood pressure

Discontinuing tobacco use and alcohol consumption has been shown to lower blood pressure. The exact mechanisms are not fully understood, but blood pressure (especially systolic) always transiently increases following alcohol or nicotine consumption. Abstaining from cigarette smoking reduces the risk of stroke and heart attack which are associated with hypertension.

2.4.6 Health-seeking Behaviours: Two approaches

Researchers have long been interested in what facilitates the use of health services, and what influences people to behave differently in relation to their health. There has been a plethora of studies addressing particular aspects of this debate, carried out in many different countries. Healthseeking behaviour can simplistically be divided into two types, which roughly correspond with a division identified by Tipping and Segall (1995). Firstly there are studies which emphasise the 'end point' (utilisation of the formal system, or health care seeking behaviour), secondly, there are those which emphasise the 'process' (illness response, or health-seeking behaviour).

2.4.6.1 Approach A: Utilization of the system

There is often a tendency for studies to focus specifically on the act of seeking 'health care' as defined officially in a particular context. Although data are also gathered on self care, visits to more traditional healers and unofficial medical channels, these are often seen largely as something which should be prevented, with the emphasis on encouraging people to opt first for the official channels (Ahmed, et al, 2001).

These studies demonstrate that the decision to engage with a particular medical channel is influenced by a variety of socio-economic variables, sex, age, the social status of women, the type of illness, access to services and perceived quality of the service (Tipping and Segall, 1995). In mapping out the factors behind such patterns, there are two broad trends Firstly there are studies which categorise the types of barriers or determinants which lie between patients and services. In this approach, there are as many categorisations and variations in terminology as there are studies, but they tend to fall under the divisions of geographical, social, economic, cultural and organizational factors.

2.4.6.2 Approach B: The process of illness response

The second body of work, rooted especially in psychology, looks at health-seeking behaviours more generally; drawing out the factors which enable or prevent people from making 'healthy choices', in either their lifestyle behaviours or their use of medical care and treatment. Thus whilst in the former literature health care seeking behaviour is conceptualized as a 'sequence of remedial actions' taken to rectify 'perceived ill-health' (Ahmed et al, 2000), in the second approach the latter part of the definition, responding specifically to perceived ill-health, may be dropped, as a wider perspective on affirmative, health promoting behaviours is adopted.

A number of 'social cognition models' (Conner and Norman, 1996) have been developed in this tradition, to predict possible behaviour patterns. These are based on a mixture of demographic, social, emotional and cognitive factors, perceived symptoms, access to care and personality (Conner and Norman, 1996). The underlying assumption is that behaviour is best understood in terms of an individual's perception of their social environment.

A number of genres of model exist, and variations have been developed around them. One of the most widely applied is the 'health belief model' where Sheeran and Abraham (1996) categorized the range of behaviours that have been examined using health belief models into three broad areas: preventive health behaviours, sick role behaviours and clinic use. In this type of model, individual beliefs offer the link between socialization and behaviour. One of the earliest examples was Hochbaum's (1958) study of the uptake of screening for TB, where he discovered that a belief that sufferers could be asymptomatic was linked to screening uptake. Health belief models focus on two elements; 'threat perception' and 'behavioural evaluation' (Sheeran and Abraham, 1996).

Threat perception depends upon perceived susceptibility to illness and anticipated severity; behavioural evaluation consists of beliefs concerning the benefits of a particular behaviour and the barriers to it. 'Cues to action' and general 'health motivation' have also been included (Becker 1977). The health belief model has been criticised for portraying individuals as social economic decision makers, and its application to major contemporary health issues, such as sexual behaviour, have failed to offer any insights (Sheeran and Abraham, 1996).

2.4.7 Categorizations of health care seeking behaviours

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Table 2:1 Break down of determinants of health care seeking behaviour.

Category	Determinant	Details	Sphere
Cultural	Status of women	Element of patriarchy	Cultural propriety
Social	Age and sex		
Social economic	Household resources	Education level Maternal occupation Marital status Economic status	Informal
Economic	Cost of care	Treatment travel time	Physical
	Type and severity of illness		
Geographical	Distance and physical access		Infrastructure
Organizational	Perceived quality	Standard of drugs Standard of equipment Competence of staff Attitudes of staff Interpersonal process	Technical Staffing Interpersonal Formal

Source: (Mackian, 2003).

The view is often that the desired health care seeking behaviour is for an individual to respond to an illness episode by seeking first and foremost help from a trained allopathic doctor, in a formally recognized health care setting. Yet a consistent finding in many studies is that, for some illnesses, people will chose traditional healers, village homeopaths, or untrained allopathic doctors above formally trained practitioners or government health facilities (Ahmed et al, 2001).

In a study to present socio-demographic characteristics and health-seeking behaviour of elderly and to determine frequency of Hypertension in elderly population of a poor peri-urban community in Karachi, Pakistan; targeting population aged 65 or above. A total of 438 respondents were interviewed. Over half of the (n = 269, 61.4%) respondents reported factors which deterred them from seeking health care, out of which 62% reported financial constraint as the commonest factor. Deterrence from seeking health care was associated with illiteracy (p = 0.001) and living alone (p = 0.06).

(Ladha, Khan, Malik, Khan, Khan, Khan, Samiullah, Kayani and Saleem, 2009).

2.4.8 Reason for choice - Health-Seeking Behaviours

Health is desirable by all people and as such every citizen is entitled to enjoy good health, protection from diseases and proper Medicare for survival, personal growth and development. Health according to World Health Organization is a state of complete physical, mental, social and spiritual well-being, not merely the absence of disease or infirmity (Lucas and Gilles, 2004). Health is a sine qua non for the socioeconomic development of individuals and the nation. Good health does not only contribute to better quality life but is absolutely essential for a virile labour force for the creation and maintenance of a nation's wealth (Lucas and Gilles, 2004; The World Bank, 1994).

In a study carried out among 108 randomly selected hypertensive patients to determine Hypertension-related knowledge, attitudes and life-style practices, Reasons for poor health-seeking behaviour identified were, lack of accessibility of resources (76%), lack of affordability (100%) and lack of availability of resources (90%) (Iyalomhe and Iyalomhe, 2010). The studies also showed that the reasons for not seeking the health care facility were

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142 (35.5%) respondents denied for the health care due to poverty and lack of money, ignorance due to old age were 256 (64.0%), 164 (41%) complained about the poor attitude of health care workers towards their health needs and treatment, 101 (25.3%) complained the facility is too far/ too much work to do at home , 107 (26.8%) were too crowd and avoided due to lengthy process to get treated and 104(26%), said that other centers had better treatment facility. Nobody to take me to hospital 39(9.8) and trust on God for healing were 32 (8%).

Once a person assumes a sick role, it is observed that he/she seeks medical advice and cooperate with medical experts and seek for medical care (Tanimola et al). Health seekers in Nigeria, like any developing country, tend to do so base on the resources at the disposal of the family (Nyonator and Kutzin, 1999; HERFON, Nigerian Health Review, 2006). Several other factors are involved in health-seeking behaviour among households in Nigeria. These factors include; the severity of the symptoms of illness, socio-cultural influences, distance, place and cost of treatment, income, level of education and quality of health care facilities. HERFON, Nigerian Health Review (2006) , Sullivan (2001) and (Tanimola et al 2009).

In a study carried out among 108 randomly selected hypertensive patients to determine Hypertension-related knowledge, attitudes and life-style practices Reason for poor health-seeking behaviour of respondents with Hypertension were analysed and found out that source of knowledge, availability of health care centre, accessibility to health care centre, availability of antihypertensive drugs, financial assistance from health insurance or from family, were having a positive influence in health-seeking behaviour of Hypertension. Presence of knowledge seeking behaviour, attitude towards health care and social support system of respondents were also found to have a positive influence on health-seeking behaviour of the respondents. (Iyalomhe and Iyalomhe, 2010)

2.4.9 Theoretical framework: Health Belief Model

The Health Belief Model (HBM) was one of the first models to adapt theories from the behavioural sciences in order to examine health related problems. It is still one of the most widely recognized and used models in health behavior applications. This model was originally introduced by a group of Psychologists in the 1950's to help explain why people

would or would not use available preventive services, such as chest x-rays for tuberculosis screening and immunizations for prevention of influenza among others.

The Health Belief Model has been applied to a broad range of health behaviors and subject populations. Three broad areas can be identified (Conner and Norman, 1996).

Preventive health behaviors, which include health-promoting (e.g. diet, exercise) and health-risk (e.g. smoking) behaviors as well as vaccination and contraceptive practices.

Sick role behaviors, which refer to compliance with recommended medical regimens, usually following professional diagnosis of illness.

Clinic use, which includes physician visits for a variety of reasons.

The model stipulates that health-related behaviour is influenced by a person's perception of the threat posed by a health problem and by the value associated with his or her action to reduce that threat (Petro-Nustas and Mikhail 2002). The HBM as presented by Sheeran and Abraham (1995). According to this version, action in the HBM is guided by six concepts: Beliefs about the impact of illness and its consequences (threat perception) which depend on:

Perceived susceptibility, or the beliefs about how vulnerable a person considers him- or herself in relation to a certain illness problems.

Perceived severity of illness or health problems and its consequences;

Health motivation or readiness to be concerned about health matters. (This factor has been included later in the HBM, in the 1970s).

Beliefs about the consequences of health practices and about the possibilities and the effort to put them into practice. The behaviour evaluation depends on:

Perceived benefits of preventive or therapeutic health practices;

Perceived barriers, both material and psychological (for example 'will-power'), with regard to a certain health practices with cues to action, which includes different internal and external factors, which influence action. For example, the nature and intensity (organic and symbolic) of illness symptoms, mass media campaigns, advice from relevant other (family, friends, health staff, etc.) Beliefs and health motivation are conditioned by 'socio-demographic' variables (class, age, gender, religion, etc.) and by the psychological characteristics of the interviewed person (personality, peer group pressure).

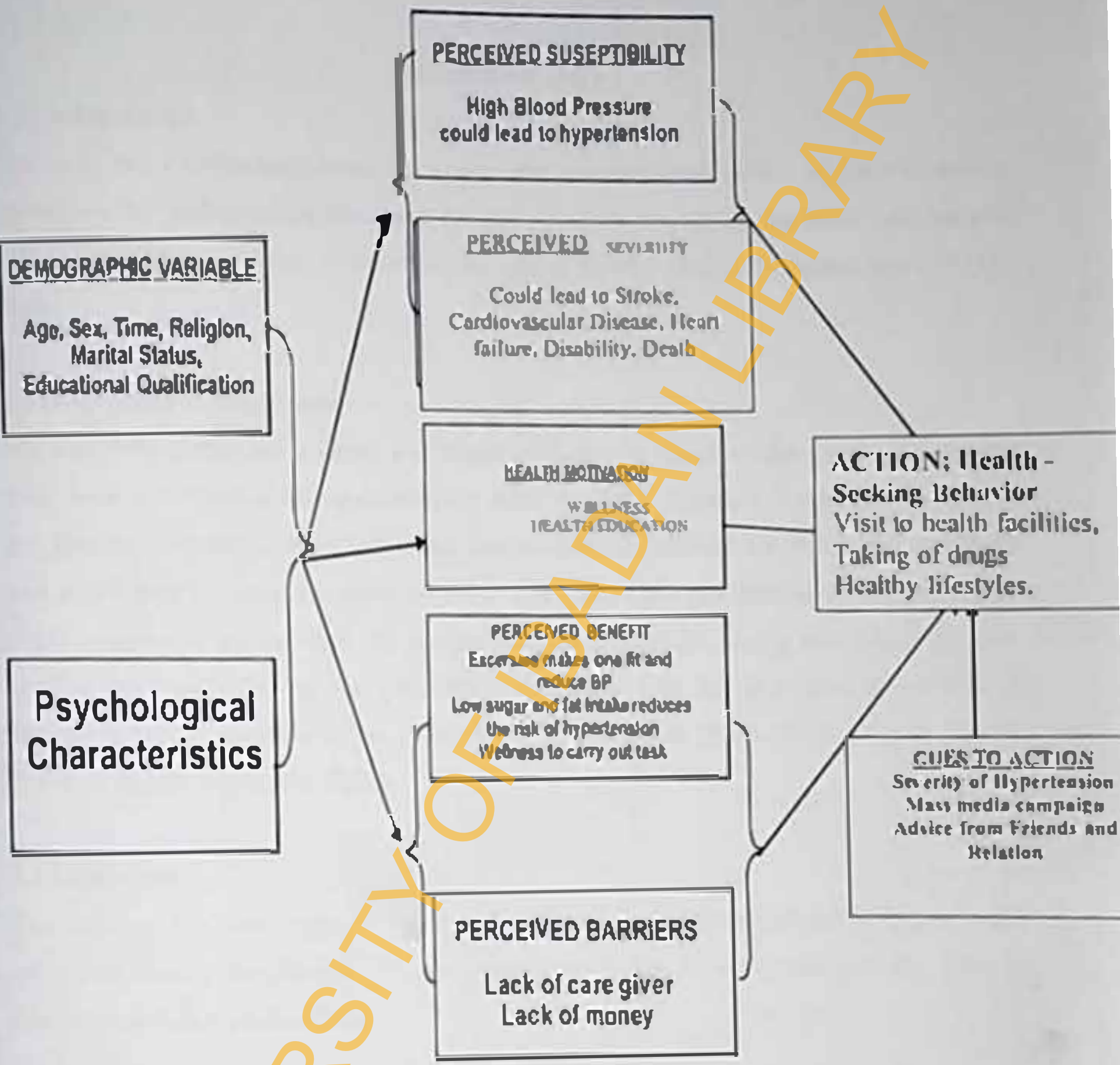

Fig 2.1: Health Belief Model (Sheeran and Abraham 1995).

CHAPTER THREE

METHODOLOGY

3.1 Study design

The study was a community based descriptive and cross sectional survey which was used to investigate the health-seeking behaviour towards hypertension, among the elderly immigrants in Sabo the Hausa-speaking Community, in Ibadan North Local Government Area of Oyo State.

3.2 Description of Study area

The study was carried out in Sabo; a clustered settlement in Ibadan-North Local Government Area. Sabo is a Hausa speaking community made up of the Hausas, Fulanis, Kanuris. Nupes and Yorubas ethnicities among others and have two health facilities are: Sabo primary Health care centre and St Lawrence hospital Sabo. The people are predominantly Muslims. The major occupations among them are operation bureau de change, buying and selling of gold, precious stone and tailoring. The projected population of Sabo going by growth rate of 3.18 per year is 11,052. And that of the population of the elderly in Ibadan North LGA is 12,692. (National population census 2006).

3.3 Study scope

The scope of the study was delimited to health-seeking behavior related to hypertension among the elderly people aged 60 years and above in the Hausa community of Sabo in Ibadan North LGA, of Oyo State.

3.4 Study population

The population studied was the elderly aged 60years and above in the Hausa community of Sabo in Ibadan North Local Government Area Oyo State.

3.5 Sample size determination

The sample size was calculated using the Leslie Kish's formula

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

$Z_\alpha = 1.96$ (Confidence level at 5% level of significance)

P= prevalence of 50% HSB

d= 0.05

$$N = 1.96^2 \times \frac{0.5(1-0.5)}{0.05^2}$$

=384.6

Minimum sample size was 384.6

To compensate for non response 10% was added to the minimum sample size i.e 384.6 × 0.1

=38.46

384.6 + 38.46 = 423.06

Hence, minimum sample size, N= 423.

3.6 Sampling procedure

The study employed purposive sampling technique. Residents from the Sabo community were stratified into Hausa and non Hausa indigenes. The elderly population was identified within the Hausa residents of the Sabo community. Participants were recruited from this population after their consent had been given, till the target population size was met.

3.6.1 Inclusion Criteria

1 The respondent was at the time of the study be an elderly person aged 60 years and above.

2 The respondent must be a resident of the study community during the period of the study.

3 The respondent must have given his/her consent to participate in the study.

3.6.2 Exclusion Criteria

1 Any aged person who is not a resident of the study area.

2 Any aged person who is not physically fit.

3 Any aged person who refused to give consent to participate in the study.

3.7 Instrument of Data Collection

3.7.1: Quantitative method

A semi-structured questionnaire containing 45 questions was used for data collection. The questionnaire addressed the following themes:

1. Socio-demographic characteristics: This section asked questions regarding the respondents 'Personal and family history.
2. Level of knowledge on the risk factors signs and symptoms of hypertension: positive or negative affirmations to questions such too much consumption of fatty foods is a risk factor of hypertension and if hypertension is caused by remote attacks were asked in this section of the questionnaire.
3. Prevalence of hypertension: Questions such as: if they were hypertensive and when they were diagnosed of hypertension was asked.
4. Health-seeking behaviour: This section asked questions such as; do you attend public service or treat with herbs
5. Reasons for choice of Heahh-seeking behaviour: Options are given to choose from as the reasons for the health-seeking behaviours such as; lack of money, good attitude of health workers.

3.7.2 The Focus Group Discussion Guide (FGD)

A focus group discussion guide was developed using the objectives of the study. The instrument which was written in English language was translated to Hausa language was used to obtain qualitative data, of which series of the group discussions was held at different intervals in a group of 8-12 persons. The guide was made up of two parts: introduction and discussion. The FGD guide comprised 7 questions in all which includes health problems associated with the elderly, knowledge about hypertension, signs and symptoms of hypertension, challenges of being hypertensive, groups of people affected, and management of hypertension. Which was incorporated in the findings, and also helped in the construction of questionnaire

3.8 Validity

Review of literature of previous works, review by experts, medical statisticians, health education specialists and researchers for face and content validity. The instruments were also scrutinized by supervisor and co-researchers.

Also, a pre-testing of the questionnaire and the FGD guide was done among a sample of population similar to the target population so as to make necessary corrections and modifications to the instruments that were used. The pre-test was conducted using 50 questionnaires for the quantitative data and 2 FGD sessions (1 male, 1 female) were conducted for the qualitative data. Training was conducted for appropriate Field Research Assistants (2 Male and 4 Female) to ensure that they have adequate understanding of the instruments prior to data collection. The training was focused on the objectives of the study, sampling processes, how to secure respondents informed consent, fluency in speaking the Hausa language and so on. The training was conducted for 2 days to the commencement of data collection. A mock assessment was conducted after the training to ensure that the questions were well asked and understood. The field assistants were involved in the pre-testing of the FGD guide and questionnaire to create opportunity for them to get familiar with the instruments.

Following the pretest on two groups, (male and female), adjustments was made to the final guide from responses gotten from the pretest. It was noted that though this set of people (the elderly) were to be accorded with a lot of patience, time management had to be improved.

3.9 Reliability

The reliability of the instrument was ensured by pre-testing the questionnaire among 10% of the sample population who share similar characteristics with the study population. Cronbach-α correlation coefficient of the SPSS (Statistical Package for Social Sciences software) was used to get the correlation coefficient which is 0.5.

Both instruments were translated to Hausa language for respondents who communicated in

Hausa language and their responses were transcribed to English language, and this was systematically analyzed and presented using Microsoft word document.

Reliability was also ensured by asking the questions in an uncomplicated way with the permission to explain any difficult area for some respondents. In this study, the reliability coefficient was 0.5, thus confirming its high degree of reliability.

3.10: Method of data collection

Qualitative and quantitative methods of data collection were used. The instruments that were used were the focus group discussion (FGD) guide and questionnaire. A validated semi-structured questionnaire was used to elicit responses from participants. The instruments were designed from research questions, conceptual frame work and by reviewing existing literatures extensively.

3.11 Data management and analysis

The quality of data collected was checked thoroughly on the field. This entails reviewing the pattern of responses of each participant as recorded in the questionnaire. A serial number was assigned to each of the questionnaires for easy identification and recall of any instrument with problem. A coding guide was developed and administered questionnaires were coded using the guide.

Data were analyzed using the SPSS statistical software (version 17.0) and results are presented using both inferential and descriptive statistics (mean, frequencies, chi-square and t-test) at 0.05 level of significance. Contingency table/tables were constructed and analyzed using Chi-square tests were applicable to compare dependent and independent variables. Descriptive statistics was used to analyze the socio demographic variables and all domains of quality of life. The mean age of the respondents was also analyzed.

Association between selected demographic variables was analyzed using the Chi-square test as well as associations between the level of health-seeking behaviour and the level of knowledge of the causes of hypertension. Questionnaires were well secured by properly entering them into statistical software and the raw papers were kept safe in a file, they will be

kept for some period of time until after the defense of the dissertation for reference purposes before being discarded.

The instrument was sub-divided into;

General demographic profile of the respondent and Level of knowledge on the causes and symptoms of hypertension where the 3 (three) options were given and the correct option was graded as 3 (three) points, the wrong option was graded (2) two point while Don't Know option was graded as (1) one point. Prevalence of hypertension where the Yes option was graded as (2) two points while the no option had no points. Health-seeking behaviour where the two options were graded with the correct option having (4) four points while the wrong option had (2) two points. Reasons for choice of Health-seeking behaviour where options were graded as 4 points and 2 points respectively.

The questionnaires contained 39 variables that was used to assess and overall scores were rated as 0-34 (poor), 35-50 (moderate) and 51-68 (good) respectively. The analysis was done using frequency distribution, percentages, Chi-square test. the in the FGD section, tape recorder was used and was reported verbatim Content and context analysis using the thematic approach which involved grouping together of synonymous themes in the transcripts was done for the FGDs after translating the Hausa language recordings to English language in writing. Results were discussed, presented in frequency tables, charts, diagrams and figures.

3.12 Ethical consideration

Ethical approval was sought from Oyo State Ministry of Health Ethics Review Committee (see appendix VI). The study followed the ethical principles guiding the handing of human participants in research. They include: The principle of respect for persons which ensured that each participant were treated as an autonomous person: therefore the participants decided to voluntarily take part in the study. The principle of justice employed ensured all fit and available elderly willing to participate were enrolled for the study until the required sample size were attained.

Also, the instrument was translated into the local language to avoid any form of misinterpretation. The principle of beneficence employed required the participant (the

elderly) to fill a questionnaire and give responses to questions asked during the interviews. No harm was ensued by doing this. At the end of the data collection process, the researcher enlightened the elderly on hypertension. The principle of non maleficence employed ensured no harm was done to the participants regardless the benefit that followed this study. Prior orientation of participants was carried out regarding objectives and possible impact of the study emphasizing the right of the subject to non participation. Data confidentiality was highly maintained all through the study.

CHAPTER FOUR

RESULTS

4.1 Socio-demographic Characteristics of the Respondents

Table 4.1 shows the frequency distribution of the respondents with respect to their socio-demographic characteristics. Half of the respondents (50.0%) were male and the other half (50.0%) were female. More of the respondents (54.0%) were between 60 and 65 years, while (40.0%) were above 65 years. The mean age of the respondents was 62.40±2.5years. Majority of the respondents (90.0%) were Muslim while (10.0%) were Christian. Majority of the respondents (64.1%) were married while (22.1%) were single; Less than one quarter (10.0%) were divorced and a few (3.8%) were widowed.

Regarding the respondents' education; (40.2%) had secondary education while more than a quarter (32.1%) had primary education. Almost one quarter (23.9%) had Arabic education and a few (3.8%) had tertiary education. The distribution of respondents by occupation showed that (44.0%) were into trading of food items; (33.9%) were farmers and (22.1%) were into private business.

4.2 Level of Knowledge on the risk factor and Symptoms of Hypertension

According to table 4.2 majority of the respondents (92.4%) knew consistent high blood pressure leads to hypertension while (68.1%) said high salt intake is a risk factor of hypertension and (86.0%) affirmed that too much consumption of fatty food is a risk factor of hypertension. In addition,(52.0%) knew obesity is a risk factor of hypertension, while more than half (52.0%) affirmed that alcohol consumption is a risk factor of hypertension and (54.0%) knew smoking is a risk factor of hypertension. Also half of the respondents (50.0%) knew hypertension is caused by juju, witches, wizards or remote attacks. About half (56.0%) knew stroke is an implication of hypertension.

Four hundred and twenty eight (86.0%) of the respondents knew hypertension is hereditary while more than half (52.0%) affirmed that hypertension is a chronic disease and (64.1%)

knew hypertension is normal at old age. In addition, more than half (58.0%) knew lack of rest and exercise leads to hypertension while (50.0%) considered headache to be a sign of hypertension and less than two third (60.0%) deemed restlessness and palpitation to be signs of hypertension. Also more than half of the respondents (54.0%) said weakness and tiredness are signs of hypertension while majority (84.0%) knew drowsiness is one of the signs of hypertension and (50.0%) affirmed confusion as a sign of hypertension. Also, more than half of the respondent (46.0%) knew visual disorder is one of the signs of hypertension and (50.0%) also considered nausea as one of the signs of hypertension.

Majority of the discussants in all the focus group discussions said consistent high blood pressure leads to hypertension and it is hereditary. One of them said; "*My parents had hypertension and that is the reason I have hypertension too*" Most of the discussants agreed that hypertension is a chronic disease and it is normal with old. A female respondent reported thus: hypertension is caused by juju, witches, wizards or remote attacks.

About half of the discussants said high salt intake is a risk factor of hypertension. They equally added that too much consumption of fatty food. They explained that fats can block where blood flows and can cause more health issues. Others agreed that obesity and lack of exercise is a risk factor of hypertension.

Many of the discussants said constant headache to be a sign of hypertension and majority said weakness, tiredness and drowsiness are also signs of hypertension. Male discussants also noted that confusion can also be a sign of hypertension.

Almost all the discussants that are hypertensive said they encounter problems such as hypertension leg pain, back pain, head ache, weakness and some have stroke. Few added that hypertension makes the do very little as the turn to be tired and sickly.

4.1: Socio-demographic characteristics of the respondents

Variable	Frequency(N=498)	Percentage %
Age (Years)		
60-65	269	54.0
>65	229	46.0
Sex		
Male	249	50.0
Female	249	50.0
Religion		
Muslim	448	90.0
Christian	50	10.0
Marital Status		
Single	110	22.1
Married	319	64.1
Divorced	50	10.0
Widowed	19	3.8
Educational Qualification		
Primary	160	32.1
Secondary	200	40.2
Tertiary	19	3.8
Arabic	119	23.9
Occupation		
Trading/Consumables	219	44.0
Business	110	22.1
Farmer	169	33.9

Table 4.2: Knowledge on the risk factor of hypertension

Variable	Frequency (N=498)	Percentage %
Consistent high blood pressure leads to hypertension		
Yes**	460	92.4
No	19	3.8
Don't Know	19	3.8
High salt intake is a risk factor of hypertension		
Yes **	339	68.1
No	149	29.9
Don't Know	10	2.0
Too much consumption of fatty food is a risk factor of hypertension		
Yes**	60	12.0
No	428	86.0
Don't Know	10	2.0
Obesity is a risk factor of hypertension		
Yes**	259	52.0
No	30	6.0
Don't Know	209	42.0
Alcohol consumption is a risk factor of hypertension		
Yes**	259	52.0
No	70	14.1
Don't Know	169	33.9
Smoking is a risk factor of hypertension		
Yes**	269	54.0
No	219	44.0
Don't Know	10	2.0

Note: ** is signifies the correct answer/option

As shown in table 4.3 below, (86.0%) of the respondents knew hypertension is hereditary while more than half (52.0%) affirmed that hypertension is a chronic disease and (64.0%) knew hypertension is normal at old age. In addition, more than half (58.0%) knew lack of rest and exercise leads to hypertension while (50.0%) considered headache to be a sign of hypertension and less than two third (60.0%) deemed restlessness and palpitation to be signs of hypertension. Also more than half of the respondents (54.0%) said weakness and tiredness are signs of hypertension while majority (84.0%) knew drowsiness is one of the signs of hypertension and (50.0%) affirmed confusion as a sign of hypertension.

Table 4.3: Knowledge on the risk factor of hypertension

Variable	Frequency (N=498))	Percentage %
It is caused by Juju, witches, wizards or remote attacks		
Yes	249	50.0
No**	40	8.0
Don't Know	209	42.0
Hypertension has dangerous implications e.g Stroke		
Yes	279	56.0
No	10	2.0
Don't Know	209	42.0
It is hereditary		
Yes**	428	86.0
No	40	8.0
Don't Know	30	6.0
It is a chronic disease		
Yes**	259	52.0
No	179	36.0
Don't Know	60	12.0
It is normal at old age		
Yes**	319	64.1
No	149	29.9
Don't Know	30	6.0
Lack of rest and exercise		
Yes**	289	58.0
No	50	10.0
Don't Know	159	32.0

Note: ** is signifies the correct answer/option

Table 4.4: Knowledge on the signs and symptoms of hypertension

Variable	Frequency (N=498)	Percentage %
Restlessness and palpitation are signs of HP		
Yes**	299	60.0
No	40	8.0
Don't Know	159	32.0
Weakness and Tiredness are signs of HP		
Yes**	269	54.0
No	199	40.0
Don't Know	30	6.0
Drowsiness is one of the signs of HP		
Yes**	418	84.0
No	40	8.0
Don't Know	40	8.0
Confusion is one of the signs of HP		
Yes**	249	50.0
No	189	38.0
Don't Know	60	12.0
Visual Disorder is one of the signs of HP		
Yes**	229	46.0
No	50	10.0
Don't Know	219	44.0
Nausea is a sign of HP		
Yes**		
No	249	50.0
Don't Know	189	38.0
	60	12.0

Note: ** is signifies the correct answer/option.

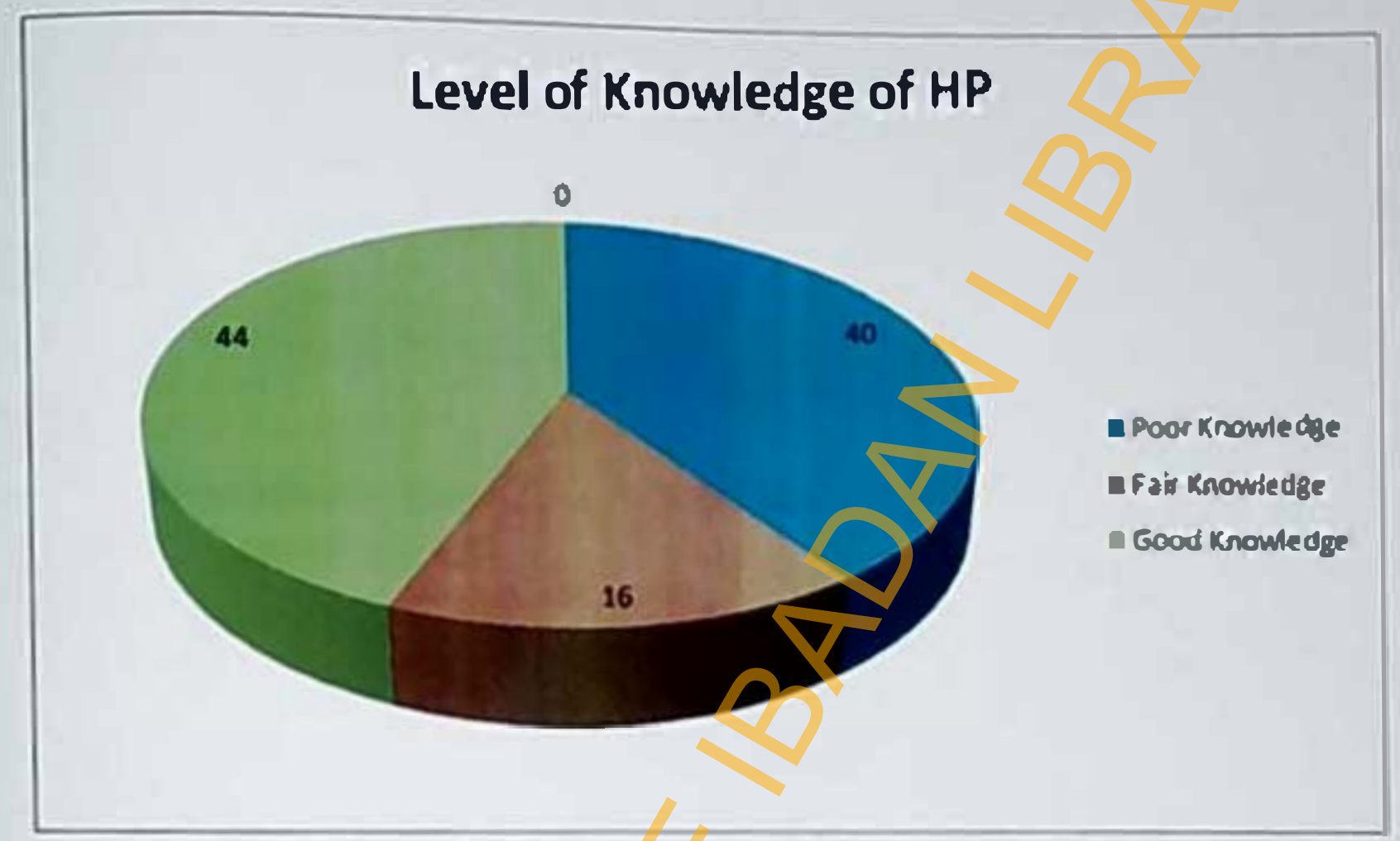

Figure 4.1: Level of knowledge on the signs and symptoms of hypertension

According to figure 4.1, using a 20 point knowledge scale (44.0%) of the respondents had good knowledge of the signs and symptoms of hypertension while (40.0%) and (16.0%) had poor knowledge and fair knowledge respectively.

4.3: Health-seeking Behaviour of the Respondents

Table 4.5 shows the health-seeking behaviour of the respondents with almost two third of the respondents (64.9%) attending public health care services while (70.1%) patronize private practitioners and more than two third (70.1%) buy drugs over the counter. Also majority (81.9%) treat themselves with herbs while (81.0%) will pray about it and more than half (56.0%) said they usually patronize traditional healers.

Some of the respondents in the focus group discussions explained that hypertension can be managed by eating good food (that are not fatty, and not having high salt content). Majority said by carrying out route exercises. Some of the female discussants said taking of drugs given for the hypertension diligently can manage hypertension.

Majority of the male FGD discussant said they will go to their traditional healers since they have medicine for most of the sickness, others say the healers will know what the issue is once they see you and will give you herbs. Some discussant said they will go to patent medicine vendor as that is relatively cheaper and closer to them than the hospital. Few said they will pray to God since He is all know and only he can heal.

Table 4.5: Health-seeking behaviour of the respondents

Variable	Frequency (N=498)	Percentage%
Attend public health services		
Yes	319	64.9
No	179	35.9
Private practitioner		
Yes	349	70.1
No	149	29.9
Buying of drugs over the counter		
Yes	349	70.1
No	149	29.9
Treating self with herbs		
Yes	408	81.9
No	90	18.1
Pray about it		
Yes	408	81.9
No	90	18.1
Patronizing Traditional healer		
Yes	279	56.0
No	219	44.0

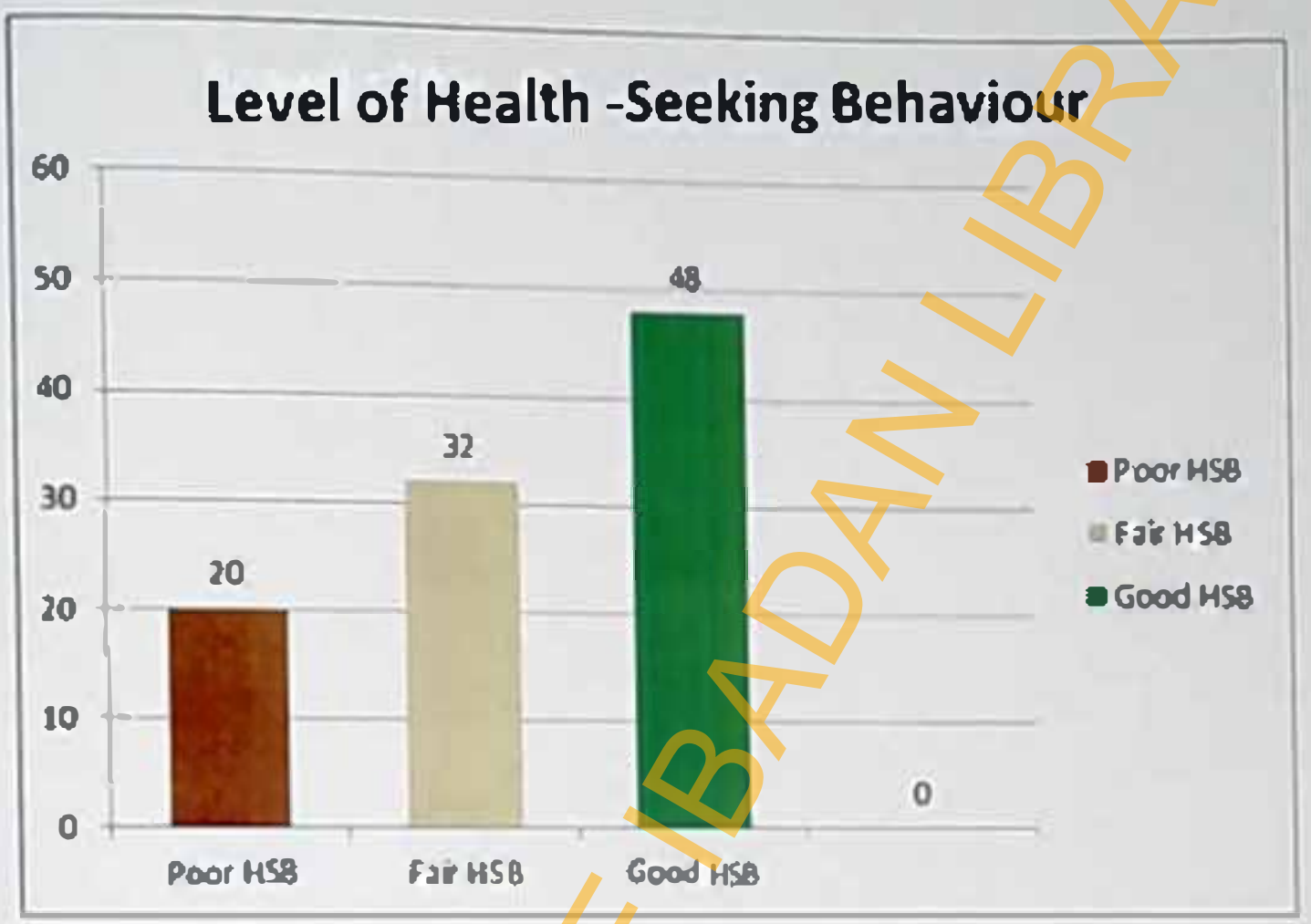

Figure 4.2: Level of health-seeking behaviour

According to figure 4.2, using a 6 point grade scale (48.0%) had good health-seeking behaviour, while (32.0%) and (20.0%) had fair and poor health-seeking behaviour respectively.

4.4: Reasons for Choice of Health-seeking Behaviour

As shown in table 4.6, majority (83.9%) of the respondents reported that financial buoyancy is a reason for choice of health behaviour while (48.0%) said it is because of the availability of social support and almost a quarter (24.1%) reported that it is because of the proximity and accessibility of health services. In addition, almost two third (60.0%) of the respondents affirmed their choice of health-seeking behaviour because of the good attitude of health workers while many (77.9%) says because of their faith in health care services and (64.1%) because of lack of money. Furthermore, majority (79.9%) say because nobody to take them to the hospital while almost two third (66.1%) say because health care services is too far and (66.1%) says because of the poor attitude of health workers.

Majority of the respondents in the group discussions said reasons for choice of health-seeking behaviour is finance; a discussant added "I don't have enough money to feed not to talk of hospital bills." Many discussants said language is a barrier as they explained that it's often difficult to communicate well with hospital staff. Some said the attitude of hospital workers to them is not good at all. Few said nobody to take them to the hospital, especially to go round for cards and locate where to seat and that the process is tiring in hospitals Some said they will go to patent medicine vendor as they are relatively cheaper, closer and protocol free.

Some said the reason of choice is due to proof of reliability. A discussant explained; "my brother went to the herbalist for medicine and he is better now, so I decided to go for help too and invite other too. Some said they will rely on God since He is all knowing. A discussant added "God cannot give what is difficult for one to carry and so He can take sicknesses away if He wants to"

Table 4.6: Reasons for choice of health-seeking behaviour

Variable	Frequency (N=498)	Percentage
Financial buoyancy		
Yes	418	83.9
No	80	16.1
Availability of Social Support		
Yes	239	48.0
No	259	52.0
Proximity and Accessibility of Health Service		
Yes	120	24.1
No	378	75.9
Good attitude of health workers		
Yes	299	60.0
No	199	40.0
Faith in health care services		
Yes	388	77.9
No	110	22.1
Lack of money		
Yes	319	64.1
No	179	35.9
Disease is due to age		
Yes	289	58.0
No	209	42.0
Nobody to take me to hospital		
Yes	398	79.9
No	100	20.1
Health care services too far		
Yes	329	66.1
No	169	33.9
Poor attitude of health workers		
Yes	329	66.1
No	169	33.9
No faith in health care	309	62.0
Yes	189	38.0
No		
Trusting God for healing		
Yes	438	88.0
No	60	12.0

4.6 Hypotheses

4.6.1 Hypothesis One: Association between age of respondents and their level of Health Seeking Behaviour

Table 4.7 shows that since the mean age score for respondents with good Health-Seeking Behaviour towards hypertension (67.0741) is higher than the mean age score of respondents with poor Health-Seeking Behaviour towards hypertension (63.0870) and the p-value is less than 0.05, we therefore conclude that the mean age score of respondents with good Heahh-Seeking Behaviour towards hypertension is significantly higher than the mean age score of respondents with poor Health-Seeking Behaviour towards hypertension (P=0.000). Thus the age of the respondents did significantly influence the Health-Seeking Behaviour of the respondents. Therefore we reject the null hypothesis which states that there is no association between the age of respondents and their Health-Seeking Behaviour towards hypertension.

Table 4.7: Association between age of respondents and their of Health-seeking Behaviour towards hypertension

	HSB Category	Mean	t-value	Df	P-value	95% CI	
						Lower	Upper
Age	Poor HSB	63.0870	-9.953	48	0.000	-4.79260	-3.18163
	Good HSB	67.0741					

4.6.2 Hypothesis Two:

The result shows that since the mean age score for respondents with good knowledge of the risk factors, signs and symptoms of hypertension (67.3333) is higher than the mean age score of respondents with poor knowledge of signs and symptoms of hypertension (63.3077) and the p-value is less than 0.05, we therefore conclude that the mean age score of respondents with good knowledge of signs and symptoms of hypertension is significantly higher than the mean age score of respondents with poor knowledge of signs and symptoms of hypertension (p=0.000). Thus the age of the respondents did significantly influence the knowledge of the risk factors, signs and symptoms of hypertension among the respondents. Therefore we reject the null hypothesis which states that there is no association between the age of respondents and their knowledge of the risk factors, signs and symptoms of hypertension.

Table 4.8: Association between age of respondents and their level of knowledge on the risk factor of hypertension

	Knowledge Category	Mean	t-value	df	P-value	95% CI	
						Lower	Upper
Age	Poor Know.	63.3077	-10.336	48	0.000	-4.80875	-3.24254
	Good Know.	67.3333					

CHAPTER FIVE

DISCUSSION OF RESULTS AND CONCLUSION

5.1. Socio Demographic Characteristics of Respondents

The age distribution of the respondents showed that most of the respondents were between 60 and 65 years, while others were above 65 years. Although the life expectancy in Nigeria is put at 43 years by UNDP (2005), many Nigerians still live over 70 years. Mean age of study participants was 62 years which is similar with previous study (Palanivel, Bharathy, Ravi, Arvind, Rahul and Kapil, 2012) Majority of the respondents (90.0%) were Muslim while (10.0%) were Christian is expected because of the peculiarity of the study location and the study participants being members of Hausa community. The proportion of elderly married, widowed, or unmarried were found to be closely related to the study conducted by Odamon aad Ibiezugbe (2014). Majority of the respondents were married, less than one quarter were divorced and a few were widowed.

Regarding the respondents' education; many had secondary education while more than a quarter had primary education. Almost one quarter had Arabic education and a few had tertiary education. A study by Lena in 2009 showed that almost half of the respondents were illiterate and around 37% had education up to the primary level. The distribution of respondents by occupation showed that many were into trading of food items, some were farmers and a few were into private business.

5.2 Level of knowledge on the risk factors, signs and symptoms of hypertension

Hypertension remains a major global public health challenge that has been identified as the leading risk factor for cardiovascular morbidity and mortality as well as all-causes of mortalities (WHO, 2002; Joint National Committee (JNC), 2003). In Nigeria, systemic hypertension is the commonest non-communicable disease, and public awareness about hypertension and its determinant is poor (Familoni, Abayomi, Ogun and Olutoyin, 2004). (44.0%) of the respondents had good knowledge of the causes and symptoms of hypertension while (40.0%) and (16.0%) had poor knowledge and fair knowledge respectively.

This study shows that majority of the respondents knew hypertension is hereditary, while more than half affirmed that hypertension is a chronic disease and knew hypertension is normal at old age. (P=0.044) More than half knew lack of rest and exercise, life-style leads to hypertension while some considered headache to be a sign of hypertension. Also half of the respondents knew hypertension is caused by juju, witches, wizards or remote attacks .This compared to a study which showed that 79.2% of participants were aware of high blood pressure. Compared to several surveys from many countries around the world, which reported that public awareness of blood pressure levels was very poor (Kamadjeu, Edwards and Atanga, 2003).

Another study by Niger, 2010 also revealed that about (58%) and (51.8%) knew smoking increases the propensity to develop complications and that exercise is beneficial for the control of blood pressure respectively (Niger, 2010). More so, less than two third (60.0%) deemed restlessness and palpitation to be signs of hypertension. This is closely in line with the study in the journal by National Medical Association (Vol 96, May 2004) which stated that (45.5%) and (30.2%) respondents respectively knew headache and palpitation were the commonest symptoms of hypertension. in addition, (44.0%) of the respondents had good knowledge of the causes and symptoms of hypertension while (40.0%) and (16.0%) had poor knowledge and fair knowledge respectively.

A similar to the study also noted that the knowledge of possible complications of hypertension was very poor as only 41.1% and 1.8% of patients were aware that excessive salt and fat intake could adversely affect the control of hypertension respectively and was noted that it may not be unconnected with the poor knowledge of hypertension (Niger, 2010). More so, this study also showed that there was no significant difference between the ages of the respondents and their level of knowledge of the causes and symptoms of hypertension among respondents (p=0.177)

5.3 Prevalence of hypertension

The prevalence of hypertension varies within different countries. The overall global prevalence among adults was recently estimated to be 26.6% in men and 26.1% in women

(Kearney,2004). Being the most rapidly rising cardiovascular disease in sub-Saharan Africa and affecting over 20 million people, hypertension prevalence has been reported to be on the increase in recent years (Kaufman and Barkey, (1993); Kadiri, (2005). In Nigeria, hypertension is the commonest non-communicable disease with over 4.3 million Nigerians above the age of 15 years classified as being hypertensive (systolic BP _ 160 mmHg and diastolic BP _ 90 mmHg) using the erstwhile national guidelines(National Expert Committee, 1997; Kadiri 1999; Akinkugbe, 2003; Iyalomhe, 2008 Ike, 2009). This is consistent with this study as about while 88.0% (n=438) had been diagnosed with hypertension and only 12% (n=60) don't have hypertension.

In a similar manner, a systemic review of hypertension prevalence studies by Adeloye (2015), observed in pooled prevalence of hypertension increased from 8.6% over the period 1970-1979 to 22.5% over the period 2000-2011. Closely related to this study is a synthesizing population- based study on the prevalence of hypertension in Nigeria from 1990 to 2009. The prevalence ranged from a minimum of 12.4% to a maximum of 34.8% (Ekwunife and Aguwa, 2011). The prevalence of hypertension in Nigeria forms a substantial portion of the total burden in Africa because of the large population which is estimated to be over 170 million (Akinlua et. al, 2015).

5.4 Health-seeking behaviour

The desired health-seeking behaviour is for an individual to respond to an illness episode by seeking first and foremost help from a trained allopathic doctor in a formally recognized health care centre (Conner and Sparks, 1996). This is consistent with the study by Uzchukwu and Onwujekwe, (2004) which stated private health facilities were the initial choice of treatment for the majority in the survey in the south-eastern Nigeria.

Findings in this study contrasts with the desired health-seeking behavior, with majority treat themselves with herbs while 408 will pray about it and more than half said they usually patronise traditional healers. Patronage of traditional/spiritual healers is much lower than was found in a study in Cameroon(Nchinda, 1977) and also in another study the commonest source of medical care was the primary health centre/health post in 360(18.0%), the hospital

in 31(1.5%), the patent medicine store in 284 (14.2%), and traditional medicine in 277(13.8%) of the respondents Oladapol, Salako, Sadiq , Soyinka and Falase (2013). Although many attend public health care services for care while some patronise private practitioners for care and more than two third buy drugs over the counter for care.

Another study showed that out of 246 and 140 respondents, 48.8% and41.4% don't seek medical care,32.5% and 15.7% visits MBBS doctors, 17.9% and 41.4% went to village doctors/dug stores while only 3.3% and 1.4% of respondents visited health workers for health services respectively (Uddin et al, 2014). Also findings from the study by Tanimola et al (2009), reported that in the total of 333 respondents, less than half (44.7%) of those who sought treatment patronized public health facility at first consultation. The place of first consultation as reported by the respondents; 54.6% visited private health clinic or hospital or sourced drugs from pharmacies and patent medicine stores. About 39.0% sought consultation from public facilities like government hospitals, primary health centers and comprehensive health centers. Only 4.5% had traditional healers or spiritualists as first point of consultation.

More so, this study showed that (48.0%) had good health-seeking behaviour, while (32.0%) and 20.0% (n=100) had fair and poor health-seeking behaviour respectively. The findings from International Journal of Science and Research (2003) also reported that Majority of respoodent (84.6%) of the respondents with normal blood pressure had good health-seeking behavior whereas among the respondents with elevated blood pressure, only 14.1% had good health-seeking behaviour.

There was a significant difference between the ages of respondents and their level of health-seeking behaviour (P=0.041) as almost one third (31.9%) of respondents between the ages 60-65 years had good health-seeking behaviour and 80 (16.1%) of respondents above 65 years of age had poor and good health-seeking behaviour respectively.

5.5 Choice of health-seeking behaviour

Health-seeking behaviour is a sequence of remedial actions taken to rectify 'perceived ill-health' (Ahmed, Adams, Chowdhury, and Bhuiya, 2000). There are personal actions to promote optimal wellness, recovery, and rehabilitation (Nursing Outcome Classification,

2009). When individuals make decisions in relationship to health, they weigh up the potential risks or benefits of a particular behaviour. They do so in a way that is mediated by their immediate practical environment, their social rootedness and their whole outlook on life more generally. (African Research Review, 2010).

This study show majority of the respondents knew they seek their particular health behaviour because they are financially buoyant while said because of the availability of social support and almost one fourth stated it's because of the proximity and accessjbility of health services. In addition, almost two third of the respondents affirmed their choice of health-seeking behaviour because of the good attitude of health workers while more than three fourth said because of their faith in health care services and because of lack of money. Furthermore, majority said because nobody to take them to the hospital while almost two third said because health care services is too far and 329 said because of the poor attitude of health workers.

In a similar study on health-seeking behavior in Ekiti State among Rural Dwellers (2010) noted factors of choice as; affordable cost, closeness, staff attitude, quality of service, knowledge of owners/ staff and availability of drugs required. Results from the study show that (32.9%) patrons claimed due to affordable medical of charges, however, (24.3%) indicated patronage due to closeness, (10.3%) staff attitude, (16.17%),quality of service, knowledge or owner/ staff(5.3%).

Also findings from the study by Tanimola et al(2009), show reason of choice of respondent as quality of care(37.5%), proximity(31.4%), cost least expensive(23.1%), free treatment (5.4%) and other reasons (2.6%). Another study by Ukwaja , (2013) also found reasons for not visiting a public facilities of respondents as thus; too expensive (22%), it takes time (26%), long distance to the facility (23%), knew they will get better treatment elsewhere(18%), mistrust in public facility (10%) and others (1%).

Egunjobi, (1983), noted that apart from the fact that most Patients would choose the institution which they considered would give best service, rather than one nearest to them.

yet other socio-cultural factors such as relative living in hospitals as well as fee paid, ease of transport, religion and connections with hospital staff will affect the health-seeking behavior.

Findings from this study show that there is a significant association between age and hypertension. In line with this, results from the research conducted by (Kosugi , Nakagawa, Kamath and Johnson, 2009) shows Blood pressure tends to rise with age and its consistent with (Carretero and Oparil, 2000) which shows risk of hypertension increases with aging.

Result from the study also shows that Essential hypertension is the most prevalent hypertension type, affecting 90 -95% of hypertensive patients. Although no direct cause has identified itself there are many factors such as sedentary lifestyle, stress, visceral obesity, potassium deficiency of which (Kosugi , Nakagawa, Kamath and Johnson, 2009) results stated about 2 out of 3 people over age 60 who have HBP have ISH. Yet a consistent finding in many studies is that, for some illnesses, people will chose traditional healers, village homeopaths, or untrained allopathic doctors above formally trained practitioners or government health facilities and according to(Ahmed et al, 2001) health care seeking behaviour is for an individual to respond to an illness episode by seeking first and foremost help from a trained allopathic doctor, in a formally recognised health care setting

5.6 Implications for Health Promotion and Education

There is no gainsaying that the findings from this study have health promotion and education implications and imply the need for multiple interventions directed at tackling the phenomenon. The responsibility of health education focuses on the modification of people's behaviour and behavioural antecedents (WHO, 1988); Green and Kreuter,1991). Health education is concerned with helping people develop practices that ensure the best possible well being which could be individual or collective. Health education principles, strategies and methods can be employed can be employed to address the negative findings identified in this study

In light of this study, it is obvious that good health-seeking behaviour is vital for survival of mankind and its importance cannot be overemphasized. This is as a result of array of ailment

which parades its self in our community today and the increase of hypertension in the elderly cannot be left out. Even though knowledge is a strong factor, it is not sufficient in developing positive health-seeking behaviours. Having a good knowledge of the roles that cultural belief and gender roles play in terms of health-seeking behaviours can help health care providers improve their relationship. Professional-patient relationships and development strategies to encourage people to seek appropriate treatment as soon as possible.

Just as individual differences exist so also are their bid to remain healthy this portrays the population's consciousness and how they engage the health system in quest to remain healthy. It is important for health care professionals especially those with specialty in handling aged people to understand the different factors that affects an individual's decision to seek health care treatment. This is to ensure that professionals are better able to recommend Treatments that are appropriate to individuals so as to promote health-seeking behaviours instead of providing options that patients might not feel comfortable with because of social norms, cultures and values.

Finally, informing policy makers about the study findings would increase their commitments to establishment of elderly homes because the present economic realities of Nigeria with a harsh government reform programme, with little or no consideration for the older people has created a lot of elderly beggars who are hypertensive in nature with little or no access to health care services.

5.7 Conclusion

This study has shown that there are some reasons for choice of health-seeking behaviour as by the elderly as thus; knowledge of owners/ staff and availability of drugs required, religious belief, social support, lack of money, Proximity and Accessibility of Health Service. Health-seeking behaviour is a sequence of remedial actions taken to rectify 'perceived ill-health 'and so good health-seeking behavior towards hypertension and proper understanding of health-seeking behaviour by the elderly could reduce delay to diagnosis, improve treatment compliance and improve health promotion strategies in a variety of contexts. Risk-

and health-seeking behaviours are largely determined by an individual's knowledge, attitude, beliefs and health practice.

The condition of the aged has recently surfaced as one of the foremost social problems Nigeria like many other developing countries in the world is presently witnessing the rapid growth of her population. The number of older people in the low-income countries is expanding rapidly. In recent years, as population ageing has grown into a "defining global issue, concerns have emerged regarding policy interventions appropriate for older people, especially in the area of elderly health care.

No country can be properly regarded as sound when the generality of the people are poor in health. The better the state of health of a country, the better able, it is to develop, mobilize and utilize the minds, energies and recourses of the people for lack of development.

In the light of these findings, recommendations were suggested which could be adopted and utilized by the appropriate agencies. It is hoped that if these recommendations are implemented there will be marked and sustained improvement in disciplinary measures used by our educators in our educational system in Nigeria.

5.8 Recommendations

Policy emphasis is more on young people, women and children while the elderly are neglected. Based on the findings from this study, the following recommendations are made thus:

1. There is a need to involve religious leaders in the campaign for preventive measures towards hypertension and how to modify risk factors to reduce the prevalence of hypertension.

2. There is an urgent need to design and implement culturally appropriate public awareness, health educational and health promotional programmes about the importance of good health-seeking behaviour.

3. There is therefore a need for government to provide accessible, affordable, and user friendly health care options to improve Health-seeking Behaviours for the elderly people so as to reduce the great reliance on patent medicine vendors.

4. Hypertension is of public health importance in the elderly and there is a need to strengthen the national programme for hypertension. From a public health perspective, there is definite need for screening of elderly. Free routine blood pressure testing and counseling can also be organized by public health agencies to help manage and reduce complication due to hypertension.

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APPENDIX I

INFORMED CONSENT FORM

IRB Research Approval no:..... This approval will elapse on:.....

TOPIC: Health-seeking Behaviours related to Hypertension among the Elderly immigrants in the Hausa community, Ibadan, Oyo State

This study is being conducted by a Masters of Public Health student of the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan. The purpose of this study is to investigate the health-seeking behaviour towards hypertension, among the elderly immigrants in the Hausa-speaking Community, in Ibadan North Local Government Area of Oyo State.

The research instruments will be interviewer administered and 498 elderly are required to participate. We intend to complete data collection within four weeks.

Risks: There are no risks involved in participating in the research study.

Costs: Your participation in this research will not cost you anything.

Benefits: The goal of this research is to provide useful information in designing evidence based health promotion and education programmes that can be used to inform the elderly on the importance of health-seeking behaviour towards prevention and management of hypertension, elicit information from elderly and the findings of this study is likely to help public health practitioners and the government to provide information and perceived causes of choice of health-seeking behaviour for the public, plan programmes that would favour improvement of health facilities in management of hypertension among the elderly.

Confidentiality: All information collected from this study will be coded and names will not be needed nor recorded. Thus, the information you provide cannot be linked to you in anyway. **Voluntariness**: Your participation in this research is entirely voluntary.

Consequences of participants' decision to withdraw from research and procedure for orderly termination of participation: You can choose to withdraw from the research at anytime. However, the information you have already provided will be used during the

reports or publications. What happens to research participants and communities when the research is over: The researchers will inform you of the outcome of the research through a publication.

Any apparent or potential conflict of interest: The researchers are students undergoing academic projects which may however be beneficial to the general public at large. We are not aware of any other information that may cause the researchers not to do their work with fear or favour.

Statement of person obtaining informed consent:

I have fully explained this research to.....and have given sufficient information about risks and benefits, to make an informed decision

Date .....

Signature.....

Name.....

Statement of person giving consent:

I have read and understood the description of this research. I know enough about the purpose, methods, risks and benefits of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at anytime. I also have a copy of this consent form and additional information sheet for myself.

Date.....Name.....Signature.....

Witness' Signature (if applicable).....Witness Name (if applicable).....

This research has been approved by the Director Planning, Research and Statistics Secretary, Oyo State, Research Ethical Review Committee. In addition, if you have any question about your participation in this research, you can contact the principal investigator. Name: Paul, Ojooe Ruth

Department: Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria

Phone: 08057857838

E-mail: oj_ruthpaul@yahoo.com

APPENDIX II

QUESTIONAIRE

HEALTH-SEEKING BEHAVIOURS RELATED TO HYPERTENSION AMONG ELDERLY IMMIGRANTS IN THE HAUSA COMMUNITY OF IBADAN NORTH LOCAL GOVERNMENT AREA, OYO STATE.

Introduction

The purpose of this study is to investigate the health-seeking behaviour towards hypertension, among the elderly immigrants in the Hausa Community, of Ibadan North Local Government Area of Oyo State.

The overall aim is to study will be useful in designing evidence based health promotion and education programmes that can be used to inform the elderly on the importance of health-seeking behaviour towards prevention and management of hypertension.

Responses to all questions will be kept confidential. Names are not required. We shall be grateful if you are honest in answering them.

Respondent's ID Number .....

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

Instruction: For most of the questions in this section, please tick (√) the appropriate alternative response(s). In some cases, however simply supply the needed information in the blank spaces provided.

1 SEX: Male ☐ Female ☐

2 AGE: _____ in years

3 RELIGION: Christianity ☐ Islam ☐ Others ☐

4 MARITAL STATUS: Single ☐ Married ☐ Divorced ☐ Widowed ☐

5 EDUCATIONAL QUALIFICATION: Primary ☐
Secondary ☐
Tertiary ☐
Arabic ☐

6 OCCUPATION: _____

SECTION B: LEVEL OF KNOWLEDGE ON THE CAUSES AND SYMPTOMS OF HYPERTENSION

Instruction: The table below contains a list of the level of knowledge on the causes and symptoms of hypertension Tick (√) Yes, No or Don't know.

LEVEL OF KNOWLEDGE ON THE RISK FACTOR AND SYMPTOMS OF HYPERTENSION

	THE SIGNS AND SYMPTOMS OF HYPERTENSION	TICK (√)		
		YES	NO	DON'T KNOW
7	Consistent high blood pressure leads to hypertension			
8	High salt intake is a risk factor of hypertension			
9	Too much consumption of fatty food is a risk factor of hypertension			
10	Obesity is a risk factor of hypertension			
11	Alcohol consumption is a risk factor of hypertension			
12	Smoking is a risk factor of hypertension			
13	It is caused by juju, witches, wizards or remote attacks			
14	Hypertension has dangerous implication, e.g stroke			
15	Hypertension is hereditary			
16	Hypertension is a chronic disease			
17	Hypertension is normal at old age			
18	Lack of rest and exercise can cause Hypertension			
19	Headache is a sign of Hypertension			
20	Restlessness and palpitation is one of the signs of hypertension			
21	Weakness and Tiredness is one of the signs of hypertension			
22	Drowsiness is one of the signs of hypertension			
23	Confusion is one of the signs of hypertension			

24	Vision Disorder is one of the signs of hypertension			
25	Nausea is one of the sign s of hypertension			

SECTION C: REPORTED PREVALENCE OF HYPERTENSION

Instruction: The table below contains questions to determine the prevalence of hypertension among the elderly Tick (√) Yes or No

PREVALENCE OF HYPERTENSION

PREVALENCE OF HYPERTENSION		TICK (√)	
		YES	NO
26	Are you hypertensive		
27	How do you know? Where you daigonised		

SECTION D: HEATH- SEEKING BEHAVIOUR

Instruction: The table below contains a list of health-seeking behaviours towards bypertension Tick (√) Yes or No(if you have been diagnosed answer this)

HEATH SEEKING BEHAVIOUR

HEALTH-SEEKINGBEHAVIOUR		TICK (√)	
		YES	NO
28	Do you attend public health services		
29	Do you go to private practitioner		
30	Do you buy drugs over the counter		
31	Do you treat yourself with herbs		
32	Do you pray about it		
33	Do you go to traditional healer		

SECTION E: REASONS FOR CHOICE OF HEALTH-SEEKING BEHAVIOUR

Instruction: The table below contains a list of reasons for choice of health-seeking behaviours towards hypertension Tick (√) Yes or No

REASONS FOR CHOICE OF HEALTH-SEEKINGBEHAVIOUR

	REASONS FOR THE CHOICE OF HEALTH-SEEKINGBEHAVIOUR	TICK (√)	
		YES	NO
34	Financially buoyant		
35	I have social suppon		
36	Health service is near and accessible		
37	Good attitude of health workers		
38	Faith in health care		
39	Lack of money		
40	Disease due to age		
41	Nobody to take me to hospital		
42	Health services too far		
43	Poor attitude of health workers		
44	No faith in health care		
45	Trust God for healing		

Thank you for your cooperation

APPENDIX III

SASHEN CI GABAN LAFIYA DA FANNIN ILMI
TSANGAYAR LAFIYAR JAMA'A
KWALEJIN KOYAR DA ILMIN LIKITA
TAMI'AR IBADAN, IBADAN

TAMBAYOYIN BINCIKE A KAN ABUBUWAN DA TSOFFI KE YI DON TSARE KANSU DAGA MATSALAR HAWAN JINI A CARIN SABO KARAMAR HUKUMAR IBADAN TA AREWA, JIHAR OYO

Zuwa gare ku,

Sunana Paul O. Ruth xaliba mai karatun babban digiri a sashen ci gaban lafiya da fannin ilmi, tsangayar lafiyar Jama'a, Jami'ar Ibadan. Wannan tambayoyin bincike an shirya shi ne don gano yadda tsofaffi a cikin al'ummar Hausawa da ke garen Ibadan, Jihar Oyo ke kula da lafiyarsu don kare kansu daga hawan jini. Abin da aka samu a sakamakon wannan bincike zai taimaka wajen tsara yadda za a shirya hanyoyin ci gaban lafiya da fannin ilmi.

Wannan nazari ba zai cutar da kai ba. duk bayan an da aka tattara za a sirranta. Don ka samu tabbacin haka, ba za a rubuta sunanka a wannan takardar bincike ba. kuma kana da zavin qin amsa tambayoyin baki xaya.

Ka saki jikinka ka amsa waxannan tambayoyi cikin gaskiya. Idan kana da wata tambaya, ka yi ba tare da wata damuwa ba a yayin gudanar da wannan taitaitawa.

Na gode kwarai da haxin kanku.

SASHEN A BAYANI A KAN MAI AMSA TAMBAYOYI

Umurni Wajen amsa tambayoyin wannan sashe, ana son ka yi zavi ne ta hanyar sa wannan alama (√) a wurin da ya dace. A wasu wurare kuma sai ka ba da bayanin da ake bukata a wurin da aka tanadar.

1. JINSI Namiji ☐ Mace ☐
2. SHEKARU ☐
3. Kirista ☐ Musulmi ☐ wasu ☐
4. AURE: Babu aure ☐ Akwai aure ☐ an rabu ☐ Mutuwar zumaa ya mutu ☐

5. MATSAYIN ILMI Firamare ☐

Sakandare ☐

Gaba da sakandare ☐

Makarantar allo ☐

6. SANA'A _____

SASHEN B. ILMI A KAN ABUBUWAN DA KE HANFAR DA HAWAN JINI DA ALAMUN DA AKE GANIN WANDA YA KAMU DA HAWAN JINI DA SU

Umurni: Jadawalin da ke biye na xauke da jerin bayanai a kan abubuwan da ke hanfar da hawan jini da alamun da ake ganin wanda ya kamu da hawan jini da su.

Ka sa wannan alama (√) a gurbin E! ka A'a ko kuma Ban sani ba.

ILMIN KAN ABUBUWAN DA KE HANFAR DA HAWAN JINI DA KUMA ALAMUN DA KE NUNA AN KAMU DA HAWAN JINI

		SA WANNAN ALAMA (√)		
		E	A'a	Ban sani ba
6	Hawan jini ke haifar da hawan jini			
7	Yawan shan gishiri ke haifar da hawan jini			
8	Yawan cin abinci mai yawan kitse na iya haifar da hawan jini			
9	Qiba na iya haifar da hawan jini.			
10	Yawan shan giya ka iya haifar da hawan jini.			
11	Shan taba na iya haifar da hawan jini.			
12	Aiki ne ko mayar da hankali hawan jini			
13	Hawan jini na iya haifar da shanyewar gava.			
14	Ana gadonsa ne			
15	Mummunar cuta ce			
16	Yakan kama mace yawan shekara ne.			
17	Rashin barci da rashin motsa jiki.			

18	Ciwon kai			
19	Rashin natsuwa da faxuwar gaba.			
20	Rashin kuzari da yawan gajiya.			
21	Jin jiri			
22	Rashin kwanciyar hankali.			
23	Rashin gani sosai			
24	Tashin zuciya			

SASHEN C: YAWAN KAMUWA DA HAWAN JINI

Umarni: Jadawalin da ke biye na nuke ne da tambayoyi a kan yadda ake yawan kamuwa da hawan jini a cikin softi. Zavi E ko A'a ta hanyar sa wannan lama (√)

YAWAN KAMUWA DA HAWAN JINI

		Zavi (√)	
	YAWAN KAMUWA DA HAWAN JINI	E	A'a
25	Hauhawan jini ke haifar da hawan jinni		
26	Kana da hauhawar jini?		

SASHEN D: HANYOYIN NEMAN LAFIYA

Umarni: Jaduwalin da ke qasa na nuke ne da tambayoyi a kan yadda masu fama da hawan jini ke kula da lafiyarsu (√) zavi E ko A'a

HANYOYIN NEMAN LAFIYA

		Zavi (√)	
	YAWAN NEMAN LAFIYA	E	A'a
27	Kakan kalarci cutarsu a kan lafiya		
28	Kakan ziyarci masu bo da magani masu cancan kansu.		
29	Kakan sayi magani a chemist?		
30	Kakan yi wa kansa magani da saye-sayi?		
31	Kakan yi ta addu'o'i		
32	Masu maganin gargajiya		

SASHEN E: DALILAN DA SUKA SA KA ZAVIN HANYOYIN NEMAN LAFIYARKA

Umurni: Jadawalin da ke biye na xauke da dalilan da suka ka zavi hanyarka ta neman lafiya game da matsalar hawan jini. Zavi E ko A'a

DALILAN DA SUKA SA KA ZAVIN HANOYIN NEMAN LAFIYARKA.

		Zavi (√)	
	DALILAN DA SUKA SA KA ZAVIN HANOYIN NEMAN LAFIYARKA	E	A'a
33	Isashen kuxi		
34	Samun tamako daga al'umma		
35	Akwai cibiyoyin kula da lafiya kusa da ni		
36	Taimakon jami'an lafiya		
37	Aminccwa da hanyoyin kula da lafiya		
38	Rashin kuxi		
39	Rashin lafiya saboda tsufa		
40	Babu mai kai ni asibiti		
41	Cibiyoyin kula da lafiya na nesa da ni		
42	Jami'ai kula da lafiya ba sa aikinsu yadda ya kamata		
43	Bas aminee da hanyoyin kula da lafiyamu ba.		
44	Allah ne zai warkar da ni.		

Na gode da hadin kan da ka ba mu.

APPENDIX IV

FOCUS GROUP DISCUSSION (FGD) GUIDE

Introduction

I am a Masters of Public Health student of the Department of Health Promotion and Education, Faculty of Public Health College of Medicine, University of Ibadan. I am currently conducting a research study on: Health-seeking Behaviours related to Hypertension among the Elderly Immigrants in the Hausa community of Ibadan North Local Government Area, Oyo State. The purpose of this study is to investigate the health-seeking behaviour towards hypertension, among the elderly immigrants in the Hausa-speaking Community, in Ibadan North Local Government Area of Oyo State.

With me to carry out this focus group discussion are my research assistants.....
We are here to identify the health-seeking behaviours towards hypertension among the elder in this community. This study will help upgrade knowledge and help in the design of intervention programmes for the elderly and any information given will be treated with confidentially and will be for academic research purposes only. Please, we also request your permission to allow us use tape recorder for documentation the discussion session. This would help ensure that your views are accurately recorded and misrepresentation avoided. We will be grateful if you provide us with honest and accurate information.

Thank you.

1 What are the health problems associated with the elderly in this community?

- Probe for hypertension if not mentioned

2 What do you know about hypertension?

- What are the causes of hypertension?
- What are the signs and symptoms of hypertension?
- What are the challenges of being hypertensive?
- Which groups of people are affected?

3 How often do the elderly check their blood pressure?

4 How can the elderly manage hypertension?

- Where will be the first point of call if any sign of hypertension is noticed and why?
- How can the elderly prevent themselves from been hypertensive?

5 What are the reasons for the choice of health-seeking behaviour?

Thank you all for your cooperation

APPENDIX V

JAGORAN TATTAUNAWAR KUNGIYA

GABARARWA

ASSALAMU ALAIKUM!

Sunana Paul. O. Ruth, xaliba a sashen ci gaban lafiya da fannin ilmi, tsangayar lafiyar Jama'a qwalejin imin likitanci, Asibitin kwalejin Jami'a. Tare da ni don gudanar da wannan binciken ilmi akwai Aminu da Mairo da Ahmed da Bello da kuma Fatima. Dukkansu mataimakana ne don gudanar da bincike.

Mun zo nan ne don gano yadda tsoffi masu fama da ciwon hawan jini ke gudanar da rayuwarsu a cikin wannan al'umma. Wannan bincike zai taimaka wajen xaukaka ilmi da kuma tsara yadda za a taimakawa tsoffi masu fama da fatin jini. Duk wani bayani da aka samu za a sirrinta sunan wanda ya ba da shi, kuma za a yi amfani da bayanin ne kawai don ci gaban ilmi. Muna roqonku da ku amince mu yi amfani da na'urar xaukar magana don taskace bayanan da muka samu. Wannan zai tamaka wajen tabbatar da cewa duk bayanan da ka yi ba a yi qari ko ragi ba. za mu yi matuqar farin ciki idan kuka ba mu bayani gamsassbe ba tare da qari ba.

Mun gode.

1. W'ace irin lalurar rashin lafiya ka fi damun tsofaffi a wannan al'umma
   - Idan ba su amsoci hawan jini ba. ka yi magana a kai.
2. Me ka sani game da hawan jini?
   - Me ke haifar da hawan jini?
   - W'axanne alamu ake gani a wurin mai fama da hawan jini?
   - Yaya rayuwar mai fama da hawan jini kan kasance?
   - Wane nau'in jama'a hawan jini ya fi kamawa?
3. Suu nawa tsoffi kan duba matsayin hawan jininsu?
   - Wane dalili kan sa tsoffi su duba matsayin hawan jininsu, kuma a ina suke duba hawan jinin nasu?
4. Ta wace hanya tsofaffi za su iya gudanar da rayuwa da hawan jin?
   - Ina za a dumfara da zarar an fara ganin alamun kamuwa da hawan jini, kuma don me?
   - Ta wace hanya tsofaffi za su kare kansu daga zama masu hawan jini?
5. W'axanne dalilai ne suban sa a cisi mai ma wasu abubuwa don kiyaye lafiya?

Mun gode kwarai da hadin kan da ka ba mu.

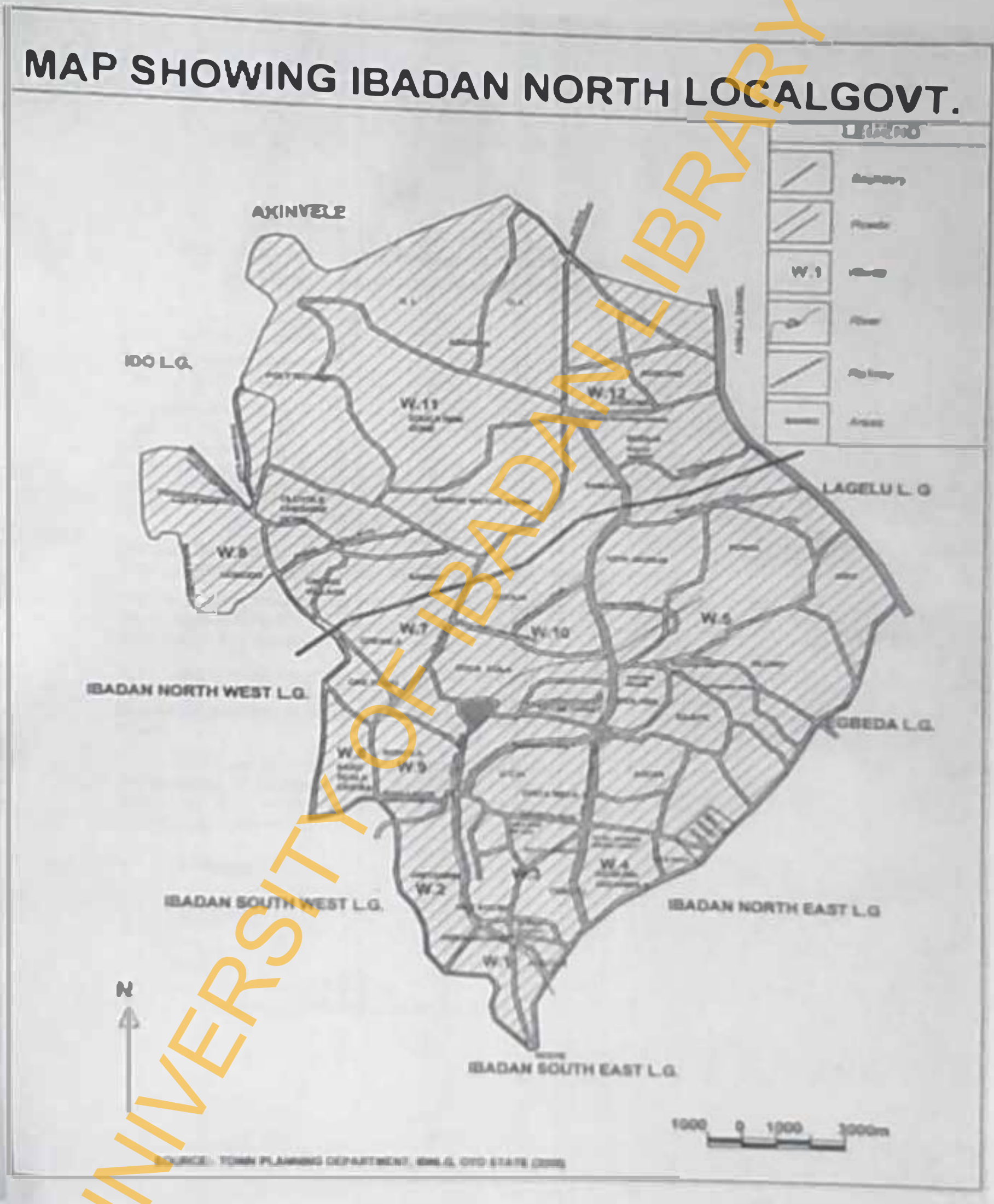

Fig 5.1 STREET MAP OF IBADAN NORTH LGA.

APPENDIX VII

TELEGRAMS: .... TELEPHONE: ....

MINISTRY OF HEALTH

DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION

PRIVATE MAIL BAG NO. [illegible], OYO STATE OF NIGERIA

Your Ref. No. ....

All communications should be addressed to

[illegible]

Our Ref. No. [illegible]

February, 2015

The Principal Investigator,
Department of Health and
Promotion and Education
Faculty of Public Health,
University of Ibadan,
Ibadan

Attention: [illegible]

Ethical Approval for the Implementation of your Research Proposal in Oyo State

This acknowledges the receipt of the corrected version of your Research Proposal titled "Health-Seeking Behaviour Related to [illegible] among the [illegible] in the [illegible] Community, Ibadan, Oyo State.

2. The committee has noted your compliance with all the ethical concerns raised in the initial review of the proposal. In the light of this, I am pleased to convey to you the approval of committee for the implementation of the Research Proposal in Oyo State, Nigeria.

3. Please note that the committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of the findings as this will help in policy making in the health sector.

4. Wishing you all the best.

Sola Akanda (Dr)
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethical Review Committee