

**UNIVERSITY OF MALAWI  
KAMUZU COLLEGE OF NURSING**

**FACTORS THAT HINDER SMEAR POSITIVE TB CLIENTS  
FROM BRINGING THEIR CHILDREN FOR SCREENING  
AT QECH.**

**BY**

**MBAKISHE MIXON MUSUKWA**

**RESEARCH PROPOSAL SUBMITTED TO UNIVERSITY OF MALAWI,  
FALCULTY OF NURSING, IN PARTIAL FULFILLMENT FOR THE  
AWARD OF BACHELOR OF SCIENCE IN NURSING.**

**SUPERVISED BY MRS. M. HAMI**

**14<sup>TH</sup> JULY, 2010.**

DECLARATION


I hereby declare that this proposal is a result of my own effort and hard work. It has never been presented for any other degree.

Name of student: Mbakishe Mixon Musukwa

Signature ..... *Mbakishe* ..... Date *14<sup>th</sup> July 2010*

Name of supervisor: Mrs. M. Hami

Signature..... *M. Hami* ..... Date *14<sup>th</sup> July 2010*

University of Malawi  
Kamuzu College of Nursing  
  
31050000515134

DEDICATION

To my parents, Mr. & Mrs. Musukwa and my sisters, Thandie, Lutengano and Sophie for their support and encouragement.

## ACKNOWLEDGEMENT

I thank God for His unfailing love on me, His guidance as well as the wisdom, strength and intelligence He gave me as I was writing this proposal. I will live to worship Him.

I would again like to thank my research supervisor, Mrs. M. Hami for always being there for me with constructive critics and comments.

Again, I would like to thank my parents, Mr. and Mrs. M. Musukwa for their usual economic and social support as well as their encouragement.

To all friends who supported me throughout this proposal writing, I again say thank you.

ABBREVIATIONS

TB: Tuberculosis

NTCP: National Tuberculosis Control Program

PTB: Pulmonary Tuberculosis

EPTB: Extra Pulmonary Tuberculosis

WHO: World Health Organisation

QECH: Queen Elizabeth Central Hospital

## **ABSTRACT**

This study will utilize qualitative method to explore factors that hinder smear positive TB clients from bringing their children for TB screening at Queen Elizabeth Central Hospital (QECH). The study intends to find out these factors so that measures can be put in place to promote childhood TB screening to protect children from TB. A purposive sample of thirty smear positive TB clients with children will be recruited voluntarily into his study. Data collection will be done by the use of an interview guide with both open and close ended questions. Data analysis will be done by analyzing the information collected manually. The results of the study are believed to be used in the nursing education, practice and research. The Health Belief Model will be used as a conceptual frame work to guide this study so as to explore the client's perceptions on benefits of TB screening. The model will further assist in exploring the participants' perception on severity and how susceptible their children are to TB.

## TABLE OF CONTENTS

CONTENT	PAGE
Declaration.....	i
Dedication.....	ii
Acknowledgement.....	iii
Abbreviations.....	iv
Abstract.....	v
<u>CHAPTER ONE</u>	
1.0. Introduction.....	1
1.1. Background.....	2
1.2. Problem statement.....	4
1.3. Significance of the study .....	5
1.4. Objectives.....	6
1.4.1. Broad objective.....	6
1.4.2. Specific objectives.....	6
<u>CHAPTER TWO</u>	
2.0. Literature review.....	7
2.1. Knowledge on TB and TB screening.....	7
2.2. Perception on TB and TB screening.....	8
2.3. Barriers to accessing TB health care and screening services.....	9
2.4. Summary of literature review.....	10
<u>CHAPTER THREE</u>	
3.0. Conceptual framework.....	11
3.1. Introduction.....	11
3.2. Description of the framework.....	11

3.2. Description of the framework.....	11
3.3. Definition of the models concepts and their application.....	12
3.4. Application of the model to the study.....	13
3.5. Diagrammatic presentation of the model.....	14

CHAPTER FOUR

4.0. Methodology.....	15
4.1. Research design.....	15
4.2. Setting.....	15
4.3. Sample and setting.....	15
4.4. Data collection.....	16
4.5. Validity and reliability of research design and data collecting instrument.....	16
4.6. Data analysis.....	17
4.7. Ethical consideration.....	17
4.8. Dissemination of results.....	18
4.9. Limitations of the study.....	18

REFERENCES.....	19
-----------------	----

APPENDICES

Appendix 1 :( Interview guide: English version).....	21
Appendix 2 :( Interview guide: Chichewa version).....	23
Appendix 3: (Time table).....	25
Appendix 4: (Budget).....	26
Appendix 5: (English consent).....	29
Appendix 6 :( Chichewa consent).....	30
Appendix 7: (Approval letter).....	31

Appendix 8: (QECH clearance letter).....32  
Appendix 9: (ZCH clearance letter).....33  
Appendix 10: (Ministry of Health clearance letter).....34

## CHAPTER ONE

### 1.0 INTRODUCTION

This study aims at exploring factors that hinder smear positive tuberculosis clients from bringing their children for screening.

Tuberculosis is communicable infectious disease caused by a bacterium called *Mycobacterium tuberculosis* (National Tuberculosis Control Programme manual (NTCP), 2007). It is an infectious disease that primarily affects the lung parenchyma though it may also be transmitted to other parts of the body including the meninges, kidneys, bones and lymph nodes (Smeltzer, Bare et al, 2008). Tuberculosis spreads from one person to another by airborne transmission. Tuberculosis is classified into pulmonary tuberculosis (PTB) and extra pulmonary tuberculosis (EPTB) where pulmonary TB involves the lungs while extra pulmonary involves other organs of the body. About 75-80% of TB involves the lungs (pulmonary TB) and 20- 25% occurs in other organs of the body. Pulmonary TB can either be smear positive or smear negative. Smear positive pulmonary TB is highly infectious thus adults with smear positive pulmonary TB are the main source of infection (NTCP manual, 2007). Anybody can be at risk of being infected with TB though children are at greater risk because of their still developing immune system. There is a 100% effectiveness of chemotherapy in TB. Despite this effectiveness, TB is still uncontrollable due to diagnosis delay. Tuberculosis therefore can be reduced by identifying early those who run the highest risk of developing the disease and treat them.

In view of this, TB screening was initiated by the World Health Organization. Tuberculosis screening is a world wide program promoted by health experts to curtail the spread of tuberculosis. It is often done to identify individuals with a TB infection and also investigates close contacts of those found positive for TB including each member of their household (Wisegeek, 2003).

It has been estimated that as many as one third of the worlds population is infected with TB. An estimated 20-50% of children who live in house hold where an adult has PTB become infected (Tbalert, 2005). The percentage of children with TB from infected parents is not known but there is a belief that almost 45% of children with TB got it from their infected parents.

In line with the United Nations Agency, the NTCP insists on TB patients to bring children to TB screening (Kazembe, 2008). It has however been noted that very few clients bring their children for screening at TB clinics. Therefore the researcher would like to find out factors that hinder smear positive TB clients from bringing their children for screening.

This study will utilize qualitative method to explore factors that hinder smear positive TB clients from bringing their children for TB screening at Queen Elizabeth Central Hospital (QECH). The study intends to find out these factors so that measures can be put in place to promote childhood TB screening to protect children from TB. A purposive sample of thirty smear positive TB clients with children will be recruited voluntarily into his study. Data collection will be done by the use of an interview guide with both open and close ended questions. Data will be analyzed manually. The results of the study will be presented in graphs, pie charts and tables. The Health Belief Model will be used as a conceptual frame work to guide this study so as to explore the participants' perception on severity of TB in children and how susceptible their children are to TB.

#### **1.1. BACKGROUND OF THE PROBLEM**

It has been estimated that as many as one third of the world population is infected with TB and an estimated 20-50% of children who live in household where an adult is positive become infected (Tbalert, 2005). Tuberculosis is a major killer of children in poor countries and that every two minutes; two children die of TB worldwide. Over 250,000 children develop TB and 100,000 will continue to die each year from TB and children especially those below the age of ten are at risk of becoming infected after being exposed to a sputum positive adult (WHO, 2006). Early diagnosis and successful treatment of an infectious adult is the best way to protect children from becoming infected with TB (WHO, 2006). Despite being immunized with the Bacillus Calmette Guerin vaccine (BCG), ten thousand of immunized children still suffer from TB.

TB contributes 26% of avoidable deaths among adults and children in Pakistan. According to WHO, the incidence of sputum positive TB cases in Pakistan is 80/100,000 per year and for all types it is 177/100,000 and about 361,000 new cases of TB are added every year in Pakistan.

Stigma and misinformation about TB are still major barriers to TB screening and treatment in some countries.

In India, the prevalence of paediatric TB is constantly increasing. In a study aimed at determining the prevalence of TB in children under the age of eight in contact with adult case of smear positive TB, 31% of children were found with the infection (Vats, 2009). Singh (2005) found that 64% of under five children with TB got it from their parents who were smear positive.

Tuberculosis continues to be a public health problem in Malawi. About 450-500 new cases of childhood TB are diagnosed in the pediatrics department of QECH every year, and the number is increasing every year. This increase in numbers is partly due to an increase in infectious adults in the community (Tbalert, 2005).

According to the World Health Organization's (WHO's) Global TB Report 2009, there were an estimated 48,144 new cases of TB, but Malawi's NTCP estimates are around half that (WHO, 2009). Tuberculosis is ranked as one of the top killer diseases in Malawi according to the technical division of the country's NTCP, together with malaria and Human Immunodeficiency Virus (HIV) /Acquired Immune Deficiency Syndrome (AIDS). Annually an estimated 30 000 people are treated for TB in Malawi and 8 000 die of the disease of which most of them are smear positive (Mkoka, 2009). Again, 17% of children die of TB in Malawi (Marais, 2006). It is believed that HIV accelerates the progress of infection with Mycobacterium tuberculosis. For example, in 2000 there were about 8000 smear positive cases and between 1985 to 2006, the annual TB case notification rate for all types in Malawi increased from 5000 to 27000 annually (NTCP manual, 2006). Tuberculosis continues to be a major cause of morbidity and mortality in our country despite the fact that that the disease can be diagnosed following standard procedures.

In view of the continuing increase in TB cases, The National Tuberculosis Control Programme was first launched in 1964 in Malawi following WHO recommendations to deal with TB control in the country. These control measures are BCG vaccination, case finding and diagnosis of TB. Bacillus Calmette Guerin vaccine is given to all who are none infected and these are children. It is usually given early at birth. In case finding, all those suspected to be with the infection are referred and managed accordingly. In diagnosing TB all the mentioned diagnostic tests are used.

It also advises screening for all children less than six years who are house hold contacts of smear positive clients.

A study done by Natural Research Institute of Tuberculosis and Lung Disease (NRITLD) in 2006 in Iran showed that contacts of PTB clients were at 41% risk of developing TB. In a recent study done again by NRITLD in Cameroon, rate of TB in close contacts was 14.6% and it was seen that in Malawi, 64% of children living with a smear positive adult develop tuberculosis. This shows that most children living with smear positive TB clients in Malawi are at greater risk of TB therefore screening is necessary so that quick interventions should be done to protect them from TB.

## **1.2 PROBLEM STATEMENT**

In line with the United Nations health agency stipulations, the NTCP insists on TB patients to bring children below 5 years old to TB clinics for screening. However, a study conducted at QECH's child TB clinic in 2004 showed very poor attendance. Only 20% of the TB patients brought their children for test (The Nation, March, 2010). Nyirenda et al (2006) from December 2003 to April 2005 did a study to determine what proportion of patients diagnosed with smear positive pulmonary TB in Blantyre district at QECH brought childhood contacts for screening. During this study period, 1438 adults were registered with smear positive TB. However, only 146 children who were house hold contacts of 111 smear positive patients presented for assessment at the child TB clinic in the same district. This presented a percentage of 7.7. This indicated that hospital based screening was very poor for children living with adults who are smear positive. Prevalence of TB infection and disease among child contacts of adults with smear-positive PTB was 51% in those brought for screening by female adult clients and 23% in those brought by males respectively

It has been noted that there is an increase of smear positive clients at QECH. According to TB register (2009) for Blantyre district at TB office located at QECH, there were 1238 new cases of smear positive TB. From this number, only 116 patients brought their children for screening representing a percentage of 9.02% despite being told of screening. From those who were screened, 31% were put on TB treatment. Wednesday, is the day put in place at QECH, TB ward for screening of childhood contacts but very few come with their children for screening. The

researcher therefore wants to find out what hinders these clients from bringing their children for screening.

### **1.3 SIGNIFICANCE OF THE STUDY**

The study intends to explore factors that hinder clients with smear positive TB to bring their children for screening at QECH. The findings of the study will contribute to nursing practice by finding solutions to this problem so that children living with smear positive clients should be taken for screening. This will protect children from TB by early diagnosis. The results will also be of significance to the nursing profession since they will be applied to the nursing education and nursing research. In nursing education, nurses' will be taught on how to manage adult smear positive TB clients so that they bring their child contacts for screening. The study will identify gaps which will act as a basis for further research in nursing.

### **1.4 OBJECTIVES**

#### **1.4.1 BROAD OBJECTIVE**

To explore factors that hinder smear positive TB clients from bringing their children for screening.

#### **1.4.2 SPECIFIC OBJECTIVES**

- To assess participants knowledge on TB and TB screening.
- To explore participants perception on TB and TB screening
- To explore challenges faced by participants in bringing their children for screening.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 INTRODUCTION**

Literature review is an organized written presentation of what has been published on a topic by scholars and it provides a background for the problem studied. Such reviews include description of the current knowledge on a problem, identification of the gaps in this knowledge base and the contribution of the present study to the knowledge in this area (Burns, 2007). Literature that is direct to the studied problem is reviewed. This chapter reviews literature on knowledge as well as perception of various groups of people on TB and TB screening world wide. Literature reviewed will also include barriers to accessing TB health care as well as barriers to TB screening world wide.

#### **2.1 KNOWLEDGE ON TB AND TB CONTACT SCREENING**

Several studies have been done on knowledge on TB in various countries. However, little has been done in Sub Saharan Africa.

It has been noted that lack of knowledge about TB has been cited as a contributing factor to the fact that Malawians do not get tested or screened for TB (Semu, 2009). Most Malawians who have knowledge on TB are screened unlike those with poor knowledge on TB.

Dr. Swaminathan conducted a study in four TB units India, two rural and two urban. The study assessed whether the National Tuberculosis Control Program child contact screening were being implemented in this country. Smear positive TB clients were identified and recruited in this study. Of the whole group of participants, only 24% knew of contact screening. The participants in this study reported that they got information from health workers (Eldred, 2009). This showed that child contact screening in this country was poor due to lack of knowledge.

Wang et al (2008) conducted a study in the Yangzhong country, China, on men and women's knowledge on TB and health care seeking behavior. Among the general population only 16% knew that prolonged cough with the duration of 3 weeks or longer was a symptom for TB. Fewer women than men knew local appointed health facility of TB diagnosis and treatment as well as

the current free TB service policy. On the contrary, after the onset of the prolonged coughing, women (79.2%) were more likely to seek health care than men did.

Oration report on the 43rd National Conference Tuberculosis and Chest disease held at Calcutta on TB awareness indicated that several studies were conducted in India as well as outside India on knowledge of Indians on TB. These studies showed that knowledge among the people about main features of tuberculosis was reasonably high (Chitra, 2000). Besides, some other studies had shown that awareness was greater among urban people, males, literates and young adults. It was less in rural folks, women, illiterates and the old. In 1987, studies done in rural West Bengal and North Arco district in the South showed that 50 to 80% of the people in India are knowledgeable about tuberculosis. This was reported at the Luck National Conference. Most of the knowledgeable people were educated persons, community leaders and patients having tuberculosis.

In 2006, Anjum et al did a study in Pakistan. The study assessed the awareness about spread and control of Tuberculosis amongst people presenting at Ghurki Trust Hospital, Lahore. A cross-sectional survey was conducted between November and December 2006. Study results indicated that 82% of the respondents did not know the correct mode of transmission of tuberculosis. Correct modes of transmission mentioned included coughing, sneezing, spitting and breathing air. A large proportion of respondents (76%) knew that tuberculosis presents as cough lasting more than three (3) weeks and having prolonged fever (68%). Twenty three percent (23%) of respondent mentioned use of medicine as a method of management and treatment. Almost 20% said improving sanitation and nutrition can prevent and control Tuberculosis. It was concluded that poor knowledge and misconceptions concerning tuberculosis are rampant in Pakistani patients. Poor knowledge of TB patients concerning their disease may have contributed to the high burden of TB disease in the country.

## **2.2 PERCEPTION ON TB AND TB SCREENING**

Sangala and Briggs (2006) did a study in Kasungu to explore the acceptability of introducing PTB screening in antenatal care clinics among antenatal clinic clients and service providers in purposively sampled health facilities in Kasungu District. The perception of PTB screening

among clients was very encouraging. Most clients found the introduction of PTB screening acceptable. Another study was done in London by Griffiths (2004) to explore the responses of immigrants to TB screening. The results showed that the opportunity to be screened for tuberculosis was valued highly by recipients. Moreover, many considered being screened as a socially responsible activity. Of the concerns raised on screening, few mentioned the possibility of discrimination. Acceptability was high irrespective of setting, with respondents expressing preference for their chosen place of screening. The widespread understanding among respondents of tuberculosis as a serious but preventable and treatable condition contributed to attendance for screening. The view that screening was unfairly targeted at immigrants was rare, even though this was sought in the interviews.

Participants' perception on spreading of TB in Pakistan was also studied. Most common modes of transmission mentioned were, coughing and sneezing (42%), eating with a TB patient (42%), drinking dirty water (34%), spitting sputum (24%), breathing air (22%) and touching each other (14%). Other responses by 30% included social pressure, sexual contact, living in small houses (Anjum et al, 2006).

Similarly, Munyandi and Balasubramanian (2004) also studied the perception of TB clients on their illness. Results showed that good health status despite being with TB was perceived initially in less than 7% of patients and from the group, 54% only perceived happy mental status.

### **2.3 BARRIERS TO ACCESSING TB CARE AND SCREENING SERVICES**

Barriers to accessing TB care in poor communities include economic barriers, geographical barriers, socio-cultural barriers and health system barriers such as lack of health system responsiveness (Tbalert, 2005).

Nyaungulu (2009) noted that people in the villages in Malawi do not access health services such as TB screening because of the distance they have to travel to get to the health centers and because of the high poverty level. People are willing to go for screening but fail because of lack of transport to get to the hospital.

In addition, in the study done by Sangala and Briggs (2006) in Kasungu exploring the acceptability of introducing PTB screening in antenatal care clinics for clients and service providers in the five sampled health facilities in Kasungu district, barriers to PTB screening were submitting a second sputum specimen, transport to travel to the health facility and stigma and fears relating TB to HIV and AIDS. The other barrier noted was the perception on taking TB treatment during pregnancy. Some participants reported that taking TB drugs during breastfeeding was another barrier.

In a case study entitled Malawi's lost cases of TB, some lost TB cases were located in Ntcheu district. The located cases were asked why they did not start TB treatment. The major reason given for this was health system structural barriers. Patients said they were delays between being tested and receiving treatment. Participants again said they did not have enough money to pay for care-costs including travel costs (EQUI-TB, 2001).

Challenges to control TB in China include lack of knowledge about TB in the general public in China because health workers provide patients with very limited information during medical consultations. Furthermore, the village health care providers have low knowledge and awareness of TB (EQUI-TB, 2001).

A similar study was done in Ethiopia by Gele and Sagbakke (2007) to explore barriers delaying diagnosis among pastoralist smear positive TB patients in the Somali Regional State (SRS) of Ethiopia. The results showed that lack of access to formal health services as well as traditional beliefs leading to self treatment were barriers to prompt bio-medical diagnosis of TB among pastoralist TB patients in the SRS of Ethiopia. This study highlighted that limited access to TB control programs is the most important barrier in early seeking of biomedical diagnosis of TB among pastoral communities with nomadic pastoralist being the most affected.

Torne and Kaewkungwal did a study on factors associated with household contact screening adherence of TB patient in Thailand in 2003. The results showed that screening adherence was associated with higher perceived susceptibility and lower perceived barriers. Short distance from

participants homes to the TB clinic showed to be one of the contributing factors to adherence to screening.

#### **2.4. SUMMARY**

Literature review has very few studies done pertaining to factors contributing to low use of TB screening services. Many studies have indicated lack of knowledge on TB as well as screening. It has also been noted that TB clients face so many problems in accessing health care despite having the knowledge and knowing the perceived results of not accessing health services. This means that they cannot consider taking their children for screening with such problems. Again, lack of knowledge on Tuberculosis shows that little is known on how the disease can affect household contacts.

## **CHAPTER THREE**

### **3.0 CONCEPTUAL FRAME WORK**

#### **3.1 INTRODUCTION**

A conceptual framework is made up of ideas for explaining and studying a phenomenon of interest, conveying a particular perception of the world (Allender & Spradley, 2005).

Conceptual frameworks or models broadly presents an understanding of the phenomenon of interest and reflects the assumptions and philosophic views of the model's designer. Conceptual models can serve as springboards for generating research hypothesis (Polit & Beck, 2008).

Health Belief Model (HBM) is the conceptual framework that has been applied to this study. The model has been adapted so as to clearly analyze the perceived benefits, threats, barriers and costs of child contact screening of TB positive clients.

The HBM is based on the assumption or the understanding that a person will take a health related action such as TB screening if that person:

- Feels that a negative health condition such as TB in children can be avoided
- Has a positive expectation that by taking a recommended action he or she will avoid negative health condition such as TB.
- Believes that he or she can successfully take a recommended health action such as taking a child for screening.

#### **3.2 DESCRIPTION OF THE FRAMEWORK**

Health belief model is a popular conceptual framework in nursing studies focused on patient compliance and preventive health care practice. The model postulates that health-seeking behavior is influenced by a person's perception of a threat posed by a health problem and the value associated with actions aimed at reducing threat (Polit & Beck, 2008). The health belief model was developed in the 1950s by the social psychologists Hochbaum, Rosenstock and Kegels working in the United States public health services, in response to the failure of a free

Tuberculosis health screening programme. It is a single model with components that interact to explain health behaviours. It explains a variety of health behaviours and designs interventions that would improve client access to preventive measures (Clemens-Stone, 2002).

### 3.3 DEFINITION OF THE HBM CONCEPTS AND APPLICATION TO THE STUDY

The major concept of the HBM include perceived susceptibility, perceived severity, perceived benefits, cues to action, perceived barriers and self efficacy (Polit & Beck, 2008).

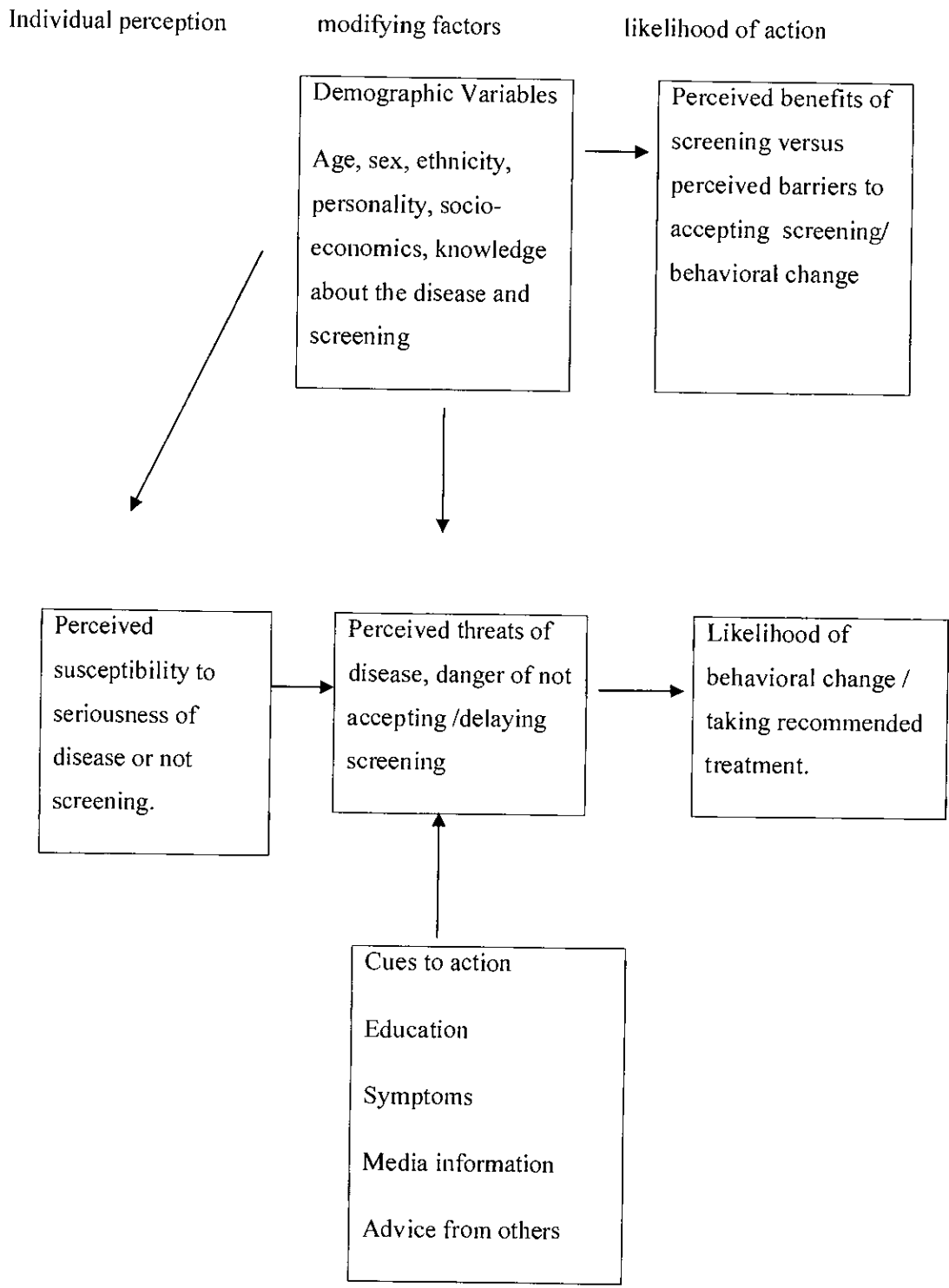
CONCEPTS	DEFINITION	APPLICATION
Perceived susceptibility	This is ones opinion of chances of getting a condition	Parents should perceive their children to be most susceptible to get Tuberculosis from them because of their still developing immune system. This can also be because parents stay very closer to their children thus inhaling their infected air.
Perceived severity	This is ones opinion of how serious a condition and its consequences are.	Parents should perceive tuberculosis to be very severe in their children once affected.

Perceived benefits	Ones belief in the efficacy of the advised action to reduce risk of seriousness of impact	Parents' can take their children for screening if they know the positive effects to be expected after screening.
Perceived barriers	Ones opinions of the tangible and psychological costs of the advised action	Parent's barriers to TB screening should be reduced through assistance and incentives so that they bring their children for screening.
Self efficacy	Confidence in ones ability to take action	Parents should seek guidance on TB screening.
Cues to action	Strategies o activate readiness	TB positive parents should be given enough information on screening so as to promote awareness

### 3.4 APPLICATION OF HEALTH BELIEF MODEL TO THE STUDY

Based on the health belief model it can also be predicted that the utilization of child TB screening services may also depend on the level knowledge they have on TB and on screening services, perceived susceptibility of the child to the problems, perceived severity of the problem to the child and perceived benefits of taking recommended actions. The utilization may depend also on the perceived barriers or costs of the preventive action such lack of transport or modifying factors such as personality variables and social demographic factors.

### 3.5 DIAGRAMATIC PRESENTATION OF THE HBM



*(Adapted from Glanz et al, 2002, Pg 52).*

## **CHAPTER FOUR**

### **4.0 METHODOLOGY**

The purpose of this chapter is to describe the methodology that has been adopted to conduct the study.

#### **4.1 RESEARCH DESIGN**

Research design refers to the researchers overall plan for obtaining answers to the research question and for testing the research hypothesis. The research design spells out the strategies that the researcher adopts to develop information that is accurate, objective and interpretable (Polit & Beck, 2008).

This study will use qualitative method and this has been selected because it is a systematic, subjective approach used to describe life experiences and give them meaning. Qualitative researchers usually move in a systematic fashion from the definition of the problem and the selection of concepts on which to focus to the solution of the problem (Polit & Beck, 2006). This study design will therefore enable participants to give their views and experiences, enabling the researcher to obtain relevant data on the knowledge, perception and barriers met personally by each participant towards TB screening of their children.

#### **4.2 SETTING**

Setting is where the study will take place. This study will be conducted at QECH, TB ward in Blantyre. This site has been chosen because most TB clients come to this ward for the supply of drugs as well as for review because the TB office is allocated in this ward. This will give the researcher an adequate sample size of smear positive clients. The study will however include out patients only.

#### **4.3 SAMPLE AND SAMPLING**

Sampling involves selecting a group of people, events, behaviors or other elements with which to conduct a study (Burns, 2004). A sample is a subset of the population that is selected for a

particular study and the members of the sample are the subjects (Burns & Grove, 2007). The sample of participants will be from a population of smear positive parents with children not yet screened for TB. A sample size of 30 participants will be chosen. The sample size has been chosen upon consideration of available time as well as resources the researcher has. Convenient sampling will be used to recruit participants. In this, the researcher goes to setting and selects sample from persons meeting the sample criteria and asks them to participate (Polit & Beck, 2008). It is a sampling approach that is used when the researcher includes in this study those people whom he or she has easy access and who happen to be at the right place at the time.

#### **4.4. DATA COLLECTION AND COLLECTING INSTRUMENT**

Data collection is the process of gathering data from the subjects while an instrument is the data collection tool (Burns, 2004). Data will be collected using in depth interviews using an interview guide. The interview guide has been chosen to give the researcher more information related to the study topic since clients will be giving explanations to the questions asked. The interview guide will comprise both open and close ended questions. The interview guide will be in English as well as Chichewa (Appendix 1 & 2) so as to get the right information as this will enhance good communication. Clients will be given consent letters which will explain of the study to be carried out. After being given the consent, data collection will start. A separate room will be used so as to provide privacy. A good nurse client relationship will be formed. The researcher will self administer the questions using the interview guide. A tape recorder and a radio will be used for recording information. Clarifications will be made to the clients if they do not understand the questions. Data to be collected will be on knowledge and perception of participants on TB and TB contact screening. The information will also include barriers to accessing TB care as well as to TB screening. Participants will then be thanked for their participation after the interview.

#### **4.5. VALIDITY AND RELIABILITY OF THE DATA COLECTING INSTRUMENT**

##### **AND THE RESEARCH DESIGN.**

To test the validity and reliability of the data collecting instrument, a pilot study will be conducted. A pilot study is a small scale version of trial run of the major study (Polit, 2007;

Speziale & Carpenter, 2007). It is a smaller version of a proposed study conducted to refine the methodology. It involves similar subjects, same treatment and same data collection and analysis techniques (Burns, 2004). This pilot study will be conducted to develop and refine a variety of steps in the research process and to determine whether proposed study topic is feasible. The pilot study will again be conducted to identify problems with the research design, to determine if sampling technique is effective, to refine the data collection tool as well as to give researcher experience with the subjects. In this study, a pilot study will be done on 3 subjects at Zomba Central Hospital

#### **4.6. DATA ANALYSIS**

The data collected in a study do not by themselves answer research question or test research hypothesis. The data needs to be systematically analyzed so that trends and patterns can be detected. Data analysis is done to reduce, organize, and give meaning to data. In this study content method of analyzing data will be used and it will be done manually (Burns, 2004). This is a qualitative analysis technique to classify words in a text into a few categories chosen because of their theoretical importance.

#### **4.7 ETHICAL CONSIDERATION**

Before the study begins, this research proposal will go through Kamuzu College of Nursing research and publications committee for approval. After approval, letters will be written to the Ministry of Health, QECH Director and Zomba Central Hospital Director seeking for permission. Ethical principles of autonomy, justice, maleficence and non maleficence will be strictly observed in this study.

A consent form will be designed to seek consent from participants. This again will be inform of a letter informing the subjects about the nature, the purpose, benefits and risks of the study if any. The participants will be asked to give consent prior to their participation and they will be informed that they have the right to withdraw from the study if they feel like doing so and will also be informed that this will not interfere with the treatment they have to get at this hospital. They will also be informed that nothing will be given to them for participating in this study and

that the study might be of benefit to them both directly and indirectly. Participants will also be informed of the data collection tools such as the tape recorder and the interview guide. Issues of confidentiality and privacy will also be explained to them that a separate room will be used during interview and that the information they give will only be accessed by the researcher and her supervisor.

After clear understanding of the study and its involvement, participants will be asked to sign the consent form so as to ethically approve that they are willing to take part in this study.

#### **4.8. DISSEMINATION OF RESULTS**

The results of the study will be available in the Library at Kamuzu College of Nursing both campuses and at the Basic Studies Department (KCN) Lilongwe campus. The results will again be sent to the Ministry of Health so that strategies should be put in place country wide so as to promote child TB screening. Another copy of the results will be sent to the TB Health Officer of the District so as to again deduce some strategies to promote screening of children.

#### **4.9. STUDY LIMITATIONS**

Lacks of funds, time as well as few studies done pertaining to the study have been identified as limitations to this study. These three limitations might make the researcher to interview only few participants resulting into less information collected.

## REFERENCES

1. Akarasewi P. Fungladda W. Kaewkungwal J. Silachamroon U. Sunakorn P. & Tornee S. (2009). Factors associated with the house hold contact screening adherence of TB patients. South East Asian journal of Tropical Medicine and Public Health, March 2005; 36(2): 331-340.
2. Allender J.A. & Spradley B.W. (2005). Community Health Nursing; Promoting and Protecting the Public's Health (6<sup>th</sup> edition), Lippincott Williams& Wilkins, Philadelphia.
3. Anjum A. Daudi S. & Mukhtar F. (2009). Awareness about TB spread and control in Pakistan, Professional medical journal, 16(1): 61-66.
4. Balasubramanian R. Muniyandi M. Narayanan R. & Rajeswari R. (2005). Perception of TB patients about their physical, mental and social well being, India Journal of Medical Research; April 2005; 60(8):1845-1853.
5. Banda H. Bello G. Bentel S. Simwaka B. & Theobald S. (2007). The National TB Programme, International Journal for Equity in Health; Aug 2007; 6(24): 42-26.
6. Beck C.T. & Polit D.F. (2006). Essentials of Nursing Research Methods; Appraisal & Utilization (6<sup>th</sup> edition), Lippincott Williams& Wilkins, Philadelphia.
7. Bjune G. Fekadu A. Gele A. & Sangbakken M. (2009). Barriers for TB care, BMC research notes; March 2010, 3(86): 3-86.
8. Brick P.J. & Wood M.J. (2001). Basic Steps in Planning Nursing Research(5<sup>th</sup> edition), Bartlett Publisher International, London.
9. Burns N. & Grove S.K. (2007). Understanding Nursing Research(4<sup>th</sup> edition), Lippincott Williams& Wilkins, Philadelphia.
10. Burns N. (2004). The Practice of Nursing Research (5<sup>th</sup> edition), Lippincott Williams& Wilkins, Philadelphia.
11. Carpenter D.R. & Speziale S.H.J. (2007). Qualitative Research in Nursing(4<sup>th</sup> edition), Lippincott Williams& Wilkins, Philadelphia.
12. Clemen-Stone S.M. (2002). Comprehensive Community Health Nursing: Family and Aggregates and Community Practice (2nd Edition), Mosby, St Louis.
13. Data M. (2000). National Tuberculosis Conference. The Indian Journal of TB & Lung Disease, Sept 2000; 4(9): 839-844.
14. Glanz K. Rimmer B.K. et al (2002). Health Behaviour & Health Education: Theory, Research & Practice, Wiley& Sons, Sanfransisco.

15. Griffiths C. (2006). Responses of immigrants to TB screening. Journal of public health, 28(3); 253-260.
16. Ministry of Health (2007). National Tuberculosis Control Programme Manual(6<sup>th</sup> edition).
17. Phillips J. Kazembe P. Nelson E. Fisher J. & Grabosch E. (2008). Paediatrics Handbook for Malawi (3<sup>rd</sup> edition), Montfort Press, Lilongwe.
18. Polit F. & Beck T. (2008). Nursing Research: Generating& Assessing Evidence for Nursing Practice (8<sup>th</sup> edition), Lippincott, Newyork.
19. Sangala W.T. Briggs P. Theobald S. Squire S.B. & Kemp J. (2006). Screening for PTB: An acceptable intervention for antenatal care clients, The International Journal of TB& Lung disease, 2006 July; 10(7):789-794.
20. Silverman D. (2002). Doing Qualitative Research: A Practical Handbook, Sage Publications, London.
21. Smeltzer S.C. & Bare B.G. (2008). Brunner & Suddarths Textbook of Medical Surgical Nursing (11<sup>th</sup> edition), Lippincott Williams& Wilkins, Philadelphia.
22. Stanhope L. & Lancaster J. (2000). Community Health Nursing: Promoting Health of Aggregates, Families & Individuals (4<sup>th</sup> edition), Mosby Inc, St Louis.
23. Wang J. Fei Y. & Shen H. (2008). Gender difference in knowledge on TB and associated health seeking behavior. BMC public health journal, 2008 Oct; 8(352):1-7.

## **APPENDICES**

### **APPENDIX 1**

#### **INTERVIEW GUIDE (ENGLISH VERSION) FOR PARTICIPANTS**

##### **PART 1: DEMOGRAPHIC DATA**

1. How old are you?
2. Which church do you belong to?
3. Have you ever been to school?
4. If yes, what is your highest level of education?
5. What is your marital status?
6. How many children do you have?
7. What is your occupation?

##### **PART 2: KNOWLEDGE ON TB AND CHILDHOOD CONTACT SCREENING**

8. Do you know about your TB status?
9. When were you tested for TB and when did you start taking ant-TB drugs?
10. What do you know about TB?
11. Have you ever heard of TB screening for contact persons?
12. If yes, where did you get the information?
13. When did you get the information?
14. What did they say screening is and where is it done?
15. Whom did they say should be screened mostly and why?

16. What did they say are the benefits of screening?

**PART3: PERCEPTION ON TB AND SCREENING OF CHILDHOOD CONTACT**

17. What do you think about TB?

18. Do you perceive TB screening as an important thing to your children?

19. If yes, how important is it?

20. If no, why is it not important?

**PART 4: BARRIERS TO ACCESSING TB HEALTH CARE AND SCREENING SERVICES**

21. Apart from your children, who else do you live with?

22. What problems do you encounter as a TB client?

23. How far are you from the hospital?

24. How do you travel from where you stay to this hospital for TB services?

25. Have you ever planned of taking your contacts for screening?

26. Have you ever planned of taking your child/children for screening?

27. What makes you not to bring your child/children for screening?

**THANKS FOR YOUR PARTICIPATION!!!!!!!!!!!!!!!!!!!!!!**

## APPENDIX 2: INTERVIEW GUIDE: CHICHEWA VERSION

### GAWO LOYAMBA: ZAMBIRI YANU

1. Kodi muli ndi zaka zingati?
2. Kodi mumapephera mpingo wanji?
3. Kodi munapitako ku sukulu?
4. Ngati munapitako, munalekeza pati?
5. Kodi muli pa banja?
6. Kodi muli ndi ana angati?
7. Kodi muli pantchito?
8. Ngati ayi, nanga mumatani kuti mupeze zofunikira pamoyo wanu?

### GAWO LACHIWIRI: KUZINDIKIRA PA ZA CHIFUWA CHACHIKULU NDI KUWUUNIKA ANA

8. Kodi mukudziwa za zotsatira zanu za makhololo munayezedwa?
9. Nanga munayezedwa liti ndipo mwayamba liti kumwa mankhwala a chifuwa chachikulu?
10. Mukudziwapo chani pa za chifuwa chachikulu
11. Munayamba mwamvako za kuwunikidwa kwa chifuwa chachikulu mwa omwe amakhala ndi anthu omwe akudwala chifuwachi?
12. Ngati eya munamva kuti?
13. Uthengawu munamva liti?
14. Komwe munamvako, anati kuwunikaku ndi chani ndipo kumachitika liti?
15. Kuwunikaku makamaka kumayenerezeka kwa ndani?

16. Nanga ubwino wa kuwunikaku ndi chani?

**GAWO LACHITATU: MALINGARILO PA ZA CHIFUWA CHACHIKULU NDI KUWUNIKA**

17. Malingaliro anu pankhani ya chifuwa chachikulu ndi wotani?

18. Kodi mukuwona kuti kuwunikaku ndi kwa phindu mwa ana anu?

19. Phindu lake ndi lotani?

20. Ngati kulibe phindu, kuyipa kwake ndi kotani?

**GAWO LACHINAYI: ZOMWE ZIMALEPHERETSA KUBWERETSA ANA**

21. Kupatula ana anu, ndi ndani wina yemwe mumakhala naye?

22. Ndi mavuto ati omwe mumakumana nawo ngati wodwala chifuwachi?

23. Munatalikirana bwanji ndi chipatala?

24. Nanga mumayenda bwaji kuti mudzafike kuchipatala kuno kudzathandizika pa za chifuwa chanu?

25. Munaganizapo zotenga abale kuti akawunikidwe?

26. Munaganizapo zotemtengera mwana wanu kuti akawunikidwe za chifuwachi?

26. Chimakulepheretsani ndi chani kuti ana anu adzawunikidwe?

### APPENDIX 3: TIME TABLE

ACTIVITY	FEB- MAR	APR- JUN	JULY	AUG- SEP	SEP- OCT	NOV
Selection of title						
Proposal writing, and submission						
Research approving						
Pre testing and data collection						
Data analysis						
Report writing						
Submission of dissertation						
Dissemination of results						

## APPENDIX 4: BUDGET

### STATIONARY

QUANTITY	ITEM	UNIT COST	TOTAL COST
2	Reams of plain paper	K1000.00	K2000.00
5	Pens	K25.00	K125.00
1	Flash disk	K4000.00	K4000.00
4	Folders	K100.00	K400.00

SUBTOTAL=K6525.00

### SECRETARIAL SERVICES AND INTERNET

QUANTITY	ITEM	SERVICE	UNIT COST	TOTAL COST
10	Questionnaires	Photocopy	K70.00	K700.00
4	Dissertation	Printing and binding	K1300.00	K5200.00
3	Proposal	Printing and binding	K1300.00	K3900.00
	Internet			K3000.00
5	Envelops	Sending letters	K10.00	K50.00

SUBTOTAL=K12, 850.00

## TRANSPORT AND ACCOMODATION

SERVICE	AMOUNT
Transport	K5000.00
Accommodation and food	K8000.00

SUBTOTAL=K13000.0

QUANTITY	
10 DOLLARS TNM	K1400.00

SUBTOTAL=K1400.00

GRAND TOTAL=K33, 815.00

## JUSTIFICATION OF BUDGET

### Stationery

This is very important as the researcher will be required to have enough papers for writing notes when searching information and printing copies of proposal and dissertation.

Pens will be used for writing these notes on the papers as drafts before typing

Folders would be required for keeping hard copies of important information such as interview guides.

Envelopes would be used in posting letters to different authorities when seeking permission. The flash disk would be required for the storage of the information.

**Secretarial and internet services**

The money would be required for printing and binding of completed research proposal and dissertations as well as photocopying of interview guides. Internet services will be required for communicating to my supervisor as well as for searching information.

**Transport, accommodation and food**

Transport money will be required for the researcher to travel to and from the place of data collection. The money will also be used for accommodation and buying food during this period.

**Communication**

Airtime will be required to be communicating to the research supervisor as well as those needed throughout the research period.



## APPENDIX 6: CONSENT FORM, CHICHEWA VERSION

### KALATA YOVOMELA KUTENGA MBALI MU KAFUKUFUKU

Ndine Mbakishe Musukwa wophunzira wa ku sukulu ya ukachenjede ya unamwino ya Kamuzu College of Nursing ndipo ndili m'chaka changa chomaliza. Chofunika chimodzi pa sukuluyi ndi choti usanamalize umayenera kupanga kafukufuku ndipo mutu wa kafukufukuyu ndi **zomwe zimapangitsa anthu odwala chifuwa chachikulu kuti adzilephera kuwatenga ana awo kuti akawunikidwe ngati ali ndi zizindikiro za matenda amenewa.**

Kutenga mbali mukafukufukuyi ndikosakakamidzidwa ndipo kafukufukuyu alibe china chilichonse chimene chitha kuyika moyo wanu pachiwopsezo ngakhaleenso kuwuwononga. Muli ndi ufulu wosiya panjira kafukufukuyu ndipo ndikukutsimikizirani kuti izi sidzingakulepheretseni inu kulandira chithandizo choyenera pachipatala pano.

Zonse zokambirana zathu sizidzaululidwa kwa wina aliyense kupatula ine mwini ndi wondiyanganira. Mafunso onse wotsogolera wofunsayu and tepi yotepera zokambiranazi zidasungidwa moyenera ndi kudzawotchedwa zikadzatha kugwiritsidwa ntchito kuti wina wapadera asadzadziwe china chilichonse. Sikudzakhala kololedwa kuti mutchule dzina lanu ndipo mapepala wogwiritsa ntchitowa adzalembedwa manambala pamwamba pake ndi cholinga choti musadziwike kuti mwatengapo mbali mu kafukufukuyi ngakhale kwa ine wochita kafukufukuyi. Palibe phindu limene inu mudzapate mu kafukufukuyi koma zotsatirazi zidzathandiza boma kuti lichitepo kanthu powonetsetsa kuti ana athu akuwunikidwa. Zotsatirazinso zidzathandiza anamwino ndinso ma dotolo kuti apereke chithandizo choyenera kwa wodwala matenda amenewa. Ngati mungakale ndi mafunso ena nthawi yomwe ine kulibe, ndiyimbireni telefoni pa 0999768280 kapena ndilembereni kalata pa keyala iyi: Private Bag 1, Lilongwe.

Ngati mwavomereza kutenga nawo mbali mu kafukufukuyu, lembani chidzindikiro chanu mu munsimu

OTENGA MBALI

Signature.....

## APPEDIX 7: APPROVAL LETTER

University of Malawi  
Kamuzu college of Nursing  
Private bag 1  
Lilongwe

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

Dear sir/Madam,

### PERMISSION TO CONDUCT A RESEARCH STUDY

I am a fourth year generic student pursuing Bachelor of Science degree in nursing at Kamuzu College of nursing. In partial fulfilment of the Bachelor of Science degree in nursing, I am required to conduct a research on the topic of my choice and my study topic is: **factors that hinder smear positive TB clients from bringing their children for screening at Queen Elizabeth Central Hospital**. The study intends to identify these factors so that actions can be carried out so as to protect children from TB disease. It will also create areas of further research. The researcher proposes to carry out this in September, 2010. I therefore write to seek your approval to conduct this study.

Your consideration will be greatly appreciated.

Yours faithfully,

Mbakishe Musukwa (Miss).

## APPENDIX 8: CLEARANCE LETTER

University of Malawi  
Kamuzu College of Nursing  
Private Bag 1  
Lilongwe

The Hospital Administrator,  
QECH,  
P.O. Box 315  
Blantyre

Dear sir/Madam

### PERMISSION TO CONDUCT A RESEARCH STUDY

I am a fourth year generic student pursuing Bachelor of Science degree in nursing at Kamuzu College of nursing. In partial fulfilment of the Bachelor of Science degree in nursing, I am required to conduct a research on the topic of my choice and my study topic is **factors that hinder smear positive TB clients from bringing their children for screening** in the TB ward, 3A. I therefore write to seek your approval to conduct this study.

The results of the study will assist in finding solutions to the identified factors so that proper actions should be taken to protect children from this disease. This study will be carried out in September, 2010.

Your consideration will be greatly appreciated.

Yours faithfully,

Mbakishe Musukwa (Miss).

## APPENDIX 9: CLEARANCE LETTER

University of Malawi,  
Kamuzu College of nursing,  
P/bag 1,  
Lilongwe.

The Hospital Administrator,  
Zomba Central Hospital,  
P.O Box 21,  
Zomba.

### ASKING FOR PERMISSION TO CONDUCT A PRE-TEST

I am Mbakishe Musukwa, a fourth year student at Kamuzu college of Nursing doing Bachelor of Science in Nursing, Degree. In partial fulfillment of the award of Bachelors degree, am supposed to conduct a study. My study is **factors that hinder smear positive TB clients from bringing their children for screening** at QECH.

I therefore write you this letter to ask for permission to conduct a pre test study at your hospital. The aim of doing the pre test is to find out if the research tool chosen will be able to collect the required information. I intend to do this in the month of August, 2010.

Your consideration will be highly appreciated

Yours faith fully,

Mbakishe Musukwa (Miss).

**APPENDIX 10: LETTER OF APPLICATION TO THE MINISTRY OF HEALTH**

University of Malawi,  
Kamuzu College of Nursing,  
Private Bag 1,  
Lilongwe.

The Secretary for Health,  
Ministry of Health,  
P.O Box 30077,  
Lilongwe.

Dear Sir/ Madam,

APPLICATION FOR PERMISSION TO CONDUCT A STUDY AT QUEEN ELIZABETH  
CENTRAL HOSPITAL AND ZOMBA CENTRAL HOSPITAL

I am a fourth year student at Kamuzu College of Nursing pursuing a Bachelor of Degree in Nursing. As a partial fulfillment, we as students are required to conduct a study of interest.

I am writing to ask for permission to conduct a study on **factors that hinder smear positive clients from bringing their children for TB screening**. The study will be done at Queen Elizabeth Central Hospital and a pilot study will be conducted at Zomba Central Hospital. I have chosen these two institutions because they are referral hospitals and big institutions in Malawi, I am also assured to obtain adequate sample for the study.

Your acceptance will be greatly appreciated

Yours faithfully

Mbakishe Musukwa (Miss).