UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

FACTORS INFLUENCING UTILISATION OF BIRTH PREPAREDNESS AND COMPLICATION READINESS AMONG ANTENATAL WOMEN IN MONZE DISTRICT.

BY

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A Dissertation submitted to the University of Zambia in Partial fulfillment of the requirements for the Degree of Master of Science in Nursing

JULY, 2015

DECLARATION

I Mary M. Simataa declare that this Dissertation represents my own work and that all the sources I have quoted have been indicated and acknowledged by means of complete reference. I further declare that this dissertation has not previously been submitted for a degree or diploma or other qualifications at this or other university. It has been prepared in accordance with the guidelines for Master Degree in Nursing Sciences dissertations of the University of Zambia.

Signed …… Date ……
Candidate

Signed …… Date ……
Supervisor

Signed …… Date……..
Supervisor

CERTIFICATE OF APPROVAL

The University of Zambia approves this dissertation on Factors Influencing Utilization of Birth Preparedness and Complication Readiness (BPCR) in Monze District in a partial fulfillment of the Master Degree in Nursing Sciences.

Examiner`s Signature…… Date……..

Examiner`s Signature…… Date…….

Examiner`s Signature…… Date……

DEDICATION

I dedicate this study to my late father Edward, for the encouragement rendered to me during my education and to all antenatal women throughout the world.

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ACKNOWLEDGEMENTS

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ABSTRACT

Introduction

Birth preparedness is when a woman and her family prepare for normal birth and for complications that may arise during pregnancy and childbirth (MoH, 2004). Birth Preparedness and Complication readiness (BPCR) strategy was introduced in order to help pregnant women receive care from a skilled provider during childbirth and prevent complications (Starrs, 1997) as many women are still dying during childbirth. For instance, globally, 287,000 women die as a result of complications of pregnancy and childbirth (WHO, 2012). In Zambia, Maternal mortality rate is still very high and is estimated at 398 per 100,000 live births. Therefore if pregnant women were utilizing birth preparedness and complication readiness strategy, maternal and neonatal death would reduce. In developed countries where birth preparedness and complication readiness strategy has been used for many years, maternal mortality rate has reduced to16 deaths per 100,000 live births compared to 210/100,000 in developing countries (WHO, 2012).

Methodology

A descriptive cross-sectional study design was used. The study was conducted in Monze district at Keemba zonal health center, Manungu and Monze urban clinic. Sample was systematically selected and a face to face semi-structured interview schedule was used to collect data. Analysis of data was done using Statistical Package in Social Science (SPSS) version 20.0 software. The confidence interval was set at 95%. A 5% level of significancy (p value 0.05 or less) was considered statistically significant.The Chi-square test within the SPSS 20 was used to test for associations between independent and dependant variables.

Results

The study revealed that the majority 196 (95.6%) of respondents knew the meaning of birth preparedness and complication readiness during pregnancy and child birth. The study also showed that 143(69.8%) of respondents utilized birth preparedness and complication readiness. Factors which influenced utilization of birth preparedness and complication readiness were knowledge, cultural beliefs and distance to health facilities.

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LIST OF ABBREVIATIONS

ANC : Antenatal Care

BPCR : Birth preparedness and complication readiness

CSO : Central Statistics Office

DHO : District Health Office

DHS : Demographic Health Survey

IEC : Information Education and Communication

HF : Health facility

JHPIEGO: John Hopkins Program for International Education in Gynaecology and Obstetrics

IRB : International Research Board

SMI : Safe Motherhood Initiative

MCH : Maternal and Child Health

MMR : Maternal Mortality Rate

MOH : Ministry of Health

MDGs : Millennium Development Goals

SPSS : Social Sciences Statistical Package

UN : United Nations

UNZA : University of Zambia

UNICEF: United Nations International Emergency Fund

WHO : World Health Organization

ZDHS : Zambia Demographic Health Survey

CHAPTER **ONE**

1.0 INTRODUCTION

1.1 BACKGROUND INFORMATION

Birth preparedness and complication readiness (BPCR) is a safe motherhood strategy which was developed to address the problem of increased maternal morbidity and mortality especially in developing countries (JHPIEGO, 2004). Globally it is estimated that 287,000 women die as a result of complications of pregnancy and childbirth. Improving maternal health and reducing maternal mortality have been key concerns of several international summits and conferences since the late 1980s, including the Millennium Summit in 2000 (WHO, 2010). In developed countries, maternal mortality rate has been estimated at 16 deaths per 100,000 live births. In developing countries maternal mortality rate is 210 deaths per 100,000 live births which is 15 times more than the developed countries, Sub Saharan Africa had the highest maternal mortality rate at 500 per 100,000 live births The adult lifetime risk of maternal mortality in women from sub-Saharan Africa was the highest at 1 in 39 in contrast to 1 in 3800 among women in developed countries (WHO, 2010).

Maternal mortality is a serious public health problem in Zambia. According to Central Statistics Office in Zambia Demographic Health Survey (ZDHS, 2013-2014), the maternal mortality rate for Zambia is estimated at 398 per 100,000. Zambia falls in the category of countries with high maternal mortality (300-999) according to WHO (2010) rating and a lot still needs to be done to qualify for the low rate of maternal mortality.

Many interventions have been put in place to improve maternal health and reducing maternal mortality. These include training of traditional birth attendants and screening for risks during antenatal care. However, since it is not possible to predict which women would experience life-threatening obstetric complications that lead to maternal morbidity and mortality; this has not addressed the problem effectively (JHPIEGO, 2004).

Receiving care from a skilled provider (Doctor, Nurse, or Midwife) during childbirth has been identified as the most important intervention in safe motherhood (Starrs, 1997). To achieve this, BPCR strategy was developed. BPCR is when a pregnant woman and her family prepare for

normal birth and for complications which may arise during pregnancy and childbirth (MoH, 2004). Responsibility for BPCR must be shared among all safe motherhood stake holders. These include policy makers, facility managers, care providers, communities, families and antenatal women. This is because a co-ordinated effort is needed to reduce delays that contribute to maternal and neonatal death. These delays are as follows:

I. Delays in deciding to seek care may be caused by failure to recognize signs of complications, failure to perceive the severity of illness, cost considerations, previous negative experiences with the health care system and transportation difficulties.
II. Delays in reaching care may be created by the distance from a woman's home to a facility or provider, the condition of roads and a lack of emergency transportation.
III. In receiving care may result from unprofessional attitudes of providers, shortages of supplies/ basic equipment, a lack of health care personnel, and poor skills of health care providers (JHPIEGO, 2001).

The causes of these delays are common and predictable. However, in order to address them, women, families, the communities, providers, and facilities that surround them must be prepared in advance and ready for rapid emergency action. BPCR is one intervention that addresses these delays by encouraging pregnant women, their families, and communities to effectively plan for births and deal with emergencies, if they occur (JHPIEGO, 2001). The key elements of BPCR include:

a) Knowledge of danger signs;
b) Plan for where to give birth;
c) Plan for a skilled birth attendant,
d) Plan for transportation
e) Plan for saving money.
f) Identify a decision maker.

These elements are important because every pregnant woman faces the risk of sudden, unpredictable complications that could end in death or injury to herself or to her infant (JHPIEGO, 2004).

1.2 STATEMENT OF THE PROBLEM

According to JHPIEGO (2004), BPCR is a safe motherhood strategy which was developed to address the problem of increased maternal morbidity and mortality rate through promoting timely use of skilled maternal and neonatal care during childbirth or obstetric emergencies by reducing delays at the first, second and third levels of care. BPCR interventions are widely promoted by governments and international agencies to reduce maternal and neonatal health risks in developing countries (Soubeiga et.al. 2014). Zambia is among the developing countries that embraced birth preparedness and complication readiness (MoH, 2004).

In developed countries where BPCR strategy has been used for many years, maternal mortality rate has been estimated at 16 deaths per 100,000 live births. 1n developing countries maternal mortality rate is 210 deaths per 100,000 which is 15 times more than the developed countries, Sub Saharan Africa had the highest maternal mortality rate at 500 per 100,000 live births The adult lifetime risk of maternal mortality in women from sub-Saharan Africa was the highest at 1 in 39 in contrast to 1 in 3800 among women in developed countries.

In Zambia Antenatal care coverage has increased from 94% in 2007 to 96% in 2014 (CSO, 2013/14) and antenatal care services are provided by Government health facilities as well as private health facilities. Women attending Antenatal clinic are given information on safe motherhood through routine Information Education and Communication (IEC). According to Ministry of Health (2004), guidelines in its maternal counseling tool for safe motherhood, BPCR information is prioritized to be given to all pregnant women on the first and second antenatal visits. This means that most of the pregnant women in Zambia have access to BPCR information and are expected to adequately prepare for childbirth and anticipate any related complications. Despite these efforts made by Ministry of Health, many women might not be using BPCR as expected. This is evidenced by information from CSO (ZDHS, 2013-2014) which shows low number of deliveries (64%) conducted by skilled birth attendants and high maternal mortality rate of 398 per 100,000 live births.

Perhaps if all Antenatal women utilized BPCR, the number of women using skilled birth attendants would have increased and maternal mortality rate would have reduced significantly.

Table 1 shows the number of deliveries and maternal mortality recorded by Monze for the past four years (Annual HMIS reports 2010 to 2013).

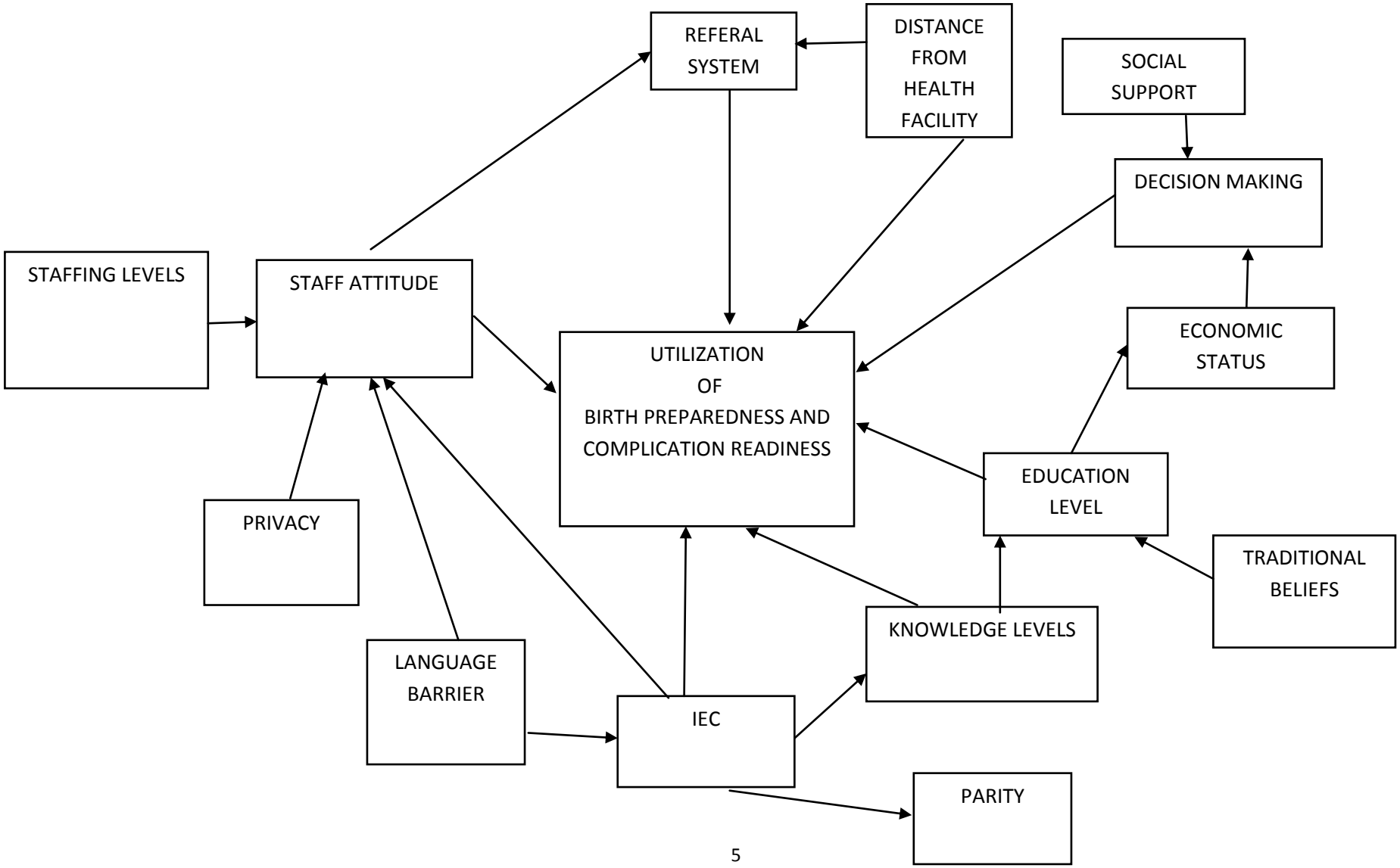
TABLE1: NUMBER OF DELIVERIES, DEATHS AND MORTALITY RATE

YEAR	No. OF DELIVERIES	No. OF DEATHS	MORTALITY RATE
2010	2883	9	317 per 100,000 live births
2011	3165	16	505 per 100,000 live births
2012	3163	14	442 per 100,000 live births
2013	3550	15	422 per 100,000 live births

Retrospective review of files for 2013 maternal deaths revealed that 7(47%) had underlying medical conditions, 3(20%) died of puerperal complications and 5(33%) died due to haemorrhage. The latter came to hospital very late and in compromised conditions and some of them were grand multiparous women who experienced bleeding after home delivery.

Birth preparedness promotes anticipation of complication and timely use of skilled birth attendants. These statistics showed that women were not fully utilizing BPCR in Monze, hence the high level of avoidable maternal mortality. Therefore there was need to investigate the factors that caused underutilization of BPCR in Monze.

FIGURE 1: CONCEPTUAL FRAMEWORK OF FACTORS AFFECTING UTILIZATION OF BIRTH PREPAREDNESS AND COMPLICATION READNESS



1.3 THEORETICAL MODEL

Andersen's healthcare utilization model

Andersen's Behavioral Model of Health Services Use (1995) is used as the theoretical framework for this study. Andersen has developed framework to discover conditions that either facilitate or impede utilization. This framework provides behavioural model to understand and explain utilization of health services. The Andersen model is a conceptual model aimed at demonstrating the factors that lead to the use of health services. According to the model, usage of health services is determined by three dynamics which include the following:

1.3.1 **Predisposing factors**

Predisposing factors include demographic factors like parity, education, knowledge, occupation, ethnicity, culture and health beliefs. It also involves attitudes, values, and knowledge of people that influence subsequent perceptions of need and use of health services.

An antenatal woman who knows about BPCR is more likely to adequately prepare for childbirth and use skilled birth attendant because she is aware of the risks of delivering at home. The antenatal woman who is equipped with knowledge believes that health care providers can effectively handle any obstetric complications and is more likely to seek care. On the other hand, an antenatal woman who has had several deliveries at home without any complication may not realize the importance of seeking care from a skilled birth attendant compared to a woman who is pregnant for the first time. The later is uncertain of the outcome of pregnancy and is more likely to use health services (adopted from Andersen and Newman, 1995).

1.3.2 **Enabling factors**

Enabling factors could include income, social support, health personnel, health facilities with regular provision of care and other factors which provide patients with the means to make use of the services (Andersen and Newman, 1995). Antenatal women who have a regular form of income stand a better chance of preparing for child birth and complications. Their financial stability can enable them to access transport and reach facilities where they can use skilled birth attendants. Similarly antenatal women who stay near health facilities are more likely to access and utilize health services than those who stay far from health facilities/

Community and personal enabling resources must be available to use in any time needed. For example, health personnel and facilities must be available and people must have the means and know how to get to those services and make use of them. Income, health insurance, a regular source of care, and travel and waiting times are some of the measures that can be important in this respect (Andersen and Newman, 1995).

1.3.3 **Need related factors**

This involves the actual need for health care services. Need also refers to health status, perceived by the individual or evaluated by the health providers (Andersen, 1995). It is how people view their own general health and functional state, as well as how they experience the pregnancy, if they have any worries about their health and whether or not they judge their problems to be of sufficient importance and magnitude to seek professional health care. Pregnant women who experienced complications in previous pregnancy may not want to risk delivery away from a health facility. Those who have underlying health conditions may need close monitoring by skilled health care providers.

1.3.4 **Outcome**

Anderson mentions that health services are supposed to have something to do with maintaining and improving the health status of the population both as perceived by the population and evaluated by professionals. The model also includes consumer satisfaction as an outcome of health services that can be measured in terms of convenience, availability, financing, provider characteristics and quality. This also applies to services provided to pregnant women, if the environment at a health facility is hostile; the facility could be shunned,

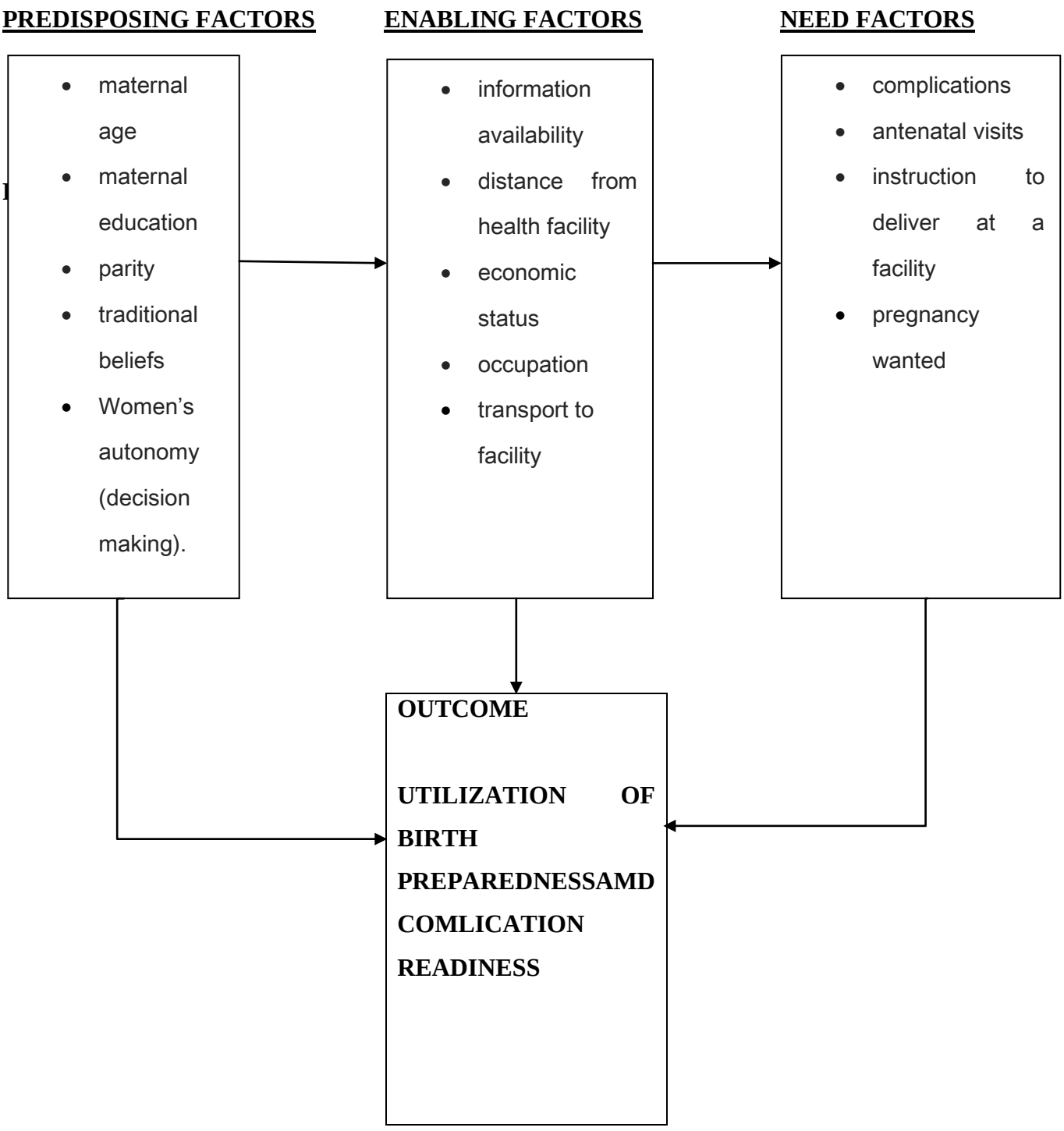


Figure 2: Model of health services utilization adopted from Andersen and Newman (1995).

1.4 JUSTIFICATION

Improving maternal health and reducing maternal mortality have been key concerns of several international summits and conferences since the late 1980s, including the Millennium Summit in 2000 (WHO, 2007).

Soubeiga et al., (2014) undertook a systematic review and meta-analysis of fourteen (14) studies to investigate the effectiveness of BPCR interventions in reducing maternal and neonatal morbidity and mortality and in improving process outcomes contributing to maternal and newborn survival. Findings showed that there is evidence to support implementation of BPCR interventions to improve maternal and neonatal health in developing countries. The systematic reviews underscore the potential value of several BPCR components in reducing maternal and neonatal mortality.

Zambia has put a lot of effort in improving maternal health including commitment to achieve millennium development goal number 5 by the year 2015. One of the strategies used was the introduction of BPCR in all health centers. Furthermore information on BPCR was prioritized to be given to pregnant women during the first two antenatal visits to assist antenatal women prepare for delivery and create awareness about the danger signs of pregnancy and childbirth (MoH, 2004).

However despite these interventions, the maternal mortality rate for Zambia is still very high (398 per 100,000 live births) and the number of women assisted by skilled birth attendants is low (64%). Non use of BPCR strategies might be the reason for insignificant decline of maternal mortality ratio (Kaso and Addisse, 2014).

The aim of this research was to explore factors which influenced utilization of BPCR among antenatal women. Furthermore no studies were conducted on this topic in Zambia. This study has assisted to generate data which could be used as a basis for subsequent studies and investigations. The results of the study serve as preliminary findings that could be used as a baseline for other similar studies that could eventually help policy makers to arrive at better understanding and if necessary find alternative ways of implementation of the BPCR strategy. The study was conducted in Monze district of southern province.

1.5 RESEARCH QUESTION

What are the factors that influencing utilization of BPCR among antenatal women?

1.6 RESEARCH OBJECTIVES

1.6.1 GENERAL OBJECTIVE

To explore factors influencing utilization of BPCR plan among antenatal women.

1.6.2 SPECIFIC OBJECTIVES

I. To assess the utilization of BPCR among antenatal women
II. To investigate barriers to utilization of BPCR.

1.7 HYPOTHESIS

1.7.1 NULL HYPOTHESIS

There is no association between utilization of the BPCR and the following:

a. Knowledge
b. Traditional beliefs
c. Distance from health facility
d. Social support

1.7.2 ALTERNATIVE HYPOTHESIS

There is association between utilization of BPCR and the following:

a) Knowledge
b) Traditional beliefs
c) Distance from health facility
d) Social support

1.8 CONCEPTUAL DEFINITION OF TERMS

1.8.1 Birth preparedness is when a woman and her family prepare for normal birth and for complications that may arise during pregnancy and childbirth (MoH, 2004).

1.8.2 Utilization: this means putting something into practice or making use of an object or concept (Collins Pocket English Dictionary, 2005).

1.8.3 Antenatal: prenatal or preceding birth (Sellers, 2008).

1.8.4 Woman: an adult female (Collins Pocket English Dictionary, 2005)

1.8.5 Factors: Elements contributing to a result (Collins Pocket English Dictionary, 2005).

1.9 OPERATIONAL DEFINITION OF TERMS

1.9.1 Knowledge of birth preparedness is the ability to define birth preparedness and complication readiness

1.9.2 Utilization of BPCR is the implementation of four (4) or more elements of BPCR

1.9.3 Distance from health facility- short is less than 12 kilometers from a health facility and long is more than 12 kilometers.

1.9.4 Education level- high is secondary and above, low is primary or below.

1.10 VARIABLES

1.10.1 INDEPENDENT VARIABLE

The independent variables for this study are client's knowledge, cultural beliefs, distance and social support.

1.10.2 DEPENDENT VARIABLE

The dependent variable is utilization.

TABLE 2: VARIABLES CUT OFF POINS AND INDICATORS

VARIABE	INDICATOR	CUT OFF POINT
INDEPENDENT VARIABLES		
Knowledge of birth preparedness	Yes	No. of clients who can define birth preparedness and complication readiness.
	No	No. of clients who cannot define birth preparedness and complication readiness.
Traditional beliefs	Yes	No. of clients who are aware of cultural beliefs
	Not present	No. of clients who are not aware of any cultural beliefs
Distance from health facility	Short	No. of clients who stay less than an hour's walk from nearest health facility.
	Long	No. of clients who stay more than an hour's walk to nearest health facility
Social support	Yes	No. of clients who identified a support person to accompany her to a HF
	No	No. of clients who had not identified a support person to accompany her to a HF
DEPENDENT VARIABLE		
Birth preparedness and complication readiness	Yes	No. of clients who are utilizing elements for birth preparedness and complication readiness
	No	Number of clients not utilizing elements for birth preparedness and complication readiness.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

A literature review is an organized written presentation of what has been published on a topic by scholars (Nancy et al., 2001) Birth preparedness and complication readiness is a key component of globally accepted safe motherhood programs, which helps ensure women to reach professional delivery care when labor begins and to reduce delays that occur when mothers in labor experience obstetric complications (Hailu et.al., 2011). According to World Health Organization (2011), the major objective of antenatal care is to achieve optimal health outcomes for the mother and baby. The key objectives include: early detection of complications and prompt treatment; prevention of diseases, through immunization and micro-nutrient supplementation; birth preparedness and complication readiness; and health promotion and disease prevention, by providing health messages and counseling to pregnant women. In this chapter the literature review focuses on utilization of birth preparedness by antenatal women.

The sources of literature consulted are derived mainly from studies conducted by other researchers from all over the world. The purpose of this review is to find out what information is available on the area of study and to explore ideas from other researchers which could later be compared with the findings of this study in order to come up with a concrete conclusion to upgrade the existing body of knowledge. Literature review has been organized according to variables which influence utilization of the birth preparedness and complication readiness.

2.2 Utilization

Antenatal care is very important in relation to birth prepared and complication readiness because it is a period when most information and counseling is given to the women especially on safe motherhood. Women who shun antenatal clinics may be at a disadvantage because they may lack knowledge on how to recognize and respond to obstetric emergencies if they arise. Onayade, Akabi, Okunala et.al (2010) conducted a study on birth preparedness and emergency readiness of antenatal clinic attendees in Ile-Ife, Osin site, Nigeria.

The study assessed adequacy of birth preparedness and emergency readiness plans of antenatal clinic attendees. Pregnant women (36 weeks of gestation) attending antenatal clinic in selected health facilities were serially recruited into the study after they had given verbal informed consent.

Data were collected using a purposive- design data questionnaire. Four hundred pregnant women were recruited. 284 (71%) registered for antenatal care by 20 weeks of gestation. 350 (87.5%) had decided their place of delivery, although 32 (9.1%) of these planned to deliver in mission houses or at home. Three hundred and fifty one participants (87.8%) had started to purchase items needed for delivery or newborn care, 289 (71.0%) had identified someone to accompany them to health facility for delivery while 259(64.8%) were saving money for delivery. Regarding complication readiness, knowledge of signs of severe maternal illness for which medical care should be sought in an appropriate health facility was low, with 113 (28.3%) respondents being able to mention four or more signs without prompting; 249 (62.3%) had made arrangements for transportation and 45 (11.3%) had identified potential blood donors by this study criteria. About 61% of the pregnant women studied made adequate preparations for delivery while 11.3% were ready for emergency complications. The study recommended that greater emphasis should be given to emergency complication readiness.

Another study carried out in Pakistan by Assad et.al (2005) to assess the birth preparedness and utilization of antenatal services revealed that knowledge regarding danger signs during pregnancy and delivery was low. The study also showed that sixty four percent (64%) of women received some antenatal care while 45% deliveries were conducted at home. Among those having to seek emergency care during pregnancy, delivery or postpartum, 39% approached a health facility. Lack of preparation in terms of transport was reported in 83% cases.

According to a study conducted in Utter Pradesh, India by Rosecrans et.al (2008), it was indicated that women who took at least one birth preparedness step were 45% more likely to have skilled care at birth. This shows that the more the birth preparedness steps women take, the higher the probability of using skilled services at birth.

2.3 Parity

Apart from the important role that antenatal care plays in birth preparedness and complication readiness, parity may also determine utilization of health facilities. Women who have given birth before are less likely to be prepared for birth and be ready for complications than those who are pregnant for the first time, especially if they did not experience any problems with the previous pregnancies.

A study conducted in southern Ethiopia by Hiluf and Fantahun (2007) revealed that, significant predictors of being well prepared were maternal availing of antenatal services and being pregnant for the first time. Among the antenatal women who were sampled only a quarter (20.5%) of the pregnant women identified skilled providers and only 8.1% identified health facility for delivery and/or for obstetric emergencies. Preparedness for transportation was found to be very low (7.7%). Considerable number (34.5%) of families saved money for incurred costs of delivery and emergency if needed. Only few (2.3%) identified potential blood donor in case of emergency. Majority (87.9%) of the respondents reported that they intended to deliver at home, and only very few (8%) planned to deliver at health facilities. Overall only 17% of pregnant women were well prepared (Hiluf et al., 2007).

2.4 Knowledge

Kabakyenga et.al (2011) conducted a Community survey to determine the knowledge of danger signs and birth preparedness practices among women in Mbarara district, rural Uganda. Seven hundred and sixty four women were included in the study. Interviewer administered questionnaire were used to collect data. Logistic regression analyses were conducted to explore the relationship between knowledge of key danger signs and birth preparedness.

The results showed that fifty two percent (52%) of women knew at least one key danger sign during pregnancy, 72% during delivery and 72% during postpartum. Only 19% had knowledge of 3 or more key danger signs during the three periods. Of the four birth preparedness practices; 91% had saved money, 71% had bought birth materials, 61% identified a health professional and 61% identified means of transport. Overall 35% of the respondents were birth prepared.

The study concluded that the prevalence of women who had knowledge of key danger signs or those who were birth prepared was very low.

A similar study was conducted by Urassa et.al (2012) in Mpwapwa district, Tanzania. The results showed that one-third of women who had decisions on a place of delivery intended to delivery at home. Moreover, only 14.8% of the women were aware of three or more obstetric danger signs which signify a low awareness. A study was conducted by Nuraini and Parker (2005) on improving knowledge of Antenatal care among pregnant women. This was a field trial carried out in Central Java, Indonesia. The purpose of the study was to ascertain if a new approach to ANC can improve pregnant women's knowledge of its benefits. An experimental design with 60 pregnant women from 10 cluster villages was used in the study. The intervention group received the new approach to ANC while the control group received routine ANC. The findings show that the improvement of knowledge in the intervention group was significant particularly in the knowledge about healthy pregnancy, pregnancy complications, safe birth and taking care of the new born. The improvement of knowledge was significantly influenced by the respondents' educational background and socio-economic status. The study recommended that the new approach to ANC should be considered and adopted as one of the strategies to reduce maternal mortality.

A study conducted in South Ethiopia by Hiluf and Fantahum (2007), identified poor comprehensive knowledge and practices of preparation for birth and its complication in the area. Community 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 consequently the effects of pregnancy related complications.

Antenatal care clinics should give due emphasis to preparation for birth and its complication and provide information and education to all pregnant women.

2.5 Distance from health facility

Distance from a health facility is very critical in utilizing required services. Women who stay in areas which are difficult to reach may have no access to health facilities and utilization of health services due to transport costs. However clients who stay close to the health facility are more likely to use the available services and emergency care when complications arise.

Moran et.al (2006) conducted a survey on birth preparedness in Koupela district, Burkina Faso. A total of 145 villages were randomly sampled for the study. Results showed that although women had positive attitudes towards giving birth in health centers, they often encountered barriers reaching facilities. Distances from villages to health centers were often long; women travelled 22.8 km, on average, through remote, rural areas to reach a health facility.

Kabakyenga et.al (2011) also had similar results when he reported that women who were residing at a distance of more than one-hour travel time from a health facility offering childbirth services were less likely to choose assistance by skilled birth attendant compared to respondents who stayed near a health facilities. A study conducted by Ekabua et.al (2011) also showed that distance was an issue in seeking skilled attention, with up to half of the women having to travel up to 2 km or more to reach the nearest hospital. A study from Nepal showed that a distance of more than one hour to the maternity hospital was statistically associated with an increased risk of home delivery (Wagle, Sabroe and Nielsen, 2004).

2.6 Information Education and Communication (IEC)

Nikiema, Beninguisse and Haggerty (2009) conducted a study on providing information on pregnancy complications during antenatal visits; unmet educational need in Sub Saharan Africa.
A cross-sectional, cross-country analysis was performed on data from the most recent Demographic and Health Surveys (DHS) of 19 countries of sub-Saharan Africa. Multilevel fs were used to predict the probability of receiving information and delivering in a health centre, by clinical risk factors (age, parity, previous pregnancy termination), social factors (area of residence, education), and the frequency of service utilization (number of visits). The results showed that the percentage of women recalling information about potential complications of pregnancy during antenatal care varied widely, ranging from 6% in Rwanda to 72% in Malawi,

and in 15 of the 19 countries, less than 50% of women reported receiving information. Institutional delivery ranged from 29% (Ethiopia) to 92% (Congo Brazzaville). Teenagers, uneducated and rural women were less likely to have been advised, compared with women aged 20–34 years, women with secondary education and urban women, respectively. Likelihood of recalling information increased with the number of antenatal visits. Advice reception interacts with the number of antenatal visits to increase the likelihood of institutional delivery.

The researchers concluded that there is a high level of unmet need for information on pregnancy complications in sub-Saharan Africa, particularly among those who face significant barriers to accessing care if complications occur. Educational interventions are critical to safe motherhood initiatives and finally recommended that health providers must fully use the educational opportunity in antenatal care. A study conducted in Kenya in 2008 indicated that education and counseling on different aspects of birth preparedness was not provided to all clients. Respondent's knowledge of danger signs in pregnancy was low. Many respondents did not know about birth preparedness and had no plans for emergencies (Mutiso, Qureshi and Kimuthia, 2008).

2.7 Cultural beliefs

Some traditional beliefs may negatively influence the utilization of BPCR. It is believed that preparing baby layette before delivery may cause the death of the baby. There is another traditional belief that a woman should not announce that she is pregnant until the pregnancy is too big to be hidden. This may delay antenatal care and identification of risk factors. According to Choudhury and Ahmed (2012), cultural beliefs and practices reinforced poor health seeking behavior, including home delivery without skilled assistance.

2.8 Social support

In an effort to maximize health service utilization as well as BPCR, some countries have involved male partners, who are the main decision makers even in matters involving reproductive health. A study conducted in Nepal showed that women who received health education together with their partners during antenatal visits were twice likely to report making

more than three preparations for their birth than those who did not involve their partners (Wagle et.al, 2004).

CONCLUSION

The literature clearly shows that most of the countries worldwide are supporting the use of birth preparedness and complication readiness practices to promote safe motherhood and reduce maternal morbidity and mortality resulting from complications of pregnancy and childbirth. This is evident in measures taken such as introduction of BPCR in health facilities to create awareness and provide IEC to all antenatal mothers attending antenatal clinics.. However, despite all these efforts put in place by those countries to ensure the successful implementation of the BPCR programs,, the utilization of BPCR practices is very low in Africa evidenced by low health facility deliveries and high maternal mortality rates. This means that there may be still problems in how the programs are run and delivered. The study may help to reveal some of these shortfalls.

Furthermore it is also evident that most of the studies focus on single elements of BPCR, than on the whole concept. Very few studies have been done on BPCR in Zambia. Therefore, the investigator wishes to find out the factors that influence utilization of BPCR.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 3 discusses the methodology used in this study. It describes the research design, research setting, study population, sample selection, inclusion and exclusion criteria, sample size, data collection tools, data collection technique, validity and reliability, pre-test and ethical consideration

3.2 RESEARCH DESIGN

This study used a descriptive cross-sectional study design. A descriptive type of study was chosen because little was known about the study (Wyse, 2011). It also enabled an in-depth investigation of the phenomena of BPCR as very little was known about birth preparedness in the study setting and this study was conducted to help generate information on BPCR, A cross section study design was chosen to enable the investigator to collect data at a specific point in time (Wyse, 2011). This study enabled the researcher to collect data at three selected health centers in Monze District, giving an accurate picture of exactly what was happening regarding birth preparedness in the study population. A descriptive cross sectional design assisted the investigator to get the views and perception of pregnant women regarding BPCR.

The study used quantitative approach. In this approach the investigator was able to quantify the problem by way of generating numerical data or data that could be transformed into useable statistics. The study was used to quantify attitudes, opinions, behaviors, and other defined variables – and generalize results from a larger sample population (Wyse, 2011).

3.3 RESEARCH SETTING

The study was conducted in Monze District at three selected health centers that offer antenatal care to clients and these were Keemba zonal health center, Manungu and Monze Urban Clinic. The health facilities were selected purposively because of the nature of the services provided and their easy accessibility. Monze District is along the great north road, 180Km from Lusaka and 287 Km from Livingstone in the Southern Province of Zambia. The District is predominantly rural. It has one general (second level) hospital and 26 health centers.

3.4 STUDY POPULATION

The study population consisted of all pregnant women who attended ANC at the time of the study and included the target population as well as the accessible population.

3.4.1 TARGET POPULATION

The target population included antenatal women who were at least 32 weeks of gestation, para one or above and had attended at least two (2) antenatal visits during the current pregnancy. This population was the target for the study because they were more likely to have received information on BPCR during antenatal care.

3.4.2 ACCESSIBLE POPULATION

In this study the accessible population included antenatal women who had at least two pregnancies. These women could have had antenatal care and received information on BPCR during previous pregnancy.

3.5 SAMPLE SELECTION

The study sample was selected by using systematic sampling method. The study population was divided by the size of the sample size to come up with the sample interval width. In this study every 6th antenatal woman who met the study criteria was selected to be interviewed. The first participant was selected randomly using a table of random numbers. This sampling method was utilized because it is identical to random sampling therefore obtained more efficient results.

3.5.1 INCLUSION CRITERIA

All pregnant women who had 2 or more pregnancies, were 32weeks pregnant or more, had attended at least two antenatal visits and gave consent were included in the study.

3.5.2 EXCLUSION CRITERIA

All eligible antenatal women who declined to give consent were excluded from the study

3.6 SAMPLE SIZE

The sample size was calculated using the Epi info version 6.0 statistical software. According to Monze DHMT report the number of expected pregnancies for 2015 was 1, 244. This constituted the population size.

Population size = 1,244

Expected frequency = 80%

Worst acceptable =75%

Confidence interval = 95%

Sample size = 205

3.7 DATA COLLECTION TOOLS

A semi structured interview schedule was used in this study. The interview schedule comprised both open and close ended questions. Open ended questions permitted free responses and therefore information obtained was likely to be more rich and valid than answers provided in the options for closed ended questions from which choices were made. On the other hand, closed ended questions allowed answers to be recorded quickly and were less time consuming than open ended questions. The duration of face to face interview was 30 minutes.

The semi structured instrument was used for the following reasons:

a. The method is assumed to be the most efficient way of collecting data. It is accurate since it allows the interviewer to probe and clear misunderstanding of questions during the interview.
b. It is appropriate for both the literate and the illiterate respondents.
c. The interviewer can observe the non verbal cues which help to validate the information being collected.
d. It also ensures that all questions are answered.

The instrument however had some drawbacks which included the following:

1. The presence of the interviewers could lead to respondents not giving precise and correct answers.
2. There is also need to train research assistants to ensure that the information is uniform and recording is not a problem.

3.7.1 VALIDITY

To ensure validity of the research tool, an extensive literature review was conducted before designing the tools. The questions were simple, concise and brief. Experts in Maternal and Child Health program also checked the questions. The questions were constructed in such a way that they were not ambiguous. Random sampling method was used to avoid preference in selection of research samples and this ensured internal validity.

3.7.2 RELIABILITY

To ensure reliability the research instrument pretest was carried out before the actual study was conducted and alterations were made accordingly. The subjects were exposed to the tool once and the three research assistants were trained so that they were able to understand the questions in a similar way without distorting the meaning.

3.8 DATA COLLECTION TECHNIQUE

3.8.1 INTERVIEW SCHEDULE

The technique that was used in data collection was face to face interview schedule. The interviewer introduced her/himself to the respondents and explained the purpose of the study. Respondents were reassured of confidentiality and anonymity. After putting the respondent at ease, the interviewer then proceeded with the interview. Any questions that were not clear to the client were repeated, and rephrased while the meaning of the question was not altered. The clients were allowed to ask questions at the end of interview if they had any. The interviewer then thanked the clients for their participation at the end the interview. The procedure for the interview was as follows:

a. Introduction of self to participant was done in order to make the participant feel at ease.
b. The purpose, benefits and risks of the study were explained to the participant to enable participant to be fully aware of the study she was participating in.
c. The interview was conducted where and in a manner that privacy and confidentiality was assured.
d. Face to face interaction was done in a private room after permission was sought from the participant.
e. Questions were read carefully to the participant to avoid cross-examination and questions not understood were repeated without showing direction or clue to the answer.
f. Probing was done for questions not fully answered by the participant.
g. All the responses were immediately coded and noted down on the interview schedule to avoid missing out any information.
h. The interview was conducted at times agreed by participants and 30 minutes was spent on each participant.

i. At the end of the interview each participant was thanked for participating.

3.9 PRE TEST

The purpose of the pre test was to elicit flaws in the data collection tools, such as ambiguity and illogically sequenced questions and revision made to strengthen the methodology (Usy and Basson, 2000). The pre test determined the predictability of the data collection (Usy and Basson, 2000).

Pre testing of the data collection tools was done at Nampeyo Health Center on a sample with similar characteristics as the actual study sample and 21antenatal women participated in the pilot study.

3.10 ETHICAL CONSIDERATION

Ethical clearance was obtained from ERES Converge IRB. Written permission to conduct the study was obtained from the management of Monze DHO. The purpose and nature of the study was explained to the study participants so that they understood and accepted voluntary participation knowing what was involved. Those who declined to participate were reassured that no privileges would be taken away from them as clients attending antenatal clinic. Those who agreed to participate in the study were requested to sign a consent form. Those who participated were not remunerated in any way.

Reproductive health matters are culturally sensitive and greatest care needed to be taken on the values and beliefs of the participants. The selected research assistants were nurses so that participants were able to talk freely.

Anonymity and confidentiality during the interview was assured to participants and they were interviewed in a private room. The research assistants were trained to ensure that they maintained confidentiality. The participants' names were not written on the interview schedules and no other person apart from the researcher was allowed to access the collected data. The participants were not subjected to any physical harm, as the research did not involve any invasive procedures.

To ensure further confidentiality, all completed interview schedule forms were kept under lock and key after the interview.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4. 1 INTRODUCTION

This chapter discusses the analysis and presentation of findings. The aim of the study was to determine factors influencing BPCR among antenatal women in Monze district.

4.2 DATA PROCESSING AND ANALYSIS

Data analysis is the systematic organization and synthesis of data (Basavanthappa, 2007). Data analysis is done to reduce, organize and give meaning to the data. The analysis of data from quantitative research involves descriptive and exploratory procedures to describe study variables and the sample and statistical techniques to test proposed relationships.

Data was collected using a pre-tested semi-structured interview schedule. Open ended questions were processed as follows: the investigator read through the data in its entirety to identify and group answers that belonged together. Categorization of open ended questions in this way enabled the researcher to report percentage of respondents who gave answers that fell in each category. Closed ended questions were also assigned codes. Then entered and analyzed using SPSS version 20 data package.

The chi-square test was used to test associations of categorical variables. The variables included utilization, knowledge, and distance to health facilities, social support and traditional cultural beliefs. The cut off point for statistical significance was set at five percent (5%), only p value less or equal to 0.05 were considered statistically significant thereby rejecting the null hypothesis.

4.3 PRESENTATIONS OF DATA

In this study, findings were presented according to the sequence of questions and categories in the interview schedule. Frequency tables, pie charts and graphs were used to present quantitative data because they are easy to read and understand and give a rough idea and picture about findings even before reading the discussion of findings. They are also useful to combine information on two or more variables in order to arrive at a positive explanation of the problem.

SECTION A: SOCIO DEMOGRAPHIC DATA

This section presents the respondents demographic characteristics. These include age, education level, parity, marital status, religion, denomination and income.

TABLE 3: DEMOGRAPHIC DATA

Variable	Frequency	Percentage
Age		
18-34	152	74.1
35-45	53	25.9
Total	205	100
Education level		
Secondary and above	115	56.1
Primary and below	90	43.9
Total	205	100
Marital status		
Married	158	77,1
Not married	47	22.9
Total	205	100
Parity		
1-4	132	64.4
5 and above	73	25.6
Total	205	100
Woman's income		
Above K500	43	21
below K500	144	70.2
Not sure	18	8.8
Total	205	100
Occupation		
Regular employment	69	33.7
Not in regular employment	136	66.3
Total	205	100
Denomination		
Seventh Day Adventist	134	65.4
Pentecostal	10	4.9
Roman catholic	36	17.6
Others	25	12.1
Total	205	100

Table shows that of the 205 respondents, majority 152 (74.1%) were between 18-34 years of age and 53 (25.9) were between 35 and 45 years of age. The mean age of the respondents was 26 years.

The majority of the respondents 132 (64.4%) had between 1-4 children while 73 (35.6%) had more than 5 children

Total number of 158 (77.1%) respondents were married while 47 (.22.9%) were not married (single and divorced).

Education attainment showed 115 (56.1%) of the respondents attained secondary school or tertiary education and 90 (43.9%) had either not been to school or went only as far as primary school.

All the respondents were Christians belonging to different denominations as follows: Seventh Day Adventists 134(65.4) Roman Catholic 36 (17.6%) Pentecostal church 10 (4.9%) and other churches 25 (12.1%).

Respondents who earned monthly income greater than K500.00 were 43 (21%), those who earned a monthly income less than K500.00 were 144(70.2%) and those who were not sure of their earnings were 18 (8.8%).

SECCTION B: KNOWLEDGE AND UTILIZATION OF BIRTH PREPAREDNESSAND COMPLICATION READINESS.

Section B presents the respondents knowledge levels and utilization of BPCR. The variables measured were whether respondents heard about birth preparedness, source of information, heard about danger signs of pregnancy and knowledge of danger signs during pregnancy. The part on utilization is measured by five selected elements of BPCR which include identification of a skilled birth attendant to conduct the delivery, place of delivery, arrangement for transport, money and knowledge of danger signs of pregnancy.

Figure 3: KNOWLEDGE ABOUT BPCR

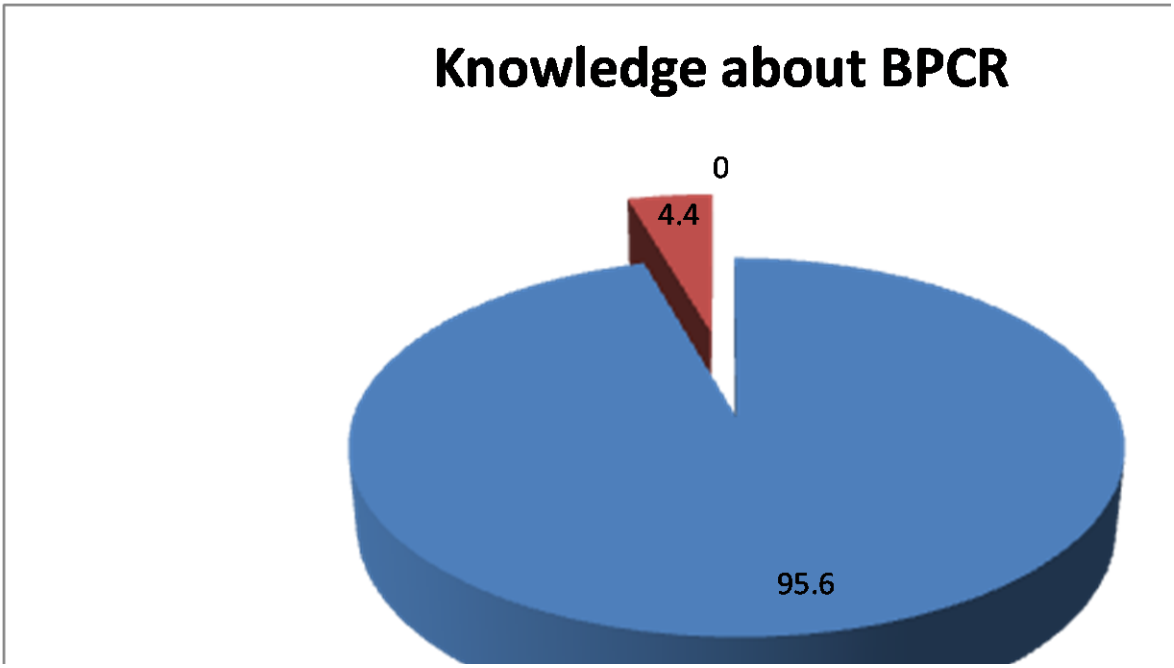


Figure 3 Shows that the majority 196 (95.6%) of the respondents knew about BPCR while 9 (4.4%) did not know about birth preparedness and complication readiness.

FIGURE 4: SOURE OF INFORMATION

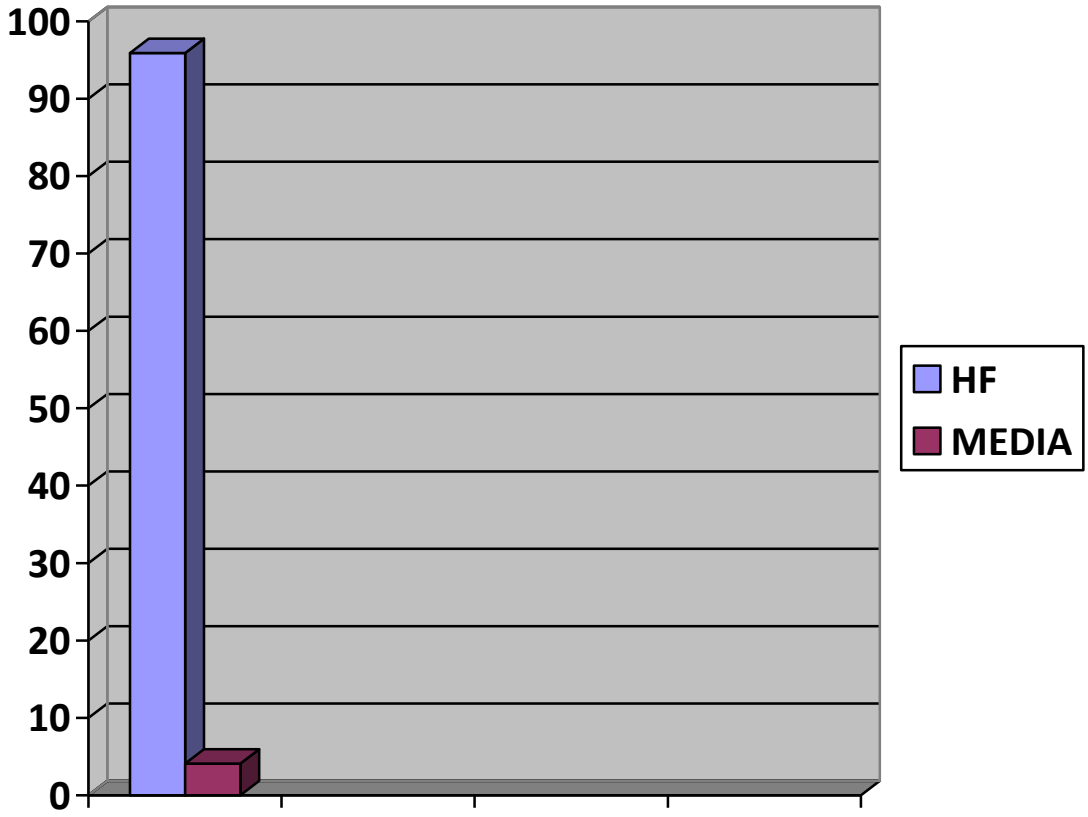


Figure 4 shows that out of the total number of 196 respondents who heard about BPCR 188 (95.9%) got information from health facilities and 8 (4.1%) from media

TABLE 4: UTILIZATION OF BPCR

VARIABLE	FREQUENCY	PERCENTAGE
Identification of skilled birth attendant		
Yes	**57**	**27.8**
No	**148**	**72.2**
Total	**205**	**100**
Arrangement for transport		
Yes	**149**	**72.7**
No	**56**	**27.3**
Total	**205**	**100**
Saved money		
Yes	**162**	**79.0**
No	**43**	**21.0**
Total	**205**	**100**
Identify facility for delivery		
Yes	**195**	**95.1**
No	**10**	**4.9**
Total	**205**	**100**
Knowledge of danger signs		
Yes	**111**	**54.1**
No	**94**	**45.9**
Total	**205**	**100**
Decision making		
Yes	**68**	**33.2**
No	**137**	**66,8**
Total	**205**	**100**

Table 4 shows the elements required for BPCR as well as the number of respondents who have or not achieved them during the current pregnancy. Achievement of four (4) or more of the elements denotes utilization of BPCR.

TABLE 5: UTILIZATION OF BIRTH PREPAREDNESS SUMMARY

VARIABLE	FREQUENCY	PERCENTAGE
Utilization		
Yes	**143**	**69.8**
No	**62**	**30.2**
Total	**205**	**100**

Table 5 shows that 143 (69.8%) of the respondents achieved 4 or more elements of birth preparedness while 62 (30.2%) did not meet the requirements.

FIGURE 5: PREVIOUS DELIVERY PLACE

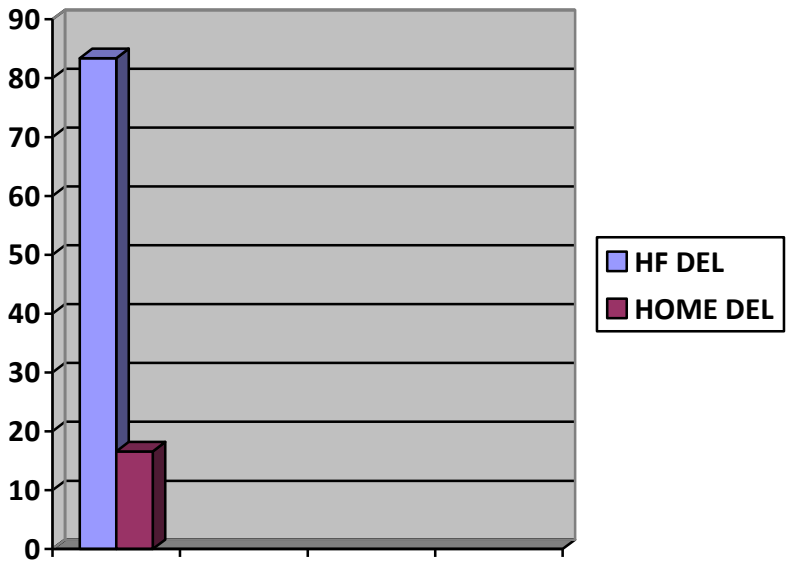


Figure 5 shows that out of the 205 respondents 171 (83.4%) delivered at a health facility whereas 34(16.6%) delivered at home.

SETION C: HEALTH SERVICES RELATED TO BPCR

This section presents data on variables related to provision and accessibility of health services. The variables analyzed in this section were distance to the health facility and type of transport

TABLE 6: HEALTH SERVICES RELATED FACTORS

VARIABLE	FREQUENCY	PERCENTAGE
Distance to Health Facility		
1. Less than 1 hour	**147**	**71.4**
2,More than 1 hour	**58**	**28.6**
Total	**205**	**100**
Transport facilities		
1. Reliable	**142**	**69.2**
2.unreliable	**63**	**30.8**
Total	**205**	**100**
Staff attitude		
1. Good	**168**	**81.9%**
2. Poor	**37**	**18,1%**
Total	**205**	**100%**

Table 6 shows that most of the respondents 147 (71.4%) stayed within an hour's distance to a health facility while 58 (28.6%) of the respondents were staying in places more than an hour's distance from the nearest health facility.

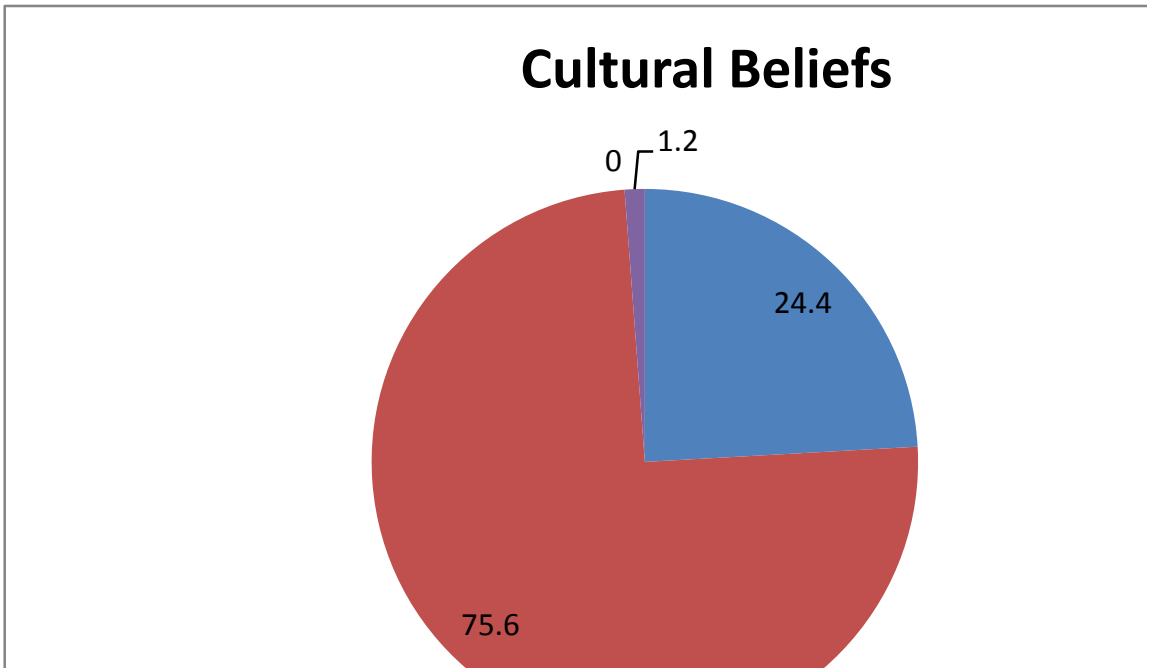
The type of transport used to go to the health facility showed that the majority of respondents 142 (69.2%) had reliable modes of transport while 63 (30.8%) had unreliable forms of transport.

Majority (81.9%) of respondents reported that the attitude of staff at health facilities where they delivered during the previous pregnancy was good.

SECTION D: TRADITIONAL CULTURAL BELIEFS

This section analyzes data from variables on knowledge of cultural beliefs concerning birth preparedness and complication readiness.

FIGURE 6 CULTURAL BRLIEFS



The above figure indicates that only a quarter (24.4%) of the respondents had knowledge of traditional cultural beliefs that could affect utilization of birth preparedness and complication readiness and 75.6% had no knowledge.

SECTION E; SOCIAL SUPPORT

This section presents respondents' responses on the variables concerning the importance of social support in utilization of birth preparedness and identification of support person.

TABLE 7: SOCIAL SUPPORT

VARIABLE	FREQUENCY	PERCENTAGE
Social support important		
Yes	**195**	**95.1**
No	**10**	**4.9**
Total	**205**	**100**
Identified support person		
Yes	**149**	**72.7**
No	**56**	**27.3**
Total	**205**	**100**

Majority of the respondents (95.1%) indicated that social support was important and when asked if they identified a support person, the majority 149(72.7%) stated that they identified support persons to accompany them to a health facility for delivery in case of complications.

F: ASSOCIATION BETWEEN INDEPENDENT AND DEPENDENT VARIABLES USING PEARSON'S CHI SQUARE

TABLE 8: ASSOCIATION BETWEEN KNOWLEDGE AND UTILIZATION OF BPCR

UTILIZATION OF BPCR		KNOWLE DGE			p-Value
		YES	NO	Total	
	YES	139	2	141	
	NO	57	7	64	
	BPCR				
Total		196	9	205	0.004

Table 8 illustrates the association between knowledge and utilization of birth preparedness and complication readiness. It shows that 139 (70.9%) of respondents who had knowledge about birth preparedness were more likely to utilize BPCR than those who had no knowledge about BPCR (p-Value=0.004 significance).

TABLE 9: ASSOCIATION BETWEEN CULTURAL BELIEFS AND UTILIZATION OF BPCR

UTILIZATION OF BPCR		CULTURAL BELIEFS			p-Value
		YES	NO	Total	
	YES	41	102	113	
	NO	9	53	62	
	BPCR				
Total		50	155	205	0.001

The above table shows association between cultural beliefs and utilization of birth preparedness and complication readiness. . The findings showed that 9 (18%) out of the 50 respondents who knew some cultural beliefs regarding BPCR did not utilize BPCR and this could be attributed to their cultural beliefs (p-Value = 0.001 significance)

TABLE 10: ASSOCIATION BETWEEN IDENTIFICATION OF SOCIAL SUPPORT PERSON AND UTILIZATION OF BPCR					
UTILIZATION OF BPCR		SUPPORT PERSON			p-Value
		YES	NO	Total	
	YES	104	38	143	
	NO	45	17	62	
	BPCR				
Total		149	55	205	0.37

The above table illustrates association between identification of a social support person and utilization of BPCR. It shows that those who had social support 104(69.8%) were more likely to use BPCR than those who had no social support 38 (69.0%). However, statistically there is no significant association between social support and utilization of BPCR (p-Value=0.37).

TABLE11: ASSOCIATION BETWEEN DISTANCE FROM HF AND UTILIZATION OF BPCR					
UTILIZATION OF BPCR		DISTANCE FROM HF			p-Value
		NEAR	FAR	Total	
	YES	141	2	143	
	NO	6	56	62	
	BPCR				
Total		147	58	205	0.000

The above table shows the association between distance from health facility and utilization of birth preparedness (p-value = 0.000). Respondents who stayed near a health facility were more likely to use BPCR (95.9%) than those staying far from a health facility (3.4%).

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 INTRODUCTION

This discussion focuses on the respondents' socio demographic characteristics, knowledge of BPCR, and factors that influence utilization of BPCR among antenatal women in Monze District. The major findings of this study were that the majority of the respondents knew about BPCR. Factors which influenced utilization of BPCR included knowledge of BPCR, traditional cultural beliefs and distance from the health facilities. The majority of respondents acknowledged that they received information education and communication on BPCR from health facilities. Most (83.4%) of the respondents reported that they used a skilled birth attendant in the previous delivery (figure 5). Overall respondents who reported utilization of BPCR were 143 (69.8%).

5.2 SOCIO DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

The demographic characteristics of the respondents which were relevant to this study included age, marital status, religion, parity, educational level and income levels. The information on the demographic characteristic was essential for interpretation of the findings. A total number of 205 respondents were interviewed yielding a response of one hundred percent (100%).

Most 152 (74.1%) of the respondents interviewed were within the normal child bearing age of between 18 - 34 years (Table 3) and those aged between 35 – 49 years old were 53 (25.9%). Majority of the respondents were married 158 (77.1%) and 47(22.9%) were not married. Respondents who had between 1-4 children were 132 (64.4%).and high parity women (5 children and above) were 73 (35.6%). This implied that most of the respondents were young mothers with low parity.

The study revealed that half of the respondents had attained secondary school or tertiary education 115 (56.1%) while those who had primary or no education were 90 (43.9%). This may be an indication that women are getting more educated. Furthermore, the changes in policy which allow women to go back to school after pregnancy has enabled more women to get education than it was previously.

Regarding the respondents income, 34.5% earned an income above K1, 000 (Table 2). This could be an indication that income levels in this country are low.

5.3 RESPONDENTS' UTILIZATION OF BPCR

The study results revealed that more than half 143 (69.8%) of the respondents utilized BPCR (table 5). Utilization of BPCR depended on the following factors and their results in this study (table 4): knowledge of danger signs of pregnancy 111(54.1%), identification of a health facility for delivery 195 (95.1%), identification of a skilled birth attendant to conduct the delivery 57 (27, 8%), saving money162 (79.0%), arranging transport 149 (72.2%) and identifying a decision maker 68 (33.2%). The findings on utilization of BPCR contrast with those from a study conducted by Onayade et.al. (2008) in Nigeria which showed that 289 (71.0%) of respondents had identified someone to accompany them to health facility for delivery while 259(64.8%) were saving money for delivery. Regarding complication readiness, knowledge of signs of severe maternal illness for which medical care should be sought in an appropriate health facility was low 113 (28.3%). Respondents in the study conducted by Onayade were able to mention four or more signs without prompting and 249 (62.3%) had made arrangements for transportation.

This study showed that 92 (30.2%) of the respondents did not use BPCR and were not prepared for child birth and related complications. Emphasis should be put on complication readiness.

5.4 RESPONDENTS KNOWLEDGE AND UTILIZATIONOF BIRTH PREPAREDNESS

The results showed that the majority 196 (95.6%) of the respondents had knowledge of the meaning of birth preparedness (figure 3). these results of high knowledge of birth preparedness and complication readiness are similar to the findings of the study conducted by Ekabua et.al (2011) in Nigeria, which showed that 71% of the respondents had knowledge about birth preparedness and complication readiness. However another study conducted by Markos and Bogale (2014) in Goba Woreda, Ethiopia showed that only 14.6% of the participants had knowledge on birth preparedness and complication readiness The high knowledge in this study could be attributed to the Information, education and communication given by health facility staff considering the fact that a large number of the respondents' source of information in this study (figure 4) was the health facilities 188 (91.7%).

This contrasts with results of a study conducted in sub-Saharan Africa by Nikiema et.al (2009) which showed that the percentage of women who recalled having received information about potential complications of pregnancy during antenatal care varied widely, ranging from 6% in Rwanda to 72% in Malawi Information on birth preparedness and complication readiness is necessary in order to motivate more women to use birth preparedness elements or practices for safe motherhood.

In this study, the respondents were asked to give a meaning of the term birth preparedness and complication readiness. Almost all of the respondents had an idea of the meaning of birth preparedness except 9 (4.4%) who had not heard about the definition of birth preparedness and complication readiness (figure 3). Similarly, the respondents were asked about the source of information for BPCR. The majority reported that they received information from health facilities (95.9%). This is in conformity to the statement that non use of BPCR strategies might be the reason for insignificant decline of maternal mortality ratio (Kaso and Addisse, 2014).

5.5 RESPONDENTS TRADITIONAL/CULTURAL BELIEFS AND UTILIZATION OF BIRTH PREPAREDNESS

Cultural beliefs and values can influence use of birth preparedness practices. As indicated in figure 6, some of the respondents 50(24.4%) reported that they knew some traditional beliefs which could affect utilization of birth preparedness and complication readiness. The respondents reported that tradition forbade procurement of baby layette before delivery as it could cause bad luck and death of the baby. Such cultural beliefs could derail the birth preparedness process because its main advocacy is the prior preparation in case of sudden development of a complication. Some respondents reported that it would be easier to deliver at a health facility if women were given chance to use some traditional practices which could prevent death or speed up the labour. However the health facility staffs do not allow them and therefore some mothers prefer to deliver at home where they are free to use herbal medicine and other practices which could save life. According to the General Assembly resolution (1979), in many societies, especially African countries, difficulty in labour or delay in delivery has been believed to be punishment for marital infidelity and the pregnant woman was pressured to confess her misdeed

so that labour may continue without complications. Choudhury et.al (2012) also reported that cultural beliefs and practices reinforced poor health seeking behavior, including home delivery without skilled assistance.

Similarly when respondents were asked whether they knew any misconceptions concerning birth preparedness, 24 (11.7%) reported that they knew some misconceptions that could affect utilization of birth preparedness and complication readiness. 10 (4.9%) of the respondents reported that they fear to deliver at health facilities because some nurses steal babies and drain blood from newborn babies

These misconceptions seem to be outrageous but could bring fear of delivering at a health facility in some women who hold them to be true. BPCR encourages women to deliver at health facilities where they could be attended to by skilled health care providers. Educating both clients and community leaders could help improve perception of the community towards birth preparedness practices and related services.

5.6 RESPONDENTS' DISTANCES FROM HEALTH FACILITY AND BPCR

This study revealed that 147 (71.4%) of the respondents stayed within one hour's travel from a health facility, while 58 (28.6%) stayed more than one hour's journey from the nearest health facility. The majority of respondents 142 (69.2%) had reliable forms of transport to the health facility while 63 (30.8%) had no reliable form of transport. This study showed that respondents who stayed close to the health facility were more likely to use BPCR (95.9%) compared to those who stayed far (3.4%) from the health facility (table 11).

Majority 43 (74.1%) of respondents who did not deliver in a health facility during previous pregnancy cited long distance and transport problem as the main reason for delivering at home. some respondents reported that the only form of transport they used was ox carts and if labour starts during the season when cows were taken in the plains for grazing, there would be no other alternative but to deliver at home because health facilities were too far. Similarly, Moran et.al (2006) reported that although women had positive attitudes towards giving birth in health centers in Nepal, they often encountered barriers reaching facilities. Distances from villages to health centers were often long; women travelled 22.8 km, on average, through remote, rural areas to

reach a health facility. Kabakyenga et.al (2011) also showed similar findings that women who were residing at a distance of more than one-hour travel time from a health facility offering childbirth services were less likely to choose assistance by skilled birth attendant

5.7 ASSOCIATIONS BETWEEN THE DEPENDENT AND THE INDEPENDENT VARRIABLES

Studies that were conducted in other countries showed association between BPCR and social support. A study conducted in Nepal showed that women who received support and health education together with their partners during antenatal visits were twice more likely to report making more than three preparations for their birth than those who did not involve their partners. However the results of this study showed no statistically significant association between social support and utilization of birth preparedness (p-Value 0.37 (Table 10).

This study showed that there was a statistically significant association found between utilization of birth preparedness and traditional cultural beliefs (p-value = 0.001 Table 9). The study revealed that 9 (18%) out of the 50 who knew some related cultural beliefs did not utilize BPCR. This could be attributed to their cultural beliefs regarding BPCR.

The study found a significant association between utilization and knowledge of BPCR (p-Value = 0.004 significant). Majority of the respondents 139 (70.9%) who stated that they had heard about BPCR were more likely to utilize the BPCR concept than those who stated that they had no idea about BPCR (Table 8).

There is also a significant association between utilization of BPCR and distance from health facilities (p- value 0.000 Table 11). Majority of the respondents (95.9%) who stayed within an hour's journey to a health facility were more likely to utilize birth preparedness and its related services than those who stayed far from the health facility.

5.8 IMPLICATIONS FOR NURSING

Providing information about birth preparedness and complication readiness to antenatal women is important in increasing knowledge and utilization of BPCR. The study findings suggest that health care providers play a pivotal role in motivating women to utilize BPCR and its related health services. Utilization of BPCR improves knowledge of danger signs of pregnancy and

increases the number of women delivering at health facilities with the help of skilled birth attendants during normal or complicated childbirth.

5.8.1 Nursing education

Birth preparedness and complication readiness is mainly emphasized in health centers and clinics offering antenatal care. However in nursing schools it is not taught to students as part of the courses of maternal and child care. The General Nursing Council of Zambia in conjunction with the Nursing Schools therefore need to incorporate BPCR in the curriculum to prepare the students for service delivery.

5.8.2 Nursing practice

The current study has revealed that 69% of the respondents were utilizing the concept of birth preparedness and complication readiness. Health care providers contributed greatly to this achievement by provision of information education and communication to the clients. To achieve better results more needs to be done to sensitize the community on the importance of birth preparedness and complication readiness so that all stakeholders are involved in promoting safe motherhood and above all the maternal and neonatal survival.

5.83 Nursing administration

Nurses should be provided with adequate information education and communication materials in local language. It is also important to provide supplies to enable nurses to give quality care to women during pregnancy and child bearing. Staffing levels should also be adequate.

5.8.4 Nursing Research

Studies have been conducted on birth preparedness and complication readiness globally, regionally and sub regionally but ten years after its implementation, no research has been conducted locally on birth preparedness and complication readiness in Zambia.

Therefore, a more rigorous study with a larger sample should be done to enable generalization of the findings to other settings.

5.9 LIMITATIONS OF THE STUDY

This study had some limitations. The results of the study may not be generalized to other settings because the study was done in one District, therefore generalization should be done cautiously.

5.10 CONCLUSION AND RECOMENDATIONS

The main objective of the study was to determine factors influencing utilization of birth preparedness and complication readiness among antenatal women. The factors influencing utilization of birth preparedness and complication readiness among antenatal women in Monze district include the respondents' level of knowledge on BPCR, traditional cultural beliefs and distance from health facilities.

These findings are very important because they provide insight in the reality of the issue of birth preparedness and complication readiness. The importance of community sensitization cannot be over emphasized if safe motherhood and reduction in maternal and neonatal mortality are to be achieved.

5.10.1 RECOMMENDATION FOR INCREASED UTILIZATION OF BPCR

This study showed that utilization of birth preparedness was above average (69.8%). However a lot still needs to be done to increase the utilization of BPCR by antenatal women. The following should be considered to achieve needed results:

1. Community sensitization on the importance of BPCR.
2. Use of mass media especially local radio stations to disseminate information about BPCR.
3. Provision of IEC materials printed in local language to health posts especially rural areas where pregnant women stay in areas which are difficult to reach so that they have access to information on the importance of BPCR.
4. MoH should seriously consider building more health facilities areas that are hard to reach and have no health facility within 12 kilometer radius of each community.

5.10.2 RECOMMENDATION FOR FURTHER RESEARCH

There is need to duplicate the study on birth preparedness and complication readiness to other geographical areas of the country to enable a wider assessment of utilization of BPCR especially that birth preparedness is one of the major strategies to improve maternal survival if properly utilized.

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APPENDIX 1

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

Interview schedule on factors influencing utilization of birth preparedness and complication readiness among antenatal women in Monze district

Date of interview: _____

Place of interview: _____

Name of interviewer: _____

Serial number: _____

INSTRUCTIONS FOR THE INTERVIEWER

1. Introduce yourself to the respondent

2. Ensure that the respondent is eligible for the interview and can be included in the study.

3. Explain the purpose of the study and assure respondent of confidentiality

4. Request respondent for verbal consent before you start the interview.

5. Do not write name of respondent on interview schedule.

6. Ensure that you get a response for each question.

7. Circle the most appropriate response, or write answer on space provided.

8. Provide time for respondent to ask questions at the end of the interview.

9. Thank the respondent at the end of the interview.

FOR OFFICIAL USE ONLY

SECTION A: DEMOGRAPHIC DATA

1. What was your age at your last birthday?

1.18-25 years

2. 26-30 years'

3. 31-39 years

4. 40years and above

2. What is your education level?

1. None

2. Primary education

3. Secondary education

4. Tertiary education

FOR OFFICIAL USE ONLY

3. What is your marital status?

1. Unmarried
2. Married
3. DIVORCD
4. Separated
5. Widowed

4. What is your religious denomination?

1. Baptist
2. Adventist Church (SDA)
3. Pentecostal
4. Catholic.
5. United Church of Zambia
6 .Others specify

F

FOR OFFICIAL USE ONLY

5. What is your occupation?

1. Not employed
2. Formally employed
3. Self employed
4. House wife
5. Other specify……

6. What is your income?

1. Below ZMK500.00 per month
2. between ZMK500.00 and ZMK 1,000.00
3. Above ZMK1, 000.00 per month
4. Not sure

FOR OFFICIAL USE ONLY

7. What is your husband's occupation?

1. Formally employed
2. Self-employed
3. Unemployed
4. Peasant farmer
5. Other specify……..

8. What is your husband's income?

1. Below ZMK500.00 per month
2. between ZMK500.00 and ZMK 1,000.0
3. Above ZMK1, 000.00 per month
4. Not sure

9. How many children do you have?

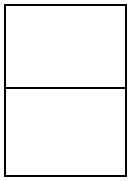
1. 1-2 children
2 3-5. Children
3. 6 children and above

SECTION B: KNOWLEDGE AND UTILIZATION OF BIRTH PREPAREDNESS AND COMPLICATION READINESS

10. Have you heard about birth preparedness and complication readiness during pregnancy and childbirth?

1. Yes

2. No



11. If yes, what is the meaning of birth preparedness during pregnancy and childbirth" (explain)?

…….

……

……

……

……

12. What is the source of your information about birth preparedness and complication readiness during pregnancy and delivery?

1. Health personnel
2. Relatives
3. Friends
4. Media
5. Other, specify. …….

13. Have you heard about danger signs during pregnancy?

1. Yes
2. No

FOR OFFICIAL USE ONLY

14. If your answer is yes tell me the danger signs that can occur to a woman during pregnancy

……

……

……

……

15. Have you heard about early preparation and things to prepare for childbirth?

1. Yes

2. No

16. If your answer to question 15 is yes, what things have you prepared during the current pregnancy in readiness for childbirth?

……

……

……

……

……

FOR OFFICIAL USE ONLY

17. Have you heard about the things each pregnant woman should prepare in case of development of complication during pregnancy or childbirth?

1. Yes

2. No

18. What things have you prepared in case of development of complications during your pregnancy or childbirth? Explain

……

……

……

……

FOR OFFICIAL USE ONLY

SECTION C: SERVICE RELATED FACTORS

19. How far is the health facility from where you stay?

1. Less than 30 minutes walk
2. 30 minutes to 1 hour walk
3. 1 hour to 2 hours walk
4. 2 hours and above

20 How do you get to the health facility?

1. on foot
2. by bicycle
3. by motor vehicle
4. by ox cart
5. Others specify

FOR OFFICIAL USE ONLY

21. Have you ever received information, education and communication on birth preparedness and complication readiness at the antenatal clinic?

1. Yes
2. No

22. If yes, did you understand what you were taught?

1. Yes
2. No

23. Where did you deliver during the previous pregnancy?

1. Home
2. Health facility
3. TBA's

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24. If you delivered at home or TBA's what was the reason for your choice to deliver there?

……

……

……

……

25. If you delivered at the health facility, what was your experience regarding staff attitude?

Explain

……

……

……

……

26 Have you ever experienced a complication during pregnancy or delivery?

.1. Yes

2. No

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27. Were you able to recognize the complication immediately it occurred?

1 Yes

2. No

28. Where have you planned to deliver the current pregnancy?

1. Home

2. Health facility

3. TBA's

29. If you have planned to deliver at a health facility have you identified a skilled birth attendant to help you during childbirth?

1. Yes

2. No

30. Have you saved any money in preparation for childbirth and in case of any complications?

1. Yes

2. No

31. Have you made transport arrangements for easy access to a health facility for childbirth and in case of complications?

1. Yes

2. No

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SECTION D: CULTURAL BELIEFS/MISCONCEPTIONS

32. Do you know of any cultural beliefs that may hinder birth preparedness and complication readiness during pregnancy and childbirth?

1. Yes
2. No

33. If the response to question 32 is 'yes' state those cultural beliefs concerning birth preparedness and complication readiness during pregnancy and childbirth.

……

……

……

……

34. Do you know of any misconceptions that may hinder utilization of birth preparedness?

1. Yes
2. No

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35. If the response to question 34 is ‘yes’ what are those

Misconceptions concerning birth preparedness?

……

……

……

……

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SECTION E: DECISION MAKING AND SOCIAL SUPPORT

36. Who makes decisions in your home?

1. Yourself
2. Husband
3. Other specify

37. Does the decision maker in your household support health related programs?

1. Yes
2. No

38. If your answer to question 37 is No, give reasons.

……

……

……

……

39. Do you think it is important to identify a support person to accompany you to a health facility during pregnancy and childbirth?

1. Yes
2. No

40. Explain

…….

……

……

……

41. Have you identified someone to give you support during pregnancy and childbirth

1. Yes

2. No

END OF INTERVIEW THANK YOU!!

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APPENDIX II: INFORMATION SHEET

Title of Study: Utilization of birth preparedness and complication readiness among antenatal women in Monze district.

My name is Mary M. Simataa a student of Masters of Science in Nursing at the University of Zambia who is kindly requesting for your participation in the research study mentioned above. This is because if birth preparedness and complication readiness is utilized during pregnancy and childbirth it can contribute to reduction of illness and death which come as a result of childbirth. The participation in this study is voluntary. If you are not interested in participating in this study you are free to turn down the offer to participate. During the course of the study a participant is free to withdraw from the study at any time, will not answer any questions for the withdrawal and this will not affect the care and health services the pregnant woman is supposed to receive at the health facility in any way.

If you are willing to participate, you will be asked to give consent and agreement to participate will not result in any immediate benefits. Please ask where you have not understood.

PURPOSE OF THE STUDY

The study will find out factors influencing utilization of birth preparedness and complication readiness among antenatal women during pregnancy and childbirth. The information obtained will help those who make plans to improve the health of mothers and children as well as those who carry out the programs in the MOH to look at other ways of putting birth preparedness and complication readiness into practice to benefit the lives of women and their babies in Zambia.

PROCEDURE

The study involves a face-to-face interview with the research assistant who will ask you a set of questions using a structured interview schedule. After signing the consent form, the research assistant will proceed to ask you the relevant questions and your responses will be recorded on the space provided in the interview schedule.

The interview will be 30 minutes.

RISKS AND DISCOMFORTS

There is no risk involved in this research though part of your time will be used to answer some questions. Some questions may seem to be personal. If you will need further discussion on the research topic, time will be allocated to help you understand.

BENEFITS

There is no direct personal benefit to you for your participating in this study, but the information which will be obtained will help the planners to find ways to improve maternal health by closely looking at ways to practice birth preparedness and complication readiness as well as how women in different areas can give birth with the help of a skilled trained person. In Zambia. No money or other things will be given in exchange for information obtained, but education will be given on benefits of using birth preparedness and complication readiness during pregnancy and childbirth.

CONFIDENTIALITY

Your research records and any information you will give will be confidential to the extent permitted by law. You will be identified by a number, and personal information will not be released without your written permission except when required by law. The Ministry of Health, the ERES Converge IRB or the School of Medicine may review your records again but this will be done with confidentiality

CONTACT DETAILS

If you encounter any problem involving the study or if you have any concern during the course of the study, you are free to consult the researcher or the ethics committee on the contact details provided below.

RESEARCHER

Name: Mary M. Simataa

Address: Monze School of Nursing Box 660029, Monze.

Tel: +260 032 250 018

Cell: +260 977 216 258

Email: marysimataa@yahoo.com

ETHICS COMMITTEE

Name: ERES Converge IRB

Address: 33 Joseph Mwilwa Road, Rhodes Park, Luska.

Tel: +260 955 155 633/ 634

Cell: +260 966 765 503

Email: eresconverge@yahoo.co.uk

APPENIX I11: INFORMED CONSENT FORM

The study has been explained to me and I understand the purpose, the benefits, risks and the confidentiality of the study. I further understand that:

If I agree to take part in this study, I can withdraw at any time without having to give an explanation and that taking part in this study is purely voluntary.

I agree to take part in this study.

Signed:…….. Date:……

(Participant)

(Participant's signature or thumb print)

Signed:…….. Date: ……..……

(Researcher)

APPENDIX 1V: BUDGET

BUDGET CATEGORY	UNIT COST (ZMK)	QUANTITY	TOTAL
1. STATIONERY			
a) Flash Disc	140.00	x1	140.00
b) Bond paper	30.00	x10	300.00
c) Pens	1.00	x10	10.00
d) Pencils	0.50	x10	5.00
e) Rubbers	1.00	x5	5.00
f) Note book	15.00	x3	45.00
g) Tippex	45.00	x3	135.00
h) Bag for interview schedules	150.00	x1	150.00
i) Stapler	90.00	x3	270.00
j) Staples	75.00	x1	75.00
k) Printer	1,500	x1	1,500
SUBTOTAL			**2,635.00**
2. PERSONNEL			
a) Lunch allowance Principal researcher	50.00	x1 x 30 days	1,500.00
Research assistant	50.00	x3 x 30 days	4500.00
b)Training research assistants	50.00	x3 x5 days	750.00

SUBTOTAL			**6,750.00**
3. SERVICES			
a) Ethics committee b) Data entry c) Data analysis d) Photocopying proposal e) Photocopying questionnaire f) Photocopying report g) Binding	500.00 1,500.00 1500.00 1.00 1.00 1.00 50.00	1 1 1 320 pages 10 pgs x 242 350 pages 5 copies	500.00 1,500.00 1,500.00 320.00 242,.00 350.00 250.00
SUBTOTAL			**4,844.00**
4.TRANSPORT			
a) Principal Researcher	50.00	X15 days	750.00
SUBTOTAL			**750.00**
TOTAL			14,979.00
CONTIGENCY FUND 10%			1,497.90
GRAND TOTAL			**16,476.90**

JUSTIFICATION FOR THE BUDGET

STATIONERY

The 10 reams of bond paper were used for the research proposal development and the final report. Paper will also be required to make extra copies of the proposal for submission to the Research Ethics committee and the board of graduate studies. In addition the interview schedule will consist of 10 pages which need to be photocopied.

The bag for interview schedules is for the researcher to ensure that the interview schedules are kept safe.

The flash disc is for copying, storage and safe keeping of research data.

The printer is to facilitate printing of research proposal, interview schedules and other relevant materials for the investigator to use in the research.

Other accessories such as pens, pencils rubbers, stapler and staple and note books are required for the routine collection of research data.

PERSONNEL

Data collection was conducted throughout the day as such the researcher will need lunch allowance. The research has been allocated 30 days to allow adequate time for administration of interview schedules and for observations.

SECRETARIAL SERVICES

Funds for photocopying services and binding of the proposal and report were needed. The charge for photocopying implies that one copy was printed and the rest photocopied to cut down on the cost. The researcher will need five copies of the proposal to submit to Post Graduate Research Committee for dissertation and dissemination.

TRANSPORT COSTS

Transport money has been set aside to allow the investigator to monitor collection of data in the health facilities that are outside town and to collect interview schedules which have been completed.

CONTIGENCY

Contingency fund which is 10% of the budget is required for any extra costs due to inflation and for any eventualities.

APPENDIX V GANTT CHART

ACTIVITY	RESPONSIBLE PERSON	DEC 2014	JAN 2015	FEB 2015	MAR 2015	APR 2015	MAY 2015	JUNE 2015	JULY 2015
Presentation to the Department	**Principal Investigator**								
Submission of proposal to Assistant Dean (PG) office	**Principal Investigator**								
Presentation at GPPF	**Principal Investigator**								
Submission of proposal to BREC	**BREC**								
BREC review and approval	Research Team								
Enrolling pregnant women and collecting data	**Principal**								
Analyzing data	**Investigator**								
Writing of dissertation	**Principal**								