University of Malawi

KAMUZU COLLEGE OF NURSING

# A STUDY ON KNOWLEDGE OF HYPERTENSION AMONG FEMALE CLIENTS WITH HYPERTENSION AT KAMUZU CENTRAL HOSPITAL

BY



TIWONGE NDINDASE NYIRONGO

A Research Dissertation Submitted to the University Of Malawi, Faculty of Nursing in Partial Fulfillment of Bachelors of Science in Nursing

Date: December, 2006

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Supervised by MRS R.C NGALANDE

November, 2006

# DECLARATION

I hereby declare that this dissertation is completely the result of my own work and that it has never been submitted for any degree at Kamuzu College of Nursing

Candidate: Tiwonge Ndindase Nyirongo

Signature: ..T..Nyiro..... Date: 11/12/06

Supervisor: Mrs. R.C Ngalande

Signature: ...Rngalande Date: 11.12.06

# DEDICATION

I dedicate this dissertation to my late mom. With much love!

# ACKNOWLEDGEMENTS

I do realize that it is God who saw me through the entire process of research for it is Him who makes everything possible. It is therefore for this reason that I give praise and honour unto Him for making it possible for this task to be completed.

A number of people deserve special thanks for their valuable contributions towards the production of this document.

First and foremost I would like to sincerely thank my aunt Mrs. V.T. Phiri, my Grandfather Mr. Vyalema Nyirongo, my brother Kumbukani and my Sister Mercy for their love and support during the entire course of writing the dissertation. Thanks to my cousin Mundango Nyirenda and his wife Winnie for the printing services.

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Lastly but not the least the participants deserve special thanks for their willingness to participate in the study, they formed the basis for this document.

**GOD BLESS YOU!!**

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# CHAPTER ONE

## INTRODUCTION

Hypertension or high blood pressure is the state in which the heart is working harder than normal putting both the blood and blood vessels under strain. Smeltzer& Baire (1995) define hypertension as persistent levels of blood pressure in which the systolic pressure is above 140mm Hg and the diastolic pressure is above 90mmHg.

It is very important for clients with hypertension to have knowledge regarding their condition because it increases the clients' awareness about their condition thereby gaining their cooperation in prevention, treatment and control of the condition.

Above 20% of the adult population develop hypertension when they reach the age of 65 because the arterial blood vessels become less compliant with age due to the build up of atherosclerosis plaques. 90% of these have essential hypertension, a type of hypertension with unidentified cause, the remainder develop secondary hypertension which is elevation of blood pressure with a specific cause on which this study is focusing.

Hypertension occurs due to the increase in pressure in the arteries. The common contributing factors to increased pressure in the arteries include: the heart pumping with more force due to peripheral resistance, increased fluid added to the system which happens when the kidneys are not able to remove enough salt and water from the body as a result the volume of blood increases leading to hypertension (Merck Manual, 1997).

## 1.1 BACKGROUND OF THE STUDY

Previously, hypertension was predominant in industrialized and developed countries, but of late, there has been a sudden increase in the number of cases in developing countries as well with an estimate of 690 million people have the condition worldwide. In the United States of America, 50 million people have hypertension, accounting for 20.4% of

the population, while in Canada 22% of the population is hypertensive (Lewis, Heitkemper & Dirksen, 2004).

Hypertension is the commonest cardiovascular disease in Africans occurring in more than 15% of the adult population. It occurs in the lower as much as in the higher socio-economic groups (Hess, 1999).

Hypertension is termed a silent killer because many people with the condition have no symptoms and therefore they may die without other people knowing that the cause of death is hypertension (Linton & Maebius, 2004). Although hypertension is amongst the common reasons for an out patient medical visit, many clients with established hypertension have poor controlled blood pressure. For example in the 1988-1991 National Health and Nutrition Examination Survey (NHANES III), only 24% of the patients with a diagnosis of hypertension had blood pressure of less than 140/90mm Hg. (Berlowitz, Ash, Hickey, Friedman and Glickman, 1998). According to Douglas, Ferdinand, Bakris and Sower (2002) obstacles to blood pressure control are related to variables such as level of education, employment status, income, time available for pursuit of health related activities, and inadequate coverage for preventive health care services. Douglas et.al (2002) also reported that awareness of hypertension might be particularly low when access to health information is inadequate. He further reported that since hypertension does not produce any symptoms, the condition is not discussed as often as other diseases and the clients become disadvantaged since they do not get enough information regarding the condition.

Most research has focused on patients' non-compliance with recommended therapy and has not examined the knowledge of hypertension among the hypertensive population. This study therefore seeks to examine the knowledge of hypertension among the hypertensive clients.

## 1.2 PROBLEM STATEMENT

According to Stanhope and Lancaster (1992) individuals are more likely to comply with treatment when they have adequate information pertaining to the disease condition as well as its treatment. Furthermore, clients will comply with treatment when health care professionals have given the clients correct information concerning the illness, in this case hypertension. Additionally, one's state of health in terms of illness influences his attitude of accepting the recommended health actions and control measures to the problem. Since knowledge is power, if a hypertensive client does not have enough knowledge concerning his or her condition, the likelihood of not complying is increased.

The study hypothesis therefore is that clients with hypertension do not know much about their condition in terms of prevention, its complications and the effects of the medication they take to control the condition.

## 1.3 SIGNIFICANCE OF THE STUDY

Since not many studies have been done on knowledge of hypertension among hypertensive clients in Malawi, the study results will provide a basis for future research, the results will help health workers to identify the gap of knowledge of hypertension among hypertensive clients in order to promote clients' knowledge about their condition. The findings will also help policy makers in the health field to plan on measures that can be employed to improve the level of knowledge of hypertension among the hypertensive population.

## 1.3 BROAD OBJECTIVE

The study aims to examine the knowledge of hypertension among clients with hypertension.

### 1.4.1 SPECIFIC OBJECTIVES

- Examine clients' knowledge on causes, signs and symptoms of hypertension

- Assess clients' knowledge on prevention of hypertension
- Assess clients' knowledge about the medication they take
- Explore availability of support groups for clients with hypertension
- Identify the myths that are attached to hypertension

## 1.4 OPERATIONAL DEFINITIONS

**Knowledge:** The confidence to understand a subject with the ability to use the knowledge for a specific purpose.

**Hypertension:** A medical condition whereby blood pressure is chronically elevated.

**Blood pressure:** The force of blood pushing against the walls of the arteries.

**Diastolic pressure:** The pressure of blood against the artery walls between heartbeats when the heart is relaxed and filling with blood. It is the second or lower number in a blood pressure reading.

**Systolic pressure:** The pressure of blood against the artery walls when the heart has just finished contracting or pumping out blood. Systolic blood pressure is the upper number of a blood pressure reading.

**Diastolic hypertension:** Diastolic pressure of greater than 90mm Hg Systolic hypertension: Systolic pressure of greater than 140mm Hg.

**Primary hypertension:** hypertension that is caused by unidentifiable cause. Secondary hypertension: hypertension that is caused by specific cause or disease.

## 1.7 LIST OF ABBREVIATIONS

**B.P**- Blood pressure

**HBM**- Health Belief Model

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 INTRODUCTION

This chapter will review literature in terms of classification of hypertension, predisposing factors of hypertension and knowledge of hypertension among patients with hypertension globally.

## 2.2 CLASSIFICATION OF HYPERTENSION

Clients with hypertension need to have knowledge about the type of hypertension they suffer from. This knowledge can help them to institute measures that can help to reduce the predisposing factors to the particular type of hypertension they have. Classification of hypertension takes several forms basing on type, cause and degree of the severity.

### 2.2.1 Primary Hypertension

Primary hypertension is elevated blood pressure without an identified cause. It constitutes more than 90-95% of all cases of hypertension. Essential or primary hypertension usually begins as a labile process in individuals in their 30's to early 50's and gradually becomes fixed. It develops in response to increased cardiac output or to a rise in peripheral resistance. On occasion it appears abruptly and severely and takes an accelerated or malignant course that causes the patients condition to deteriorate rapidly (Smeltzer & Bare, 1995).

### 2.2.2 Secondary Hypertension

Smeltzer & Bare (1995) defines secondary hypertension as elevated blood pressure that is related to some underlying cause such as narrowing of the arteries or disease of parenchyma of the kidneys, certain medication, organ dysfunction, tumours and pregnancy. Secondary hypertension constitutes about 5-10% of the hypertensive

population and it develops before thirty years and after fifty years (Black & Mattasarin, 1993).

## 2.3 PREDISPOSING FACTORS

Aetiology of hypertension is not known. However, risk factors that serve as initiators to the development of hypertension may be genetic or non-modifiable and environmental. The genetic or non-modifiable factors relate to family history, gender, age and ethnic group. The level of blood pressure is strongly familial although it is not known exactly what is inherited that leads to high blood pressure. Age and hypertension are also linearly associated in that the arterial blood vessels become less compliant with age due to the build up of atherosclerosis plaques (Beare & Myers, 1994).

The environmental or modifiable factors relate to nutrition, life style habits and individual stress profile. Additionally, over consumption of salt increases the risk of hypertension in those individuals who are genetically predisposed to hypertension because of its tendency to retain water. While over consumption of unsaturated fats causes obesity which poses a risk for hypertension although it is not well understood how obesity causes hypertension, weight reduction in obesity has proved to lower blood pressure (Beare & Myers, 1994).

Stress predispose people to hypertension because the responses to stress which are normally protective may persist to a pathological, resulting in prolonged increase in sympathetic nervous system activity which produces increased vasoconstriction (Black & Mattasarin, 1993). In addition, several medical conditions can cause high blood pressure for example renal diseases and excessive thyroid hormone because these conditions increase cardiac activity (Klabunde, 2006).

## 2.4 KNOWLEDGE OF HYPERTENSION AMONG HYPERTENSIVE CLIENTS GLOBALLY

Knowledge is an important goal of patient education programs. Clients need to have knowledge on the various aspects of hypertension including causes, signs, symptoms, prevention and treatment of hypertension. However studies have indicated that patients with hypertension do lack information about their condition.

This is supported by Williams and Baker (1998) in their report on a cross sectional study that was done on relationship of functional health literacy to patients' knowledge of their chronic disease done in Los Angeles, Torrance and Calif. The study results indicated that only 42% of patients with inadequate literacy knew that a blood pressure reading of 130/80mm Hg was normal while 45% did not know that a blood pressure reading of 160/100mm Hg was high. High proportions of patients with inadequate functional health literacy also lacked knowledge about the effect of lifestyle and dietary factors on blood pressure. 66.8% of the patients did not know that losing weight lowers blood pressure, 66.3% did not know that canned vegetables are high in salt, and 60% did not know that exercise lowers blood pressure.

Another study in support of this was done in China to estimate the knowledge of hypertension and effect on its management in hypertensive patients attending hospital clinics. A cross sectional study was used among hypertensive clients aged 45 years in 18 general hospitals which represented the different levels of medical care in 8 major cities. Of all the patients, 46.5% were hypertensive. The participants were categorized into knowledge of hypertension grade, and classification on the number of correct answers to four questions about hypertension. The results showed that there was significantly a positive correlation between the grade of hypertension knowledge and treatment compliance, and the major cause of poor treatment compliance was found to be due to lack of hypertension knowledge (Jiang, Li, Ma, Kong, Jin, & Liu, 2002).

Wang, Bai, Ma & Li (2003) reports on a study that was done in China with the purpose of

finding the relationship between blood pressure control status and patients' knowledge on hypertension prevention and control among hypertensive patients found that patients' knowledge on hypertension control is significantly related to the rate on hypertension control.

Grant & Hezekiah (1996) reports on a survey that was done in Jamaica, West Indies with the purpose to assess knowledge and beliefs about hypertension among Jamaican hypertension female clients attending primary health care clinics The findings of the study indicated that the respondents lacked knowledge regarding the predisposing factors and characteristics of the disease and had a number of misconceptions surrounding the illness.

This is supported by Familoni, Ogun & Aina (2004) in a study which was done in Nigeria to assess the knowledge and level of awareness of hypertension among hypertensive patients attending the medical outpatient clinic of Olabisi Onabanjo University Teaching Hospital Found that one in 10 patients (11.4%) was aware that "nil symptom" is the commonest symptom of hypertension, 37% were not aware that hypertension could cause renal failure. Only about one-third (35.4%) of the patients knew that hypertension should ideally be treated for life, while 58.3% believed that antihypertensive drugs should be used only when there are symptoms. The remaining 6.3% believed that the treatment of hypertension should be for periods ranging from two weeks to five years but not for life. This study demonstrated inadequate knowledge of hypertension in patients with hypertension. Efforts should therefore be made to educate hypertensive clients on various aspects of their condition.

## 2.6 SUMMARY OF LITERATURE REVIEW

Hypertension is a chronic condition therefore it requires patient education to achieve adequate control and prevention of adverse health outcomes. Patients with hypertension may need to understand how to properly take multiple medications and modify their lifestyle, low salt diet, weight loss, or exercise to achieve adequate blood pressure control.

## CHAPTER THREE

## CONCEPTUAL FRAMEWORK

The conceptual framework for this study is based on the Health Belief Model (HBM). The HBM was developed by Rosenstock in the1950s to depict which individuals will or will not use such preventive measures as screening for early detection of cancer as it is based on motivational theory (Kozier & Erb, 2004).

Becker (1974) modified the HBM to include these components: individual perceptions, modifying factors and variables likely to affect initiation of action (Kozier & Erb, 2004). This model focuses on compliance and preventive health care practices. The model integrates psychological theories of goal setting, decision-making and social learning. The model suggests that a health seeking behaviour is influenced by a person's perception of threat posed by a problem and the value associated with actions aimed at reducing the threats.

The major components of the HBM include: perceived susceptibility to disease, perceived severity of disease, perceived benefits of preventive action, perceived barriers to action, perceived threat of disease, and modifying factors.

### Perceived susceptibility of disease

Refers to a person's perception that a problem is personally relevant and that diagnosis of illness is accurate.

### Perceived severity of disease

It is the recognition of perceived susceptibility and belief that becoming ill will have a serious organic or social complication.

### Perceived threat of disease

According (Kozier & Erb, 2004) to susceptibility and severity combine to determine the total perceived threat of an illness to a specific individual.

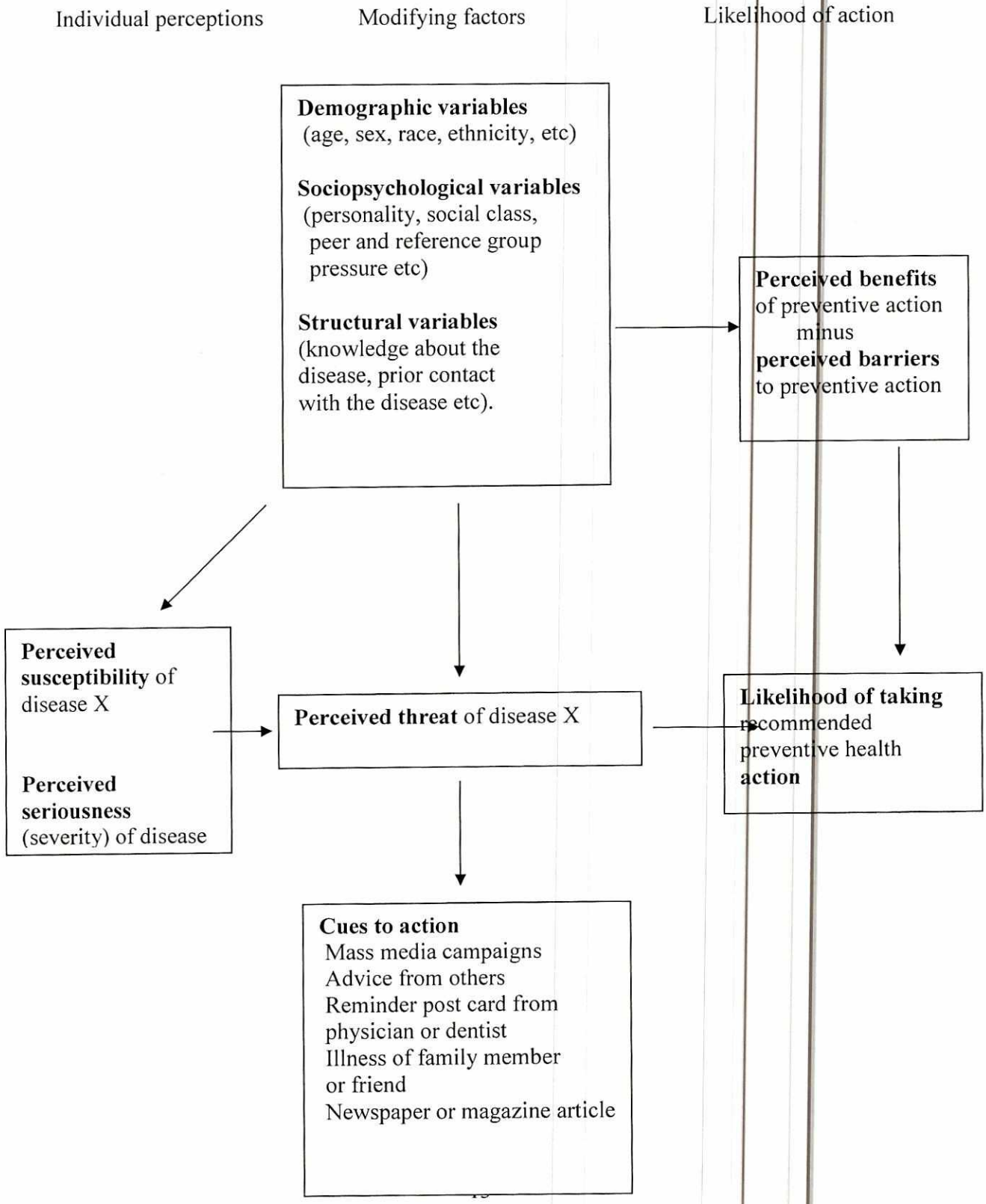
The likelihood of a person's taking a recommended preventive health action depends on the perceived benefits of the action such as refraining from smoking to prevent lung cancer minus the barriers to action such as cost of treatment, inconvience, unpleasantness and life style changes.

**Cues to action** refer to events which can activate a person's readiness to act and stimulate an observable behaviour.

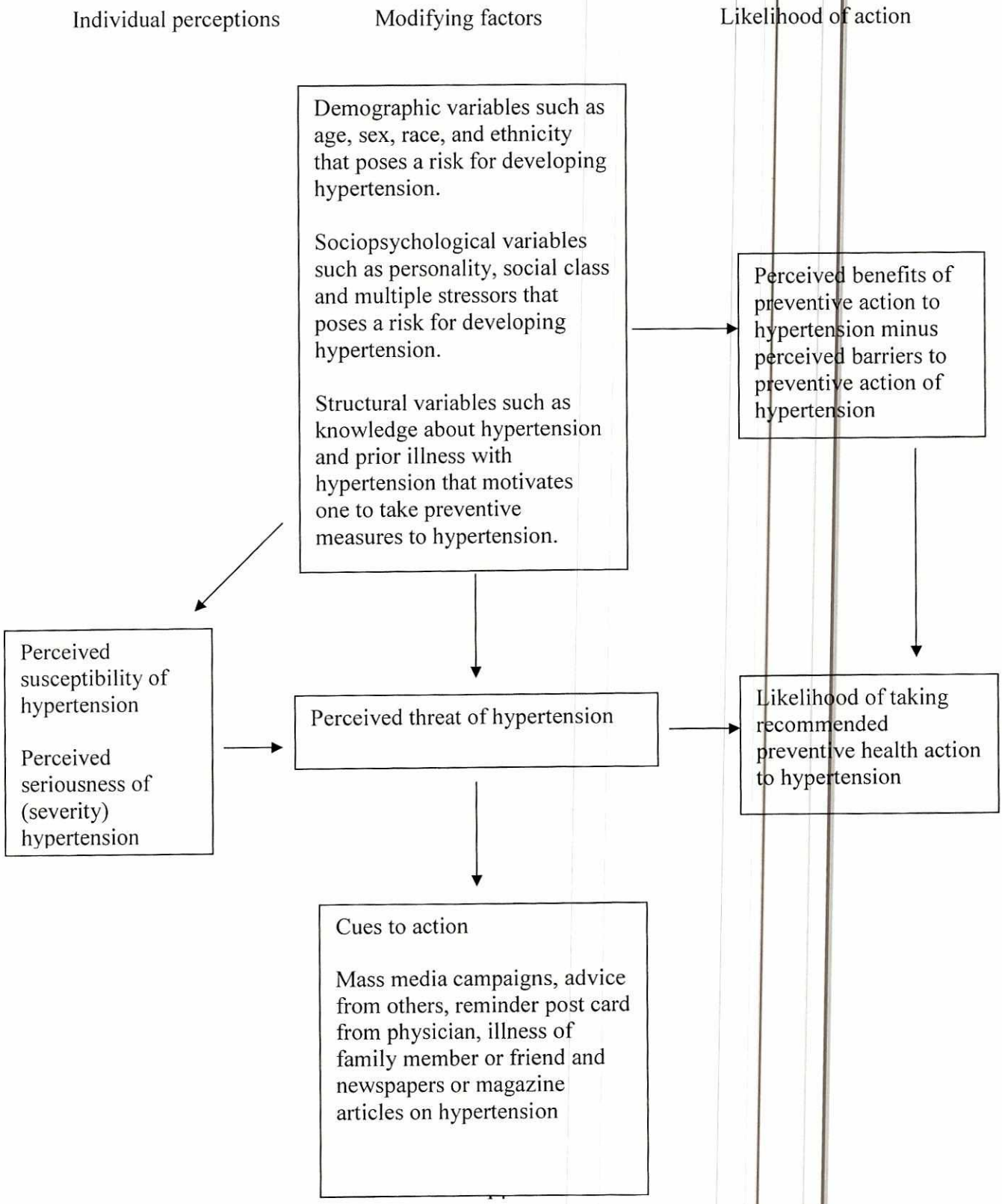
**Modifying factors**

Factors that modify a person's perceptions for example demographic variable like age, and ethnicity; psychosocial variables like personality and social group (Kozier & Erb, 2004).

## 3.1 DIAGRAMMATIC PRESENTATION OF THE MODEL



## 3.2 APPLICATION OF THE HBM TO THE STUDY



# CHAPTER 4

## RESEARCH METHODOLOGY

### 4.1 INTRODUCTION

This chapter will discuss the research design, population and setting, sample, data collection, data analysis, pretesting, ethical considerations and limitations of the study.

### 4.2 RESEARCH DESIGN

It was descriptive exploratory qualitative study because little is known in this area in Malawi. The design enabled the participants to explain and express their feelings on what they know on hypertension.

### 4.3 POPULATION AND SETTING

The study participants were female hypertensive clients aged 30 to 60 years attending the out patient clinic and it was conducted at Kamuzu Central Hospital Out Patient Department from 3rd to 14th October. The setting was chosen because it is a big hospital and therefore the probability of finding the required number of participants was also high.

### 4.4 SAMPLE

A sample of ten participants was selected for the study and all participants were women and only those known to be hypertensive were selected as participants for the study. The age range for the clients was 30 to 60 years because the most prevalent type of hypertension is primary hypertension and it has been found to develop within this age range (Smeltzer & Baire, 1995). The women were chosen to allow for easy data analysis and not because they possess certain characteristics.

Convenience sampling method was used for selecting the study respondents. This method was used to select the most readily available respondents for the study. The participants were selected from the out patient department and the clinician reviewing the patients was instructed to ask the clients if they were hypertensive. Then the clients were

instructed to go in another separate room where the researcher also verified if the client was really hypertensive by asking when and how they were diagnosed. The researcher would then explain about the purpose and conditions of the study. If the client agreed to participate in this study interviews were carried out in the same room to avoid embarrassment.

## 4.5 DATA COLLECTION

Data collection was done using unstructured interview guide. This allowed the interviewees to express themselves freely about their experiences, it also allowed the researcher to probe for more information where the participants had not given the required information. The study instruments were translated to Chichewa to ensure that the participants fully understood the questions that were asked. Data was collected through face-to-face interviews with participants using an interview guide. This method was chosen to allow for clarification of issues with participants of all educational levels so that they gave correct information pertaining to what the interviewer was asking.

The quantitative data was analyzed using central tendency which uses averages or indices of central tendency and has the following sections: mode, median and mean and this helped to represent a whole set of measurements. Inferential statistics was used to provide means for drawing conclusions about a population, given the data obtained from the sample. Inferential statistics helped to make judgments about or generalize to a large class of persons, based on information from a limited number of subjects as it helps to compare the concepts and the phenomenon.

## 4.6 DATA ANALYSIS

The data was analyzed using descriptive statistics and content analysis. Qualitative content analysis involved analysis of the content to identify prominent themes and patterns of the themes.

## 4.7 PRETESTING

Pretesting was carried out before the actual study. Two participants were selected for the

pretest and it was conducted at Bottom hospital in Lilongwe urban. The pretest was done to find out the respondents understanding of the questions or if certain questions were objectionable.

## 4.8 ETHICAL CONSIDERATION

The proposal was submitted to the KCN Research and publications committee for approval before conducting the study. Permission to proceed with the study was also sought from Ministry of Health, Kamuzu Central Hospital and the District Health Office of Lilongwe urban. The candidates' rights to safe treatment were ensured. Confidentiality and anonymity was maintained by use of numbers and not writing the participants names on the questionnaires. The participants were signing a consent form to ensure that they participated in the study voluntarily without coercion and were notified that the data collected would be handled by the researcher and the supervisor only and that the questionnaires would be burnt after data analysis to ensure privacy. The participants were also notified that the study might not be of direct benefit to them but it would help to serve as a means of trying to uncover the problem of lack of information on hypertension among hypertensive clients. At the beginning participants were told that no major risks were associated with their participation in the study because the study did not involve any experimental activities and that their withdrawal from the study would not have an impact in any way on the treatment they were receiving. This information was communicated to them on the consent form.

## 4.9 LIMITATIONS OF THE STUDY

The major limitation to the study is that the results can not be generalized to everyone, however the results of the study is a breakthrough of the problems and gaps of information clients with hypertension have regarding their condition at Kamuzu Central Hospital (KCH). Another limitation was that KCH is a referral hospital therefore clients coming to this clinic may not necessarily be from Lilongwe district. Additionally, the small sample size was not a true representative of hypertensive clients at KCH, therefore anyone using the results should do so cautiously.

# CHAPTER FIVE

# PRESENTATION OF FINDINGS

## INTRODUCTION

This chapter presents findings of the study that was conducted at Kamuzu Central Hospital from 3rd to 14th October 2006 among female hypertensive clients in the age range of 30 to 60 years. A total of 10 clients participated in the study. The purpose of the study was to find out the knowledge of the female clients as regards to their condition and it was descriptive exploratory qualitative study.

The findings will be presented as the follows; a) demographic data, b) general knowledge, c) complications, d) knowledge on medication of hypertension and e) availability of support groups. Variables such as age, sex, marital status, educational background and economic status have been explored. The results will be presented in tables, with calculated frequencies and percentages and categories based on similarity. The terms participants and respondents have been used interchangeably.

## DEMOGRAPHIC DATA

The common age groups for the participants were (30 to 40) and (51 to 60). Half of participants 50% (n=5) were married and 60% (n=6) had more than 5 children. 40% (n=4) were business women and only 10% (n=1) attained secondary education. For more details see table below.

**Table 1: Demographic Data of Respondents N=10**

| AGE IN YEARS | FREQUENCY | PERCENTAGE |
|---|---|---|
| 30-40 Years | 5 | 50% |
| 41-50 Years | 0 | 0 |
| 51-60 Years | 5 | 50% |
| **Total** | 10 | 100% |
| **MARITAL STATUS** | **FREQUENCY** | **PERCENTAGE** |
| Married | 5 | 50% |
| Divorced | 2 | 20% |
| Single | 1 | 10% |
| Widowed | 1 | 10% |
| Separated | 1 | 10% |
| **Total** | 10 | 100% |
| **NUMBER OF CHILDERN** | **FREQUENCY** | **PERCENTAGE** |
| More than 5 | 6 | 60% |
| Less than 5 | 4 | 40% |
| **Total** | 10 | 100% |
| **ECONOMIC STATUS** | **FREQUENCY** | **PERCENTAGE** |
| Business women | 4 | 40% |
| House wives | 3 | 30% |
| Farmers | 2 | 20% |
| House maids | 1 | 10% |
| **Total** | 10 | 100% |
| **EDUCATIONAL BACKGROUND** | **FREQUENCY** | **PERCENTAGE** |
| Upper primary | 6 | 60% |
| Lower primary | 1 | 10% |
| Secondary | 1 | 10% |
| Adult literacy | 1 | 10% |
| None | 1 | 10% |
| **Total** | 10 | 100% |

## GENERAL KNOWLEDGE ON HYPERTENSION

The study results indicate that majority 70% (n=7) of the respondents were able to define hypertension in simple terms as

*'a disease whereby the heart is pumping too much blood'*

while 30% (n=3) were not able to do so. However, all respondents were unable to mention types of hypertension.

### Causes, Signs and Symptoms of Hypertension

The study results show that the commonest causes of hypertension are high sodium intake and stress as reported by 80% (n=8), other causes included high fat diet, high sugar intake and hard labour. Majority of the respondents, 90% (n=9), reported heart palpitations as a symptom of hypertension. Other commonly mentioned symptoms were headache, hot flashes, irritability, shivering, fast respirations and malaise as mentioned by 50% (n=5) of the participants.

### Control and Myths Associated with Hypertension

Majority of participants 60% (n=6) control their blood pressure by lowering sodium intake. However, there were other measures used as indicated by 50% (n=5) avoiding stressful situations, 20% (n=2) reported on lowering sugar intake, 20% (n=2) taking prescribed medication accordingly, 10% (n=1) lowering fat diet and 10% (n=1) avoiding hard labour. Only 10% (1) did not know the measures of controlling hypertension.

One significant finding was that all respondents reported never having heard of any myths associated with hypertension.

## COMPLICATIONS OF HYPERTENSION

The study results indicated that majority of participants 50% (n=5) knew that death is a complication of hypertension, 60% (n=3) also mentioned stroke, 20% (n=1) mentioned

uncontrolled hypertension while the other 50% (n=5) did not know complications of hypertension. However, all participants 100% (n=5) that were aware of the complications of hypertension knew that the complications are very severe and the same participants 100% (n=5) explained that they would get the complications if they do not follow doctors' instructions on medication order and if they do not use non-pharmacological measures to control their hypertension. 20% percent (n= 1) also said not rushing to the hospital when one has symptom could lead to complicated hypertension. All the respondents who knew about the complications stated that they get treatment at the hospital.

For preventive measures, majority 60% (n=3) of the participants that knew about the complications reported on following doctors' instructions on medication and using non-pharmacological measures of controlling hypertension while 20% (n=1) rush to hospital whenever symptoms arise.



**Information on the Complications**

Out of the 5 participants who knew about the complications of hypertension, all reported obtaining information on the complications of hypertension from the hospital while 20% (n=1) also reported obtaining information from significant others such as relatives and friends who have the same condition.

**ANTIHYPERTENSIVE MEDICATION**

The study results indicate that majority of participants 30% (n=3) take propanol, 10% (n=1) take hydrochlorothiazide, Adomate and aternol, and 60% (n=6) do not know the name of the medication they take. The longest period the participants had been on antihypertensive medication was 16 years and the least was 1year with an average of 4 years. For more details see table 2 below.

Majority 80% (n=8) take their medication once a day, 37.5% (n=3 of the 8) also take other medication twice per day and 20% (n=2) reported taking their medication three times a day. Majority 60% (n=6) do not experience any side effects and only 40%

experience frequent urination but it is not a very big problem to them. Majority 80% (n=8) get medication from government hospitals, 10% (n=1) buy from private clinics, and 10% (n=1) get the medication from both the government and private hospitals. Majority 40% (n=4) use garlic as an alternative to medication, 40% (n=4) use ginger, 10% (n=1) dried leaves of grapefruit and 10% (n=1) do not use any alternatives.

**Table 2: Distribution of Participants by Number of Years of Being On Antihypertensive Medication**

| Year of starting medication | Number of years on medication | Frequency | Percentage |
|---|---|---|---|
| 1990 | 16 | 1 | 10% |
| 1999 | 7 | 1 | 10% |
| 2000 | 6 | 1 | 10% |
| 2001 | 5 | 2 | 20% |
| 2002 | 4 | 1 | 10% |
| 2003 | 3 | 1 | 10% |
| 2004 | 2 | 0 | 0 |
| 2005 | 1 | 3 | 30% |
| TOTAL | 44 | 10 | 100% |

## SUPPORT GROUPS THAT ARE AVAILABLE

All of the respondents reported that they do not know any support groups that support people with hypertension.

# CHAPTER SIX

# DISCUSSION

## INTRODUCTION

In this chapter the findings will be discussed using the same format as they were presented. At the end conclusion and recommendations will be made.

The data as indicated in table 1 reveals age marital status, number of children, occupation and educational level of the participants. The results indicate that majority of the respondents belonged to the age groups of 30-40 years and 50-60 years with a representation of 50% in each age group. The variables age, marital status, family size and occupation were asked because they can be the predisposing factors of hypertension. According to Bruner (1995) in his book titled *The Text Book for Medical Surgical Nursing*, hypertension commonly develops from the age of 30 to 50 years because the arterial blood vessels become less compliant with age due to the build up of atherosclerosis plaques. This agrees with the findings of the study because all the respondents were in this age range which is a risk group for developing hypertension.

Marital instability, large family size, occupational factors such as
increased workload, poor relationship with workmates can also put a person under stress resulting in development of hypertension. This is supported by Bruner (1995) in his book titled *The Text Book for Medical Surgical Nursing* who states that people exposed to high levels of stress develop hypertension to a greater extent because the physiological responses to stress which are normally protective may persist to a pathologic degree resulting in prolonged increase in sympathetic nervous system. Increased sympathetic stimulation produces vasoconstriction, which raises the heart rate and in turn causes rennin release. Rennin activates the angiotensin mechanism and stimulates aldosterone secretion which increases circulatory overload thereby leading to elevated blood pressure.

Variables such as educational background have an influence on one's knowledge of

disease conditions. This is supported by William, David and Baker (1998) in their study on relationship of functional health literacy to patients' knowledge on their chronic disease. The study indicated that patients with poor literacy skills were less likely to answer knowledge questions than literate patients. For example, high proportions of patients with inadequate functional health literacy lacked knowledge about the effect of life style and dietary factors on blood pressure. One third of the patients with inadequate health literacy did not know that losing weight lowers blood pressure and 60% did not know that exercises lower blood pressure. Majority of the respondents in this study had attained education of lower level and this could be the reason for lack of knowledge on some aspects of hypertension. Therefore, educational level is an important factor when trying to assess knowledge level about a disease condition.

It was very encouraging to find that 70% of the participants were able to define hypertension in simple terms as

***'a disease whereby the heart is pumping a lot of blood'.***

However, none of the respondents were able to mention the types of hypertension. This showed knowledge deficit in the respondents because clients are supposed to know their condition well enough as this can assist to control the condition effectively. For instance hypertension may be primary or secondary and each has its own specific causes (Smeltzer & Bare, 1995). If clients have knowledge of their condition they can be in a better position to control the disease. For instance, secondary hypertension results from certain diseases such as renal failure and obesity so the knowledge can enable them to follow the measures that can help to control such diseases (Beare & Myers, 1994).

The participants in the study mentioned high sodium intake and stress to be the main causes of their hypertension, because 60% (n=6) reported on sodium intake while 50% (n=5) reported on stress respectively. Some factors that were stated were high fat diet and high sugar intake. According to Simmons, Barbour, Congleton
& Levy (2006) obesity is the main cause of hypertension in Malawi but it was never

mentioned by the respondents. None of the respondents mentioned exercises and maintaining a health weight as causes of hypertension. This therefore shows knowledge deficit especially in the management of hypertension.

The study results show that the majority of the participants experience heart palpitations, headache and hot flashes as signs and symptoms of hypertension with a representation of 70% (n=7), 50% (n=5) and 50% (n=5) respectively. Other symptoms included: irritability, shivering, sweating, difficulties with breathing and malaise. This clearly shows that all the respondents lacked knowledge on the signs and symptoms of hypertension because according to current studies hypertension is asymptomatic until it causes some complications and as a result it is termed 'silent killer' (Merck Manual, 1997). Therefore health care workers need to put much effort in educating the clients about their conditions in general and hypertension in particular.

The respondents were also assessed on their knowledge on control measures of hypertension because hypertension is one of the chronic problems commonly seen by primary care physicians. Majority of the respondents reported on reducing sodium intake and reducing stressful situations as control measures of hypertension with a representation of 60% (n=6) and 50% (n=5) respectively. Others reported on reducing sugar intake, taking medication as prescribed, low fat diet and avoiding hard labour. Although, weight reduction and sodium restriction are cornerstones of nonpharmacologic management of hypertension, regular exercises such as walking, cycling, jogging or swimming are believed to have a 20 to 50 % lowering effect on hypertension compared to those people who do not do exercises. Not only do exercises reduce blood pressure, they also contribute to weight loss, stress reduction and feeling of overall wellbeing (Hess, 1999). Exercises also serve as a motivator, as clients realize the benefit of regular exercise, they become increasingly confident in their ability to control other risk factors such as obesity, smoking and stress related issues (Hess, 1999). Sodium restriction also has a significant impact on reducing hypertension. This is supported by Whelton et.al. (2002) who reported in a long-term-community-based randomized controlled trial that a moderate reduction of dietary sodium resulted in an additional 4.3mm Hg reduction in

systolic blood pressure among older persons with hypertension whose blood pressures were already controlled by a single antihypertensive medication. Since the study reveals that the respondents lack the above knowledge, there is need to emphasize the important role of the health care workers in educating patients about hypertension so that they should acquire more knowledge on controlling the condition.

All the participants reported that there are no myths that are associated with hypertension. This is encouraging because myths institute wrong perceptions in people concerning illnesses and leads to certain behaviours that may counteract the medical treatment, resulting to fatal complications that would otherwise have been controlled or avoided.

Majority 50% (n=5) of the participants reported that they do not know the complications of hypertension as evidenced by only 30% (n=3) reporting on stroke and 10% (n=1) on uncontrolled hypertension as complications of hypertension. Hypertension has got a number of complications which are more significant on the eyes, heart, kidneys, nervous system and the brain (Linton & Maebius, 2004). The complications are devastating and clients need to acquire adequate information to control them. Since knowledge is power; clients will be motivated to control their hypertension only if they know the complications and if they consider the complications to be a threat (Kozier & Erb, 2004).

The participants were also assessed on their knowledge on how severe the complications of hypertension can be. 100% (n=5) of the respondents that knew of the complications of hypertension reported that the complications can be severe. This shows that this group of respondents had some knowledge on the complications
of hypertension because the complications as already stated are really devastating. It is good that clients should have knowledge about the complications of their disease condition because that is only when they can see the benefit of controlling the disease.

On factors that can lead to the complications of hypertension, majority of the respondents reported on

*'not taking medication properly'*

as one of the major contributing factor. Davis (2004) supports this idea by stating that antihypertensive medication when taken as prescribed help to decrease cardiovascular morbidity and mobility. Some reported on not following control measures of hypertension like

> ***'avoiding high sodium intake and stressful situations'***
> ***'not taking antihypertensive medication when one has symptoms of hypertension'***

This therefore implies that if clients are imparted with enough information on control measures of hypertension they will be able to control hypertension as well as prevent its complications. Health care workers should therefore take an initiative to introduce health education programmes that will ensure that this misconception of taking antihypertensive medication only when the symptoms arise is cleared.

Complications of hypertension can be prevented if clients are following doctor's instructions on medication, diet and other measures as indicated by 60% (n=6) of the respondents. Any medication has specific instructions for it to work effectively, therefore if one does something contrary to the instructions, the medication may not work effectively. It is therefore the role of the health care workers to emphasize on importance of following the instructions of antihypertensive medication. Some said that rushing to the hospital could also help to prevent the complications of hypertension. This is very true because it is only at the hospital where one can get prompt treatment of hypertension because at the hospital the blood pressure is checked and one is given the correct intervention.

All the participants 100% (n=5) who knew about the complications of hypertension, stated that they get treatment from the hospital. This shows an understanding of the severity of the complications among this group because if the participants had perceived

the complications not to be a threat, they would be opting to go to the traditional healers for treatment. However the participants lacked some knowledge on other sources of information on hypertension as indicated by 100% (n=5) obtaining the information from the hospital and only 20% (n=1) obtaining the information from significant others such as friends and relatives. Medical information can be obtained from many sources including magazines, newspapers, educational institutions, television and radios. It is therefore the duty of the health care workers to sensitize clients on these other sources whenever they get in contact with hypertensive clients.

Only 40% (n=4) of the participants managed to state the names of the medication they take as indicated by 30% (n=3) stating propanol and 10% (n=1) stating HCT, aldomate and aternol while 60% (n=6) stated that they do not know the names of the medication they take. Knowledge on the name of the medication one takes is important because it helps in emergency situations whereby clients can tell physicians the medication they use because some drugs may interfere with some medication one might be taking so knowledge of the medication can help to reduce such incidences.

The maximum number of years for which the respondents had been on antihypertensive drugs was 16 years and the minimum was 1 year with an average of 4 years. The bigger the number of years the respondents have had hypertension, the higher the knowledge on antihypertensive medication is expected. However, the study results are contrary to this because even those clients who had had hypertension for more than ten years lacked some knowledge concerning the medication. For instance when asked on when they take the antihypertensive medication, they reported

***'that they take the medication when symptoms arise'***

According to Linton & Maebius (2004) hypertension is asymptomatic until complications occur. This implies that if one waits for symptoms to take the medications the complications will have occurred already and management of hypertension in such incidences can not be effective. Bittar (1995) in his study on maintaining long term

control of blood pressure agrees with such findings by stating that long term treatment results in doctors neglecting to give patients written instructions and not cooperating with patients to make a treatment program appropriate for their everyday lifestyle. One would therefore say that health care workers contribute to this lack of information by the hypertensive population because they do not provide the clients with adequate information. Health care workers have a great role to make sure that the hypertensive clients are given enough information concerning their illness.

It was encouraging to note that most of the respondents knew the frequency for which medication is supposed to be taken and that most of the participants do not experience side effects with the medication they take. This has been indicated by 80% (n=8) reporting that they take medication once daily, while some reported taking the medication twice and others three times daily. 60% (n=6) reported not experiencing any side effects and only 40% (n=4) reported experiencing frequent urination as a side effect of the medication but said that it is not a big problem. Clients' knowledge on the frequency for which the antihypertensive medication is taken is very important because it promotes treatment compliance.

It was also encouraging to note that though some of the respondents reported experiencing some side effects they do not consider them to be a problem. This is in accord with the health belief model that was used in this study which states that an individual will only take an action if he or she perceives a threat and that a particular action will benefit by reducing the threat. This implies that clients will adhere to the treatment regime if they see the benefit of taking the medication such as to get cured and prevent complications. If the side effects were to be very severe treatment compliance would be difficult because the side effects would be perceived as a threat.

Majority of the respondents 80% (n=8) reported getting their medication from the hospital. This is encouraging because it shows that hypertensive clients do not go to traditional healers to ask for antihypertensive medication. Medication from traditional healers do not have correct dosages despite that they may have a positive effect of

reducing hypertension and so if one uses such medication chances of getting an underdose or overdose are high. Complications treatment from traditional healers would likely be high. However 10% (n=10) reported buying some medication such as aldomate from private hospitals because it is scarce in government hospitals. This is a weakness because it can contribute to complications of hypertension because it is not every client that can afford to buy the medication. There is need for the government to do something so that the medication is made available even to government hospitals inorder to prevent complications that may come if the clients do not get this medication.

The participants reported using some alternatives to the medication. These alternatives include garlic, ginger and powder from grape fruit leaves. Garlic and ginger were reported to be used mostly as additives when cooking. However the grape fruit leaves powder was reported to be added in porridge. Alternatives such as garlic and ginger are well known to the public and are recommended because they do not have negative effects. However, grapefruit juice has proved that when taken with some calcium channel blockers high blood pressure can cause light-headedness, dizziness or fainting. For nearly a decade researchers have known that grapefruit juice, when used to wash down certain drugs, can interfere with the drugs' effects. Unfortunately, this information is not widely circulated and the effect can be so striking that some are calling for labels on medicines for which this could cause possible drug and an example of a drug that grapefruit and its juice affect most is Plendil for high blood pressure and heart disease (Dan, Jeff & Kelly, 2006). There is need for scientists to investigate more on the grape fruit leaves powder so that some complications that may occur as a result of contents of the powder are prevented.

All participants reported that they have never heard of any support groups for clients with hypertension. Support groups provide a friendly atmosphere to clients with chronic illnesses where they share their burdens about a particular disease. Hypertension is one of the chronic diseases and clients need continuous support. Support groups would help clients to cope well with the disease since they would be sharing their experiences about the disease, the problems they face and the measures they use to manage the problems as

well as how they cope with the complications of the disease. This is therefore an eye opener to the health care system that there is need for support groups of clients with hypertension inorder to ensure that hypertension is well controlled.

**CONCLUSSION**

Knowledge is an important factor in the provision of health care. Health care workers need to have adequate knowledge regarding different disease conditions so that they should be able to give information to clients in relation to their disease conditions. Hypertension is one of the chronic diseases, therefore clients with hypertension need to have adequate knowledge regarding the condition so that the condition is well controlled.

This study has revealed that clients with hypertension lack information regarding their condition. For instance all the respondents reported that they do not know the types of hypertension. Majority of the respondents believed that emotional stress is an important etiological factor for hypertension and they were ignorant about obesity as the major contributing factor of hypertension in Malawi. None of the respondents knew that hypertension is asymptomatic and a considerable proportion of participants did not know the complications that can come if hypertension is not controlled. The respondents also lacked knowledge as regards to where one can get information on hypertension apart from the hospital and significant others such relatives and friends. Majority of the respondents did not know the names of the medication they take and further they reported that they take the medication only when symptoms arise while in actual sense they are supposed to take the medication for the rest of their lives. None of the respondents knew of the availability of support groups therefore one can conclude that there are no support groups for people with hypertension.

There is need for the health care workers to put much emphasis in organizing heath care services specifically to carter for the needs of clients with hypertension such as health education programmes and awareness campaigns for people with hypertension. Availability of such services could be helpful because clients will be privileged to get enough information on the condition thereby increasing their clients' ability to adhere to treatment and eventually preventing the

complications that may come if hypertension is not well controlled.

## RECOMMENDATIONS

According to the findings of the study it is recommended that:

The government should establish some clinics which will specifically manage clients with hypertension in all government hospitals so that clients should be given enough information regarding their condition upon visiting the clinics.

Health education programmes on hypertension should be introduced in clinics because hypertension is a chronic condition and there is need for clients to be updated with information regarding the management of the condition.

There should also be some leaflets at the clinics so that clients should be reading whenever they go to the clinics and even take with them home so that they should not forget the important precaution as regards to the condition.

Information on hypertension should also be disseminated through the media.

There is need to establish support groups for clients with hypertension so that clients should be able to share their experiences about the condition and also to motivate others to comply with treatment since treatment of hypertension is supposed to be for life.

## AREAS FOR FURTHER STUDIES

The study has revealed that most clients with hypertension lack information about hypertension but the factors that contribute to this lack of knowledge have not been clearly explored. This could therefore be an area for further research.

There is need for to do more research on measures used to reduce or control the condition such as on the use of grape fruit as an alternative therapy to antihypertensive medication.

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## APPENDICES

### APPENDIX A: TIME LINE

| Task to be done | July | Aug | Sept | Oct | Nov | Dec |
|---|---|---|---|---|---|---|
| Identify Research Title | ■ | | | | | |
| Literature Review | ■ | | | | | |
| Proposal Writing, Submission of proposal | | ■ | | | | |
| Piloting, Data Collection | | ■ | | | | |
| Data Analysis | | | ■ | | | |
| Report Writing | | | | ■ | | |
| Binding of Dissertation | | | | | ■ | |
| Dissemination of Results | | | | | | ■ |

**APPENDIX B: BUDGET**

| ITEM | QUANTITY | COST/ITEM | TOTAL |
|---|---|---|---|
| Diskettes | 3 | 100.00 | 300.00 |
| Reams | 2 | 650.00 | 1,300.00 |
| Pens | 5 | 20.00 | 100.00 |
| Lead pencils | 2 | 10.00 | 20.00 |
| Stamps | 3 | 35.00 | 105.00 |
| Envelopes (Small) | 4 | 5.00 | 20.00 |
| Big envelopes | 3 | 20.00 | 60.00 |
| Printing proposal | 3 | 250.00 | 750.00 |
| Photocopying questionnaire | 6 | 5.00 | 30.00 |
| Binding | 3 | 150.00 | 450.00 |
| Traveling and lodging | 2 | 1,500.00 | 3,000.00 |
| Internet | | 1,200.00 | 1,200.00 |
| Phone | | 1,000.00 | 1,000.00 |
| Total | | | 8,335.00 |
| | | | |
| Subtotal | | | 8,335.00 |
| Contingency | 10% | 833.50 | +833.50 |
| Grand total | | | 9,168.50 |

## JUSTIFICATION OF THE BUDGET

### STATIONERY

Papers were needed for printing and photocopying the research proposal and dissertation. Pens and pencils were required for, proposal writing, data collection data analysis as well as for writing the final copy. Postage materials such as envelopes and stamps were needed to send the letters for request to conduct the study. Large envelopes will be needed for carrying papers and during data collection and also for keeping information for any correspondence.

### TRANSPORT BILLS

Money was required for use by the principal investigator when traveling between Mua and Lilongwe during data collection at Kamuzu Central Hospital since by then the researcher was at Ma.

### PHOTOCOPYING AND PRINTING COSTS

Some money will also be needed for printing and photocopying the research.

## APPENDIX C: CONSENT FORM

Dear participant,

My name is Tiwonge Nyirongo. I am doing my final year of Bachelor of Science in Nursing at Kamuzu College of Nursing. As a requirement for the completion of my study, I am conducting a research project on knowledge of hypertension among hypertensive clients. Any client known to be hypertensive will be chosen as one of the participants for this study, therefore I would like to seek consent for your participation.

Participation in the study is voluntary. It is up to you to accept or refuse to participate it the study. You also have the liberty to withdraw at any point within the interview or not to respond to some questions if you feel embarrassed to do so. There are no risks associated with the study. The study will involve interviews by use of questionnaires. If you accept to participate in the study, the information will be kept confidential and will only be made available to the researcher and the supervisor and will be burnt afterwards. No name will be written or asked during the interview, only code numbers will be used for anonymity of the subjects.

Your taking part in the study is beneficial in the sense that it will help the general public to gain access to information about hypertension. It will also help the Ministry of Health in finding means on how to improve clients' knowledge on hypertension.

Your corporation will be greatly appreciated.

Yours faithfully,

Tiwonge Nyirongo (researcher)

Dear researcher,

I the undersigned after being informed about the conditions of the study declare my willingness and hereby give informed consent to participate in the study.

Signature_____

Date _____

## CHICHEWA VERSION OF THE CONSENT FORM

## KALATA YOVOMEREZA KULOWA NAWO MU KAFUKUFUKU

Dzina langa ndine Tiwonge Nyirongo. Ndine mmodzi wa ophunzira ku sukulu ya unamwino ya Kamuzu Koleji, ndipo ndilichaka chachinayi chomwe ndichomaliza pa kolejiyi. Malingana ndi maphunziro anga ndili oyenera kupanga kafukufuku wondiyenereza kuti ndidzalandire digiri yanga. Kafukufuku amene ndikupanga ine ndiokhuzana ndi zomwe anthu odwala matenda a kuthamanga kwa mtima amadziwa kulingana ndi matenda awo.

Kutenga nawo mbali mu kafukufuku ameneyu sikokakamiza. Inu muli ndi ufulu wosankha kutenga nawo mbali Kapena ayi. Inu mukavomereza kutenga nawo mbali mu kafukufuku ameneyu, zomwe mutatiuze inu zikhala za chinsinsi. Chinsinsi chimenechi tichisunga posalemba dzina lanu, komanso zomwe mutatiuzezo zizagwiritsidwa ntchito ndi ine komanso aphunzitsi anga omwe akundiyang'anira ndipo pamapeto pa kafukufuku ameneyu mapepala onse tidzawaotcha motero kuti anthu ena sadzatha kuona nawo zomwe mutatiuzezo.

Muli odziwitsidwa kuti muli ndi ufulu kusiya kutenga nawo mbali mu kafukufuku ameneyu panthawi ina ili yonse, komanso ngati pali mafunso ena oti inuyo simukufuna kuyankha mutha kutero.

Zotsatira zakafukufuku ameneyu zithandiza kuti a boma mogwirizana ndi achipatala athandize kupeza njira yofalitsira uthenga wokhudzana ndi matenda amenewa a kuthamanga kwa mtima.

Zikomo kwambri.

**Kwa opanga kafukufuku**

Ine ndasainira pansipa nditauzidwa zonse zokhuzana ndi kafukufukuyu ndipo ndavomereza ndi mtima wanga onse kutenga nawo mbali.

TSIKU: _____

SAYINIRANI APA: _____

**APPENDIX D: CLEARANCE LETTERS**

Kamuzu College of Nursing,
Private bag 1,
Lilongwe.
24th August, 2006.

The Research Officer,
Research and Publications Committee,
Kamuzu College of Nursing,
Private bag 1,
Lilongwe.

Dear Sir/Madam,

APPLICATION FOR PERMISSION TO CONDUCT A RESEARCH AT KAMUZU CENTRAL HOSPITAL

I am 4th year student at the above mentioned institution pursuing a bachelors degree in nursing. In partial fulfillment of my degree, I am required to carry out a research project. The title of my research project is: Knowledge of Hypertension among Hypertensive clients.

The results of the study will help the general public to be acquainted with knowledge on hypertension. It will also help the Ministry of Health to find means f improving clients' knowledge of hypertension. The purpose of this letter is therefore to seek to conduct the study at Kamuzu central hospital.

Looking forward to your favourable consideration.

Yours faithfully,

Tiwonge Nyirongo.

Kamuzu College of Nursing,
Private bag 1,
Lilongwe.
24th August, 2006.

The Hospital Director,
Kamuzu Central Hospital,
P.O. Box 149,
Lilongwe.

Dear Sir/Madam,

APPLICATION FOR PERMISSION TO CONDUCT A PILOT STUDY AT BOTTOM HOSPITAL

I am 4th year student at the above mentioned institution pursuing a bachelors degree in nursing. In partial fulfillment of my degree, I am required to carry out a research project. The title of my research project is: Knowledge of Hypertension Among Hypertensive clients.

The results of the study will help the general public to be acquainted with knowledge on hypertension. It will also help the Ministry of Health to find means f improving clients' knowledge of hypertension.

The purpose of this letter is therefore to seek to conduct the study at Kamuzu central hospital.

Looking forward to your favourable consideration.

Yours faithfully,

Tiwonge Nyirongo.

Kamuzu College of Nursing,
Private bag 1,
Lilongwe.
24 August 2006.

The Secretary,
Ministry of Health Malawi,
PO Box 30377,
Lilongwe 3.

Dear Sir/Madam,

APPLICATION FOR PERMISSION TO CONDUCT A RESEARCH AT KAMUZU CENTRAL HOSPITAL

I am 4th year student at the above mentioned institution pursuing a bachelors degree in nursing. In partial fulfillment of my degree, I am required to carry out a research project. The title of my research project is: Knowledge of Hypertension among Hypertensive clients.

The results of the study will help the general public to be acquainted with knowledge on hypertension. It will also help the Ministry of Health to find means f improving clients' knowledge of hypertension.

The purpose of this letter is therefore to seek to conduct the study at Kamuzu central hospital.

Looking forward to your favourable consideration.

Yours faithfully

Tiwonge Nyirongo.

**APPENDIX E**

**STUDY QUESTIONAIRE**

**Traditional Authority** _____ **Area**_____

**Code Number**_____ **Date**_____

**SECTION A: DEMOGRAPHIC DATA**

1. Age

(i) Less than 20 years [ ]

(ii) 20-30 years [ ]

(iii) 31-40 years [ ]

(iv) More than 50 years [ ]

2. Marital status

(i) Married [ ]

(ii) Single [ ]

(iii) Divorced [ ]

(iv) Widowed [ ]

(v) Others, specify_____

3. How many children do you have?

(i) Les than five [ ]

(ii) More than five [ ]

4. Occupation

(i) Farmer [ ]

(ii) Permanent employment [ ]

(iii) Temporary employment [ ]

(iv) Business [ ]

(v) Others specify_____

5. Educational level

(i) Primary

a) Class 1-3 [ ]

b) Class 4-6 [ ]

c) Class7-8 [ ]

(ii) Secondary

(i) Form 1-2 [ ]

(ii) Form 3-4 [ ]

(iii) Tertiary [ ]

(iv) None [ ]

**SECTION B: GENERAL KNOWLEDGE ON HYPERTENSION**

6. What is hypertension?

_____

_____

7. What types of hypertension do you know?

_____

8. What causes hypertension?

_____

9. What are the signs and symptoms of hypertension?

_____

_____

10. What measures can be used to control hypertension?

11. What myths are attached to hypertension?

**SECTION C: KNOWLEDGE ON COMPLICATIONS OF HYPERTENSION**

12. What complications can come if the condition is not controlled?

13. How severe are the complications?

14. What can make a person to have the complications?

15. Where can a person with the complications get treated?

16. What measures can be put in place to prevent the complications?

17. Where can one get information on complications of hypertension?

**SECTION D: KNOWLEDGE ON ANTIHYPERTENSIVE MEDICATION**

18. What medications do you take?

---

19. When did you start to take the medication?

---

20. How often do you take the medication?

---

21. What are the side effects of the medication that you take?

---

---

22. Where can one get the medication?

---

23. What non-pharmacological alternatives are used to treat hypertension?

---

**SECTION E: AVAILABILITY OF SUPPORT GROUPS**

24. What support groups are there that support clients with hypertension?

---

25. How did you know about the support groups?

---

26. How often do the support groups meet?

---

27. What are the activities of the support groups?

---

28. What issues are discussed in the support groups?

---

29. How have the support groups benefited you?

---

**THANK YOU!!**

## CHICHEWA VERSION OF THE QUESTIONAIRE

**Mfumu yaikulu**_____ **Mudzi**_____

**Nambala yanu**_____ **Date**_____

## GAWO A: MBIRI YANU

1. Kodi muli ndi zaka zingati?
   (i) Kuchepera zaka makumi awiri [ ]
   (ii) Zaka makumi awiri kufikira makumi atatu [ ]
   (iii) Zaka makumi atatu ndi chimodzi kufikira makumi anayi [ ]
   (iv) Kuposera makumi asanu [ ]

2. Kodi muli pa banja?
   (i) Ndine wokwatiwa [ ]
   (ii) Ndine wosakwatiwa [ ]
   (iii) Linatha [ ]
   (iv) Nzanga anamwalira [ ]
   (v) Zina (tchulani)_____

3. Muli ndi ana angati?
   (i) Ochepera asanu
   (ii) Oposera asanu

4. Mumagwira ntchito yanji?
   (i) Ulimi
   (ii) Yatikiti
   (iii) Ganyu
   (iv) Geni
   (v) Zina (tchulani)_____

5. Sukulu munafika nayo patali bwanji?

(i) Pulaimale

a. Kalasi loyamba kufikira kalasi la chitatu [ ]

b. Kalasi lachinayi kufikira kalasi lachisanu ndi chimodzi [ ]

c. Kalasi lachinu ndi ziwiri kufikira kalasi lachisanu ndi zitatu [ ]

(ii) Sekondale

a. Foromu 1 kufikira foromu 2 [ ]

b. Foromu 3 kufikira foromu 4 [ ]

(iii) Koleji [ ]

(iv) Sindinapiteko [ ]

**GAWO B: MATENDA OTHAMANGA MTIMA**

6. Kodi matenda othamanga mtima nchiani?

_____

7. Kodi matendawa alipo a mitundu ingati?

_____

8. Kodi chimayambitsa matendawa nchiani?

_____

9. Nanga zizindikiro za matendawa ndi ziti?

_____

10. Nanga matendawa tingawapewe bwanji?

_____

11. Ndizikhulupiriro zanji zomwe zikukhudzana ndi matendawa?

---

**GAWO C: ZOVUTA ZA MATENDAWA**

12. Ndi zovuta zanji zomwe zingadze ngati sitipewa matendawa?

---

13. Kodi zovuta zodza kamba ka matendawa ndi zoopsa?

---

14. Chingachititse kuti munthu akhale ndi zovuta zimenezi ndi chiani?

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15. Ngati munthu wapezeka ndi zovuta zimenezi chithandizo angachipeze kuti?

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16. Kodi zovuta zimenezi tingazipewe bwanji?

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17. Nanga uphungu wazovuta zimenezi tingaupeze kuti?

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**GAWO D: ZA MANKHWALA A MATENDA OTHAMANGA MTIMA**

18. Kodi mumamwa mankhwala anji?

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19. Munayamba liti kumwa mankwalawa?

20. Nanga mankhwala mumamwa kangati pa tsiku?

21. Ndi zovuta zanji zomwe mumakumana nazo mukamwa mankwalawa?

22. Nanga mankhwalawa mumawapeza bwanji?

23. Pambali pa mankwalawa pali zinthu zina zimene mumagwiritsa ntchito pofuna kuchiza matendawa?

**GAWO E: ZA MABUNGWE OTHANDIZA ANTHU AMENE ALI NDI MATENDAWA**

24. Kodi ndi mabungwe ati amene amathandiza anthu amene ali ndi matendawa?

25. Nanga munadziwa bwanji za mabungwewo?

26. Kodi mabungewo amakumana masiku ati?

27. Kwenikweni mabungwewo mapanga chiani?

28. Nanga ku mabungweko kumakambirani chiani?

29. Nanga mabungwe akuthandizani bwanji kulingana ndi matendawa?

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**ZIKOMO KWAMBIRI!!**

University of Malawi
**Kamuzu College of Nursing**

**RESEARCH AND PUBLICATIONS COMMITTEE**

**APPROVAL CERTIFICATE**

**TITLE** *Knowledge of hypertension among hypertensive clients at Kamuzu Central Hospital*

**INVESTIGATOR(S)** Tiwonge Nyirongo

**DEPARTMENT/YEAR OF STUDY:** BSc.N

**REVIEW DATE:** July 2006

**DECISION OF THE COMMITTEE** APPROVED

UNIVERSITY OF MALAWI
KAMUZU COLLEGE
OF NURSING
24-08-2006
PRIVATE BAG 1, LILONGWE

**SIGNATURE**..... **DATE** 24/08/06
**DEAN OF POSTGRADUATE STUDIES & RESEARCH**

cc Supervisor

---

**DECLARATION OF INVESTIGATOR(S)**

***I/We fully understand the conditions under which I am/we are authorized to carry out the above mentioned research and I/we guarantee to ensure compliance with these conditions. In case of any departure from the research procedure as approved, I/we will resubmit the proposal to the committee.***

DATE.....SIGNATURE(S).....

REF. NO.KCH/O/1.04
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PLEASE ADDRESS ALL COMMUNICATIONS TO
:
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MINISTRY OF HEALTH
KAMUZU CENTRAL HOSPITAL
P. O. BOX 149
LILONGWE

REF.NO.KCH/C1/29

25th August 2006

Tiwonge Nyirongo
University of Malawi
Kamuzu College of Nursing
Private Bag 1
LILONGWE

Dear Madam,

Re: **REQUEST FOR PERMISSION TO CONDUCT A PILOT STUDY AT BOTTOM HOSPITAL**

I would like to inform you that permission has been granted for you to conduct a pilot study at this institution entitled: -

- **Knowledge of Hypertension Among Hypertensives.**

This office would like to know the success of the research study and wishing you all the best.

Yours sincerely,

Dr. H. Juma
**HOSPITAL DIRECTOR**

THE DIRECTOR
MINISTRY OF HEALTH
2006 -08- 25
KAMUZU CENTRAL
HOSPITAL
P.O. B... LILONGWE

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Kamuzu College of Nursing
Private Bag 1
LILONGWE

Dear Madam,

Re: **REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT KAMUZU CENTRAL HOSPITAL**

I would like to inform you that permission has been granted for you to conduct a research study at this institution entitled: -

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This office would like to know the success of the research study and wishing you all the best.

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