FACTORS LEADING TO POSTNATAL MOTHER'S DELAY TO ACCESS BASIC EMERGENCY OBSTETRIC CARE AT KHOMBEDZA HEALTH CENTRE IN SALIMA DISTRICT

MSc. (MIDWIFERY) THESIS

ALLIET KUPATSA BOTHA

UNIVERSITY OF MALAWI

KAMUZU COLLEGE OF NURSING

AUGUST, 2012

FACTORS LEADING TO POSTNATAL MOTHER'S DELAY TO ACCESS BASIC EMERGENCY OBSTETRIC CARE AT KHOMBEDZA HEALTH CENTRE IN SALIMA DISTRICT

MASTER OF SCIENCE (MIDWIFERY) THESIS

By

ALLIET KUPATSA BOTHA

BSc. (Community Health Nursing) - University of Malawi

Submitted to the Faculty of Nursing in partial fulfilment of the requirements for degree of Master of Science Degree in Midwifery

UNIVERSITY OF MALAWI

KAMUZU COLLEGE OF NURSING

AUGUST, 2012

DECLARATION

I, Alliet Kupatsa Botha, hereby declare that this dissertation is my own work and that, to the best of my knowledge has never been presented for the award of any other degree or diploma of the university or other institution of higher learning, expect where due acknowledgement has been made in the text.

ALLIET KUPATSA BOTHA

_____

Full Legal Name

_____

Signature

_____

Date:

CERTIFICATE OF APPROVAL

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval.

Signature: Kaye Bultemeier Date: August 20, 2012

Kaye Bultemeier PhD "(Professor)"

Main Supervisor

Signature:_____ Date:_____

Alfred Maluwa PhD . "(Senior Lecturer)"

Co Supervisor

DEDICATION

I dedicate this work to my extremely supportive, loving and generous late parents Best and Alice Kupatsa who had inspired me to realise all my goals. I wish you were present to see my success.

ACKNOWLEDGEMENTS

There are many individuals to thank for their assistance, encouragement and contribution to my thesis. First, I begin by thanking the postnatal mothers from Khombedza area in Salima District for their patience, generosity and participation in my research study. *Zikomo kwambiri.* Without their assistance, none of my work would have been possible

Immeasurable gratitude goes to my thesis supervisor Professor Kaye Bultemeier for her inspiration, dedication and intellectual support and the co-supervisor, Dr A. Maluwa for his assistance with analysis, and reviewing of the thesis document. The two really inspired me to accomplish more than I thought was possible. I am very thankful to them for believing in me when I doubted my own abilities. Special thanks go to Dr E Chirwa, Dr A Chimwanza, Dr U Kafulafula and Dr A Kazembe for their wisdom, patience and enthusiasm about my studies.

Special thanks go to fellow students at Kamuzu College of Nursing for their social support and exchange of academic ideas throughout the entire two years study period. Staff of Khombedza Health Centre for their professional support during the collection of data and staff of Kamuzu College of Nursing library staff, for providing relevant literature and printing services. To United Nation Fund Population Agency (UNFPA) for the scholarship which enabled me to undertake the study.

Finally, my deepest gratitude goes to my husband George and my children Esther and Kondwani, who encouraged, support, and love me even though I do not always make the best decisions in life. And to my best friends and sisters who I have always looked up as my role models and who I admire them for their intelligence, honesty and good heart.

Almighty God bless you all.

ABSTRACT

The majority of maternal deaths occur during labour, delivery, and within 24 hours postpartum. Apart from medical causes, there are numerous inter-related socio-cultural factors which delay care-seeking and contribute to these deaths. Delay in problem recognition or deciding to seek care outside the home is delay number one on the causes of maternal deaths. Birth preparedness and complication readiness are interventions designed to address delays by encouraging pregnant women, their families and communities to effectively plan for birth and prepare for emergency if they occur. Therefore the study explored factors that lead to postnatal mother's delay to access basic emergency obstetric care at Khombedza Health Centre in Salima District, Central Region of Malawi.

The study design was cross sectional and utilized qualitative data collection and analysis methods. The target population consisted of postnatal mothers who delay in arriving at Khombedza Health Centre for basic emergency obstetric care in Salima District of the Central Region in Malawi. Purposive sampling technique was used to select a sample of 15 mothers. Data was collected through in-depth interview using a semi-structured questionnaire. Content analysis was used to analyse the data and the emerging themes and sub themes are reported as results of the study.

The majority of the mothers were in the age group of 20-35 years with the age range of 18-40 and the mean age of 25 years. The majority of the mothers had some primary school education and they were all married. All the postnatal mothers attended antenatal care. The emerging themes from the participants' narrations were: decision to seek care, access to care, distance and cost. Most of the participants lacked knowledge on birth preparedness and recognition of obstetric danger signs. The finding further indicated

that the midwives did not provide quality ANC, and information content was very low. Generally participants were satisfied with the care they received from the facility.

The study identified poor comprehension of knowledge and practices about preparation for birth and its complication by mothers in the area. Client education about preparation for birth and its complication and empowerment of women through expansion of educational opportunities are important steps in improving birth preparedness and complication readiness among women. Antenatal care clinics should give due emphasis to preparation for birth and its complication and provide information and education to all pregnant women to prevent delay in accessing obstetric care.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION AND BACKGROUND

CHAPTER 2: LITERATURE REVIEW

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

CHAPTER 4: RESULTS

CHAPTER 5: DICSUSSIONS OF FINDINGS AND, RECOMMENDATIONS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal care
BEmOC	Basic emergency obstetric care
BP	Birth Preparedness
CHAM	Christian health association for Malawi
CR	Complication Readiness
EmOC	Emergency obstetric care
HIV	Human immunodeficiency virus
MBTS	Malawi blood transfusion service
MDG	Millennium Development Goal
MDHS	Malawi Demographic and Health Survey
MICS	Multiple Indicator Cluster Surveys
MMR	Maternal mortality ratio
MNH	Maternal and newborn health
NMR	Neonatal mortality rate
NSO	National statistics office
TBA	Traditional Birth Attendant
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

CHAPTER 1

Introduction and Background

High rates of maternal morbidity and mortality remain major public-health challenges in Malawi. The majority of maternal deaths occur during labour or delivery or within 24 hours postpartum (Guebbels, 2006; Ronsmans & Graham, 2006). Apart from medical causes, there are numerous inter-related socio-cultural factors which delay care-seeking and contribute to these deaths. Care-seeking is often delayed because of the delays in identifying the complication, deciding to seek care, identifying and reaching a health facility, and receiving adequate and appropriate treatment at the health facility (Thaddeus & Maine, 1994).

Four out of ten pregnant or postpartum women will experience some complication related to their pregnancy or delivery. For approximately 15% of these women, the complication is potentially life threatening and requires immediate Emergency Obstetric Care (EmOC). Recent global evidence indicates that availability of EmOC and skilled attendance at birth have proven to be effective strategies to reduce maternal mortality (Carroli, Villar , Piagio, Khan-Neelofur , Gülmezoglu , Mugford , Lumbiganon, Farnot & Bersgjo, 2001; WHO, 2004). It has been reported that maternal mortality is significantly reduced, in developed and developing countries, when the majority of deliveries are attended to by skilled personnel (WHO, 2004). In Malawi, current data indicates that 27 % of women continue to deliver without the assistance of a skilled attendant (NSO, 2011).

Birth preparedness and complication readiness (BP/CR) are interventions designed to address these delays by encouraging pregnant women, their families, and communities to effectively plan for births and prepare for emergencies if and when

they occur. At the basic level, the concept of BP/CR includes identifying a trained birth attendant for delivery, identifying a health facility for management of an emergency, arranging for transport for delivery and/or obstetric emergency, and saving money for delivery (JHPIEGO, 2001; Santarelli, 2003; WHO, 2003). These actions assist women and their families in preparing for emergencies. They focus on increasing awareness of danger signs, reducing the delays in receiving skilled care, improving intra-family communications, and relations with providers (Santarelli, 2003).

Despite the great potential of BP/CR in reducing maternal and newborn deaths, the rates of adherence to the BP/CR guidelines are unknown. It appears that there are factors which adversely affect adherence to these. The purpose of this study, therefore, was to explore factors leading to postnatal mother's delayed in seeking emergency obstetric care at Khombedza health centre in Salima District. The district was chosen because it was one of the districts with low numbers of deliveries conducted by skilled attendants. Birth by a skilled attendant is an essential element of birth preparedness (JHPEIGO, MNH, FCI, 2004). The study was guided by "Theory of Three Delays Model" by Thaddeus and Maine.

Every day, around 1,500 women worldwide die from complications related to pregnancy and childbirth. Since 1990, the estimated annual number of maternal deaths worldwide has exceeded 500,000 and accounted for10 million maternal deaths during the past 19 years (WHO, UNFPA, UNICEF, 2010). Statistics indicate that high maternal mortality is a significant problem for developing countries. Of the 368,000 deaths associated with pregnancy and childbirth in 2009 worldwide, 99% were in developing countries. Out of these, 57% (204,000) occurred in sub-Saharan Africa. According to the World Health Organisation, it is estimated that women in sub-

Saharan Africa have a 1:31 chance of dying as a consequence of childbirth, compared to 1:4,300 in developed regions (WHO, 2010). Millennium Development Goal number five (MDG 5) calls for a reduction in the maternal mortality ratio (i.e. the number of maternal deaths per 100,000 live births) by three quarters by 2015 and the establishment of universal access to high quality reproductive health care (Karlsen, Say, Souza, Hogue, Calles, Gulmezoglu &Raine, 2011). Many mothers die at home or on their way to the hospital, secondary to a variety of factors which include: lack of adequate preparedness for complication, lack of access to transportation or a delay in inter hospital transfer which results in delays of management of the complications.

Moore (2000) noted that in many countries in the world, cultural beliefs and lack of awareness of complications inhibit advanced preparation for delivery and care of the expected baby. When no prior preparation is taken before the delivery, the family acts only in response to problems that arise after labour begins. The majority of pregnant women and their families are unprepared to recognize the danger signs of complications. When complications occur, the unprepared family often delays in recognizing the problem, getting organized, accessing money, finding transport, and reaching the appropriate referral facility(Moore,Copeland, Chege, Pido &Griffiths, 2002).

For every 100,000 births in Malawi, approximately 675 women die from pregnancy-related complications (NSO, 2011). The principle causes of maternal mortality include haemorrhage, pregnancy-induced hypertension, and abortion-related complications. These conditions are often treatable, if not preventable, if quality maternal care services are available, accessible, and widely known to the community. A recent EmOC assessment study revealed that 40% of maternal deaths were thought to have been associated with delays in arriving at a health facility (MOH, 2010).

In Malawi, only 73 % of births are attended by a skilled birth attendant (MDHS, 2010). The government is concentrating on improving the rate of deliveries conducted by a skilled attendant. Although Malawi has made progress in a number of health indicators, it has the world's lowest percentage of births attended by a skilled attendant. Nearly 27 % of all births occur at home in the absence of a skilled health care provider. The evidence indicates that maternal mortality can be reduced if women deliver with a skilled birth attendant. Additionally, access to skilled delivery care is crucial to preventing stillbirths and to improving newborn survival (Lawn, Cousens & Zupan, 2005).

Guebbels (2006) noted that a contributing factor to 77% of maternal deaths in a study done in Malawi, was delay in decision making to seek care and deliver at a health facility. Likewise, in Haiti, approximately 70 % of the maternal deaths were linked to a delayed decision to get medical care (Barnes-Josiah, Myntti, & Antoine, 1998). Delay in seeking and obtaining care is a significant factor associated with maternal and newborn morbidity and mortality. The major contributing factors behind these delays are underlying behaviour, social and cultural factors, and where women seek care during pregnancy and childbirth.

Many women traditionally, believe that they should not prepare for birth and this belief delays mothers from timely accessing emergency care. BP/CR is a strategy to promote the timely use of skilled maternal and neonatal care. This is used especially during childbirth. It is based on the premise that preparing for childbirth and being ready for complications reduces delays in obtaining care and reduces morbidity and mortality (WHO, 2002; JHPEIGO, 2004). BP/CR provides an important strategy for promoting safe motherhood in countries with very high maternal mortality rates (McPherson, Khadka, Moore & Sharma, 2006; Moran,

Sangli, Dineen, Rawlins, Yaméogo & Baya, 2006). The BP component stresses the preparation for complications and concentrates on factors that may contribute to a positive outcome. CR reduces delays by educating women regarding recognition of the problem, the decision to seek care, and the timely reaching and receiving of care (WHO, 2005; JHPEIGO, 2004).

Effective BP/CR reduces the risk of complications which are related to the three delays. There is evidence from studies done in rural Nepal, Burkina Faso, Ethiopia, and India that promoting BP/CR improves preventive behaviours, knowledge of mothers about danger signs, and seeking during obstetric emergency (Agarwal, Sethi, Srivastava, Jha, & Baqui, 2010). Additionally, maternal mortality has been significantly reduced, in developed and developing countries, when a majority of the deliveries were attended by skilled personnel (Pathmanathan, Liljestrand & Martins, 2003).

BP helps the woman, her family, and the community to identify and plan for a normal birth as well as for the management of an emergency, if needed. Studies in developed countries have shown a positive impact on pregnancy and birth outcomes when the woman feels in control of the process of pregnancy and birth. The making of a birth plan has been shown to facilitate a feeling of self-control and autonomy (Mishra &Rutherford, 2006; Malata, Hauck, Monterosso & McCaul, 2007). BP is an approach to improve the use and effectiveness of key maternal and newborn health services. It is based on the premise that preparing for birth and being ready for its potential complications reduce all three phases of delay in the utilisation of the services.

Significantly, 15 % of all pregnant women develop a life-threatening complication and most of these complications cannot be predicted. Every woman and

her family must be ready to respond to birth related complications. Every woman should have a plan for the following: a person designated to make decisions on her behalf, in case she is unable to make them, a way to communicate with a source of help (skilled attendant, facility, and transportation), a source of emergency funds or emergency transportation, and potential blood donors. Considering that the average time interval from onset of ante partum haemorrhage to death is 12 hours and only 2 hours in cases for postpartum haemorrhage, the time required for making arrangements (which, again, should have been made prior to the emergency) may define the line between survival and death (Thaddeus &Maine, 1994). Therefore it is necessary to prepare for complication with any delivery.

In Malawi, antenatal care coverage is exceptionally high as 98% of pregnant women attend antenatal care at least once during pregnancy. In spite of this high utilisation, the maternal mortality ratio is at 675 per 100,000 live births (NSO, 2011), which is one of the highest in the world and specifically, in sub- Saharan Africa. Nevertheless, studies have shown that further reduction in maternal mortality can be made in developing countries by improving the maternal health system, initiating special interventions, and utilizing other approaches such as public health education. In spite of the high utilization of antenatal services, Malawi continues to experience many home deliveries as only 73 % of women deliver with a skilled attendant (MDHS, 2010).

In response to these statistics, Malawi has implemented several strategies to reduce the maternal and neonatal mortality ratios. The Ministry of Health (MOH) developed the Reproductive Health (RH) policy in 2002 where guidelines for birth preparedness and complication readiness were introduced. Educating the woman on the components of BP and CR has been added as an integral component of each

antenatal visit. In addition, the ministry also developed integrated performance standards for RH and the essential health package in 2004. Furthermore, and the road map for acceleration in the reduction of maternal mortality was introduced in 2006.These policies placed emphasis on improving the quality of maternal and neonatal services and are in line with the Millennium Development Goal four and five. To achieve these, it is imperative to eradicate factors which delay women to access the quality services.

Problem Statement

Women are not dying because of something the medical practitioners do not know, or from causes they cannot prevent, or from unavailability of the technology to help them. Women are dying because of delays in seeking help, delays in getting to the place where help can be obtained, poorly equipped facilities and, or from the lack of needed supplies (MNH, 2004). The deaths are attributed to delays in problem recognition or delaying in deciding to seek care outside the home.

Malawi has one of the highest MMR and NMR in the world and these deaths are affected by delays in arriving at the health facility (MOH, 2010). In addition, EmONC needs assessment reports revealed that knowledge of danger signs during pregnancy, in the population was alarmingly low. Only 15% were able to recognise excessive bleeding and none identified signs of sepsis with fever as a danger sign (Guebbels, 2006). However no data is available regarding knowledge of other components of BP/CR. This where and why this study is useful.

Failure to prepare and recognise danger signs by labouring women entail that pregnant woman will not obtain timely access to emergency obstetric care if needed. This lack of knowledge by pregnant women indicates a need to examine the

comprehension of postnatal mothers regarding BP/CR as it relates to access to basic emergency obstetric care. Therefore, the investigator explored factors which delayed seeking of obstetric care among the postnatal mothers.

Significance of the Study

Exploring understanding and application of the components of birth preparedness and complication readiness by postnatal mothers assists in identifying factors that contribute to delays in accessing basic maternal and newborn care. The findings of this study inform the health planners and health personnel in developing strategies to promote birth preparedness and complication readiness. Thereby, reducing maternal mortality rate (MMR) and neonatal mortality rate (NMR). Additionally, the results inform health planners and service providers. This helps to improve health programs and promote the health of women. Finally, it would be helpful for the respondent/ postnatal mother and her family to gain knowledge about the BP/CR and make pregnancy safe. As already stated, in the process, all this contributes to the achievement of MGDs 4 and 5.

Conceptual Framework

The study was guided by an adaptation of the theoretical framework developed by Thaddeus and Maine in 1994 (Figure 1). The conceptual framework outlines three components of delay and these include delay in deciding to seek care, delay in identifying and reaching medical facility, and delay in receiving adequate and appropriate care. The “Three - Delays” model of Thaddeus and Maine provides a framework for understanding the barriers to accessing emergency maternal health

(Thaddeus & Maine, 1994). For this study, the author examined delays one and two (Figure 1).

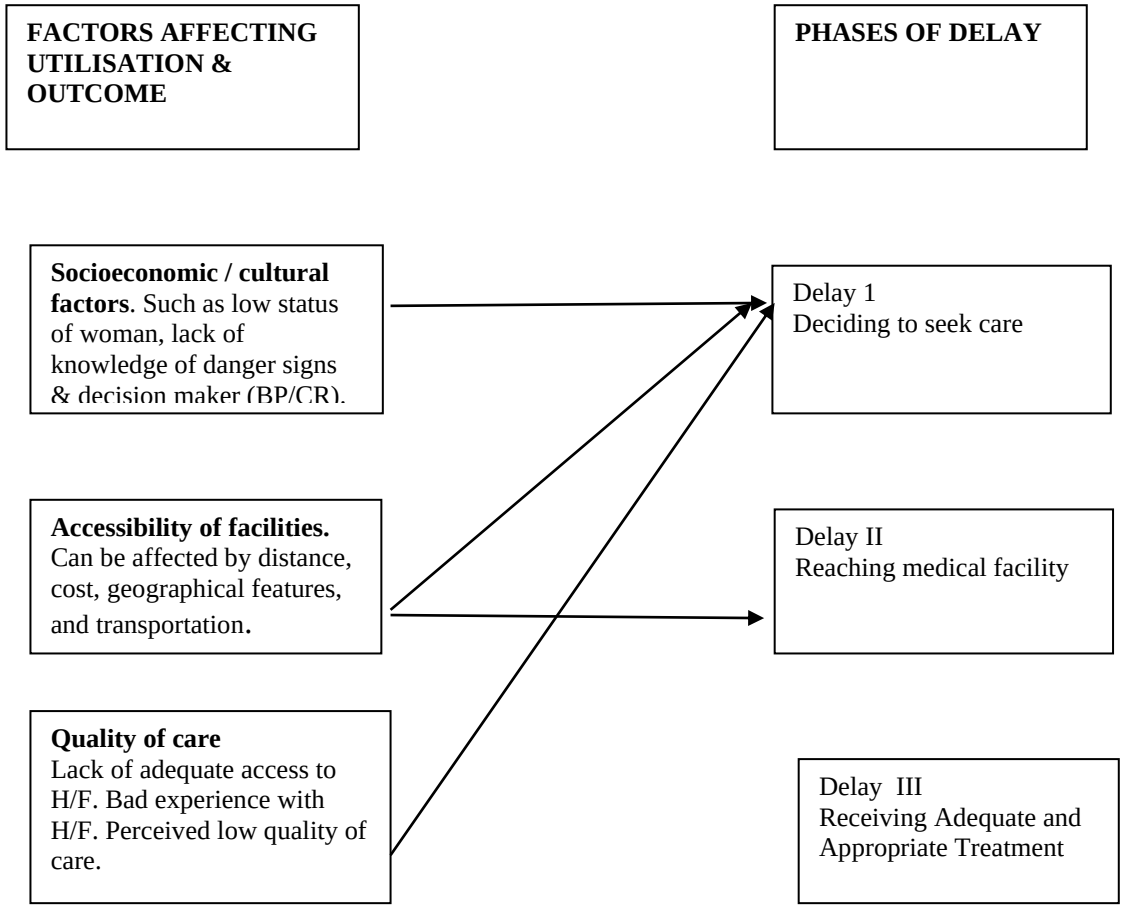

Figure 1: "T he Modified Three Delays Model": Adapted from Thaddeus and Maine, (1994) by the author

In this study, the adapted three delay model was used that entails factors affecting the utilization of emergency obstetric care services and outcome. These main factors are socioeconomic and cultural factors, accessibility to health facility factors and quality of care factors to guide pregnant women's health seeking behaviours. Promoting BP/CR among pregnant women can reduce delays in seeking, receiving and/or providing appropriate care at the health facility.

Sociocultural factors are demographic characteristics such as age, education, occupation, marital status, and knowledge of danger signs. They also reflect social, cultural factors such as autonomy or decision-making capabilities. While accessibility to health facility factors include factors such as cost, distance, and geographic features. Quality of care factors include perceived care, perceived low quality of care and bad experience with the health facility.

Aim of the Study

The aim of the study was to explore factors leading to postnatal mother's delay to access basic emergency obstetric care at Khombedza Health Centre in Salima District in the central region of Malawi.

Specific objectives of the study.

1. To examine socio/economic factors of postnatal mothers who delayed in reaching obstetric care.
2. To examine cultural factors of postnatal mothers who delayed in reaching obstetric care.
3. To assess the comprehension of BP/CR of postnatal mothers who delayed decision to seek obstetric care.
4. To explore accessibility to obstetric care to postnatal mothers who delayed in reaching obstetric care.
5. To examine previous quality of care received by postnatal mothers who delayed in deciding, seeking and reaching obstetric care.

Operational Definition of Key Concepts

Delay by the author is defined as arriving at the health facility in advanced stage of labour. Specifically, this cervix dilatation of greater than 7cm, abdominal descent of two fifths, premature rupture of membranes for more than 48 hours, or frank bleeding of more than 12 hours.

The First delay occurs in the decision to seek care when the woman, with her family, does not recognize signs of a life-threatening emergency. Thereby, waiting too long before deciding to seek care.

The Second delay occurs in reaching the facility once the decision has been made to seek care.

The Third delay occurs in obtaining the appropriate care once the woman has reached the health facility.

Socioeconomic factors are the social and economic experiences and realities that help mould one's personality, attitudes, and lifestyle**.** These are low socioeconomic and cultural factors, lack of understanding of danger signs and an absence of the decision maker from the household

Quality of care is defined as activities that promote the use of obstetric care. These can be affected by previous unsatisfactory experience with the health care system and perceived low quality of care.

Accessibility of health facility is the ability for one to access or attain the services. This can be promoted or hindered by distance from facility, lack of transportation, cost and difficult terrain

Birth preparedness and Complication readiness is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth. It is based on

the theory that preparing for childbirth and being ready for complications reduces delays in obtaining this care.

Maternal mortality is the death of the woman, while pregnant or within 42 days of termination of pregnancy due to complications from pregnancy, delivery or management of either, or due to existing medical conditions that were aggravated by the pregnancy or delivery, but from accidental or incidental causes.

Emergency obstetric care is a set of medical interventions to manage life-threatening obstetric complication. At basic level, it includes intravenous (IV) administration of antibiotics, uterotonics, and anticonvulsants; manual removal of the placenta; removal of retained products of conception and assisted vaginal childbirth with forceps or vacuum extractor.

Conclusion

This chapter has placed the study into context by describing the background to the study, problem statement, and objectives of the study and significance of the study. Chapter two provides a review of literature by comprehensively reviewing literature which examined factors leading to delays in accessing basic obstetric care by the women. The theoretical framework of the three delays model, which guided the study, will be discussed.

CHAPTER 2

Literature Review

Introduction

This chapter presents a review of literature related to birth preparedness and complication readiness for antenatal women. It was guided by the three delays conceptual framework model by Thaddeus & Maine (1994). The review of literature covered in this chapter centers on maternal mortality, socioeconomic and cultural factors, accessibility to the health facility, quality of care and the elements of BP/CR such as skilled attendant, plan for transport, knowledge of obstetric complications and issues of distance to health facility.

Global Maternal Mortality

Maternal mortality is a substantial burden in developing countries. The need to improve maternal mortality rates has received recognition at the global level as evidenced by the inclusion of reducing maternal mortality in the Millennium Development Goals. More than one woman dies every minute from complications of pregnancy and childbirth somewhere in the world. This accounts for 585, 000 women who die annually (UNICEF, 2006; WHO, 2004). Less than one percent of these deaths occur in developed countries, demonstrating that the deaths could be avoided if resources and services were readily available. The lifetime risk for a woman dying in Africa in child birth is 1 in 16, as compared to 1 in 1,800 in developed countries (UNICEF, 2006; WHO, 2004). This makes maternal mortality the health indicator with the widest disparity between developed and developing countries.

The major causes of maternal death include intrapartum emergencies such as haemorrhage, obstructed labour, and infections. Only a third of women who require lifesaving care following a complication in delivery receive it. It is therefore argued that a vital prerequisite to reducing maternal deaths is universal access to high quality pregnancy and delivery care (WHO, 2005). This includes an appropriate and effective referral system and emergency obstetric care, as well as blood, medications and obstetric surgeries close to the people.

Thaddeus and Maine, (1994) have argued that not obtaining adequate care in a timely manner is the overwhelming reason why women die in developing countries. Most of these deaths are preventable with prompt and adequate medical intervention. Delays in reaching adequate care are a prominent factor contributing to maternal deaths. Hadley and Tuba (2010) found that the causes of maternal deaths in Zambia were not as a result of just one cause or reason but rather, multiple factors. The contributing factors were related to physical location, lack of resources to travel to a health facility, lack of preparedness for the eminent birth and cultural factors playing a role.

In Malawi, the number of maternal deaths has been estimated using hospital-based surveys and population based surveys. Similar causes of maternal deaths that are found globally are also seen in Malawi (Guebbels, 2006). Many of these deaths can be prevented if pregnant women are given information on BP/CR antenatally so that they can prepare for emergencies and reach a skilled attendant for safer deliveries.

Health interventions for maternal and child health include birth preparedness; recognition of and appropriate response to danger signs during antenatal period, skilled health care at delivery, recognition of and response to intrapartum danger and signs, and early postnatal visits to provide guidance, early recognition, and the

management of maternal and newborn illness (Bhutta, Darmstadt, Hasan & Haws, 2005).

History of Birth Preparedness and Complication Readiness

The Maternal and Neonatal Health (MNH) Program of JHPIEGO developed the guidelines for birth-preparedness and complication readiness as a means to address these three delays. The guidelines cover various levels, including the pregnant woman, her family, her community, health providers, health facilities, and policy-makers during pregnancy, childbirth, and the postpartum period. Birth-preparedness and complication readiness is a comprehensive strategy to improve the use of skilled providers at birth and to prepare for an emergency (JHPIEGO, 2004).

The concept of birth-preparedness and complication readiness includes knowing danger signs, planning for a birth attendant and birth-location, arranging transportation, identifying a blood donor, and saving money for transport in case of an obstetric complication (MNH, 2004). BP and CR aim at assisting women and their partners and families to be adequately prepared for childbirth. This involves the woman and her family making plans on how to respond if complications or unexpected adverse events occur to the woman and/or the baby at any time during pregnancy, childbirth, or the early postnatal period.

Elements of birth preparedness and complication readiness.

Use of skilled birth attendant.

Historical evidence shows that no country has managed to reduce its maternal mortality ratio below 100 per 100 000 live births without ensuring that all women are attended by an appropriately skilled health professional during labour, birth, and the

period immediately afterward (De Brouwere &Van Lerberghe, 2001). World-wide, 61.5% of births are attended by a skilled health worker. Even though nearly 100% of all births are attended by skilled health personnel in more developed countries, this proportion is 57.4% in less developed countries and only 33.7% in the least developed countries (WHO, 2005). In Africa and Asia, only 46.7% and 58.3% respectively, of women gave birth with professional assistance. Lack of skilled care in developing countries contributes to the deaths of 1,600 pregnant women everyday (WHO, 2010).

Most obstetric complications occur around the time of delivery and cannot be predicted. Therefore, it is important that all pregnant women access a skilled attendant, i.e. someone with midwifery skills, who is able to manage a normal delivery and who can recognize and manage obstetric complications, or refer in a timely manner if needed. Skilled attendance at delivery is advocated as the "single most important factor in preventing maternal deaths".

In sub-Saharan African and Asian countries only 20% of all women who attended ANC four times or more did not seek a skilled delivery attendant. In Malawi, antenatal coverage is at 98% and yet only 72% of women seek skilled birth attendance (MOH, 2010). Equally important, is the need for women to make arrangements for transport to the nearest clinic providing obstetric care for skilled attendant. There is a low rate of institutional deliveries, and the caesarean section rate of 3% is an indication that the access to and uptake of modern obstetric care is low (McCoy, Ashwood-Smith, Ratsma, Kemp & Rowson, 2004). Even when obstetric care is available, there is evidence of significant delays in reaching health facilities. Delays in reaching facilities are associated with multiple factors. These include patient and community-related reasons such as poor quality of care, cultural beliefs, financial barriers, gender imbalances, and an overall lack of knowledge (McCoy et al, 2004).

In developed countries antenatal care coverage is extremely high, with 98% of women having at least one antenatal visit. The region of the world with the lowest levels of use is South Asia, where only 54% of pregnant women have at least one antenatal care visit. In the Middle East and North Africa, use of antenatal care is somewhat higher at 65% of pregnant women (WHO, 2002).

In sub-Saharan Africa, generally the region with the lowest levels of health care use, 68% of women report at least one antenatal visit. Significantly, in Malawi 98% of pregnant women has at least one antenatal care visit (MICS, 2006). This shows that efforts of pregnant women to the reach of antenatal care have been largely successful. While these figures do not tell us anything about the quality of care provided. It is evident that women are able and willing to present for antenatal care. This provides opportunities to give them information and services that can help improve their health and that of their infants (WHO, 2003). It eludes one why this high level of antenatal care utilization does not translate into use of skilled attendant at birth.

Studies worldwide have shown that women who attend ANC are more likely to seek skilled delivery care. The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to both their health and well being and that of their infants (MICS, 2006). If the antenatal period is used to inform women and families about certain danger signs and risks associated with labour and delivery, it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider.

The key components of antenatal care are provision of health education on the danger signs of pregnancy and delivery, preparation of a birth plan, and the

importance of delivery under a skilled attendant. Although the key components are available, information on the types and content of messages and actual information provided to women is scanty. For instance, studies examining antenatal and postnatal counselling suggest that in reality, information sharing is often less than guidelines recommend (USAID, 2009).

***Knowledge of obstetric complications*.**

Complication readiness provides information that assists the patient and family to be prepared during the woman's pregnancy to recognize and respond to danger signs. Knowledge of the danger signs of obstetric complications is an essential step in recognition of complications and enabling one to take appropriate action to access emergency care (WHO, 2000). As JHPIEGO (2004) put it, knowledge of danger signs of obstetric emergencies and appreciation of the need for rapid and appropriate response when emergencies occur may reduce delays in decision making and in reaching health facilities.

The specific arrangements to be made before a crisis arises include, determining how decisions will be made if a complication arises, how to contact and communicate with the source of care, transportation to the appropriate healthcare facility, funds to pay for emergency care, and identification of who will serve as a blood donor if needed (JHPIEGO, 2004).

Moron, Sangli, Dineen, Rawlins, Yameogo and Boya, (2006) reported that women with knowledge of at least five danger signs were more likely to give birth with the assistance of a skilled provider than women with less knowledge of danger signs. Other studies have revealed that the provision of child birth information and danger signs recognition during the antenatal period may increase women's awareness of potential pregnancy and childbirth complications, thereby influencing client

decisions to accept and seek skilled attention as early as possible during delivery (Nadan, Kushwah, Dubey, Singh, Shivdasani &Adhish, 2009).

Turan, Bulut, Nalbant, Ortayli, and Akalin, (2002) found out that women receiving antenatal care at private hospitals reported receiving significantly more information about health during pregnancy and foetal development than women using services at public hospitals. Generally, information given on danger sign recognition improves health seeking behaviour of pregnant women. Turan et al, (2002) found that women reported receiving some information about pregnancy and foetal development, but little information about important danger signs during pregnancy. Such danger signs include bleeding, difficulties in breathing, heart palpitations, and dizziness. According to their observations, only 31% of women received information and counselling.

Mutiso, Qureshi and Kinuthia, (2008) reported that 27. 9% of the study respondents were not informed about danger signs during pregnancy, 29.3% were not informed about signs of labour while 14.7% were not informed about the importance of a hospital delivery. In addition 39.2% of the respondents were not informed of the need to make advance transport arrangements while 57.9% were not informed the need about to identify a blood donor. However, most (96.4%) of the respondents were informed about the importance of obtaining an HIV test. This indicates and emphases that most information focus on HIV/AIDS only.

Plan for Transportation.

Transport services affect access to both preventive and emergency childbirth care. Thereby playing a key role in the survival of women and their newborns (Babinard & Roberts, 2006). Frequently complications in birth may rapidly become life - threatening. It is estimated that more than 75 % of maternal deaths could be

prevented through timely access to essential childbirth-related care. Literature indicates that in low income countries, particularly in rural areas, considerable time is spent by women and their families in waiting for transportation and travelling to health facilities.

Magoma, Requejo, Campbell, Counsens, and Filippi, (2010) revealed that the largest obstacle to receiving skilled and emergency care is failure to plan in advance for transport. In addition, results also indicate that planning in advance for the delivery was not part of traditional practice in the two communities where home delivery was the norm (Magoma et al, 2010). In addition, Kamwendo and Bullough (2005) discovered that a skilled attendant is largely unavailable to 45% of child bearing women in Malawi.

Lack of money and adequate transportation are barriers to seeking care as well as to identifying and reaching medical facilities. The money saved by the woman and her family is designed to pay for health services and supplies, for transport, and or other costs such as loss of work. If a woman can afford to pay for the services, she is more likely to seek care (JHPIEGO, 2001). Sood, Chandra, Mishra and Neupane, (2004) indicate that 68.9% of the respondents saved money for childbirth in Ethiopia.

The literature reveals that in low income countries, particularly in rural areas, considerable time is spent by women and their families waiting for transportation and subsequently travelling to health facilities (Babinard & Roberts, 2006). This is related to: poor roads, too few vehicles, and high transportation costs which are major causes of delay in decisions to seek and reach emergency obstetric and postnatal care. A study done by Leigh, Mwale, Lazaro and Lunguzi, (2008) revealed that families were slow to make the decision to seek medical care. Arranging for transport caused further delay. Pattinson, Woods, Greenfield and Velaphi, (2005) revealed that in South

Africa while the majority of avoidable factors for stillbirths and neonatal deaths are related to poor maternal care during labour and the immediate postnatal period, about one third are due to delays at home and in obtaining transportation.

Conceptual Framework

Theoretical and conceptual frameworks play several interrelated roles in the progress of science. Their overall purpose is to make research findings meaningful and be applicable to other similar situations. Theories allow researchers to knit together facts into an orderly scheme. Frameworks are efficient mechanisms for drawing together and summarizing accumulated facts. The linkage of findings into a coherent structure makes the body of accumulated knowledge more accessible and more useful to both practitioners who seek to implement findings and to researchers who seek to extend the knowledge related to the phenomenon of interest (Polit & Hungler, 1999).

The major concepts of the Three Delay Model guided this study. The model comprises; delay in seeking care, delay in reaching care and delay in reaching appropriate care as far as preparing for emergency obstetric care is concerned (Figure 2). The model also assisted in examining major obstacles such as cost and distance in the decision to seek care.

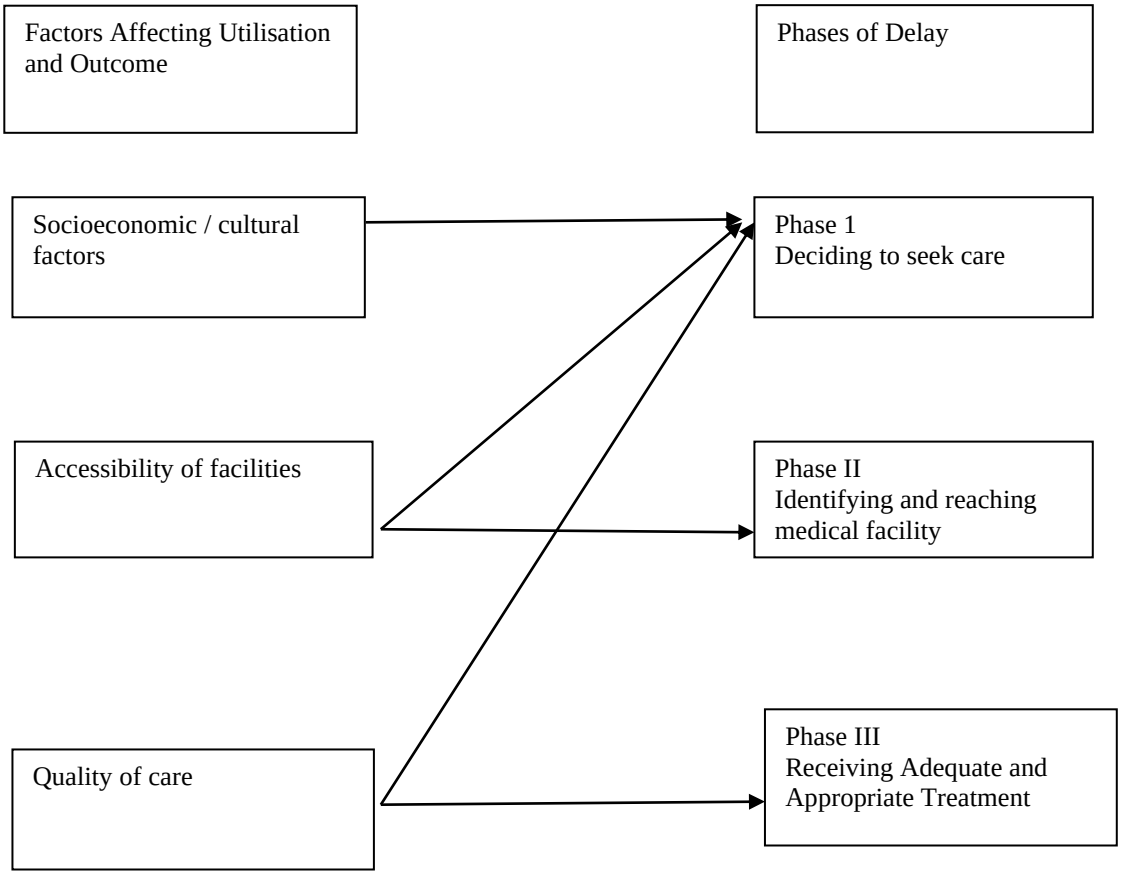

Figure 2: The Three Delays Model by Thaddeus and Maine (1994)

The model contends that differential use of health services is shaped by such variables as gender and socio-economic status. Patients who make a timely decision to seek care can still experience delay because of a lack of adequate access to health services. As Thaddeus &Maine, (1994) argues, shortages of qualified staff and essential drugs and supplies, coupled with administrative delays and clinical mismanagement, all contribute to maternal deaths.

Background of the Three Delay Model.

Thaddeus and Maine (1994) have provided the safe motherhood community with an explanatory model of maternal mortality that identifies delays in seeking, reaching and obtaining care as the key factors leading to maternal death. This explanatory model, categorizes delays into three types: delays in seeking care, delays in reaching care, and delays in receiving adequate care once at the point of service.

Definition of the Three Delays.

Thaddeus and Maine defined the concepts as;

- A first delay occurs in the decision to seek care because the woman, with her family, does not recognize signs of a life-threatening emergency. This results into waiting too long before deciding to seek care.
- A second delay occurs in reaching the facility once the decision has been made to seek care.
- A third delay occurs in obtaining the appropriate care once the woman has reached the health facility.

Thaddeus and Maine looked on the factors that affect the interval between the onset of obstetric complication and its outcome. The findings indicated that, if prompt, adequate treatment is provided, the outcome will, in the majority of cases, be satisfactory. Therefore, it articulated factors that delay the decision to seek care, delay arrival at a health facility, and delay in the provision of adequate care. According to their model, it is proposed that distance and cost are major obstacles in the decision to seek care (JHPIEGO, 2004).

Delay in decision to seek care.

This delay refers to the time when somebody, either the woman or her family or both, realized that there was a complication until the decision to seek care is made. This has been reported to range from two hours to five days. In normal deliveries the woman herself most frequently decides where to go for delivery (Thaddeus & Maine, 1994). In many societies the husbands play an important role in providing material and financial support during delivery, and may have a large influence on delivery site (Geubbels, 2006). Apart from these gender and hierarchical aspects, other factors also influence the decision to go to the health facility. Specifically, these are distance to health facility, perception of danger signs, previous experiences, and perceived quality of care they will receive.

Socio-economic factors.

The ability of women to command resources and make independent decisions about their fertility, their health, and healthcare has an impact on maternal mortality. Where women are afforded a low status in society, their health needs are often neglected, and this results in not having access to health facilities by women in need (Addai, 2000). A lack of education and understanding around health related issues can contribute to delays in seeking care when it is needed. Also a lack of appropriate management of life threatening pregnancy complications affects outcome (Smith, Dmytraczenko, Mensah, & Sidibe, 2004).

A woman may need approval within her household in order to seek emergency care. Smith et al. (2004) revealed that over 70 % of women and household heads cited the husband as the principal decision maker for decisions about whether or not to seek care in the face of a sign of potential danger during pregnancy.

In Tanzania was indicated that a woman who is educated is able to make informed decisions about her own health. A women's education level was noted to play a part in where she decides to deliver (Mpembeni, Killewo, Leshabari, Massawe, Jahn & Mushi, 2007). Women's educational levels, relative to those of men, have been found to be associated with maternal death. Those with lower education tend to deliver at home and risk maternal death. There is a positive relationship between levels of maternal education and health service use regardless of family or socioeconomic situations (Karlsen et al, 2011). A lack of education is identified as one of a number of stressors (along with limited money and decision-making power) affecting women during pregnancy and childbirth, creating vulnerability and increasing the likelihood of negative outcomes.

In Malawi, it was showed that number of years of education correlated with maternity service attendance. It was reported that women with primary, secondary, or higher education were 4, 5, and 7 times more likely to use services than women without any formal education (Geubbels, 2006). As women's education levels increased they were more likely to deliver at the health facility with a skilled attendant (Geubbels, 2006). Increased education was correlated with a decrease in overall pregnancies and a later onset for childbearing.

Poverty too has been reported as a key factor limiting access to skilled attendants at birth. Utilisation of professional or trained attendants at delivery demonstrates a large disparity in utilisation between the poorest and richest quintiles (Mac Donagh, 2005). In Uganda , it was noted similar results in that utilization of maternal and child health services was reported to be inadequate, secondary to low education and cultural practices (Atuyambe, Mirembe, Tumwesigye, Annika, Kirumira & Faxelid, 2008).

Cultural factors.

Amowitz, Reis and Iacopino, (2002) reported that 87% of Afghani women require the permission of their husbands before seeking health care. Social and cultural norms that place women at a lower status than men limit the political commitment to develop systems necessary for skilled attendance. The same norms, at household level, constrain care seeking even when services are available (Amowitz et al, 2002).

In some societies, cultural norms and practices can influence the recognition of complications and/or risk factors during pregnancy, birth, and post-partum periods. These cultural norms can inhibit women from seeking health care outside the home, either for themselves or their children (Babinard & Roberts, 2006). Sociocultural factors include the fear of being stigmatized. If complications arise they may be seen as the result of insubordination or infidelity to the husband. These factors may delay women in seeking care and may lead to consultations with traditional and spiritual healers before going to the hospital (Wilson, Collison, Richardson, Kwofie, Senah &Tinkoranget, 1997).

Cultural practices and prevailing norms can strongly influence the decision to use transport, thereby constraining the delivery of health care. In Malawi, a bicycle ambulance service was implemented to improve access to emergency obstetric care. Cultural beliefs were identified as deterring pregnant women from using bicycle ambulances. A belief exists that women may not want to be publicly seen in labour because they fear an increased risk of obstetric labour if seen (Lungu, Kafosa, Hussein & Ashwood-Smith, 2001; Cham et al. 2005).

Furthermore, in many countries, women cannot decide independently to seek care, but must seek permission from a husband or mother-in-law. Furthermore,

women may lack control over material resources needed to pay for expenses, their mobility may be restricted or they may lack access to vehicles or even bicycles or donkeys (Thaddeus & Maine, 1994; Addai, 2000). However, at times women's informal power in the household may mitigate some of the barriers.

Guebbels (2006) found that a delay in decision making to deliver in a health facility was a contributing factor to 77% of maternal deaths in Malawi. Furthermore, the Safe Motherhood Project (SMP) revealed that decision making patterns vary between districts in South Malawi (Ashwood-Smith & Simpson, 2003). For example, in many matriarchal societies (like the Yao in Mangochi, the Mang'anja in Chikwawa, and the Lomwe and Mang'anja in Phalombe, Chiradzulu and Zomba), the wife's relatives, especially the uncles, are important decision makers.

Once a decision to seek medical care has been made, other obstacles must be overcome to reach a medical facility. Cham, Sundby and Vangen, (2005) reported that 84% of women were delayed in reaching an appropriate medical facility. The reasons for this delay were attributed to lack of transport, prolonged transportation, and seeking care at more than one facility.

Delay in reaching care to health facility

Access to health care.

Many obstetric health problems are preventable and manageable through improved access to health care services. The creation of an acceptable definition of access varies as it is influenced by many factors. Some researchers have defined access as the ability to use health care services (Miller, 2008). Others have argued that access to health facility is shaped by factors that may influence the use of services. Access can be impacted by distance, transportation, cost, and geographical features.

Perry and Gesler (2000) found limited physical access to care to be a major obstacle to improving community health. Limited access is common in rural areas where there are fewer health facilities and villages may be physically isolated.

Cost.

Another factor that has been shown to influence the use of services is cost. The acquisition of adequate funds for the costs associated with care and transport are barriers in accessing skilled care and are components of birth preparedness (JHPIEGO, 2001). Transport related costs are often a primary factor in deterring patients from obtaining treatment. Even when a vehicle can be obtained, costs can remain prohibitive regardless of distance. Even when money is available, it can be difficult to secure timely transport after a complication has occurred. Arranging transport ahead of time reduces the delay in seeking and reaching services. In a study done in Nepal, 24.7% of the respondents identified the high cost of available transportation before childbirth as a cause for delay to seek and reach care.

A study done in Burkina Faso found that 46 % of women had established a plan for transportation and 83 % had a plan to obtain the necessary money. Women with these plans were more likely to give birth with the assistance of a skilled provider (Moran, Sangli & Dineen, 2006). And qualitative interviews reveal that most women save money for delivery, but have less concrete plans about using the saved money for transportation (Moran et al, 2006).

Impoverished patients in developing countries often cannot afford to travel to a distant hospital. Studies conducted in Burkina Faso and northeast Brazil revealed that transport costs accounted for 28 % and 25 %, respectively, of the total patient costs of using hospital services (Ensor & Cooper, 2004). Similarly in Bangladesh it was reported that transport was the second most expensive item for patients exceeded only

by medication costs (Ensor & Cooper, 2004). In rural Sudan, nearly half of the families cited transport costs as the reason for not taking their children with referral needs to a hospital (Mohammed Al Fadil, Alrahman, Cousens, Bustreo, Shadoul, Farhoud, & Mohamed El HassHan, 2003). Although not clearly documented, lack of financial resources to pay for patient travel to a hospital or clinic, may also influence a health worker to delay or decline referral.

Access to appropriate, affordable and timely transport affects women's ability to receive preventative and emergency obstetric care that is essential for their survival. The World Health Organization estimates that 75 % of maternal deaths can be prevented through timely access to childbirth related care (WHO 2001). Evidence suggests that most of the obstetric emergencies can be managed if Comprehensive Emergency Obstetric Care (CEmOC) is accessed within 12 hours of the onset of the complication. An exception is obstetric haemorrhage, which requires attention within 2 hours (UNFPA, 2006).

Timely access to care helps to reduce other long term maternal health problems including obstetric fistula, which is secondary to obstructed labour. The transport arrangements therefore, play an important role in achieving the fifth millennium development goal - to reduce maternal mortality by 75 % by 2015. In addition, the timely access improves overall maternal health.

At Rewa in India, Nadan et al (2009) reported that most of the respondents had planned for transportation (78.7%) in case of an emergency. For the majority, this was an arrangement for a private vehicle to provide transport if needed. The distance to a health facility is an obstacle that prevents women from reaching health facilities and is a factor influencing the decision to seek care. In many developing countries, facilities are not evenly distributed, with most located in urban areas. In rural areas, not only

are there fewer facilities, necessitating women to travel further to reach them, but women are likely to experience problems arising from scarcity of transportation. In Masvingo, a rural area of Zimbabwe, lack of access to transport contributed to 28 % of maternal deaths compared to 3 % in urban areas (Fawcus, 1998).

The lack of money and transportation are barriers to seeking care as well as identifying and reaching medical facilities (Thaddeus & Maine, 1994). Money saved by the woman or her family can pay for health services and supplies, transport, or other costs related to loss of work. If the woman can afford to pay for these costs, she is more likely to seek care. Advance transport arrangements reduce delay in reaching the health facility. It saves time, in emergency situations, that would otherwise be used to arrange for transport. An advance transport plan enables a couple to know what transport is available at different times of the day, how much it will cost, contact persons and addresses, and alternative modes of transport (Mutiso, Qureshi, & Kinuthia, 2008).

Distance.

Distance from health outlets and logistical difficulties such as finding an intermediate or motorised vehicle for patient transportation are linked with inhibited use of biomedical services and delayed health-seeking behaviours (Ensor &Cooper, 2004). Both of these factors are implicated in poor health outcomes and increased morbidity and mortality. This in turn impacts negatively on broader initiatives for safer motherhood, equitable access to health care, and reduction in maternal and neonatal mortality (Ensor &Cooper, 2004).

In Bangladesh, which suffers from extremely poor indicators of maternal and neonatal health, the International Centre for Diarrhoeal Disease Research, Bangladesh(ICDDR,B) identified distance (which also infers access and

transport) as a major barrier to accessing both facility- and home-based health services (ICDDR,B 2005). For women with obstetric emergencies, a distance of over 1 km from home to health outlet was found to be a significant detriment to access to peri-natal service delivery.

Martin, Wrigley, Barnett and Roderick (2002) reported that women have better access to health services and improved service provision by outreach workers in areas of rural Bangladesh that are near all-weather roads. This highlights the difficulty of access to emergency obstetric care and the lack of safe motherhood services at the village level. This is further complicated by cultural issues that mediate female mobility.

Quality of Care.

Understanding the patient's perception of the quality of care is important since a higher perceived quality of care is positively correlated with an individual's level of utilisation (Guebbels, 2006). The quality of facilities influences the frequency of use of maternal health services. Components of quality of care influencing an individual's decisions to seek health care include: quality care of the services, attitudes of personnel, knowledge and abilities of staff, availability of supplies, level of satisfaction with the diagnosis and effectiveness of the treatment provided.

The perception of low quality of care and inefficient service at health facilities has been found to influence the initial decision of a woman, her family or both to seek care. It also impacts on the decision of determining whether or not transport should be sought to reach a health facility (Babinard & Roberts, 2006). Lack of confidence in the quality of care, lack of available medical options, lack of equipment and services, and an abusive attitude of personnel were crucial factors in delaying or preventing

decisions to seek care (Barnes-Josiah et al. 1998; Stekelenburg, Kyanamina, Mukelabai, Wolffers & van Roosmalen, 2004).

In Malawi, Mc Coy et al (2004) found that many women had been mocked during labour, shouted at, and occasionally struck if they cried out in pain. These kinds of experiences are shared within a community and result in women feeling disinclined towards delivering in the same health facility. Like anywhere in the world, the perceived quality of care in delivery services consists of a perception of the technical quality and the interpersonal communication with which it is delivered. Whereas reception was often received as poor, overall 90% were satisfied with the care provided (Guebbels, 2006). These findings differ from findings in Mangochi, Malawi by Chimango, Seljeskog, and Sundby (2005). They reported that women who delayed in care seeking or were non compliant with referral care instructions reported this was a result of previous negative experiences with the health care system. Other reasons identified were distance and a lack of money.

Care received during previous pregnancies may influence actions taken during the current pregnancy and may result in a delay in the decision-making process (Babinard & Roberts, 2006). The authors note that women or their relatives used previous pregnancies as a risk- predicting tool. Many women had delivered alone or felt they had been insulted by staff even when being cared for in a health facility.

Conclusion

This chapter has provided a review of previous research studies related to obstetric care services. The conceptual framework of the Three Delays Model has been discussed and guided the literature review. The review indicates that most developing countries continue to struggle with difficulty in attaining obstetric care.

Several factors have been identified as preventing women from accessing basic obstetric care. These include socioeconomic factors, cultural factors and distance to the health facility among others. From the literature review, it is clear that there is limited information about Malawi and what contributes to delays in seeking emergency obstetric care. The next chapter discusses the research design and methodology used to explore factors which delayed postnatal mothers to access basic obstetric care at Khombedza Health Centre in Salima District.

CHAPTER 3

Research Design and Methodology

Introduction

This chapter describes the research design and methodology used to explore factors leading to postnatal mothers to delay in access emergency obstetric care at Khombedza Health Centre.

Research Design

This was a descriptive, cross –sectional design using a qualitative phenomenological methodology. A descriptive design was chosen to give a detailed description of the delays in accessing obstetric care. The cross-sectional design was used because it is cost effective and the participants were selected during one period for data collection.

Qualitative research refers “to a systematic, interactive, subjective approach used to describe life experiences and give them meanings” (Burns & Grove, 2009). The use of qualitative methodology allowed the participants to speak freely about their personal life and experiences.

Setting

The study was conducted in Salima district in the central region of Malawi. Specifically the study was conducted at Khombedza Health centre. This health centre is one of the health centres which provides Basic Emergency Obstetric Care (BEmOC) services in the district (Figure 3)

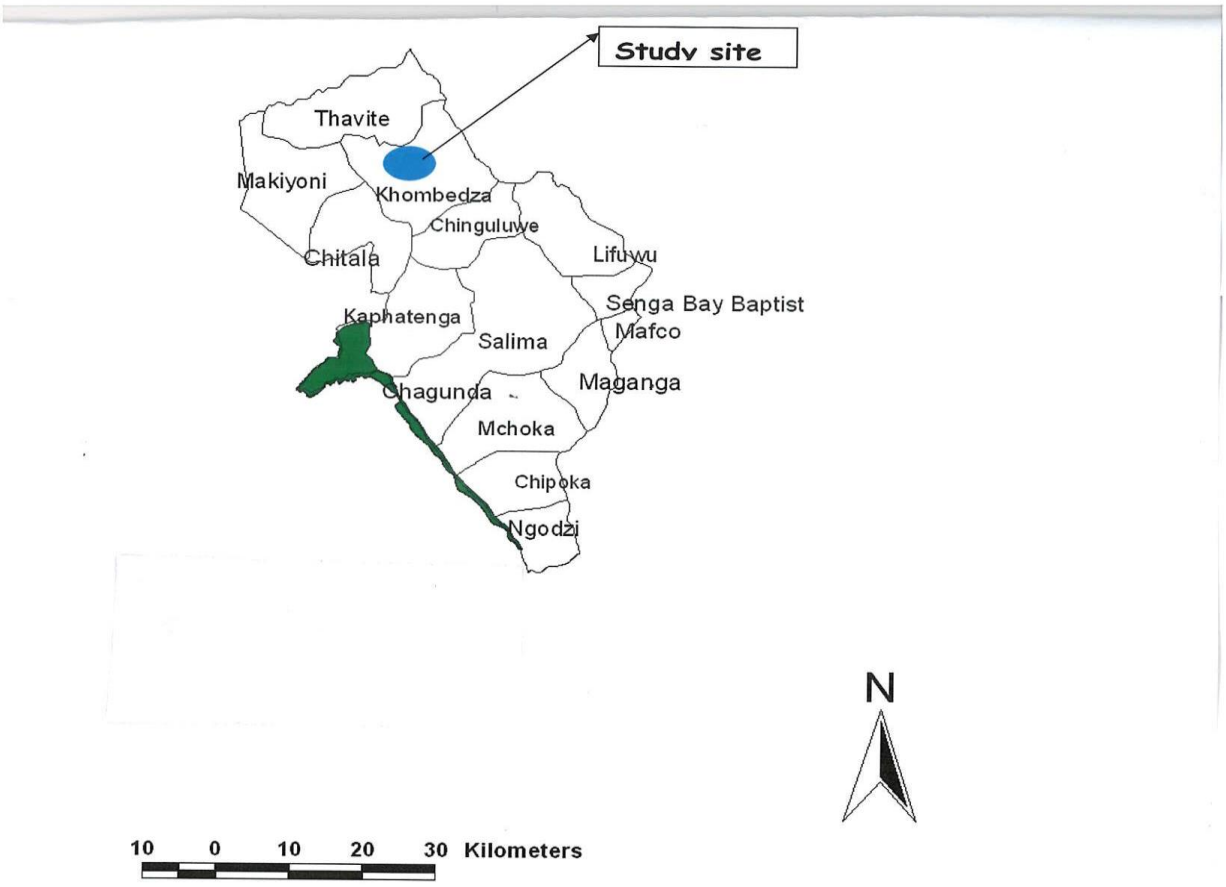

Figure 3: Showing Map of Salima Health Facilities and the Study Site

Salima district has a population of 371, 938 with 85, 546 women of child bearing age and approximately 18, 597 deliveries per year (NSO, 2011). The district borders Nkhotakota to the north, Dowa to the west, Dedza to the south, and Lake Malawi to the east. Salima district health office has one district hospital, twenty health facilities (9 Government and 5 CHAM), 2 armed forces and 4 private clinics. Of these health centres, fourteen provide maternal health services.

Khombedza Health centre serves the population of 151,535 and 11,852 are women of child bearing age. It is expected to conduct 2, 577 deliveries per year. Out of this 387 deliveries expected to require emergency obstetric care. The site was

chosen because it conducts more deliveries than other health centres in the district. From January 2010 the facility provided antenatal care to 5,098 clients, and 1,473 deliveries took place with an average of 122 deliveries a month. A total of 214 (14.5%) pregnant women were referred for comprehensive emergency care to the district hospital in the year 2010. Additionally, 20% of mothers delay in seeking basic emergency obstetric care each month.

Target Population

The target population of the study was postnatal mothers at Khombedza Health Centre who arrived in advanced first stage of labour (delayed in seeking emergency obstetric care) and who attended antenatal care at least once. It was assumed that women who delivered had access to emergency obstetric care and prepared for hospital delivery. Those who attended antenatal care at least once were assumed to have been informed of BP/CR during their antenatal visit/s. It is expected that women would be able to remember what they were told antenatally regarding BP/CR.

Eligibility criteria and exclusion criteria

To be eligible for the study, women had to have;

- Delivered a live infant.
- Attended antenatal care at least- one visit during this pregnancy
- Arrived at the health facility in advanced first stage of labour
- The ability to communicate in English or Chichewa

Exclusion criteria.

The study excluded women who;

- did not attend antenatal care
- arrived in early labour
- were sick or mentally disturbed at the time of study
- were not able speak or communicate in Chichewa or English, and
- had not delivered

Sampling and Sample Size

Sample size.

Initially sample size was 30. However during data collection saturation was attained with a sample size of 13. Two more participants were added to confirm the data saturation, therefore the final sample was 15. Data collection continued until no new information was emerging implying that data saturation had been reached (Polit & Beck, 2006). According to Speziale &Carpenter (2007), saturation signifies completion of data collection on a particular phenomenon.

Sampling.

Purposive sampling was used to identify participants meeting the inclusion criteria of the study. Purposive sampling was done with the assistance of midwives who identified those who delayed to seek and reach emergency obstetric care. Once identified, the researcher determined if the woman met the inclusion criteria. If eligible they were asked if they were willing to participate in the study. According to Polit and Hunglar (1999) purposive sampling is a form of non probability sampling whereby the researcher already knows something about specific people to participate

in the study and so deliberately selects subjects because they are seen as likely to produce the most valuable data. That is, respondents are chosen because they have particular features or characteristics which enable detailed exploration of the objectives.

Data Collection

Research instrument.

A semi-structured interview guide was used to conduct interviews (Appendix E). This provided a framework for the researcher to focus on the interview, and two way communication with the participants. The interview guide contained open ended questions which guided discussion. Semi structured interviews allow participants the freedom to express their views in their own terms (Polit & Beck, 2006).

A semi-structured interview guide was used to collect data during the month of August 2011 (Appendix G). To evaluate the content of the interview guide, two pre-test interviews to two postnatal mothers from the district hospital were conducted to become familiar with the questions and obtain feedback for refinement of the questionnaire. The interview guide was shared with experts in the field. The areas of focus during the interviews and discussions were; socio economic factors, cultural factors, accessibility to health facility and quality of previous care (Appendix E). The interview guide was translated into the vernacular language for easy communication with the respondents. The interviews were audio taped using a digital recorder.

Data collection process.

The researcher arrived at Khombedza Health centre at 8 a.m. daily during the days of data collection. Upon arrival at the health facility, the researcher reported to the nurse/midwife in charge. The nurse/midwife reviewed the admission records in order to identify those who delayed in arrival at BEmOC site. To avoid stigma and discrimination, eligible participants were recruited by the midwife at the facility. The midwife briefly described the objectives and procedures to eligible clients and sorts their consent. Individual clients who expressed interest in to participate in the study were referred to the researcher who described the study in detail and obtained informed consent.

The researcher conducted the interviews. Each interview was conducted in a private room within the health facility to ensure privacy and confidentiality. Infants were kept with the mothers during the interview to facilitate breastfeeding and promote bonding. One to two participants were interviewed on a daily basis and data transcription and analysis was completed following the completion of the interviews. Constant review of data was done to refine questions or to probe and gain in depth information.

Field notes were taken by the midwife to gain an impression of the informant's surroundings, nonverbal cues (emotions, facial expression) and other contextual factors. These observations were included in data analysis. Data was collected using a semi-structured interview guide (to ensure that the same information is obtained from each person) and observations. Observational data was used for the purpose of description of the activities, people and the meanings of what was observed from the perceptions of the participants. Combining interviews with observations was important since observation can lead to deeper understandings than interviews alone.

This combination of data collection procedures provides awareness of the context in which events occurred and enabled the researcher to see things that participants themselves were not aware of or that they were unwilling to discuss (Patton, 1990 as cited by Ulin, Robinson, Tolley &Mc Niell, 2002).

Data Management and Analysis

Each interview was transcribed in Chichewa (Malawian language). The researcher did the transcribing herself to ensure accuracy of the transcription. Data was translated into English. To ensure validation of data, an independent person did the translation of data from English back into Chichewa. Data was analyzed manually through thematic content analysis (TCA). This is a descriptive presentation of qualitative data (Anderson, 2007).

This analysis involves reading and rereading interview transcripts several times, organising, labelling and coding of variables into themes. Data was grouped by responses to each probe. Similar responses were grouped together into themes. Major themes and sub themes were identified. Exemplars were selected to represent each theme and sub theme. These sub themes were compiled. The analysis was completed manually through thematic content analysis. Through this process the researcher was able to discover themes, ideas, and explanations.

Trustworthiness

Trustworthiness of the data was supported by meeting the criteria for transferability, dependability, confirmability, and credibility (Golafshani, 2003).

Transferability.

For the findings to have meaning to others in similar situation, sufficient data was provided in the report to ensure applicability of the study findings to other contexts.

Dependability/Confirmability.

An audit trail with specific details of the research process and a recording of activities over the length of the research period was maintained. The audit trail consisted of raw data, analysis notes, reconstruction and synthesis products, process notes, personal notes, and preliminary developmental information.

Credibility.

Credibility was assured through prolonged engagement with the subject matter and the participants during data collection. This was ensured through building of a good rapport to make participants comfortable. Additionally, the interview guide was reviewed with experts in the field to assure content of the interview guide was consistent with the phenomenon of interest.

Ethical Considerations

The proposal was approved by the University of Malawi, College of Medicine Research Ethics Committee (COMREC) in May 2011 (Appendix H). Permission was obtained from the District Health Officer (DHO) of Salima district and the officer in-charge from Khombedza Health Centre (Appendixes A & B) in which the study was conducted. In addition to seeking clearance from the authorities, the participants were informed in detail about the study and a signed informed consent was obtained from each participant (Appendixes C & D). Participant's are as autonomous individuals, have the right to choose to either participate in the study or not. This included the

purpose and duration of the study, methods and procedures of data collection, the risks or discomforts, and benefits of the study to the participants. How data would be used and the benefits of the study to the community and the nation were also communicated to the participants. The participants were informed that their participation was voluntary and that they could withdraw the consent at any time during the study period without any penalty. At the end of the explanation participants were asked to sign a consent form before participating.

Anonymity and confidentiality of the participant's responses were maintained throughout the study by the use of identification numbers instead of names on transcribed data. Information which was obtained from the participants was kept secret, and the scripts and the tape recorder were stored in the locked cabinet which was accessible by the researcher only. Data analysis was expressed as group information and not individual identification or responses. Upon completion of the thesis process the recorded transcripts were destroyed. Furthermore, the participant's right to privacy was promoted by making sure that the interviews were conducted in a quiet, private, and closed office where a third person could hear the conversation.

Avoiding harm and risk are basic human rights to be considered when conducting research on human subjects. Risks that can be encountered in research include physical, psychological, emotional, social, and financial. A possible risk for this research included psychological risks from the discussions, and some of the questions the participants might be uncomfortable to answer. To minimize anxiety and emotional stress the researcher ensured a good rapport with the participants. Interviews were conducted in a private room, with closed windows to ensure privacy and confidentiality. Drinks and snacks were served as a matter of refreshment. The researcher was aware of time constraints and assured that the interview was completed

within the specified time. Lastly, the participants were asked to sign the consent form after full explanations regarding the intention of the study, procedure and duration of the study, methods of data collection, and how data were to be used. Benefits too and how risks were minimised was discussed with the participants before participating in the study.

Conclusion

This chapter has discussed the design and methodology used in the study. The next chapter presents the findings of the study

CHAPTER 4

Results

Introduction

This chapter presents the findings of the study which explored factor leading to postnatal mother's delay to access basic emergency obstetric care at Khombedza Health Centre in Salima District, Central Region of Malawi. The objectives of the study were to: examine socio/economic factors of postnatal mothers who delayed in reaching obstetric care; examine cultural factors of the postnatal mothers; assess their comprehension of BP/CR; examine the accessibility to obstetric care of the postnatal mothers; and to determine previous quality care received by the postnatal mothers. The results are presented using the three delay model by Thaddeus and Maine, 1994.

Socio Economic Factors

Demographic characteristics of the respondents.

Results are reported from a total of 15 postnatal mothers who had delivered within the previous12 hours and had delayed in arriving at the facility for delivery. The results indicate that 53.3% (n= 8) of the mothers were in the age group of 20- 35 years with mean age of 25 years and the age range was 18-40 years. Sixty percent (n= 8) were Chewa by tribe and 33.3% (n=5) were Yao and only two participants were Ngoni and Tonga. In terms of the marital status of the mothers, 100% (n=15) were married. Detailed demographic characteristics of the participants are shown in Table 1.

Table 1: *Demographic characteristics of the mothers who delayed to access basic emergency obstetric care at Khombedza health centre*

Characteristic	**Frequency**	**Percentage**
Age Group		
15-20 years	3	20 %
21-30years	8	53.3 %
31- 40 years	4	26.4 %
Tribe		
Chewa	8	53.3%
Yao	5	33.3%
Tonga	1	6.7%
Ngoni	1	6.7%
Marital Status		
Married	15	100 %
Number of children		
1-4	5	33.3%
5-8	6	40 %
9-12	4	26.7%

Regarding education qualification, 73.3% (n=11) attended school with 66.6% (n=10) of them having some primary school education. Only one woman (6.6%) managed to attend secondary school. Those without education were 20% (n=4). Furthermore, the findings indicated that majority of the mothers were local farmers 46.7% (n=7), 33.7% (n=5) were engaged in piecework and 20% (n=3) are engaged in business. Detailed socio-economics characteristics of the participants are shown in Table 2.

Table 2: *Socio- Economic Characteristics of the participants*

Characteristic	**Frequency**	**Percentage**
Income per month		
Less than K1, 000	2	13.3%
K2, 000- K5, 000	8	53.3%
K6, 000-K10, 000	3	20%
K6, 000-K10, 000	2	13.3%
Educational level		
Non schooling	4	26.7%
Non schooling	10	66.7%
Secondary level	1	6.7%
Activities		
Local farmer	7	46.7%
Piece work	5	33.3%
Business	3	20%

Most of the participants were unable to estimate the distance from home to the facility. Therefore the researcher verified with the Assistant Environmental Health Officer from Khombedza health centre on the actual distance (Table 3).

Table 3*: Distance to the health facility.*

Distance in Km	**Frequency**	**Percentage**
1-5	3	20 %
6-10	2	13.3%
11-15	3	20 %
16-20	7	46.7%

Summary of the outcome of labour.

All the participants attended antenatal care. Most of them had attended three visits 54.3% (n= 8), four visits 26.7% (n=4) and two visits 20% (n=3) All the women arrived in advanced first stage of labour at the health facility for delivery. Most of the women arrived whilst the cervical dilatation was at 8 centimetres 33.3 % (n=4) , 26.7 % (n=4) arrived at 10centimetrs, and the rest arrived at 9 centimetres 20% (n=3) and 20% (n=3) came in second stage of labour. Despite their delay to access basic emergency obstetric care at Khombedza health centre, all the participants had a good infant outcome (Apgar score). The Apgar score ranged from 8/10 to 10/10. Most of them had an Apgar of 9/10 then 10/10 (n=11) and 23.3% had 8/10 then 10/10 (n-4).

Qualitative Results

Five dominant themes emerged as factors that lead to postnatal mothers delay in accessing basic emergency obstetric care Khombedza health centre in Salima district. The themes included: the decision to seek care, information content, and knowledge of obstetric complications, accessing care and client satisfaction with care.

Cultural Factors

Decision to seek care.

When the decision to seek care was made, it emerged that there were different people that influenced the participants to seek obstetric care at the health facility. It emerged from the data that participants received guidance from a variety of sources. They reported that when the labour pains started the women had to consult family members which included; mother, mother in law, or spouse, to assist in decision making. The need to seek approval from others was noted to delay their decision to

seek care. The participants relayed that they made the decision after the consultation. This was reflected in one of the following response:

> I have my grandmother who told me what to do and my mother too tells me what to do. My first born who did not survive was delivered at the TBA. Therefore, when labour started, they told me that we have to go the hospital to have a delivery (Participant # 7).

Mothers and husbands were frequently the decision makers as narrated by two participants. Participant # 12 commented; "After informing my husband it was him who informs my mother so that she should go with me to the hospital". And participant # 10 added to this point as follows; "When I explained to my husband that I have started labour pains he told me that we have to go to the hospital to get treatment".

Similarly, women had mixed and conflicting views about whom within the community is the chief decision maker about seeking obstetric care during pregnancy and childbirth. This confusion was noted to contribute to a delay in seeking care.

Participants indicated that they go and inform the chief for him to know that one member from his village has gone to the hospital. Some participants mentioned that the chief encouraged pregnant women from the village to go and seek emergency obstetric care at a local health facility as stated by participant # 5 that; "Upon looking at the problems which arise due to pregnancy and child birth, the chief directed that every pregnant woman should deliver at the health facility".

The chief made this as a law governing his village. One of the participants had to say this:

> Yes the chief made it as a law that every pregnant mother should go to the hospital. If she fails to go to the hospital and delivers at home or delivers on the way to the hospital she will be required to pay a goat *(*Participant # 1).

TBAs and members from women groups in the safe motherhood project encourage women to deliver at health facilities and will often give them advice about the importance of facility delivery. These women groups go into the homes and teach them about good obstetric care. Some participants mentioned that women from a women's group are the ones that encouraged them to seek obstetric care.

> She taught us that some women deliver at the hospital some at the TBA. And she also asked us about the experiences of those who deliver at the hospital. Those of us who delivered at the hospital shared our experiences. A facilitator from the women's group advised and encouraged us to deliver at the hospital (Participant # 9).

It emerged from the data that participants received varying amounts and types of health education during their antenatal care. The period of antenatal care is used as an opportunity for the health workers to provide health information to the clients on birth preparedness and obstetric complications. Findings will be grouped into education about birth preparedness, and information content during ANC.

Information content during ANC

The data indicates that participants were not told about birth preparedness by the health workers during their antenatal visits. The postnatal mothers reported that the midwives did not provide them with information or advice but rather the midwives concentrated on examining the women and giving them medicine during their visits as

narrated by participant #2; “What she (health worker) did was to record my weight, tested my blood, examined my body and gave me some medicine and told me the day for the next visit”.

A participant who made an effort of to attend the entire four recommended visit and delivered before the next visit reported that:

> She (the health worker) did not tell me anything because she told me to come here at the hospital on 4 July 2011, may be she felt that there was still some time. May be she felt that she would tell me during the last visit, I mean on the 4th of July (Participant # 11).

Some participants were told to prepare the following items for the baby, which were items covered in only one component of birth preparedness; plastic paper, basin, razor blade and “*chitenje”* (wrapper).

Knowledge of birth preparedness.

The study participants reported that they were told to prepare in advance a few items for the baby by the health workers. A few of the participants indicated that they were not told anything during the antenatal visits about birth preparedness. It emerged that women were told the following; “I heard that birth preparedness is preparing for the baby when you feel some pains in the body. That is the time you start buying chitenje, basin, paper, razor blade and thread” (Participant # 15).

Birth preparedness is having the following items in place; pads, wrapper for the baby, basin, plastic paper and the mother need to buy new half petticoat, and pants, which will assist them during delivery.

***Place of delivery*.**

Birth preparedness encompassed other elements like place of birth, transportation, and blood donor issues. Almost all the participants indicated that they were told to deliver at the hospital. One participant (# 13) said she was told to deliver not at home but at the hospital and her narration was as follows; “I was told to deliver not at home but at the hospital because at the hospital there are a lot of things which the doctors use”.

Transportation.

Arranging transport in advance is associated with use of skilled birth attendant. It emerged that few participants were informed to save money in advance in preparation for transport. Money saved for transportation was used for other purposes rather than to provide emergency transportation to the health facility. For the few participants who saved money for transport they however did not use the money during labour as narrated by participant # 14; “No, I saved the money but the person who kept it for me was not around the time I was supposed to come here. So I borrowed the money to use it as transport”.

Another participant narrated that she was told to save the money but by the time she wanted to use the money, it was not available:

> I was told by the midwife to save money little by little, so when my husband gives me some money I used to save some. This money was supposed to be used to pay for transport in case labour starts and I do not have money. Then I could take the bicycle taxi to the hospital. This is important because one could not foretell if the husband would be around during the time of labour. As a result I used to save the money but it just happened that I used it because of other problems before labour started (Participant #6).

One study participant indicated that she saved the money not for transport but to be used for the celebration of the baby; **"**I saved the money in order to prepare for the celebrations for the baby when the baby is born" Participant # 1.

Some study participants did not save money to be used as transport because they had bicycles in their homes. Although, they had readily available transport in the home the time they wanted to use it the transport was not available as reported by participant # 11; "My husband went to watch a football match with the bicycle so I was waiting for him when labour started to take me to the hospital". Similarly, participant # 15 indicated that; "My husband was not around he went to the lake to buy fish so I was waiting for him to pick me up to here (health facility)".

Blood donor.

Another important component of BP/CR is identification of a blood donor. Participants gave a wide variation in what they were told about blood donor identification. Some of the participants indicated that they were told to identify a blood donor. Those who identified the blood donors actually informed them about the issue although the blood donors did not accompany them to the hospital. As narrated by two of the participants:

> About blood donor the health worker said that every woman should come with the man who was going to donate blood and the man should be nearby because sometimes you might need the blood and they will need to take blood (Participant # 5)**.**

Another woman (Participant # 8) stated; **"**The midwife said that if blood will be needed I need to come with the blood donor who will give me blood however, it happened that I did not encounter any problem hence transfusion was not required".

Knowledge of obstetric complications/ danger signs

A few study participants were able to identify specific obstetric complications/danger signs which a woman and or her baby would encounter during pregnancy, labour and delivery, or postnatally. Some of the participants were not able to identify the complications.

Antenatally.

It emerged that the most of the participants were able to articulate some danger signs such as bleeding, excessive bleeding, convulsions, heart palpitations, and dizziness. Several participants were not able to identify any obstetric danger signs Others participants mentioned danger signs such as abdominal pains, general body pains, being HIV positive and oedema of the legs as narrated by participant # 1; "Another danger sign is that sometimes you may be tested HIV positive. Therefore you receive some help when you came to the hospital".

Labour and delivery.

Generally, from the data, it emerged that there was an overall lack of knowledge about danger signs during labour and delivery. Most of the participants mentioned the following danger signs; draining of liquor, backache, lower abdominal pains, retained placenta, oedema of the legs, general body pains however these are signs of labour and not danger signals. Others looked at being HIV positive as a danger sign too. Few others failed to identify any danger signs as narrated by one participant below; "As for me I was not told anything about the danger signs or any particular advice during all the three visits I attended" (Participant # 8).

Postnatally.

The interviews revealed that there was an overall understanding of danger signs during postpartum as a majority of the participants mentioned the following danger signs; retained placenta, excessive bleeding, heart palpitations, dizziness and fever. Almost all the participants mentioned bleeding as the danger signs. As narrated by participant # 9; “Some of the danger signs are like retained placenta and after they removed it you could feel better. Another danger sign is excessive bleeding”. Other participants failed to mention any warning signs postnatally.

Newborn.

The participants were able to identify danger signs in the newborn. Some of the danger signs that were mentioned include; jaundice, bleeding from the cord, continuous cry, fever, refusing to breast feed, not able to pass stool and urine, twitching, convulsions. All participants were able to mention at least one danger sign. As reported by participant # 13; **“**When the baby is born, some of the danger signs could be convulsions, twitching, refusing to breast feed and shivering if you see all these signs you have to report to the doctor”.

Although it appeared that most of the participants were able to identify danger signs, some of the participants did not mention any danger sign for the newborn. Few others mentioned abdominal pains, coughing, yawning, tetanus, and shivering as the danger signs for the baby.

Accessibility to health facility factors

Accessing care

It emerged that there were a diversity of responses on how women accessed the local health facility for obstetric care. The ways of accessing the facility were grouped under the sub themes of distance, means of accessing care, and time to reach care.

Means of accessing care.

Participants reported that they accessed care at Khombedza health centre by means of walking, using a car for public transport simply known as "*matola*", and bicycle. Most of the participants used the bicycle. This included using their own bicycles or a bicycle taxi commonly known as "*dampa".* Despite being within the walking distance, almost all the participants preferred using a bicycle taxi as it is a common means of transport in the area, as well as in the entire district. Some participants reported that they walked to the health facility to deliver. Although a car was mentioned as means of transport none of the participants utilized it with the current delivery.

Participant # 6 noted: "I did not use the car especially that the road is dusty and the cars do not frequently use the road".

Cost.

Those that used bicycle taxis paid fares ranging from K50.00 to K300.00 per trip. During the night transport costs were higher than during the day as narrated by participant # 15; **"**During the night they charged me K300.00 and I paid a return fee of K600.00, because during the night it becomes expensive. I came with my mother in-law".

The issue of ox cart "ngolo" as the means of transport was only mentioned by one participant; "She (health worker) also advised me that your husband should take you on the bicycle to the hospital or if there is an ox cart you have to use it so that you arrive at the facility in good time.**"** (Participant # 4).

Distance.

It emerged that the most of the postnatal mothers were not able to quantify the actual distance (in kilometres) they cover to access care at Khombedza health centre. Responses varied from being "not far" "far" to "very far". As narrated by the following participants; **"**It is not very far, may be I can say that it is almost 15 centimetres. Some laughing aaah!.....15 centimetres is really very little but it is not very far from here (hospital)"(Participant # 2)**.**

While the other participant (# 7) indicated that; **"**The distance from my home to the hospital is about 100 metres"

Those that were able to estimate the distance in kilometres were not even sure as indicated in the following response; "The distance from my village to here (at the facility) is almost 10 kilometres" (Participant #3).

Looking at the problem of unable to estimate the actual distance the researcher verified with the assistant environmental health officer for the actual distance (Table 3).

Time spent to reach care.

The data indicated that the most of the participant indicated that they took several hours travelling. Participants stated that they took almost two to three hours travelling. "When I started off at 7 o'clock in the morning I arrived here at the facility when the time is almost 10 o'clock" (Participant # 13).

Another participant (# 8) narrated that; “Like for yesterday we started off at around 5 o’clock and we arrived here at around 7 o’clock in the evening”.

Quality of care factors

Client satisfaction with care

The participants gave insight regarding the care they received while they were pregnant. Additionally they relayed their previous experiences with the care they received from the facility or any local facility. Most of the respondents were happy and satisfied with the care and praised the health workers as narrated below.

Antenatally.

Almost all the participants reported that they were happy with the care they received antenatally at the facility. The leading factors for patient satisfaction were good care, and receiving treatment with respect. Most of the participants indicated that they were examined, weighed and given some medicine. They were not shouted at. As cited by this participant:

> “They (health workers) cared for me very well in all the antenatal visits until I was through with the antenatal care. She told me that “this is your last month you should not came for antenatal care, but you should come here when labour starts (Participant # 12).

Labour and delivery.

The participants indicated that the hospital staff received them in a friendly way. One participant indicated that at the facility they were given the liberty by hospital staff to go straight to the labour ward when the labour started. Others indicated that they do not face problems as the hospital staff gave them good care.

"When I came for delivery they gave me an injection. I was told that the injection will help to prevent me from bleeding severely" – Participant # 13. The other one (# 15) also reported that; "The time I came for delivery they cared for me up to the time I delivered and the baby was born without any problems"

Previous care received.

Almost all the participants were satisfied with the previous care they had been receiving at the facility. They also reported that they had been receiving good and friendly care from the hospital staff. The responses showed that hospital staff were friendly, caring and professional. However, it was discovered that it is the new cadre of staff that have brought the positive change. Previously, clients used to be ill-treated at the facility as narrated below:

> I have been delivering at this health facility. The hospital staff were not as friendly as this time, they used to be cruel, they would shout at you and sometimes they used to send you away. Some would send us outside, but this time the situation has improved. We have friendly staff (Participant #1).

Conclusion

In this chapter, the findings of the study have been presented, according to the major themes that merged from the data analysis. The themes which merged were: decision to seek care, information content, knowledge of obstetric complications accessing care, and client satisfaction with care. The next chapter discusses the findings of the study; implications for practice, nurse/midwifery education, management and research; and recommendations based on the conclusions drawn.

CHAPTER 5

Discussions of Findings and Recommendations

Introduction

This chapter presents a discussion of the findings of the study whose purpose was to explore factors leading to postnatal mothers delay to access obstetric care at Khombedza health centre in Salima district in the central region of Malawi. The discussions are guided by the three delay model. The discussions have centered on how socio economic factors, cultural factors, knowledge of danger signs, decision making, accessibility to health facility and quality of care factors explains post mother's delay in accessing basic emergency obstetric care (Thaddeus and Maine, 1994). In addition, strengths and limitations of the study, recommendations on how the services can be improved to increase access to obstetric services are made.

Summary of Outcome of Labour for the Participants

All the study participants had given birth to live babies despite the fact that they arrived at the health facility in advanced first stage of labour and they were not monitored. Pregnant mothers are encouraged to arrive at the facility in early labour in order for the midwives to monitor them so that if there are problems, they should be identified early to prevent complications. In Malawi, mostly through experience women arrive in labour when they are in latent phase of labour. This was not the case with the participants because all of them came in late active phase of the labour. Several factors contributed to the delay in seeking and reaching obstetric care and these will be discussed later in the text.

Delay Number One: Delay in Deciding to Seek Care

Delay number one is delay in decision to seek obstetric care. This was examined through the socio/economic and cultural factors, knowledge of obstetric complications and through how decision making are made by the postnatal mothers. Several socio-demographic characteristics of the individual have been reported to affect the tendency of women to seek maternity care. Specific demographic variables that have been identified are maternal age, education, marital status, traditional beliefs or ethnicity, mother's education, mothers' autonomy (decision making), occupation, and income levels. These findings are related to the theories related to the utilisation of maternal health services (Addai, 2000).

Socio Economic Factors

Maternal age.

The results of this study indicate that mothers were in the age group of 18 years to 34 years with the mean age of 27 years. These findings are consistent with the average age of women delivering in Malawi. In addition, all the postnatal mothers participated in the study were within the age range of women of childbearing age (WCBA) which is 15 to 49 years. The study participants reflected age groups that are considered the lowest risk of obstetric complications. Consequently, they may not realize the urgency of seeking care in a timely manner.

Furthermore, this may be associated with the fact that members of high risk groups are told by the health workers to deliver at the district hospital. This sample was recruited from the health centre which is not designated to deliver the high risk group.

Marital status.

All the study participants were married. Nationally, 58.7% of the mothers were married, 9.3% divorced, and 19.8% never married. Data from Salima district indicated that 42.8 % of women are married (NSO, 2011). Sample varied from national statistics because in the study sample, one hundred percent of women were married and nobody was divorced or separated. Marital status may influence the choice of delivery place, probably via its influence on female autonomy and status or through financial resources (Gabrysch & Campbell, 2009).

In Malawi. most decisions including those related to their wife's health, are made by husbands (Guebbels, 2006). The results of this study indicate no association between delay and marital status as all the participants who delayed were married. However, it was found that the husbands used the means of transport which had been designated for transport to the hospital, for other purposes such as using the bicycle to go and watch a football match and to go to the lake for business.

Education of mothers.

The results of this study reveal that the level of education of the participants was very low. This is consistent with the education status of women in rural areas in Malawi, It is estimated that 15.2% of Malawian women are non- educated, 64.8% attained primary school education and 18.1% secondary education (NSO, 2011). Similarly, in the study sample, a majority of the postnatal mothers had some primary education and others did not attend any school. Only one participant had attended secondary level but only reached form three. The results did not vary from the expected education level of the participants as the study setting where all mothers came from Khombedza area which is a rural area it is to be expected that only half of

the participants had some primary education.

Increasing levels of educational attainment are likely to enhance the capacity of women to obtain, process, and understand basic health information about the benefits of good prenatal care and the reproductive health services needed to make appropriate health decisions (Karlsen et al, 2011). Women with higher education may be less likely to accept traditional explanations for life and death. In addition, McAlister and Baskett (2006) found that educated women may adhere to broad information about the signs of pregnancy complications. This is one of the key importances in the drive to reduce maternal deaths. If one is aware of the signs of pregnancy complication is more likely to act fast and prevent delays. Furthermore, more educated women are likely to be more confident about asking questions regarding their health care needs and are more likely to be listened to by health care professionals (Guebbels, 2006).

A study done in Ethiopia found that literate mothers were more likely to be prepared for birth/complication than those that were illiterate (Hiluf & Fantahun, 2007). Similarly a study conducted by McCoy et al (2004) found that when women are educated and improve their social standing, they are better able to make decisions that influence their health. Therefore, once labour begins educated women are more likely to go and seek obstetric care in a timely manner than those with less education.

In Malawi, higher education of women is associated with an increased likelihood of seeking care in a maternity unit. This may be attributed to the fact that a higher proportion of educated women live in urban areas where health facilities are more accessible. It is likely that a higher education status allows women to successfully access the household resources required to deliver in a health facility (McCoy et al, 2004).

Cultural Factors

In the study, it was observed that mothers respected their elders by giving them the power to make decisions about when to proceed to the clinic. Chimango et al (2005) reported that in Mangochi, pregnancy, delivery and motherhood matters, are issues of the older women in the community; like mothers, grandmothers and mothers-in-law, who are trusted and perceived knowledgeable, and their advices were taken seriously. In addition, women have reported using traditional medicine such as herbs which affected their use of maternity services and therefore, delayed them in seeking care (Chimango et al, 2005). However, participants did not mention any use of traditional medicine. Several studies carried out in Africa and elsewhere have highlighted how culture influenced the health care seeking process (WHO, 2004).

Likewise, in Gambia, it was revealed that society value that older women in their menopause are experts on pregnancy and childbirth. This is particularly true in rural areas of the country. These women are consulted if a complication is noticed during pregnancy, labour or during the puerperium. When consulted, they usually decide what should be done and their advice is taken. Words of elders are hardly challenged in Gambian societies (Cham, et al, 2005).

Brown defined culture as a 'complex whole' that refers to the learnt pattern of thoughts and behaviour characteristics of a social group (Cham et al, 2005). It involves religion, kinship, knowledge, belief, art, morals and child bearing practices. In this study, participants had a belief that they had to inform their mothers or husbands before they started off to the hospital. The presence of their husband was noted by some participants to delay their movement to the hospital. The White Ribbon Alliance (2004) in India reported that socio-cultural factors can inhibit the use of EmOC facilities despite financial accessibility. In addition, the belief that labouring

women should not be seen going to the health facility during the day was identified as a factor which contributed to mothers delaying access. The mothers reported delaying to seek care as they were waiting at home, until after dark, so that they should not be seen.

Decision making.

Most of the participants in this study indicated that they had to consult significant others before making a decision of going to the hospital. The postnatal mothers indicated that they had to consult either their mother, mother in-law, or their husbands. At the community level the mothers had to consult the chief or the women's group from the village. In many countries, women cannot decide on their own to seek care, but must seek permission from a husband or mother-in-law. UNICEF (2006) reported similar results from countries, like Burkina Faso, Zambia, Armenia, Nepal, and Haiti, where significant percentages of women reported that their husbands alone make decisions regarding their health. In general, the husband or partner is the most influential decision-maker and, even if others offer their opinions, he will be the one to make the final decision.

In societies in which the womans'social status is low, the relatives make decisions related to seeking medical care (Rogo, & Aloo, 2001). This is consistent with the findings of this study in which the mothers were of low status, had low education levels, and did not have reliable sources of money. Therefore, they relied on their husbands. Generally residents of poor communities tend to delay decision making or make slow decisions when there are complications. Furthermore, women may lack control over material resources needed to pay for expenses, their mobility may be restricted, or they may lack access to vehicles or even bicycles.

Patriarchal attitudes and deep-rooted stereotypes regarding the roles and responsibilities of women and men in the family can limit women's control over their sexual and reproductive health. Women's lack of decision-making power can limit their access to health care and negatively affect maternal health outcomes. In many societies, men control household expenditures and decision-making in the family and families may be reluctant to use scarce resources for women's health (WHO & IGWG 2005).

Likewise, in the study, results indicate that women were reluctant to use the money which was available without the approval of the husband, thereby, delaying to seek care as they had to wait for their approval. In Malawi, especially in the rural setting due to culture, women are not permitted to make decisions without consultation due to lack of empowerment.

Information content.

The study revealed that some midwives did not routinely provide women with information on birth preparedness and complication readiness as part of ANC rather information on nutrition was given. Similar findings were reported by Okour, Alkhateeb and Amarin (2012) where only one quarter of the study group reported being informed of the danger signs and symptoms by the health workers during prenatal care.

Education of mothers regarding BP/CR is an integral component of all antenatal visits in Malawi. Inadequate information given on pregnancy complications can hinder women and their families from recognizing danger signs of pregnancy, what to do if complications arise, and where to get help. This can afterwards delay care seeking of skilled attendants to manage the obstetric complications leading to maternal and neonatal morbidity and mortality.

Similarly, Anya, Hydara, and Jaiteh (2008) demonstrated that women who do not have adequate and appropriate information about pregnancy and child birth are ill equipped to make choices that could contribute to their own well being. The quality of the information given during pregnancy ultimately affects maternal and neonatal health. On the other hand, having access to information through modern media could influence women's knowledge about delivery risks and availability of services (Gabrysch & Campbell, 2009).

Similar results were found by Haq, Hafeez, Khanum & Southall (2009) that access to media in India was at 59% and the majority of the population relies on doctors, paramedics and family members for advice on health. In Malawi, many families have limited access to radios or mass media and this is true for Salima district where the study was conducted. Therefore, counselling and education in the prenatal period, during ANC, is crucial in building the knowledge and self-confidence of women as they prepare to give birth.

Provision of antenatal care.

Participants in this study averaged three to four ANC visits during their pregnancy. This is high as compared to data for the district which indicates that pregnant women, who sought the antenatal care, received an average of 2 antenatal visits during their pregnancy (MOH, 2009). A minimum of four ANC visits for a woman is recommended by WHO. Studies indicate that women who receive four ANC visits are as likely to have good outcomes as women who receive less than four visits (WHO, 2005). The antenatal period clearly presents opportunities for screening and educating pregnant women about interventions that may be vital to their health and that of their infants.

The antenatal period is used to inform women and families about danger signs and symptoms and about the risks of labour and delivery, provides the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. The findings of this study did not support this premise as most of the mothers were not given information on birth preparedness and complication readiness during antenatal period. Additionally they reported a lack of information about danger or warning signs during labour and delivery, the postnatal period, and regarding the newborn infant.

Comprehension about birth preparedness and complication readiness.

Birth preparedness and complication readiness includes many elements, such as: knowledge of danger signs, plan for where to give birth, plan for transportation, and identification of compatible blood donors in case of emergency (JHPIEGO, 2004). The findings indicated that information regarding birth preparedness and complication readiness has not been provided to most of the participants during their ANC sessions.

Participants had knowledge about a place of delivery and what to specifically prepare for the baby for such as: razor blade, basin, cloth, and thread. This information was consistent across all the participants. What varied was the lack of timely preparation as some were preparing before labour while some were buying the items after they have delivered. Place of delivery identification is very important especially in this setting where the main means to get a skilled provider is to deliver at health facility.

Identification of a blood donor.

Study findings indicate few participants had identified a blood donor. These results are similar with those reported from Kenya where only 28.7% of the clients had identified a blood donor (Mutiso et al, 2008). Identification of an appropriate compatible blood donor and their availability in case of an emergency is life saving, especially in facilities where blood is scarce. Making arrangements for blood donors is also important because women giving birth may need blood transfusions in the event of haemorrhage or caesarean section. Thaddeus and Maine (1994) reported that unavailability of blood is a barrier to receiving adequate and appropriate treatment during an emergency. Conversely, in a study done in Zambia found that some of the causes of maternal death were due to unavailability of safe blood (Hadley & Tuba, 2011).

Blood donor systems at the community level can help overcome problems related with access to blood. With the current policy in Malawi, the primary source of blood donations and collection of blood is done by Malawi Blood Transfusion Service (MBTS). However, at times, relatives and friends may be requested to donate blood. Therefore, prior donor identification may be life saving in critical situations.

Advanced preparation for transport.

In this study, some of the mothers had made advance arrangements for transport in case of an emergency. However, others did not save money for transport in the case of an emergency. Haq, Hafeez, Khanum and Southall (2009) in India, found similar findings where preparation for transport for emergency was low. The mothers narrated that prior arrangement for transport was not considered crucial due to the easy availability of local transport in their slum and vicinity.

Likewise, Family Care International [FCI] (2002) in Homabay and Migori Districts in Kenya also found that very few families had sufficient savings. Considerable time is spent borrowing funds or selling assets to obtain money for transport and service delivery costs. Families also incur long delays in finding means of transport or walking long distances to the nearest health facility.

In the study, women stated that they had to wait for their husbands for transport and this caused some delays. Unavailability of funds for emergencies may be due to ignorance of the importance as many participants may not have been informed adequately or understood the importance. Most of the study participants did not go ahead with their education as such had very little understanding of the concept. In addition, the fact that many of the participants were engaged in small business as their occupation and this frequently earns very little money. A lack of an advanced preparation for transport significantly contributes to delay in reaching health facility for care as participants were looking for transport at the last minute.

Women who were advised about where to give birth and arrangements for money and transportation during their ANC care were more likely to be prepared for birth and its complication than those that were not given such advice (Perreira, Bailey, de Bocaletti, Hurdado, Recinos de Villagran &Mutute, ,2002). The study findings suggest that improvised women who live in rural areas are unlikely to have access to emergency money at short notice. Hiluf and Fantahun (2007) reported that mothers who received advice about where to give birth and made arrangements for money and transportation during ANC follow up were more likely to prepare for birth and its complication than their counterparts.

Knowledge of Obstetric Danger Signs.

The study findings demonstrated that overall knowledge of participants about key danger signs was very low in the study. The results reported little information about danger signs during labour and delivery as compared to antenatal, postnatal, and regarding the newborn infant. Knowledge of the danger signs of obstetric complications is an essential step in recognition of complications and enables one to take appropriate action to access emergency care (WHO, 2006). This is the first step in the appropriate and timely referral for essential obstetric care (JHIPEGO, 2004). Conversely, women in Zambia who know danger signs in pregnancy are more likely to deliver in a health facility as compared to those without such knowledge (Stekelenburg, 2004). Similarly, in Mali, women who are told about complications at antenatal care are more likely to give birth in a facility (Gage, 2007).

Most participants could identify at least one danger sign, however very few identified three or more. Similarly, a study in India by Anya et al (2008) found that women's knowledge of life-threatening obstetric complications is mixed. They reported that spontaneous knowledge of specific life-threatening complications was low, although almost all knew of at least one such complication and a significant minority could name three or more. Poor awareness of the obstetric complications of women may contribute to a delay in seeking and reaching care. Mothers were supposed to be conversant with all the key danger signs taking in consideration that approximately 25% of maternal deaths occur during pregnancy (MHN, 2004).

Surprisingly, mothers had a better knowledge of the key danger signs for the baby versus for the mother (that is during antenatal, labour and delivery and postnatal). This could be attributed to the fact that they may have access to the information from the underfive clinic (those multiparas) as well as at the antenatal

clinic. Vaginal bleeding which is a serious danger sign was not often identified by the participants especially during labour. The results were worrying given that haemorrhage is the leading cause of maternal mortality worldwide and responsible for 33% of all maternal deaths in Malawi (WHO, 2004; Guebbels, 2006).

Equally worrying was the inability of the participants to identify danger signs which indicate severe pre-eclampsia and eclampsia such as: severe headache, blurred vision, swelling of body, and fits. Similarly, from the study findings, it was observed that most participants identified signs of abdominal pains and backache as danger signs during labour rather than normal signs of labour. Agarwal et al (2010) reported that knowledge increases with education, socio-economic status, and occupation however in this study only subtle differences were observed.

Previous studies have identified the lack of education of prenatal women about warning signs. Findings from a study done in Turkey by Turan et al (2004) reveal that women reported having received information about pregnancy and foetal development only, but rarely about important danger signs during pregnancy (such as bleeding), preparation for the birth, and contraception. Most participants could identify at least one danger sign, however very few identified three or more. All respondents lacked information on the danger signs of fever, convulsions, and difficulty in breathing. This could be attributed to absence of relevant patient education to promote B/P and CR, and a lack of information given during ANC visits.

Results from a study among pregnant women in Senegal, reported that mothers regarded fever, pallor, and dizziness as normal signs of pregnancy because these conditions were common among pregnant women in that area (Cham, et al,2005). Some danger signs are more difficult than others to recognize such as oedema. Similar findings were observed in the study where most participants identified signs of

abdominal pains and backache as danger signs during labour rather than normal signs of labour.

In summary, the sociocultural factors and knowledge of obstetric danger signs of the study participants emerged as factors associated with delay in seeking delivery assistance. These factors were noted to influence decision-making on whether to seek timely care.

Delay Number Two: Delay in Reaching Care at the Health Facility

The second delay is defined as the delay in reaching the health facility once the decision has been made to seek assistance. This can be affected by distance, travel time and cost (Thaddeus & Maine, 1994). Access to basic emergency obstetric care services allows women in developing countries to prevent maternal and neonatal morbidity and mortality thereby improving their overall health status. Likewise, in the study participants' access and reaching to basic emergency obstetric care was delayed because of distance, cost, travel time, and means of accessing care.

Distance and prolonged travel time.

The participants in this study resided in an area which is between two to twenty kilometres from the nearest health facility. This further delayed them reaching the health facility for obstetric care. Women reported being unable to locate transport, if needed, and consequently advance planning for transport was low. This finding is complicated by the statements of the women that the bicycle taxis 'dampa" were readily available and at a managed fare.

Additionally some women had access to transportation (bicycle) at home. In spite of these resources women reported being panicked to find transport at the last minute and this contributed to delays in seeking and reaching care. Study participants

stated they preferred to walk or use bicycle taxi, despite the finding of the cultural belief that publicising the onset of labour summons evil spirits deterred many pregnant women from using the transport schemes (Guebbels, 2006).

A majority of study participants reside far from the health facility. It was observed that a majority of the participants reside between 16 to 20 kilometres from the facility and they had to travel more than two hours to the facility and this contributed to delay to reach emergency obstetric care. Similar results were reported by Chisembele (2001) that many pregnant women do not even attempt to reach a facility for delivery since walking many kilometres is difficult in labour and usually impossible if labour starts at night. Excessive time and distance can influence patients not to seek care at a health institution and can also be a contributing factor to why women choose to deliver at home rather than at a health facility (Chisembele, 2001).

Similarly, in Zambia, a recent review showed that although many mothers would have preferred to deliver in a clinic, only half actually did so. A key contributing factor was a long distance from the facility, with 50 percent of the women having to walk for two hours or more to reach a clinic and only those living more than two hours away delivering at a health institution compared to those living within two hours walking distance (Stekelenburg et al, 2004).

Likewise, in Sierra Leone, access to health facilities is greatly limited by long distances between communities and health facilities as well as creating long travel times. The time required to reach a hospital can range from a minimum of three hours, if a vehicle is ready to depart, to over twenty-four hours if the vehicle has already left for the day (Rogo & Aloo, 2001). Although other researchers, (Thaddues & Maine, 1994) have reported higher access rates for people residing within five kilometres of health facilities this was not noted in this study.

Cost on transportation.

In the study mothers had to pay for transportation if they used a bicycle taxi. Participants reported that they had to pay up to two hundred Malawi kwacha or more to access care. Similar results were reported by Babinard and Roberts, (2006) that high transportation costs are major causes of delay in decisions to seek and reach emergency obstetric and postnatal care. Cost and distance from a facility often go hand in hand as a longer distance entails higher transportation costs. Cost concerns are an important barrier to reaching emergency obstetric care in most developing countries (Babinard &Roberts, 2006). Although health care services are officially free in Malawi, some studies have documented hidden costs to patients associated with free obstetric care (such as cost for transportation, waiting time and sometimes corruption whereby patients are requested to pay health workers for services), which frequently result in a financial burden to families.

Similarly, data from a study in Bangladesh identified cost as the most commonly cited reason for not seeking treatment. Cost also emerged as a central concern in a separate analysis of verbal autopsy data of factors contributing to maternal death as the family members were looking for money to pay for transport as such they delayed in reaching care (Koenig, Jamil, Peter, Streatfield , Saha, Al-Sabir, El Arifeen, Hill, & Haque, 2007).

Means of accessing care.

Means of travel to Khombedza health centre was found to be an issue for participants in the study. Almost all the participants used a personal bicycle or bicycle taxi to travel to the facility. Public transport known as “dampa” (bicycle taxi) is fairly accessible to the area. The study participants resided a distance of 2 to 20 kilometres

from the facility. This is in line with recommendation from Gauthier (2004) for countries where roads are in good condition, it is suggested that bicycles should be used to transport patients over distances from 5 to 20 km, a motorcycle between 20-30 km and a four-wheel drive if greater than 30 km distances.

In addition, poor access and lack of reliable transport helps to explain why families delay seeking care in an emergency situation or arrive too late at health facilities for effective treatment. However, from the study findings, it was observed that half of the participants had transport arranged and the other half had plans for using bicycle taxi.

Delay Number Three; Delay in Receiving Adequate and Appropriate Treatment

The third delay comprised of factors influencing the perception of quality of care provided. The patient's perception of care either promotes or delays the seeking of care at the health facility and receiving appropriate care. The care perception also impacts whether the woman believes the care will benefit mother and newborn. The study results revealed that the most of the participants were satisfied with the quality of care they received from midwives at Khombedza health centre. Quality of care is thought to primarily affect the decision to seek care. It is perceived that if the previous care was bad this may delay the mother in seeking care.

Client satisfaction with care.

The study results revealed that the most of the participants were satisfied with the care they received from midwives at Khombedza health centre. Perception of care did not emerge as a reason for their delay in seeking care. This may be attributed to the fact that most of the participants utilised services at Khombedza Health centre.

This centre is staffed by a small number of midwives. Consequently the midwives who provide antenatal care are the same as those that deliver the infants. The health workers are the same ones who see the client at every visit as such, clients develop trust with the midwives. Similarly, in a study done in Netherlands, clients were very positive about the quality of the maternity care they received. The quality of care scores was higher when women knew their care provider, and when they were assisted by their own midwife (Wiegers, 2009).The positive perception of the care may also be related to the Malawian culture in which individuals of high class, such as midwives, are esteemed and honoured for their authority.

The perception of quality of care is often hard to determine and measure empirically or even theoretically. One problem with measuring the perception of quality of care with that of previous experience is that participants do not have a basis for comparison (Wiegers, 2009). The other reason is that client satisfaction is only indirectly related to the quality of the health care system, because it is strongly coloured by expectations and prior experiences (VanTeijlingen, Hundley, Rennie, Graha & Fitzmaurice, 2003). It is shown that users tend to value what is available and known to them more than what is required to be given to them according to the professional requirements.

Quality of previous care.

With regard to the quality of previous care the majority of the respondents had a good perception regarding services provided by health facility. This indicates that the quality of care, as experienced by women, is good throughout the care system. Similarly, a study in a rural district of Zambia reported that clients were satisfied with the services levels from one of the district hospital (Stekelenburg et al, 2004).

In contrast to the findings from this study Nadan et al (2009) from the Rewa district of India, reported that the respondents stated that they received only iron tablets and tetanus toxoid injections during their antenatal care. They perceived this as poor quality of antenatal care. Many women report dissatisfaction with quality of care mainly because of rude, arrogant, and/or disrespectful behaviours of midwives at the health facility. Consequently they prefer the care of a TBA or a relative. However the participants in this study did not identify these negative behaviours.

These findings differ from reports from a study of the maternity care experiences of South African. Women reported severe neglect, verbal and emotional abuse, treatment refusal, and physical assault, (d'Oliveira, Diniz, & Schraiber, 2002). Poor treatment occurred when women did not comply with nurses' demands before and during labour, when they questioned midwives about their behaviour, and when they demanded to be treated better. Women have been noted to avoid visiting a medical institution because of previous unfriendly treatment or lack of trust (d'Oliveira et al, 2002). But this is not the case with the study findings, women reported experiencing good care previously and this promoted their seeking of obstetric care. The quality of previous care was not identified as their reason for delaying emergency care.

In general, an assessment on the quality of care at Khombedza health centre revealed that participants were happy and satisfied with the care they received. This satisfaction was for antenatal care, care during labour and delivery, and previous care they received at the health facility.

Strengths of the Study

The delays in access to emergency obstetric care services is an under researched area in Malawi and yet it is of vital importance to the health workers and clients. The researcher was of the same sex as the participants, therefore, the participants expressed themselves freely. This contributed to collection of rich data. In addition, there was no one who refused to participate. All the participants who participated in the study responded favourably. The results will help to generate information on how best provision of midwifery care can be improved and totally reduce the three delays.

Limitations of the Study

The study was confined to one health facility in Salima district hence the results may not be a true reflection of the whole district and may therefore not be generalized country wide. Another limitation is that all the study participants had a healthy baby and they might have given different results especially on quality of care if the outcomes were poor. As a scholarly study, this project had budget constraints due to lack of funding. Time was also a limiting factor because the research was supposed to be carried out within the two years of the study. However, despite these limitations the results have elicited important information that could serve as a basis to improve access to the basic emergency obstetric care by postnatal mothers in Salima.

Recommendations

The findings of this study have important implications for improving the access to basic emergency obstetric care among women of reproductive age in order to prevent further delays. The prevention of maternal morbidity and mortality in rural

areas should be the focus of future work and recommendations have been made on how the services can be improved. The recommendations need to be implemented not only by the health services but by other sectors such as education, and by the community itself. In addition, the author proposes that the government focus its efforts on the following aspects in future interventions. These recommendations have been made in terms of midwifery practice, education, management and research.

- There is need for midwives to intensify health education which they provide to pregnant women during ANC related to BP/CR and danger signs for the mother and her infant and this can promote early seeking of care.
- Reduction of first and second delays can be improved through increasing BP/CR by planning interventions at the community level. Included could also be raising awareness of danger signs and improving access to information, communication and transportation.
- Antenatal mothers who reside long distances from the health facility need to be encouraged wait in he waiting homes for two to three weeks before the expected time of delivery.
- Address women's lack of decision-making power at household, and at community levels, which limit their access to health care and negatively affect maternal health outcomes. There is need to raise women's status so that they are empowered to make critical health decisions.
- Men need to be targeted as key allies in improving ANC attendances as they provide financial support including transportation and decisions to seek care.
- Provision of midwifery care by all health workers should be emphasized on following of reproductive health standards of care where messages on birth preparedness and complication readiness are well stipulated for the midwives to

follow during provision of care.

- Midwives should give information to antenatal mothers, family members, and communities regarding saving money for emergency transport during labour.
- As the Ministry of Health, is embarking on increasing in-take of midwifery students in pre-service training in order to provide quality ANC services, the DHO should increase numbers of midwives at the health centre level for the midwives to provide quality care.
- Further research is needed to further understand reasons for delay in access to obstetric care services at hospital, district and at national level in order to generalize the findings and help to improve the health of women. In addition, a qualitative research is required from both patients and providers to provide a balanced perspective and also give the midwives a voice.

Conclusion

The findings of the study have shown that the most of the antenatal mothers attended and received antenatal care. A component of antenatal care is provision of information regarding obstetric care and BP/CR. Very little information was provided to the antenatal mothers on birth preparedness and complication readiness. BP/CR is vital to reducing the delays in seeking and reaching for emergency care and reducing maternal and neonatal deaths. The study participants attempted to reach basic emergency obstetric care, but many obstacles delayed this process. These problems include that mothers were not able to make decisions on their own regarding their obstetric care, had very little knowledge of danger signs. In addition distance, access, and cost merged as obstacles in seeking and reaching care at the facility.

Improving accessibility and quality of BEmOC services in the area is necessary if maternal deaths are to be prevented. Improving accessibility and quality of BEmOC services in the area will not only improve maternity utilization but will reduce the high maternal mortality ratios in Malawi. Thereby, assisting in achieving the Millennium Development Goals 4 and 5 in the year 2015.

REFERENCES

Addai, I. (2000). Determinants of use of maternal-child health services in rural Ghana. *Journal of Biosocial Sciences*, 32 (1), 1-15.

Agarwal, S., Sethi, V., Srivastava, K., Jha, P.K., & Baqui, A. H. (2010). Birth Preparedness and Complication Readiness among Slum Women in Indore City, India. *Journal of Health, Population and Nutrition, 28 (4), 383- 391.*

Amowitz, L.L., Reis, C., & Iacopino, V. (2002). Maternal mortality in Heart Province, Afghanistan, in 2002. An indicator of Women's Human Rights. *Journal of the American Medical Association*, 288(10), 1284 – 1291.

Anderson, R. (2007). *Thematic Content Analysis; Descriptive presentation of Qualitative Data.* Institute of Transpersonal Psychology.

Anya, S., Hydara, A., & Jaiteh, E.S. (2008). Antenatal care in The Gambia: Missed opportunity for information, education and communication. *BMC Pregnancy and Childbirth*, 8 (9).

Ashwood-Smith, H., & Simpson, H. (2003*). An observational study of obstetric care in Southern Malawi*, Malawi Safe Motherhood Project Report.

Babinard, J., & Roberts, P. (2006). *Maternal and Child Mortality Development Goals: What Can the Transport Sector Do*? The World Bank :Washington, D.C.

Barnes-Josiah, D., Myntti, C., & Antoine, A. (1998). The Three Delays as a framework for examining maternal mortality in Haiti. *Social Science & Medicine*, 46 (8), 981-993.

Bergsjø, P. (2001). *What is the evidence for the role of antenatal care strategies in the reduction of maternal mortality and morbidity?* In: De Brouwere V, Van Lerberghe, W. (eds) Safe Motherhood Strategies: A Review of the Evidence. Studies Health Service Organisation Policy, 17, 35–54.

Bicego, G., Boerma, T.J., & Ronsmans, C. (2002). The effect of AIDS on maternal mortality in Malawi and Zimbabwe. *AIDS*, 16, 1078-1081.

Burns, N., & Grove, S.K. (2009). *The Practice of Nursing Research: Conduct, critique and utilization*. (5th ed.). St Louis: Elsevier Saunders.

Bhutta, Z,A., Darmstadt, G,L., Hasan, B.S., & Haws, R.A.(2005). Community-based interventions for improving perinatal and neonatal health outcomes in developing countries: a review of the evidence. *Pediatrics,*15 (2),519–617.

Carroli, G., Villar, J., Piaggio, G., Khan-Neelofur, D., Gulmezoglu, M., Mugford, M.,…….. Bersgjo, P. (2001). WHO systematic review of randomised controlled trials of routine antenatal care. *The Lancet*, 357, 1565-1570.

Cham,M., Sundby, J., & Vangen, S.(2005).Maternal mortality in the rural Gambia, a qualitative study on access to emergency obstetric care. *Reproductive Health*, 2(3), 1742-4755.

Chimango, J., Seljeskog, L., & Sundby, J. (2005). Factors Influencing Women's Choice of Place of Delivery in Rural Malawi-An Explorative Study. *African Journal of Reproductive Health*, 10 (3), 66- 75.

Chisembele, M. C. (2001). *Report on essential obstetric care needs assessment 2001 in Chadiza, Katete, and Lundazi Districts*. EOC Needs Assessment Draft Report: Zambia.

Ensor, T., & Cooper, S. (2004). Overcoming barriers to health services access: influencing the demand side – Review article. *Health Policy and Planning* 19 (2), 69-79.

.

Family Care International. *Birth Preparedness: An Essential Part of ANC Counselling* 588 Broadway, Suite 503: New York, NY 10012. (Accessed on 2 November 2010 from: http://www.familycareintl.org/issues/sm_skilled_care.php

Fawcus, S. (1998). A Community based Investigation of Avoidable factors for maternal Mortality in Zimbabwe. *Studies in Family Planning*, 27(6).

Gabrysch, S., & Campbell, O.M.R. (2009). Still too far to walk: Literature review of the determinants of delivery service use. *BMC Pregnancy and Child Birth*, 9(34), 1471-2391.

Gage, A.J. (2007). Barriers to the utilization of maternal health care in rural Mali. *Social Science Medicine*, 65(8), 1666-1682.

.

Gauthier, A. (2004). Using Bicycles to Save Lives. Sustainable Transport .*Winter*, 8-29.

Geubbels, E.(2006). Epidemiology of Maternal mortality in Malawi. *Malawi Medical Journal*, 18(4), 206-225.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8 (4), 597–606.

Hadley, M.B., & Tuba, M. (2011). Local problems; local solutions: an innovative approach to investigating and addressing causes of maternal deaths in Zambia's Copperbelt. *Reproductive Health* 8,17.

Haq, Z., Hafeez, A,. Khanum, A., & Southall, D. (2009). Birth preparedness and the role of the private sector: a community survey. *Journal Public MA*, 59(5), 302-306.

Hiluf, M., & Fantahun, M. (2007). Birth Preparedness and Complication Readiness among women in Adigrat town, north Ethiopia. *Ethiopian Journal Health Development,* 22(1), 14-20.

ICDDR, B. (2005). Posting of trained birthing attendance: A comparison of home and facility-based care. (Accessed on 14th August, 2010, from http://www.eldis.org/go/topics/resourceguides/health&id=33401&type=document

JHPIEGO. (2001). Maternal and neonatal health (MNH) program. *Birth preparedness and complication readiness*: A Matrix of shared responsibilities

.

JHPIEGO. (2004). *Maternal and neonatal health. Monitoring birth preparedness and complication readiness, tools and indicators for maternal and newborn health.* Johns Hopkins, Bloomberg School of Public Health, Centre for communication programs, Family Care International; [Accessed on 11 November 2010 from: http://pdf.dec.org/pdf _docs/ PNADA619.pdf

Kamwendo, L. A., & Bullough, C. (2005). Insights on skilled attendance at birth in Malawi: The findings of a structured document and literature review. *Malawi Medical Journal, 16*(2), 40-42.

Karlsen,S., Say, L., Souza, J.P.,Hogue, C.J.,Calles,D.L., Gulmezoglu,A.M., & Raine, R.(2011). The relationship between maternal education and mortality among women giving birth in health care institutions: Analysis of the cross sectional WHO Global Survey on Maternal and Perinatal Health. *BMC Public Health,* 11,606.

Koenig, M.A., Jamil, K., Peter, K., Streatfield, P.K. , Saha,T., Al-Sabir. A.,……. Haque, Y. (2007) .Maternal Health and Care-Seeking Behavior in Bangladesh: Findings from a National Survey. *International Family Planning Perspectives,* 33 (2), 75-82.

Lawn, J, E., Cousens, S., & Zupan, J.(2005).4 Million Neonatal Deaths: When? Where? Why? Lancet,356,891-900.

Leigh, B., Mwale, T.G., Lazaro, D., & Lunguzi, J. (2008). Emergency obstetric care: How do we stand in Malawi? *International Journal of Gynaecology and Obstetrics,* 101(1), 107—111.

Lungu, K., Kafosa, V., Hussein, J., & Ashwood-Smith, H. (2001). Are bicycles ambulances and community transport plans effective?. *Malawi Medical Journal,* 12(2), 16-18.

MacDonagh, S. (2005). *Achieving skilled attendance for all; a synthesis of current knowledge and recommended actions for scaling up.* London: DFID Health Resource Centre.

Mohammed Al Fadil, S., Alrahman, S.H. A., Cousens, S., Bustreo, F., Shadoul, A., Farhoud, S. & Mohamed El HassHan, S.(2003). Integrated Management of Childhood Illnesses strategy: compliance with referral and follow-up recommendations in Gezira State, Sudan. *Bulletin of the World Health Organization* 81(10).

Malata, A.M., Hauck, Y., Monterosso, L., & McCaul, K. (2007). Development and Evaluation of a childbirth education programme for Malawian women. *Journal of Advanced Nursing*, 60 (1), 67–78.

Malawi Demographic and Health Survey (2010). National Statistics office, Zomba: ORC Macro Calvatone.

Malawi Reproductive Health Standards. (2006). Ministry on Health. Lilongwe : Malawi.

Martin, D., Wrigley, H., Barnett, S., & Roderick, P. (2002). Increasing the Sophistication of access measurement in a rural healthcare study. *Health & Place* ,3, 13.

McAlister, C., & Baskett, T.F. (2006). Female education and maternal mortality: a worldwide survey. *Journal of Obstetrics Gynaecology Canada*, 28(11), 983-990.

McCoy, D., Ashwood-Smith, H., Ratsma, E., Kemp, J.,& Rowson, M.(2004). *Going from bad to worse: Malawi's maternal mortality.* Durban: Health Systems Trust and Global Equity Gauge Alliance.

McPherson, R.A., Khadka, N., Moore, J.M., & Sharma, M. (2006). Are birth-preparedness programmes effective? Results from a field trial in Siraha District, Nepal. *Journal of Health Population Nutrition*, 24, 479-88.

Miller, P.L. (2005*).Barriers preventing access to health care services for women in Rural Samoa.* Unpublished Masters Thesis, Centre for International Development studies, Ohio University.

Ministry of Health (2010). *Emergency Obstetric Care services in Malawi: Report of* the National wide assessment. Lilongwe: E. Ces Print.

Mishra, V., & Rutherford, R.D. (2006).*The effect of Antenatal care on professional assistance at delivery in rural India*: Demographic and health Research.

Moran, A.C., Sangli, G., Dineen, R., Rawlins, B., Yaméogo, M., & Baya, B. (2006). Birth preparedness for maternal health: findings from Koupéla District, Burkina Faso. *Journal of Health Population Nutrition*, 24, 489-497.

Moore, K. (2000). *Safer Motherhood: Toward a Framework for Behaviour Change to Reduce Maternal Deaths*. The Communication Initiative: Victoria, BC.

Moore, M., Copeland, M., Chege, I,. Pido, D., & Griffiths, M .A. (2002*). Behaviour change's approach to investigating factors influencing women's use of skilled care in Homa Bay District Kenya.* The CHANGE project, Academy for Educational Development/ The Man off Group: Washington, D C.

Mpembeni, R.N.M., Killewo, J.Z., Leshabari, M.T., Massawe, S.N., Jahn, A.,…. Mushi, D. (2007). Use pattern of maternal health services and determinants of skilled care during delivery in southern Tanzania: implications for achievement of MDG-5 targets. *BMC Pregnancy Childbirth,* 7 (29), 1471-2391.

Mutiso, S.M., Qureshi, Z., & Kinuthia, J. (2008). Birth preparedness among antenatal clients. *East African Medical Journal,* 85(6), 275-283.

Nadan,D., Kushwah,S.S., Dubey,D.K., Singh, G.,ShivdasaniJ.P.,& Adhish,V. (2009). *A Study for Assessing Birth Preparedness and Complication Readiness Intervention in Rewa district of Madhya Pradesh.* Department of community medicine.

National Statistical Office (NSO) and UNICEF (2008). *Malawi Multiple Indicator Cluster Survey 2006, Final Report*. Lilongwe: Malawi National Statistical Office and UNICEF.

National Statistical Office (NSO) and UNICEF (2011). Malawi Demographic Health Survey 2010, Final Report. Lilongwe: National Statistical Office and UNICEF.

Okour, A., Alkhateeb, M., & Amarin, Z. (2012). Awareness of danger signs and symptoms of pregnancy complications among women in Jordan. *International Journal of Gynaecology and obstetrics.*

d'Oliveira A.F.P.L., Diniz S.G., & Schraiber L.B. (2002) Violence against women in health-care institutions: an emerging Problem. *The Lancet, 359*(9318), 1681–1685.

Pathmanathan, I., Liljestrand, J., & Martins, J.M. (2003). *Investing in Maternal health. Learning from Malaysia and Sri Lanka.* Washington: The World Bank.

Pattinson, R., Woods, D., Greenfield, D., & Velaphi, S. (2005).Improving survival rates of newborn infants in South Africa. *Reproductive Health*, 2(1), 4.

Perreira, K.M., Bailey, P. E.,de Bocaletti, E., Hurdado, E., Recinos de Villagran, S., & Mutute, J. (2002). Increasing awareness of danger signs in pregnancy through community- and clinic-based education in Guatemala. *Maternal Child Health Journal*, 6(1), 19–28.

Perry, B., & Gesler, W. (2000). Physical access to primary health care in Andean Bolivia. *Soci*al S*cience & Medicine*, 50(9), 1177-1189.

Polit, D.F., & Beck, C.T. (2006). *Essentials of Nursing Research: Methods, Appraisal, and Utilization*. (6th ed.). Philadelphia: Lippincolt Williams & Wilkins.

Polit, D.F., & Hungler, B.P. (1999). *Nursing Research: Principles and Methods*. (6th ed.). Philadelphia: Lippincolt.

Rogo, K., & Aloo, O. (2001). Maternal mortality in Kenya: The state of health facilities in a rural district. *East Africa Medical Journal*, 78, 468-472.

Ronsmans,C., & Graham,W.J. (2006).Maternal Survival Series Steering Group. Maternal mortality: who, when, where, and why. *Lancet* ,368,1189-2000.

Santarelli, C. (2003).*Working with individuals, families and communities to improve maternal and newborn health*. Geneva : World Health Organization.

Schneider, Z., Whirehead, D., Elliott, D., Lobiondo- Wood, G., & Haber, J. (2007). *Nursing & Midwifery Research. Methods and Appraisal for Evidence- Based Practice.* (3rd ed.). Sydney: Mosby Elsevier.

Smith, K., Dmytraczenko, T., Mensah, B., & Sidibe, O.(2004). *Knowledge, attitudes, and practices related to maternal health in Bla, Mali: Results of a baseline survey.*

Sood, S., Chandra, U., Mishra, P., & Neupane, S. (2004). *Measuring the effects of behaviour change interventions in Nepal with population-based survey results. Maternal and neonatal health*, Johns Hopkins Bloomberg school of Public Health: Centre for communication program.

Speziale,H.J., & Carpenter, D.R.(2007). *Qualitative Research in Nursing: Advanced the Humanistic Imperative.* Philadelphia: Lippincott Williams &Wilkins.

Stekelenburg, J., S. Kyanamina, M., Mukelabai, I., Wolffers & J. van Roosmalen.(2004). Waiting too long: low use of maternal health services in Kalabo, Zambia. *Tropical Medicine and International Health*, 9, (3), 390-398.

Thaddeus,S., & Maine, D.(1994). Too far to walk: maternal mortality in context. *Social Science Medicine*, 38(8), 1091–1110.

The Maternal and Neonatal Health Program's .(2004)."*Champions for Change: Improving Maternal and Newborn Survival.* Accra: Ghana.

The White Ribbon Alliance. (2004). *Saving Mother's Lives. What Works: Field Guide for Implementing Best Practices in Safe Motherhood.* The White Ribbon Alliance for Safe Motherhood India.

Turan, J.M., Bulut, A., Nalbant, H., Ortayli, N., & Akalin, A.A. (2002).*The Quality of Hospital-Based Maternity Care in Turkey: Findings regarding Antenatal Care.*

Ulin,P,R., Robinson, E.T.,Tolley,.E.E., & McNeill,E. T.(2002).*Qualitative Methods: A Field Guide for Applied Research in Sexual and Reproductive Health*. Research Triangle Park: Family Health International.

UNFPA (2004). *Working from within: Culturally sensitive approaches in UNFPA Programming:* New York: UNFPA.

UNICEF (2006). *Women and Children: The Double Dividend of Gender Equality.* The State of the World's Children 2007. New York. (Accessed on 28 June 2011 from: www.unicef.org/sowc07/docs/sowc07.pdf

Van Teijlingen, E.R., Hundley, V., Rennie, A., Graham, W., & Fitzmaurice, A.(2003). Maternity Satisfaction Studies and Their Limitations: What Is, Must Still Be Best. *Birth*, 30, 75-82.

Villar. J., Ba'aqeel. H., Piaggio. G., Lumbiganon,P., Miguel Belizan. J., Farnot ,U., …… Garcia, J. (2001). WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care. *The Lancet*, 357, 1551-1564.

Wilson, J.B., Collison, A.H.K., Richardson, D., Kwofie, G., Senah, K.A.,& Tinkorang, E.K. (1997) . The maternity waiting home concept: the Nsawam, Ghana experience. *International Journal of Gynaecology and Obstetrics. Supplimentary*, 2,165-172.

Wiegers, T. A. (2009). The quality of maternity care services as experienced by women in the Netherlands. *BMC Pregnancy and Childbirth*, 9, (18), 2393-2399.

World Health Organization. (2000). *Global Action for Skilled Attendants for Pregnant Women*. Family and Community Health. Department of Reproductive Health and Research.

World Health Organization. (2003).Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Geneva (Accessed on 21.10.2010 on: http://whqlibdoc.who.int/publications/2003/924159084X.pdf

World Health Organization.(2004). *Beyond the numbers: reviewing maternal deaths and complications to make pregnancy safer*. Geneva: WHO.

World Health Organization. (2005). Making Pregnancy Safer: the Critical Role of the Skilled Attendant. *A Joint Statement by the WHO, ICM, and FIGO.*

World Health Organization. (2002).Birth and emergency preparedness in antenatal care. Standards for maternal and neonatal care. WHO .(Accessed on 12. 10. 2011 from: *www.who.int/making-pregnancy safer/publications/*

World Health Organisation. (2001). *Antenatal care randomized trial: manual for the implementation of the new model.* Geneva: World Health Organization. (document WHO/RHR/01.30(Accessed on 12 .10.2010 from: (http://www.who.int/reproductivehealth/publications/RHR_01_health/publications/RHR_01_30/RHR_01_30_contents.en.hmtl

WHO and IGWG. (2005). *A Summary of the 'So What' Report: A look at whether integrating a gender focus into programmes makes a difference in outcomes*. (Accessed on 28 June 2011 on: www.who.int/gender/documents/SoWhatReportSept.05.pdf

World Health Organization, UNFPA, and The World Bank. (2010). *Trends in maternal mortality: 1990 to 2008. Estimates developed by WHO, UNICEF, UNFPA and The World Bank*. Geneva: World Health Organization Press.

APPENDIX A: LETTER TO THE DISTRICT HEALTH OFFICER

University of Malawi

Kamuzu College of Nursing

P.O Box 415

BLANTYRE

31st January, 2011.

The District Health Officer

Salima District Hospital

P.O Box 53

SALIMA.

Dear Sir/Madam,

PERMISSION TO CARRY OUT A RESEARCH STUDY

I write to request for permission to carry out a research study at Khombedza Health facility in your district. I am a student currently studying a Master of Science Degree in Midwifery. In partial fulfilment for the degree I am supposed to carry out a research study on the topic of my choice but related to midwifery practice. The title of my research is "**Factors Leading to Postnatal Mother's Delay to Access Emergency Obstetric Care at Khombedza Health Centre"**

I look forward to your favourable response to my request.

Yours faithfully,

ALLIET KUPATSA BOTHA

APPENDIX B: LETTER TO THE IN-CHARGE OF THE HEALTH FACILITY

University of Malawi

Kamuzu College of Nursing

P.O Box 415

BLANTYRE

31st January, 2011.

In Charge

Khombedza Health Centre

P.O Box 15

KHOMBEDZA

Dear Sir/Madam

PERMISSION TO CARRY OUT A RESEARCH STUDY

I am a student currently studying a Master of Science in Midwifery at Kamuzu College of Nursing. In partial fulfilment of this degree I am required to carry out a research project on a topic of my own choice. The title of my study is **"Factors Leading to Postnatal Mother's Delay to Access Emergency Obstetric Care at Khombedza Health Centre"**

I plan to start collecting data in April, 2011. The purpose of this letter is to ask for your permission to utilize your facility as part of the research site. I will also use part of the facilities as an operating office.

I look forward to your favourable response to my request.

Yours faithfully,

ALLIET KUPATSA BOTHA

APPENDIX C: INFORMATION SHEET AND CONSENT FORM

I am Mrs Alliet Kupatsa Botha. I am a student completing a master degree in midwifery at Kamuzu College of Nursing. Currently I am doing a study on: *A Qualitative Study on Factors Leading to Postnatal Mother's, delay to Access Emergency Obstetric Care.*

This study will be done as a requirement for a master's degree in midwifery. The purpose of the study is to evaluate knowledge on birth experiences among postnatal mothers at Khombedza Health centre in Salima District. Findings from this study will generate new knowledge which will in turn inform practice, management and policy makers on measures that can be done to ensure that the information that is given on Birth Preparedness and Complication Readiness is comprehensive and mothers will access care in good time.

The study will involve the use of a tape recorder, after data analysis the tape recordings will be erased. Whatever you tell me will be kept strictly confidential and will not be disclosed to any other persons unless those directly involved. I will only need about 45 to 60 minutes of your time to complete my questions. I would like to get your permission to ask some questions about experiences in child birth.

Be informed that your participation in this study is voluntary. You can withdraw from this study anytime without penalty. If you refuse to participate you will still be free to seek future health and obstetric care at this facility without any problems. The only risks involved in the study may be psychological in terms of stress and anxiety because of lengthy interview of about 60 minutes**.** There is no reward for participating in this study. Your participation will however, provide the Ministry of Health important facts and understanding on what goes on during pregnancy, birth and after

birth so we can provide better information to pregnant women and people who take care of them.

Should you have any questions regarding your rights and welfare as a research participant, you can contact the following person: Chairman COMREC: Professor Joseph Mfutso- Bengo, Private Bag 360, Chichiri, Blanytre3,

Investigator: Alliet Kupatsa Botha,

Kamuzu College Of Nursing,

P.O Box 415,

Blantyre.

Tel: 0999 926 521.

Chairman COMREC:

Professor Joseph Mfutso- Bengo,

Private Bag 360,

Chichiri, Blanytre3,

Malawi.

Tel 0999 957 805

PLEASE READ AND SIGN THIS FORM IF YOU ARE TAKING PART IN THIS STUDY

- I have read and (or someone have read to me) the attached information sheet for this study and have understood the purpose of the study and I am willing to participate in the study.
- I agree to voluntarily participate in the study, be questioned and provide answers to the best of my knowledge. I understand that I am free to withdraw any time without giving reasons and this will not influence the health care given to me.
- I understand that my information will be kept confidential and will only be accessed by the researcher or those people directly concerned with this study.
- I understand that the potential risks involved are only stress and anxiety.
- I understand that it will take about 60 minutes to complete the questionnaire.
- I understand that I will not benefit financially.
- I know how to contact the researcher if I need to.

I …….voluntarily agree to participate in this research

Signature /thumb print……..…

Witness ……Signature …….

Name of interviewer…… Signature……

Date…….

RESPONDENT AGREES & HAS BEEN GIVEN A FILLED COPY OF CONSENT FORM.

END INTERVIEW AND THANK THE WOMAN

APPENDIX D: KALATA YODZIWITSA ZA KUFUKUFUKU NDI CHIVOMEREZO CHOLOWA MUKAFUKUFUKU

Ine ndine Mrs Alliet Kupatsa Botha wophunzira wa ukachenjede ku sukulu ya anamwino ya Kamuzu College of Nursing ndipo ndikumaliza maphunziro a uchembere wabwino ndi uzamba.

Cholinga cha kafukufukuyi ndi kufuna kuona zimene azimayi amakumana nazo zokhudzana ndi pobereka mwana maka omwe afika mochedwa pa chipatala chachingono cha Khombedza mu boma la Salima chigawo cha pakati. Zotsatira za kafukufukuyi zidzathandiza kupeza nzeru zina zapadera zimene zidzapangitse kusintha ndondomeko ya kangwiridwe ka ntchito pothandiza kuti uthenga womwe tikuperaka wokhudzana ndi kukonzekera mwana ndi kudziwa ndi kukonzekera zizindikiro zoopsya ukhale womveka bwino kuti amayi nawo anthe kupeza chisamaliro cha uchembere mu nthawi yabwino.

Kafukufukuyi ndi wokhudzana kujambula zimene tikambirane pa kamwailesiyi ndipo tikadzamalira kafukufukuyi tidzafufuta zonse zomwe tijambulezi. Ndikufuna kuti ndipemphe chilolezo kuti ndikufunseni mafunso ena ndi ena wokhudzana ndi zomwe mwakumana nazo pa nthawi imene munabereka mwana wanuyi.

Zonse zimene tikambirane pano zikhala za chinsinsi ndipo palibe amene adziziwe kupatulapu okhaokhawo amene akhale kuti akukhudzidwa ndi kafukufukuyi.

Zokambirana zanthu zitenga pamfupimfupi mphindi makumi anayi ndi mphamphu zisanu kapena kufika ola limodzi lokha.

Kupanga nawo kafukufukuyi ndi kosaumiriza ndipo mukhoza kusakha kufotokoza zina mwa zimene mukufuna kundiuza ndipo kusanena zina zomwe mukuona ngati simukufuna kuti ndiziwe. Mukhozanso kundifunsa kuti ndisiye kukufunsani nthawi ina iliyonse kapena kusafuna kuyakha mafunso ena. Ndipo ngati musiya mulibe ndi

ufulu wopitiriza kulandira chithandizo pa chipatala mpopano wopanda vuto lina lilonse.zovuta zomwe mungakumane nazo popanga kafufukuyi ndi kusautsidwa mumtima chifukwa cha kutalika kwa kafufukuyi chifukwa adzitenga nthawi pafupifupi ola limodzi. Palibenso cholowa china chilichonse pamene mwapanga nawo kufufukuyi. Ngakhale kupanga nawo kafufukuyi kudzathandiza a unduna wa zaumoyo kuti upeze kuti ndiziti zimene zimachitika munthu akakhala ndi mimba, nanga pobereka kumachika chiyani nanga akachila ndi cholinga kuti unthe kupeza uphungu wabwino kwa amayi apakati ndi mmene tingawasamalire.

Ngati mungakhale ndi mafunso wokhudzana ndi ufulu ndi chisamaliro chanu ngati mmodzi wolowa nawo mukafukufu musazengereze. Mukhoza kulemba pa keyala iyi: Chairman COMREC: Professor Joseph Mfutso- Bengo, Private Bag 360, Chichiri, Blanytre3.

Wochita kafukufuku: Alliet Kupatsa Botha,

Kamuzu College Of Nursing,

P.O Box 415,

Blantyre. Tel: 0999 926 521.

Wampando wa COMREC: Professor Joseph Mfutso- Bengo,

Private Bag 360,

Chichiri, Blanytre3,

Malawi. Tel: 0999 957 805

CHONDE WERENGANI NDI KUSAINA APA PAMENE MUKUTENGA NAWO MBALI PA KAFUKUFUKUYI

- Ndawerenga (kapena ena andiwerengera) ndipo ndamvetsetsa cholinga ndi zotsalira za kafukufuku ameneyu.
- Ndavomera kupanga nawo kafukufukuyi mosaumilizidwa ndipo ndidzayakha mafunso onse mokhulupilika popereka mayakho okhaokhawo amena ali woona.
- Ndipo ndikudziwa kuti ndikhoza kusiya kuyakha pamene ndisakufuna ndipo izi sizikhudzana ndi kulandira chisamaliro changa chimene ndikulandira ku chipatala kuno.
- Ndipo ndikuziwa kuti zonse zimene tikambirane pano ndi zachinsinsi ndipo zionedwa ndi amene akundifunsawo ndi ena amene kafukufukuyi akuwakhudza basi.
- Ndipo ndauzidwa za kutalika kwa kafukufukuyi kuti ndipafupifupi ola limodzi.
- Ndipo zina za zuvuta za kafufukuyi ndi kusatsidwa mumtima chifukwa cha kutalika kwa kafukufukuyi.
- Ndipo ndikudziwa kuti palibe cholowa china chilichonde popanganawo kafufukuyi.
- Ndipo ndikuziwa kumene ndingawapeze omwe akupangitsa kafufukuyi panthawi yomwe ndingawafune.

Ine …….ndavomera mosaumilizidwa kupanga nawo

kafufukuyi. Chisindikizo / Kudinda chala ……..……

Mboni ……Chisindikizo……

Dzina lawofunsa…… Chisindikizo ……

Tsiku…….

WOTENGA NAWO MBALI MUKAFUKUFUKU WABVOMERA NDIPO WAPATSIDWA CHIKALATA CHA CHILOLEZO CHA KAFUKUFUKU KUTI ASAINE.

POTHERA PA MAFUNSO NDIPO AMAYI ATHOKONZEDWE

APPENDIX E: SEMI STRUCTURED INTERVIEW GUIDE ENGLISH

A. Demographic data

A- 1	How old are you	15-20 21-30 31-40 41-above
A- 2	What is your marital status	Single Married Divorced Separated Others specify
A -3	How many children do you have?	1 – 5 6 -10 11 above
A – 4	Where do you come from?	---------- Village ---------- T/A
A – 5	What is your tribe?	Chewa Yao Manyanja Mtumbuka Others specify

A- 6	What do you do in life?	Local farming Business Civil servant Others specify
A -7	How much is your income levels per month?	K1000-K5000 per/month K5000-K10000per/month K10000 and above
A-8	How far have you gone with your education?	Non schooling Primary level Secondary level Tertiary level

General Questions

A-9 Can you describe to me who was involved in your decision to come and not to come to obtain care

A-10 In this area, who is influential people in deciding women choice's of place of delivery for pregnant women?

A-11Who influenced your decision?

B. Accessibility to the health facility

General question:

B-3 What form of transport do you use to get to the health facility?

B-Probes

Did you pay?

How much?

Did you save the money?

B-5 How far is your home from the nearest health facility?

C. Knowledge of birth preparedness and complication readiness.

C-1 How many times did you attend ANC?

C-2 How do you understand by the term “birth preparedness”?

Probes:

What information were you provided with during antenatal period? Specifically

What were you asked to prepare for the birth of your baby?

Skilled attendant and /or place of birth.

Danger signs.

Transportation.

Blood donor.

C-3 Were you able to prepare any of these items for the birth of this baby? Which ones? What limited your ability to prepare?

PROBE : Give a little more direction here as to what you want from the respondent

C-4 In your opinion, what are some serious health problems that can occur during pregnancy that could endanger the life of a pregnant woman?

PROBE: Any others?

C-5 In your opinion, what are some serious health problems that can occur during labour and childbirth that could endanger the life of a pregnant woman and that of the baby?

PROBE: Any others

C-6 In your opinion, what are some serious health problems that can occur postnatally that could endanger the life of the woman.

C-7 In your opinion, what are some serious health problems that can occur to the baby that could endanger the life of the baby?

D. Perception of care.

D-1 Would you tell me your experiences during antenatal care, and delivery at this facility?

D-2 Tell me about your labour and your experience before coming to the facility?

D-3 Can you describe any past experiences you have had at this facility or your local health centre?

D-4 what was involved in your decision to come for care?

APPENDIX F: MAFUNSO M'CHICHEWA

A.Mbiri yokhudzana ndi inu

A-1	Muli ndi dzaka zingati?	15-20 21-30 31-40 Kupitilira 41
A-2	Nanga muli pabanja	Wosakwatira Wapabanja Ukwati unatha Tinasiyana Zina fotokozani
A-3	Kodi muli ndi ana angati?	1-3 4-6 7-9 10 kupitirira
A-4	Kodi mumachokera mudzi wanji?	Mudzi ……. T/A …….
A-5	Ndinu a mtundu wanji?	Chewa Yao Manganja Mtumbuka Wina fotokozani
A-6	Tandiuzani mumachita chiyani moyo wanu wa tsiku	Kulima

	ndi tsiku?	Buzinezi Wanchito ya boma Yina fotokozani
A-7	Kodi mumapeza ndalama zochuluka bwanji pa mwezi umodzi?	K1000-K5000 K5000-K10000 Kupitilira K100000
A-8	Kodi ku sukulu munafika nayo mpaka mpati?	Sindinayimbeko Pulaimale Sekondale Maphunziro apamwamba

A-7 Kodi mudera lanu lino, ndi yani amene amatsogolera kumene amayi oyembekezera angakapeze chithandizo cha uchembere ?

A-8 Tandiuzani za mmene zina za chikhalidwe chathu zimene zingathe kutsogolera pa chiganizo cha amayi apakati

B. Kafikidwe pa ku chipatala

1. Pamatenga nthawi yochuluka bwanji kuti mudzafike ku chipatala?
2. Mumagwiritsa chiyani kuti mudzapezeke ku chipatala kuno?
3. Kodi mumapereka ndalama kuti mulandire chithandizo pa chipatala pano?
4. Nanga pali mtunda wochuluka bwanji kuti mukafike ku chipatala cha pafupi?

C.Zomwe akudziwa za kukonzekera kubereka ndi zizindikiro zoopysa za ubereki

1. Kodi ku sikelo ya mamba munapitako kangati?

2. Mutapatsidwa mwayi, mungafune kupita kuti kusilelo ya mamba ndipo fotokozani chifukwa.
3. Kodi ku sikelo ya mimba ndi zotani zimene mumaphunzitsidwa? Zokhudzana ndi malo ochilira, zizindikiro zoopsa, mayendendwe ndi wodzakupatsani magazi
4. Mumaganizo anu, ndizizindikiro zoopsa ziti zimene mayi wapakati angakumane nazo zimene zingaopyseze moyo wake.
5. Panthawi yomwe munali ndi pakati ogwira ntchito za chipatala anakulangizaniko chiyani pa za mimba yanu?

D. Mmene mumaonera za chisamaliro

1. Tandiuzani mmene zomwe mumakumana nazo kwamadokotala a pano.
2. Mutapatsidwa mpata mungakonde mutathandizidwa ndi yani?
3. Tandiuzani zomwe munakumana nazo pa nthawi yomwe munali kuchita sikelo ya mimba ndi pamene mumadzachira mwana?

APPENDIX G: TIME TABLE

The following are a tentative time table for the study

Study period in month

Activity	Oct 2010	Nov-Dec 2010	Jan 2011	Feb 2011	March 2011	May 2011	June - Sept 2011	Oct 2011
Topic search and literature review								
Literature review and proposal development								
Submission of proposal to supervisor								
Submission to RPC								
Submission to COMREC								
Pre-test and Data collection								
Data analysis & Report writing								
Binding and submission of the thesis								

APPENDIX H: BUDGET

A budget is estimate of probable future income and expenditure.

The proposed budget will be as follows:

ITEM	COST PER ITEM	TOTAL COST
STATIONARY		
10 Reams of paper	K1000.00 each	K 10,000.00
20 Pens	K20.00 each	K 400.00
20 Pencils	K10.00 each	K 200.00
2 rubbers	K150.00 each	K 300.00
2 flash disk	K4500.00 each	K 9, 000.00
1 Tape recorder	K35,000 each	K 35,000.00
3 Spare batteries	K1000.00each	K 3,000.00
SECRETERIALSERVICES		
Printing Research Proposal		K 20.000.00
Printing Theses		K 20,000.00
Photocopying research tools		K 14,000.00
COMREC fees	K15,000.00	K15,000.00
ALLOWANCES		
Allowance for midwife	K 2,500x10 days	K25,000.00
Transport allowance		K10,000.00
TOTAL		K161,900.00
CONTIGENCY		K 16,190.00
GRAND TOTAL		**K178,090.00**

APPENDIX I: APPROVAL LETTER

UNIVERSITY OF MALAWI

Principal

K.M Maleta, MBBS PhD

Our Ref.:

Your Ref.: P.03/11/1045

College of Medicine
Private Bag 360
Chichiri
Blantyre 3
Malawi
Telephone: 01 877 245
01 877 291
Fax: 01 874 700

Email: comrec@medcol.mw

3rd April 2011

Mrs. A. Kupatsa Botha
KCN
P.O Box 415
Chichiri
Blantyre 3

Dear Mrs. Botha

RE: P.03/11/1045 – Experiences of Postnatal Mothers who Delay to Access Basic Emergency Obstetric Care at Khombedza Health Centre Version 2 dated April 2011

I write to inform you that COMREC reviewed your proposal mentioned above, which you resubmitted for expedited review. I am pleased to inform you that your protocol **was approved** after considering that you addressed all the queries raised in the initial review.

As you proceed with the implementation of your study we would like you to adhere the amended protocol ICH GCP requirements and the College of Medicine Research requirements as indicated on the attached page.

Approved by
College of Medicine
12 MAY 2011
(COMREC)
Research and Ethics Committee

Yours Sincerely,

Prof. J. M Mfutso-Bengo
CHAIRMAN - COMREC

JMMBck

APPENDIX J: APPROVAL LETTER

Telephone + 265 + 789 400
Facsmile + 265 + 789 431

All communications should be addressed to:
The District Health Officer
Salima District Hospital
P.O Box 53
Salima.
REF. NO: SLH/PF/56

In reply please quote No. .
MINISTRY OF HEALTH,
Salima District Hospital,
P.O Box 53,
Salima.
15th June, 2011

Ref. No. SLH/PF/B/02

Mrs A. K. Botha,
Salima District Hospital,
P.O. Box 53,
Salima.

Dear Madam,

PERMISSION TO CONDUCT RESEARCH AT KHOMBEDZA HEALTH CENTRE IN SALIMA DISTRICT:

Reference is made to your letter dated 31st May 2011 in which you applied for permission to conduct research at Khombedza Health Centre within Salima District.

I am pleased to inform you that permission is granted for you to conduct the Research at the proposed Health Centre in connection with your studies at Kamuzu College of Nursing.

Yours faithfully,

J. I. MTUWA
FOR: THE DISTRICT HEALTH OFFICER