THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

A STUDY TO DETERMINE FACTORS CONTRIBUTING TO UNDERUTILIZATION OF POSTNATAL CARE SERVICES IN MONZE, CHOMA, CHIKANKATA AND CHONGWE DISTRICTS

BY

SICHEEBA MILDRED C. RN/RM

NALOMBA PRISCILLA RN/RM

TEMBO GREENFORD K. RN/RM

MOONO FUDEN EM/RN

A study submitted in partial fulfilment of the requirements for the Bachelor of Science in Nursing Degree at the University of Zambia

University of Zambia March, 2013

ACKNOWLEGDEMENTS

We would like to thank the people who contributed positively to the completion of this research study.

Dr. P. Mweemba our course Lecturer for the guidance and knowledge which she imparted in us tirelessly. We wish to sincerely thank our supervisor, Dr. C. Ngoma for her patience, encouragement and guidance during the process of writing this research study.

Our special thanks go to the DHMTs in the four districts for allowing us to conduct this study in their premises. We also thank the nurses, nurse midwives, and other health personnel for their support and cooperation during the data collection.

Our sincere gratitude goes to the study participants for their cooperation and consent.

We cannot forget the Librarian for the University of Zambia for availing us with literature and internet services.

We also thank our family members and friends for their support throughout our period of study at the University of Zambia.

Above all we return all the glory to God who is behind all that we do.

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ABBREVIATIONS

ANC	Antenatal care
BMC	Biomedical Centre
CSO	Centrral Statistics Office
DHS	Demographic Health Survey
DHMT	District Health Management Team
GNC	General Nursing Council of Zambia
HAHC	Hospital Affiliated Health Centre
IDHS	Indonesia Demographic Health Survey
IEC	Education, Information and Communication
MCH	Mother and Child Health
MDGs	Millennium Development Goals
MoH	Ministry of Health
PHC	Primary Health Care
PNC	Postnatal Care
SNNPR	Southern Nations, Nationalities and Peoples` Region
SPSS	Stastistical Package for Social Sciences
TDHS	Tanzania Demographic Health Survey
UK	United Kingdom
UNICEF	United Nations Children's fund
UNFPA	United Nations Population Fund
WHO	World Health Organisation
ZDHS	Zambia Demographic Health Survey

DECLARATION

Greenford Tembo K, Priscilla Nalomba, Mildred Sicheeba C and Fuden Moono declare that the work submitted in this study for the partial fulfilment of the Bachelor of Science Degree in Nursing is entirely the result of our independent investigations. It has not been presented either wholly or partially for any other degree nor is it currently being submitted for any other degree.

Candidates

Signed..G.K. Tembo..... Date..12/06/13

Signed..P. Nalomba..... Date..12/06/13

Signed..... Date..12/06/13

Signed..... Date..12/06/2013

Approved

Supervising Lecturer

Date

STATEMENT

We hereby certify that this research proposal is entirely the result of our own independent investigations. The various sources of information which we used as guides are clearly indicated in the text and references.

Candidates

Signed ..... Date.....

Signed P. Ndomba Date 12/06/13

Signed ..... Date 12/06/13

Signed ..... Date 12/06/2013

DEDICATIONS

This research is dedicated to our different family members for their support throughout the study period.

ABSTRACT

The Postnatal period or puerperium begins one hour after delivery of the placenta and continues until six weeks after birth during which the mother undergoes a transitional period of recovery from physiological changes of pregnancy, trauma of labour and delivery. During this period, care is provided to the mother and her newborn in order to promote healthy behaviours such as infant feeding, and to identify and manage complications if and when they arise.

Research has indicated that postnatal mothers are underutilising postnatal care services due to various factors. The aim of the study was to determine factors related to underutilisation of postnatal care services in the four district of Zambia namely; Chongwe, Monze, Choma and Chikankata. The relevant literature review was on global, regional and national level.

The theoretical framework that guided the study was on knowledge of utilisation of postnatal care services, attitude and cultural beliefs towards utilisation of postnatal care services.

This quantitative descriptive study using a cross section design involved consenting mothers who attended postnatal care services between six days and six week after delivery. The respondents were chosen using convenient sampling method. Data was collected from 200 mothers, 50 from each district. A semi structured interview schedule was used to collect data from the respondents and data was analysed using Statistical Package for Social Sciences Version 16.0 and a scientific calculator. Chi square test was used to describe the relationship between attendance and knowledge on postnatal care services, age, parity, educational level and, socio cultural practices including relationship between waiting time and staff attitude.

The study results indicate that 32.5% (65) were aged between 15 and 19 years, 51% (102)were housewives, 70.5% (141) had 1 -3 children and 50% (100) had attained secondary school education. The study revealed high knowledge of postnatal care services among mothers (68%). 87.5% of mothers had heard about postnatal care services and the majority 93% heard from health professionals. However, mothers' main reason for attending postnatal clinic was to have their infants immunised 71%. Another major finding was that 77.5% of mothers delivered their youngest child at the health institution, 80.7% were advised to attend postnatal clinic by the health provider but only 52% attended postnatal clinic at six days and six weeks.

Most mothers, 52.5%, who attended postnatal care services were not examined by a health professional. Of the 95 who were examined, 47.4% were not adequately examined.

Most mothers 43% lived within 2km from the health facility and did not incur any cost to access the health facilities and 96% were pleased with reception of the health professional at the health facility.

Regarding socio cultural practices most mothers stated that they observed some socio cultural practices 51.5% and mainly practiced seclusion during puerperium 73.1%.

The current study showed a signficant association between the mothers' knowledge levels and attendance of postnatal clinic (P Value 0.000) as well as waiting time and staff attitude (P value 0.003).

Based on the results of the study it was recommended that the Ministry of Health should develop or formulate protocol guidelines on the components of Information, Education and Communication on postnatal care in order to improve on the quality and content of information, Education Care to be given to mothers. The Ministry of Health should also intensify on conducting refresher courses for health care providers so as to keep them abreast with new trends in health care delivery. The District Health Management Teams/Hospital management should improve on supervision of health care provision in the health centres to ensure that improved and updated standards of care are offered.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Postnatal care services are provided to post partum women during the postnatal period. Postnatal period or puerperium begins one hour after delivery of the placenta and continues until six weeks after birth during which the mother undergoes a transitional period of recovery from physiological changes of pregnancy, trauma of labour and delivery (Fraser & Cooper, 2006). This period is special but critical for both mother and baby because problems can develop quickly. Postnatal care provides the opportunity to ensure that the mother and baby are progressing well, support the breastfeeding mother and to detect and manage any problems.

Postnatal care is an important component of Safe motherhood. It is the care provided to every woman in the postpartum period on the sixth day and sixth week after delivery aimed at identifying, managing problems and promotion of health of both mother and her newborn baby (WHO, 2002). This care is very crucial especially that it is during the postnatal period that most maternal and infant deaths occur. The postnatal visit provides the opportunity for the mother to discuss with the health care provider the subjects of family planning and immunization programme for the baby.

The World Health Organisation (WHO) and United Nations International Children's Fund (UNICEF) developed the safe motherhood initiative in order to address the risks faced by mothers during pregnancy, delivery and postpartum. The approach is aimed at reducing the morbidity among mothers and infants. Safe motherhood offers opportunities to improve the health of child bearing women. In 1978, at the International Conference on Primary Health Care (PHC) Alma Ata, maternal and child morbidity and mortality was recognised as a major public health problem that needed action (WHO, 1990).

The Government of the Republic of Zambia adopted the concept of PHC in 1981. Following the conference, the Zambian government instituted the health reforms with emphasis on implementation of the principles of Primary Health Care.

The principles of Primary Health Care included: equity of health services, appropriate technology, decentralisation, prevention of diseases, community participation and Intersectoral collaboration. The following objectives were drawn from the principles:

- To ensure "Health for all" regardless of whether they are in the rural or urban areas.

- To make basic but essential health care accessible to all the people of Zambia.
- To address the major health problems of the community population by providing preventive, promotive, curative and rehabilitative services accordingly (WHO/UNICEF, 1978).

Primary Health Care emphasises on health for all.

In the United Kingdom, midwives attend to postnatal mothers on daily basis from the first to fifth day of delivery, regardless of whether the woman is in the hospital or at home (Fraser & Cooper 2006). In Netherlands, the postnatal care is undertaken in the home by a maternity aid who has access to the midwife only when need arises (Van Teylingen as quoted by Fraser & Cooper, 2006).

In South Africa, postnatal care is provided by the midwives in the postnatal ward (Ibid). The women who deliver normally at clinics or public hospitals are commonly discharged within six hours of delivery but those who deliver in private hospitals usually stay from three to four days in the hospital before they are discharged and are followed up at six weeks postnatally. Fraser and Cooper state that many South African women in rural areas do not attend antenatal and postnatal clinics for various reasons such as long distances from their homes, ignorance regarding the importance of antenatal and postnatal care services and that many black women prefer to be attended to by traditional birth attendants within their community.

In 1981, the Zambian government through the Ministry of Health (MoH) adopted and introduced the concept of PHC with a vision to provide Health for all (MoH, 2004). The concept emphasized on preventive medicine rather than curative medicine. This includes women in the postpartum period because they are at risk of developing complications related to child birth. Postnatal care services are provided by skilled health care service providers. These include nurse-midwives, nurses, clinical officers and medical doctors and the service can be obtained at health posts, health centres, and hospitals (Fraser et al., 2009).

Reducing the maternal mortality rate by 75% by the year 2015 is one of the Millennium Development Goals (MDGs) and the major challenge to the health sector in Zambia (MoH, 2005). Zambia has recognised that early postpartum visits can help prevent complications in both the mother and infant.

Maternal and infant mortality can only be reduced if mothers become aware of the importance of postnatal care and utilise the services. Some of the strategies that the Zambian government has

put in place to reduce maternal and infant mortality include integrating the maternal and child health care services in the Essential Health Care Package and undertaking refresher courses for health centre and hospital staff (MoH, 2003). Postnatal services are offered at the nearest health centres within the communities and outreach sessions are conducted to reach mothers in the geographically disadvantaged areas.

1.2 STATEMENT OF THE PROBLEM

Underutilisation of postnatal care services is a major public health concern in sub Saharan Africa and in Zambia.The worldwide estimate coverage of postnatal care service shows that about 35 percent of mothers receive it compared to nearly 70 percent of women who receive antenatal care. In developing countries, only three out of ten mothers receive postnatal care. Zambia is among the countries in the sub-Saharan region with the antenatal coverage of 99 percent in urban and 91 percent in rural while postnatal coverage is 29 percent in rural areas and 61 percent in urban areas (CSO, 2007).

It is important that all postnatal women have access to and receive appropriate postnatal care.

In Zambia, the national target for postnatal coverage is 80% and the service delivery system should be investigated if the indicator falls below 70% (MoH, 2005). According to statistics gathered from 2003 to 2005, only Lusaka Province managed to have 71% coverage while the majority of the provinces were below 50%.

There has been a gradual improvement in postnatal coverage as evidenced by MoH statistics covering 2008, 2009 and 2010. Lusaka Province has continued to lead in the postnatal care coverage. As of the year 2010 postnatal coverage, Lusaka Province was at 133 percent, Copperbelt Province 81 percent. The rest of the Provinces had coverage below 70 percent (MoH, 2010) with Western Province being the lowest during the same period.

Maternal and infant mortality can be greatly reduced if mothers become aware of the importance of the postnatal care and use of the services.

Table 1 shows statistics of women in different provinces of Zambia attending the first antenatal care in comparison with the first postnatal care conducted by health care professionals from the year 2006 to 2010. The national target for postnatal coverage is 80 percent and the service delivery system should be investigated if the indicator falls below 70 percent (MoH, 2010).

Table 1 First Antenatal Postnatal attendance 2006-2010

	2006		2007		2008		2009		2010	
Province	1st ANC visit %	1st PNC visit %	1st ANC visit %	1st PNC visit %	1st ANC visit %	1st PNC visit %	1st ANC visit %	1st PNC visit %	1st ANC visit %	1st PNC visit %
Lusaka	93	71	90	83	99	82	94	74	84	133
Copperbelt	72	53	78	61	87	57	75	75	70	70
Central	106	61	111	64	118	65	92	61	90	62
Northern	95	46	89	48	98	50	96	56	96	57
Southern	95	48	90	49	91	43	86	63	83	66
Eastern	95	39	95	43	95	46	85	53	89	59
Western	100	34	105	37	103	36	84	39	84	39
North/ western	94	32	96	38	97	39	87	51	95	54
Luapula	99	63	98	62	103	63	95	68	84	62

Source: MOH, 2008 and 2010

According to table 1, Lusaka Province had the highest proportion of the first postnatal attendance in each of the years 2006, 2007, 2008, 2009 and 2010 compared to the rest of the Provinces while Western Province had the lowest coverage during the same period.

Table 2 shows the first antenatal care visit in comparison with the first postnatal care attendance at National level in the years 2006, 2007, 2008, 2009 and 2010.

Table 2 Average National annual antenatal and postnatal attendances 2006-2010

Years	Average annual antenatal attendances	Average annual postnatal attendances
2006	92	51
2007	92	56
2008	98	55
2009	88	64
2010	85	72

SOURCE: MoH, 2008 and 2010.

Table 2 shows that the proportion of postnatal attendance at national level increased from 51 percent in 2006, 56 percent in 2007, and then it dropped to 55 percent in 2008, then increased to 64 percent in 2009 and then to 72 percent in 2010. Despite the 72% postnatal coverage in the year 2010, it has been observed that apart from Lusaka and Copperbelt Provinces which have a satisfactory coverage, the remaining seven Provinces are still below the national 80% target (MoH, 2010).

This therefore, calls for further investigations on factors leading to underutilisation of postnatal care services. Regardless of all efforts to improve service delivery by Ministry of Health, maternal and infant mortality can be greatly reduced if mothers are aware of the importance of postnatal care and use the services (MoH, 2010).

It is with such a view that the reserchers would like to determine the factors associated with the underutilisation of postnatal care services among postnatal mothers in Zambia.

1.3 ANALYSIS OF INFLUENCING FACTORS

1.3.1 SOCIO-ECONOMIC FACTORS

1.3.1.1 Age of the woman: the age of a woman may have a bearing on how the mother acquires and assimilates information. A young postnatal mother may be ashamed to attend postnatal services together with older women while older women feel they are better experienced with matters concerning pregnancy and delivery and see no need of attending postnatal care services (CSO, 2007).

1.3.1.2 Parity/ experience of the woman: a woman who has many children may have a negative attitude toward seeking postnatal care services because she feels she can do without the service as she is well experienced where as a mother with the first child may be more willing to attend postnatal care services as she feels inadequate (CSO, 2007).

1.3.1.3 Peer pressure: peer pressure may have a big influence on postnatal care. The mothers in the community discuss among themselves about the postnatal services and discourage each other from attending (MoH, 2007).

1.3.1.4 Marital status: those women who are married to supportive husbands may attend postnatal services unlike those married to unsupportive husbands. The single women may also find it difficult to attend postnatal care services due to stigma (MoH, 2007).

1.3.1.5 Cultural beliefs: culture and tradition may have a great influence on postnatal care. Some culture seclude mothers and the baby after delivery for almost two months as it is believed that the mother is unclean during this period because of lochia while baby needs protection from evil spirits, infection and witches (Miti, 1999).

1.3.1.6 Social support services: the type of community and family where the woman lives may influence her practices towards postnatal care. Supporters who are positive about postnatal care will encourage the woman to attend while those who are not supportive will discourage her from attending as they see no need (Miti, 1999).

1.3.2 ECONOMIC FACTORS

1.3.2.1 Inadequate education: level of education of a woman plays a role in seeking postnatal care services. The lowly educated usually shun the postnatal care services where as the educated woman will understand the importance of attending postnatal care services. The illiterate mothers also find it difficult to understand the information, education and communication given to them as compared to the literate mothers (CSO, 2007).

1.3.2.2 Unemployment: unemployment leads to poor economic status. This makes some women uncomfortable to mix with others who are employed when attending postnatal care services (CSO, 2007).

1.3.2.3 Lack of financial resources: without finances the woman will not afford transport costs to attend postnatal clinics. Furthermore, they do not feel comfortable to mix with other women in the clinic especially if the staff had prescribed certain items to be brought for example baby layette while a woman who has finances will find it easy to attend (Miti, 1999).

1.3.2.4 Ignorance: lack of knowledge on the postnatal services will make a woman not to seek postnatal care services whereas a woman who is well informed on postnatal care services will see the importance of seeking the postnatal care service (MoH, 2010).

1.3.2.5 Home delivery: women who deliver successfully in their homes will see no need of attending postnatal care services whereas those who deliver in health facilities will see the importance of postnatal care follow up as they will be told by the health care provider (MoH, 2010).

1.3.3 SERVICE RELATED FACTORS

1.3.3.1 Shortage of staff: shortage of staff will lead to burn out of the staff which will lead to poor attitude towards the mothers seeking care. This will discourage them from seeking postnatal care services. Furthermore, shortage of staff leads to delay in attending to mothers causing mothers to wait for long hours to be attended to. This makes the mothers to shun postnatal care services (Miti, 1999).

1.3.3.2 Lack of skills: the unskilled staff provide substandard care which is detected by the mothers. The mothers lose confidence and show some reluctance to be attended to by the unskilled staff whereas well skilled personnel will provide quality care which will be recognised by the mothers and will encourage them to seek postnatal care services.

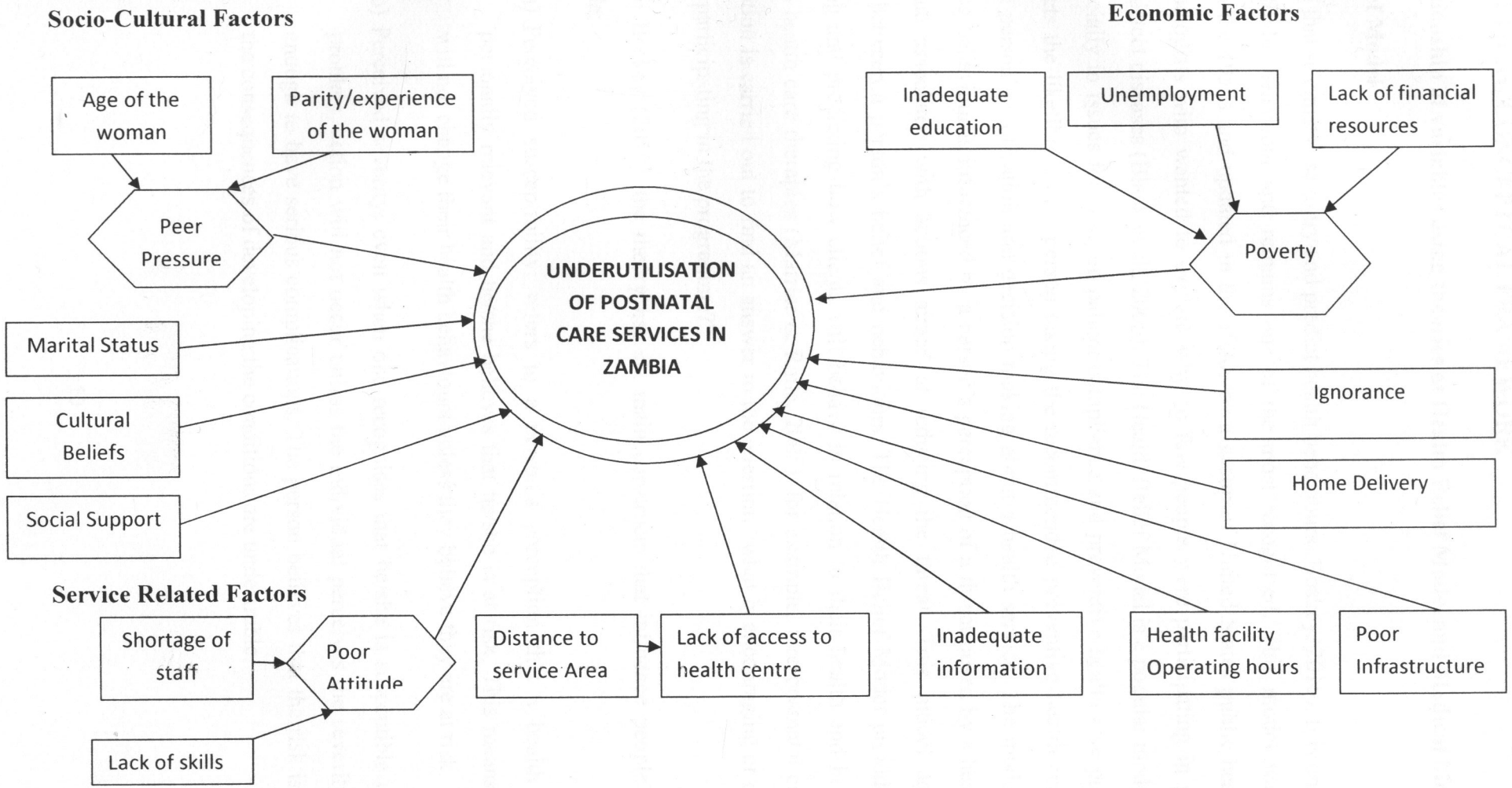
1.3.3.3 Distance to service areas. the distance to the service area may discourage the woman from going to the clinic for postnatal care. The woman might feel bothered to walk to the health centre (CSO, 2007).

1.3.3.4 Lack of access to health centre: this may be due to poor geographical areas and climate changes such as rain season, cold season, hot season which may be unfavourable for postnatal mothers to access the health centre (CSO, 2007).

1.3.3.5 Inadequate health information: health care providers sometimes give inadequate information on the importance of postnatal care services. In most cases, mothers are reminded to come back for postnatal care services without explaining the importance of attending the service. On the other hand, mothers who are well informed on the importance of postnatal care will see the benefits of attending (CSO, 2007).

1.3.3.6 Poor infrastructure: lack of proper infrastructure in health facilities compromises postnatal care services. Privacy and confidentiality may not be observed during the provision of postnatal care services. Mothers will therefore be discouraged from attending a service which does not respect their privacy (CSO, 2007).

Figure 1 Diagram of analysis of factors influencing underutilisation of postnatal care services in Zambia



1.4 THEORETICAL/CONCEPTUAL FRAMEWORK

1.4.1 Relationship of variables using theories of Health Belief Model and Medical Model

Health Belief Model

This is a tool that scientists use to try and predict health behaviours (Boskey, 2010). It is one of the first theories of health behaviour and remains one of the most recognised. This model was originally developed in the 1950s and updated in the 1980s by a group of United States public health services Social Psychologists who wanted to explain why so few people were participating in programs to prevent and detect diseases (Black et al., 2006). The Health Belief Model is a popular model applied in nursing especially in issues focusing on patient compliance and preventive health care practices. The model predicts the likelihood of a person taking the recommended preventive health actions and to understand a person's motivation and decision making about a health service. The model states that health seeking behaviour is influenced by a person's perception of a threat posed by a health problem and the value associated with actions aimed at reducing the threat. This model addresses the relationship between a person's belief and behaviours. The Health Belief Model provides a way to understanding and predicting how clients will behave in relation to their health and how they will comply with health care therapies (Marrier & Raile, 2005), for example, free postnatal care services. An investigation is carried out to find an answer to the question "what is encouraging or discouraging people from participating in the programme?"

According to Boskey (2010), the theory has six main constructs that influence people's decisions. These include;

a) Perceived susceptibility: refers to a person's perception that a health problem is personally relevant and he/she believes that he/she is at risk. This means that people will not change their health behaviours unless they believe they are at risk.

b) Perceived severity: even when one recognises that he/she is susceptible to the health problem, action will not occur unless the individual perceives the severity to be high enough to have serious complications. The person believes that the risk is serious and the consequences of developing the conditions are undesirable.

c) Perceived benefits: refers to the person's belief that the risk will be reduced by a specific behavioural change. It is difficult to convince people to change behaviour if there is no benefit for them in it.

d) Perceived barriers: refers to the complexity, duration and accessibility of the treatment. If a person believes that the cost of taking the action is beneficial, then that person will participate in the program, but if the cost of taking action outweighs the benefit then he/she will not participate in the program.

e) Cues to taking actions: a cue to action is something that helps move someone from wanting to make a health change to actually making the change. People are exposed to factors that prompt action for example a television advert, reminder from ones physician, or posters.

f) Self efficacy: means that people are confident in their ability to successfully perform a health action.

The Health Belief Model states that if people do not see a health care behaviour as risky or threatening, there is no stimulus to act. Individuals must have the expectation that the new behaviour will be beneficial and that the barriers to change do not outweigh the benefits and that they can realistically accomplish the needed changes in behaviour.

Application of the Health Belief Model to the research

Knowing what aspects of the Health Belief Model postnatal mothers accept or reject will help design appropriate interventions, for example if postnatal mothers are unaware about the risks which can occur in the postnatal period (perceived susceptibility), then health education about the risk factors will be given so as to sensitise the women about the problems which can occur in the postnatal period.

Furthermore, if postnatal mothers are aware of the risks and health problems which can occur in postpartum period, but they still do not attend the postnatal clinic, then barriers should be identified and eliminated so as to help in the utilization of the postnatal care services. Constant reminders (cues to taking action) should be done during antenatal period, after delivery and on discharge as to why and when they should seek postnatal care services.

In conclusion, when applying the Health Belief Model in this study, the researcher should be able to understand how postnatal mothers feel they are susceptible to the problem (for example maternal mortality), whether the postnatal mothers believe that postnatal care services can reduce the threat at an acceptable cost and this will eventually lead to self efficacy and motivation to freely utilise the postnatal care services.

Medical Model

This term was first cited by a Psychiatrist called Ronald D. Laing in 1971 (Mosby, 2009). In this approach, the physician focuses on the defect or dysfunction within the patient using a problem solving approach. Medical history, physical examination and diagnostic tests provide the basis for the identification and treatment of a specific illness or condition. This model is based on the traditional physician/patient relationship. A physician assumes an authoritarian position in relation to the patient and the patient is seen as passive and dependent on the physician for advice and guidance. Under the Medical Model, it is the disease condition of the patient that is of major importance while the social, psychological and other external factors which influence patient's behaviour may be ignored or de-emphasised. The medical processes are well defined and familiar to most people. The examination of the patient follows set steps. The role of the patient involves admitting being ill and complying with the prescribed treatment.

For example, in postnatal care, the interval of visits is prescribed when the postnatal care services are offered which are at six hours, six days and six weeks post delivery and the postnatal examination of the mother and baby follows the prescribed steps. Furthermore, if during the examination some problems are identified, the physician will prescribe the treatment which the mother will be expected to take as treatment. Mothers are expected to comply without questioning because the physician knows the best treatment for the problem.

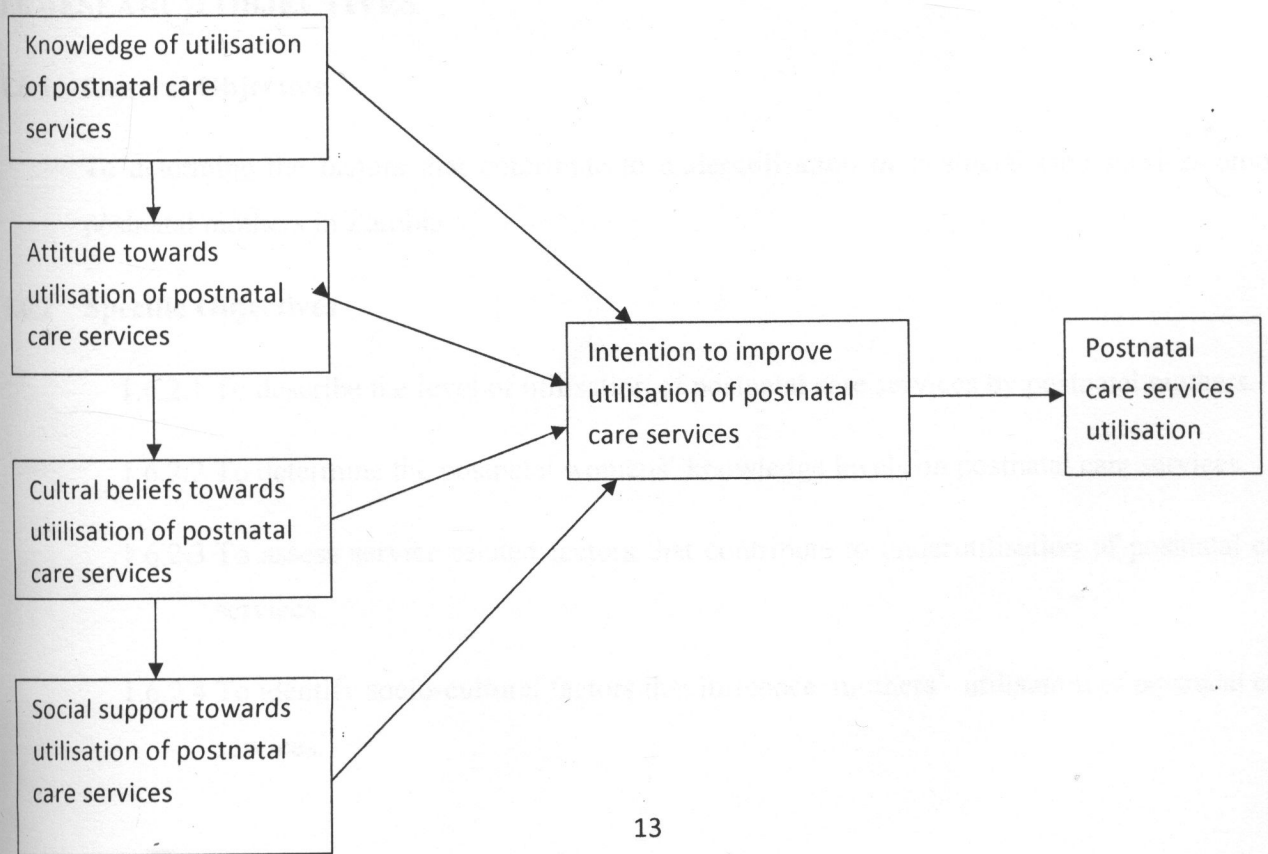
1.4.1.1 **Knowledge on utilisation of postnatal care services:** when women are well informed on postnatal care services they will appreciate the importance of seeking care services.

1.4.1.2 **Attitude towards postnatal care services:** knowledge of utilisation of postnatal care services will lead to a positive change in the attitude of both the mothers and health care providers towards utilisation of postnatal care services.

1.4.1.3 **Cultural beliefs towards utilisation of postnatal care services:** since cultural beliefs have great influence on postnatal care services, knowledge acquired by postnatal mothers on utilisation of postnatal care services will lead to a positive change in attitude towards utilisation of postnatal care services which will also lead to a positive change in the way mothers perceive cultural beliefs and this will improve utilisation of postnatal care services.

1.4.1.4 **Social support towards utilisation of postnatal care services:** a well informed social support system (knowledgeable) on utilisation of postnatal care services will lead to a positive change in attitude towards postnatal care services which will also lead to positive changes in cultural beliefs and this will eventually lead to an improvement in social support of the mother towards utilisation of postnatal care services. Therefore, knowledge on utilisation of postnatal care services will lead to a positive change in the attitude of utilisastion of postnatal care services and improvement in the perception in the cultural beliefs which will further lead to an improvement in social support system resulting in improvement of utilisation of postnatal care services as shown in the figure below.

Figure 2: Theoretical/conceptual framework



1.5 JUSTIFICATION

Maternal and infant morbidity and mortality is taking the highest toll in our country, especially in the postnatal period. Therefore, there is need to continue exploring the factors associated with underutilisation of postnatal care services by mothers during the postpartum period with the hope of finding lasting solutions to the problem.

This study needs to be carried out in order to identify the factors that are associated with underutilisation of postnatal care services. It is also hoped that the findings of this study will create new knowledge in the nursing profession, which the policy makers will effect in the reproductive health services in order to better the utilisation of postnatal care and reduce maternal and infant morbidity and mortality. Furthermore, this study will help in identifying strategies Lusaka and Copperbelt Provinces are using to meet the target in postnatal care coverage, which can be adopted by the other Provinces.

The other beneficiaries to this study are the women especially those of child bearing age in that they will be prevented from the increasing levels of maternal morbidity and mortality. In addition, the country will move towards attaining the MDGs number 4 and 5 which aim at reducing child mortality and improving maternal health respectively.

1.6 RESEARCH OBJECTIVES

1.6.1 General Objective

To determine the factors that contribute to underutilisation of postnatal care services among postnatal mothers in Zambia

1.6.2 Specific Objectives

1.6.2.1 To describe the level of utilisation of postnatal care services by postnatal mothers.

1.6.2.2 To determine the postnatal womens' knowledge levels on postnatal care services.

1.6.2.3 To assess service related factors that contribute to underutilisation of postnatal care services.

1.6.2.4 To identify socio-cultural factors that influence mothers' utilisation of postnatal care services.

1.6.2.5 To discover areas that would need further research on factors that contribute to underutilisation of postnatal care services.

1.7 HYPOTHESES

1.7.1 Mothers who have inadequate knowledge on postnatal care are not likely to attend postnatal care.

1.7.2 Some socio-cultural practices hinder mothers from attending postnatal care services.

1.7.3 Negative attitude of personnel at postnatal care clinics contribute to underutilisation of postnatal care services.

1.7.4 There is no relationship between mothers waiting time during PNC and health care provider's attitude.

1.7.5 Mothers with few children (less than 3) are more likely to attend PNC than mothers with more children (more than 4).

1.7.6 There is a no relationship between the age of the mother and PNC attendance.

1.7.7 There is no relationship between the education level of mothers and PNC attendance.

1.8 CONCEPTUAL DEFINITIONS OF TERMS

This is much like a dictionary definition conveying a meaning of the concept. However a conceptual definition goes beyond the general language meaning found in the dictionary by defining the concept as it is noted in the theoretical literature (Wood & Haber, 2006).

a) Postnatal period is the period from the completion of the delivery (end of the third stage of labour) to the end of the first six postpartum weeks during which the woman's body returns to the normal non gravid state (Sellers, 2010).

b) Postnatal care is the care provided to every woman in the postpartum period on the sixth hour, sixth day and sixth week after delivery aimed at identifying and managing problems. and promotion of health of both mother and her new born baby (WHO, 2002).

c) Postnatal care services is the comprehensive help given to a postnatal mother and baby during the first 42 days of delivery by a health care provider using his/her skill, ability or knowledge (Olds et al., 2004).

d) Postpartum mother is a newly delivered woman up to the end of six weeks postpartum (Sellers, 2010).

e) Factors are things that influence whether an event happens or the way that it happens (McMillan, 2007).

f) Underutilisation is low attendance compared to the set standards (Jacobs, 2007).

1.9 OPERATIONAL DEFINITIONS OF VARIABLES

a) Knowledge: this was measured by 6 items on the interview schedule and it was categorised into three groups which are high (6-5), medium (4-3), and low (below 3).

b) Underutilisation: Inability or failure to use an existing or available health facility according to the set standard. This was measured by asking mothers to state whether they attended postnatal care or not.

c) Cultural beliefs: this variable was ascertained by asking mothers whether they had any cultural beliefs or not.

Table 3: VARIABLES AND CUT OFF POINTS

Variables	Cut off points	Indicators	Questions Numbers
Dependent variables			
Underutilisation of postnatal care services	Yes	Percentage of mothers who utilised postnatal services	24
	No	Percentage of mothers who did not utilise postnatal services	
Independent variables	High	Scores between 6-5	16-18
Knowledge	Medium	Scores between 4-3	
	Low	Scores below 3	
Cultural beliefs	Yes	Have cultural beliefs	32
	No	Did not have any cultural beliefs	

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Literature review is a key step in research process. Review of literature refers to an extensive, exhaustive and systematic examination of publications relevant to the research project (Basavanthappa, 1998). Basavanthappa (1998) further states that before any research can be started, whether it is single study or an extensive study a literature review of previous studies and experiences related to the proposed investigation should be done. Literature search was regarded as a continuous process and new information was added as the project proceeded. The purpose of literature review include placing each work in the context of its contribution to the understanding of the subject under review, describing the relationship of each work to the others under consideration, identifying new ways to interpret, and shed light on any gaps in previous research and to resolve conflicts amongst seemingly contradictory previous studies (Basavanthappa, 2007).

The sources of literature consulted in this study included published textbooks, past research studies, and various health based reports such as the demographic health surveys. The review is organised according to the study variables.

2.2 Overview of postnatal care

The postnatal care should accommodate the individual's social, psychological, demographic needs and the family circumstances. Postnatal period is the period from the completion of delivery(end of third stage of labour) to the end of the first six postpartum weeks during which time the woman's body returns to the normal non gravid state (Sellers, 2010). During the postnatal period, changes in the anatomy, physiology and biochemistry which had occurred during pregnancy and labour return to the non gravid state. In addition, the woman has to adapt psychologically and socially to motherhood and together with her partner and members of the family face a time of challenges and adjustments. These challenges and adjustments can be made easily and smoothly making this a joyous time or they can be the cause of stress, anxiety and unhappiness (Sellers, 2010). To a large extent, the outcome depends upon the prenatal preparations and the postnatal assistance and care given to the family.

The provision of postnatal care to women aims to encompass aspects of observing and monitoring the health of the mother and her baby, as well as offering support and guidance in breastfeeding and parenting skills (Fraser & Cooper, 2008).

Postnatal care is not only for mothers who deliver safely and those who delivered at the health institution, but also for those who had still births or delivered at home. The role of a midwife is to provide care and support which meets the holistic needs of the individual woman and her baby.

Bennett & Brown (1999) states that postnatal care is based upon the four main principles which are:

- Promoting physical and psychological well being of the mother, baby and the family unit.
- Identification of deviation from normal physiological or psychological progress with appropriate prompt referral where required.
- Encouraging sound care of infant and feeding while promoting the development of effective parent-infant relationship.
- Supporting and strengthening the woman and her partner's confidence, thus facilitating their particular family and cultural environment.

The promotion of a relaxed environment is conducive to the establishment of effective communication between the woman, her family and the health care professionals involved. During postnatal care the midwife should be non-judgmental in the approach, offering guidance, advice and when necessary acting as a counsellor. The midwife carries out a thorough examination of both the mother and baby by observing and noting physical or emotional well being of the mother so as to identify any deviation from normal. Whether delivery occurred within the hospital or at home, a thorough postnatal examination is carried out and health education on different topics is given.

In Zambia postnatal care is done at six hours, six days and six weeks after delivery. Full and accurate records must be kept by the midwife throughout the postnatal period to facilitate continuity of care.

2.3 Variable I- Utilisation

Studies by the United Nations Population Fund (UNFP) in Sri-Lanka and Mexico in 2005 indicated that every year, five hundred thousand women worldwide die from complications related to pregnancy or child birth. The study also stated that 99% of these deaths are preventable if only these women could attend postnatal care services. Maternal mortality is a major concern of maternal health in developing countries.

According to a study conducted in Nepal South Asia, revealed that maternal mortality is estimated to be 740 per 100,000 live births, compared to 12 per 100,000 in a developed country such as the UK and 400 per 100,000 estimated worldwide (WHO, 2006).

Another study which was conducted by Dhakal et al., (2007) in Nepal, on utilisation of postnatal care among rural women who had received postnatal care after delivery was low (34%) less than one in five women 19% received care within 48 hours of giving birth. Women in one village had less access to postnatal care than women in the neighbouring one. Lack of awareness was the main barrier to the utilisation of postnatal care. The woman's own occupation and ethnicity, the number of pregnancies and children, husband's socio- economic status, occupation and education were significantly associated with utilisation of postnatal care. Multivariate analysis showed that wealth as reflected in occupation and having attended antenatal are important factors associated with the uptake of postnatal care. In addition, women experiencing health problems appear strongly motivated to seek postnatal care. The study concluded that postnatal care was regarded as a low uptake and as inadequate. This study was a descriptive cross sectional study carried out in two neighbouring villages in 2006. A total of 150 women who had delivered in the previous twenty four months were asked to participate in the study using a semi structured questionnaire.

In a study by WHO (2003) conducted by Lucde et al., (2001) it was found that majority of maternal deaths (62%) occur soon after birth with postpartum haemorrhage being the major cause of death . The kind of complications following childbirth such as chronic pain, impaired mobility, and damage to the reproductive system, genital prolapse and infertility are also more common in developing countries.

Although the 2007 Indonesia Demographic Health Survey (IDHS) reported that 95% of pregnant women in Indonesia attended at least one antenatal visit, only 66% of mothers attended at least four antenatal care services as recommended. This figure was much lower than the national target of 90% antenatal care attendance (IDHS, 2007). Moreover, approximately 16% of mothers did not receive any postnatal care services. The percentages of both antenatal and postnatal care uptake varied across Provinces (MoH Republic of Indonesia, 2008).

Kabakian-Khasholian, Jurdi et al., (2006) conducted a study in Lebanon in the three economic disadvantaged Surburbs of Beirut. The findings revealed some fluctuations in the timing of the postnatal visits ranging between the first two weeks following delivery to around 40-45 days post delivery. The survey also indicated that there is wide variation in the content of the postnatal check up.

Thirty seven percent of women reported that the physician did not examine their cervix during the physical examination, 57.2% indicated that they did not undergo a vaginal examination, 42.1% reported that their blood pressure was not measured, 67% reported not having their breast examined and 16% reported not being asked about their wellbeing. This shows that the postnatal examination was inadequate. Furthermore, in terms of information received during these visits, 17% reported not being given information about their health, 30.5% reported not receiving information about contraception during that visit and only 27% of the women reported receiving information about their infant's health.

Chakraborty, Islam and Bori (2002) conducted a study on utilisation of postnatal care in Bangladesh. The purpose of the study was to examine factors associated with the utilisation of health care services during the postnatal period in Bangladesh by using prospective data from a survey on maternal morbidity which was conducted at Bangladesh Institute of Research for Promotion of Reproductive Health and Technologies. Both bivariate and multivariate analyses of the data confirmed that the mother's age at marriage had a significant and positive impact on the utilisation of quality health care services.

A study on women's uptake of maternity care conducted in Damascus found that while over 95% of women in the study utilised antenatal services, less than 9% of women were given an opportunity for a postnatal visit. In addition, although nearly two thirds of the women in the sample had problems in the postnatal period, less than 50% had sought care (Bashour, Abdulsalam et al., 2008).

Despite the call to improve access to maternal health services universally and reduce maternal and neonatal mortality has remained a great challenge in sub-Saharan Africa. In Africa, about 125,000 women and 870,000 newborns die annually in the first one week after delivery and the lifetime risk of maternal mortality in Africa is 1 in 26 (Charlotte et al., 2006).

Therefore, a proper understanding of the utilisation of health care during the postnatal period can reduce maternal mortality. Postnatal care is among the major recommended interventions to reduce maternal and new born deaths globally. This intervention enables skilled health professionals to dictate postpartum problems, potential complications and provide prompt treatment (Titaley et al., 2010).

A study done by Palestinian Women Research and Documentation Centre (2010), with the aim of understanding Palestinian women's health needs in the postpartum period and the services provided to them found that about 30% of women reported attending the postnatal check up. The study also revealed that the main factors found to affect the utilisation of postnatal visit were refugee status, type of delivery, and receiving information on postnatal care.

Refugee women were more likely to utilise the postnatal check up compared to non-refugee women. The study also revealed that women who had an instrumental or caesarean delivery were more likely than women with a normal delivery to utilise the check up. Women who reported receiving information on the postpartum period in the prenatal period were more likely to go to the postnatal check up in comparison with women who did not receive this information. Furthermore, the study also indicated that geographic location, parity, education, and socio-economic status had an effect on the utilisation of the postnatal check up in some instances. First time mothers were also more likely to go to the postnatal check up compared to women with 7 or more children. Women in the fourth and richest wealth quintiles were more likely to utilize the service compared to women in the poorest group.

UNICEF (2006) report showed that in developed countries, 97% of women make at least one antenatal visit; 99% deliver with a skilled attendant; and 90% make at least one postnatal visit. In developing countries coverage of at least one ANC visit is relatively high at 69% in Sub-Saharan Africa, compared to 54% in Asia. According to Demographic and Health Survey (DHS) data from 23 African countries, two-thirds of women in Sub-Saharan Africa give birth at home, but only 13% of all women receive a postnatal visit within the first two days.

According to the study done by the Nigerian Demographic Health Survey in 2009 postnatal care is very poor and inadequate. Inspite of the high maternal mortality level in the country, less than half of the women (36%) attend postnatal care services.

Previous studies on postnatal care focus on individual and household level factors, but the role of community factors has not been given much attention. Despite the beneficial impact of postnatal care, most women do not attend postnatal care services. It is therefore pertinent to understand the factors influencing the decisions to seek postnatal care.

Existing studies done in Ethiopia have focused on individual and household predictors of postnatal care and have largely ignored community related attributes. For instance, economic status, birth order, place of residence, region, woman's own occupation, ethnicity, the number of pregnancies and children, the husband's socio-economic status, occupation and education have been found to be important predictors of postnatal care (Ethiopian Society of Population Studies, 2008). Further, exposure to mass media and distance to health facility have been associated with postnatal care utilisation (Titaley et al., 2010).

Another study was conducted in Southern Ethiopia by Regassa (2011) on antenatal and postnatal care service utilisation. The main objective of the study was to examine the prevalence and factors associated with antenatal care and postnatal care service utilisation. This was a cross sectional

population based study undertaken in ten rural villages of the Sidaina Zone, Southern Ethiopia. The data were collected from a representative sample of 1,094 households drawn from the population using simple random and multi stage sampling techniques. Two dependant variables were used in the analysis. The antenatal care was measured by whether the woman got the service at least once from a health professional or not during her last pregnancy and postnatal care was approximated by whether the last born child completed the immunisation or not. Household and women characteristics were used as explanatory variable for both dependant variables. The study revealed that the level of antenatal care and postnatal care service utilisation was 77.4% and 37.2% respectively.

The predicted probabilities using logistic regression showed that women who are literate have exposure to media and women with low parity are more likely to use both antenatal and postnatal care services.

Mrisho (2009) conducted a study in rural Southern Tanzania on the use of antenatal and postnatal care; perspective and experiences of women and health care providers. The study showed that although antenatal care coverage in Tanzania is high, worrying gaps exist in terms of its quality and ability to prevent, diagnose or treat complications. Moreover, much less is known about the utilisation of postnatal care.

The 2004–5 Tanzania Demographic Heath Survey (TDHS) data reports that only 13% of women have the recommended one or more postpartum care visit within two days of delivery, with rates as low as 2% in some regions.

A cross sectional study conducted in three clinics in the West Bank found that women who had a caesarean section delivery or an instrumental delivery in a private hospital and women who had problems in delivery were more likely to seek postnatal care (Dhaher et al., 2008). In this study, uptake of postnatal care services was found to be low with only 30.6% of women seeking postnatal care services.

Underutilisation of postnatal services is a major public health concern in the Sub Saharan Africa with Zambia inclusive. According to CSO (2007) report the worldwide estimate coverage of postnatal care services shows that about 35% of mothers receive it compared to nearly 70% of women who receive antenatal care and that in developing countries only three out of ten mothers receive antenatal care. This literature shows that there is underutilisation of postnatal care services worldwide especially in Africa.

MoH (2008) states that the rate of postnatal attendance in Zambia is relatively low. The majority of women (77.2%) who deliver at home do not receive postnatal care services.

Literature gathered from CSO (2007) shows that in Zambia antenatal coverage in urban is at 99% and 91% coverage in rural areas, while postnatal coverage is at 61% in urban and 29% in rural areas.
The literature reviewed showed that postnatal care services are being underutilised and this has implications on women who develop complications with most of the maternal deaths occurring in the first 24 hours to one week post delivery (MoH, 2008).

2.4 Variable II- Knowledge

A study on women's knowledge and practice in rural Bangladesh by WHO (2000) found that both women and their husbands had limited knowledge about life threatening complications of pregnancy and childbearing.

Yesudian (2009) conducted a study in India on the synergy between women empowerment and maternal and perinatal care utilisation. The main objective of the study was to explore the synergy between women`s empowerment and utilisation of maternal health care facilities. The study revealed that the empowerment factors such as education, exposure to media and improved standard of living have a positive relationship towards maternal health care utilisation. The study also discovered that the mothers' poor attitude towards utilisation of PNC was related to their subordination role and the justification of wife beating. As a result, the Indian government undertook steps to address this problem by establishing a large network of health infrastructure and giving priority to maternal care through its reproductive and maternal and child health programme.

According to Aboubakary (2010), a number of individual, household and institutional characteristics affect women's decisions to seeking care, which includes education, income, accessibility, age, organization and functioning of the health care system and services, interaction between parents and health workers, waiting time and clinical practice.

Mengistu and James (2007) conducted a study on utilisation of maternal health care services in the Arsi zone of Central Ethiopia. The major objective of this study was to examine factors that significantly shape the use of maternity care services in Ethiopia. Data for this study come from the 2000 Ethiopia Demographic and Health Survey, which was the first of its kind to be conducted in the country.

The survey collected information from a nationally representative sample of 15,367 women age 15-49. This study analyses responses from 7,978 women aged 15-49, who have at least one child under age five at the time the survey was fielded.

The study found that maternal age, parity, residence, lack of time, woman's education, marital status, and women's economic status were significant predictors of utilisation of maternity health care services.

A study conducted in Yirgalem town and in the surrounding Southern Nations, Nationalities, and People's Region (SNNPR) of Ethiopia by Belay in 1997 showed that women's education, inadequate household income, and unwanted pregnancy were important predictors of antenatal care and postnatal care utilisation.

A study conducted by Awadnsalmin in Uganda in 2009, revealed that the majority (88%) of postnatal mothers were not aware of postnatal services thus resulting into underutilisation of postnatal care, 88% of mothers were not attending postnatal clinic after delivery, also the findings showed that 94% postnatal mothers had inadequate knowledge on importance of postnatal care and 90% had low knowledge on postnatal complications. Other factors contributing to underutilisation of postnatal attendance were social and cultural beliefs which hinder postnatal mothers from attending postnatal care clinics which were, 44% due to lack of decision in the family and 78% of mothers were staying indoors for forty days.

The above studies show that knowledge is an important predictor of utilisation of postnatal care services.

A study was done by Nankwanga (2004) in Uganda at Mulago and Mengo hospitals. The main objective of the study was to explore the factors influencing the utilisation of postnatal services. The study revealed that most women lacked awareness about postnatal services and those who knew about these services only knew about immunisation and family planning services. The majority of the mothers did not know about other services, such as physiotherapy, counseling, growth monitoring, and physical examination. In addition the study also indicated that lack of money for transport or service costs, distance from the health care facility, not being aware of the services, lack of somebody to take care of the child at home were some of the main barriers to utilisation of postnatal services.

A Zambian study conducted by Miti (1999) on mothers' knowledge and attitude on PNC in Lusaka discovered that the older women covering 60% of the women with positive attitude did not utilise PNC services. The study also revealed that the majority of those with poor knowledge (54%) had no source of information on PNC. This implies that IEC was not adequately given in the health institutions on the importance of PNC, hence the need to intensify and strengthen the quality and content of IEC in the health centres.

2.5 Variable III- Cultural beliefs

Some of the reasons assumed for low utilisation of postnatal care services include beliefs and practices of women which they carry out at home instead of attending postnatal care services. For example, in some cultures women are kept in seclusion after delivery for about a month and they are not allowed to go out. The socio-cultural practices around childbirth such as maternal seclusion after delivery and cultural beliefs in a community play a vital role in underutilisation of postnatal care services in Nepal, South Asia (Nepal Demographic Health Survey, 2001). At the same time, seclusions about mobility of women and expenditure on health care are controlled by men or older women of the household, which may limit women's search for health care (WHO, 2003).

A study carried out by WHO (2000) in rural Bangladesh revealed that women in the postnatal period when faced with a problem consulted the traditional healers for medicine instead of going to postnatal clinic for review. The women believed that the evil spirits caused such ailments and they expressed fear of going out and these served to reinforce the idea of seclusion due to impurity. This delays the identification of complications which may arise during the postnatal period.

Another Bangladesh study conducted by Goodburn, Gazi and Chowdhury (1995), on beliefs and practices regarding delivery and postpartum maternal morbidity using focused group discussions to explore the experience of childbirth and postpartum illness among rural Bangladesh women. The women's belief about disease causation and their use of traditional health care were explored. The results showed that postpartum morbidity was common and participants mentioned a wide range of local treatments. They believed in supernatural causes of disease and the custom of seclusion was a key obstacle to health care seeking after delivery.

A study which was conducted in Ethiopia revealed that in most rural settings of Ethiopia, there are challenges in increasing such health care service utilisation mainly due to the fact that the decisions that lead women to use the services seem to occur within the context of their marriage, household, family setting and some of the cultural practices which are done (Aboubakary, 2010).

In general, despite the fact that ANC and PNC services are made accessible to nearly all women, the decisions to use the services seem to occur within the context of their marriage, household and family setting. It is thus important to examine the extent to which women are making use of the services and answer why many women do not use the available services.

Maternal and child health care are the reproductive health programmes in both developed and developing countries. All over the world, motherhood is revered in recognition of the women's vital contribution to the human race and nurturing of its young ones. Status is made, paintings are created, poems, stories and songs are composed to glorify the mother and her role. Yet every year globally, 500,000 women die from that very function of giving birth to a child (Nsemukila et al., 1998).

2.6 Variable IV-Service related factor (Attitude)

Throughout the world, nurses and midwives contribute the largest category of the health personnel and the successful implementation of maternal and child health services depend largely on them because they are the first contact of the health care. In postnatal care the role of a nurse midwife is to nurse, observe, teach, supervise, educate, advocate and counsel. The attitude of the health professionals affect the level of utilisation of postnatal care services. If the health staff attitude is bad people will shun the service (Sellers, 2010).

A study done in Bangladesh revealed that mothers had poor attitude towards utilisation of postnatal care and this was related to their subordination role and the justification of wife beating (Yesudian, 2004).

A study on factors associated with utilisation of postnatal care services by Palestinian women revealed that women preferred a heath provider with a positive attitude who took time to provide them with advice and counselling. They indicated that they wanted to be treated, with respect and dignity, not like medical cases (Palestinian Women Research and Documentation Centre, 2010).

2.7 Variable V- Social support system

A WHO (2000), study conducted in Nepal, South Asia, by Ohashisi (1999) on understanding the access, demand and utilisation of health services by rural women revealed that empowerment of women had an influence on the utilisation of postnatal care services.

In the same study it was noted that women who discussed their health problems with their husbands attended postnatal care and those women who engaged in self employment and agricultural work were also more likely to use such services. This is because there were able to socialise with other women than those who were confined to their homes.

A Palestinian study conducted by the Palestinian Women Research and Documentation Centre showed that postpartum women needed support for at least the first week of delivery.

The types of support received by women included support in the household, baby care, support with caring for other children, social, moral and emotional support and personal care to a limited extent. Support in the household and baby care was the most frequently reported type of support. Women generally indicated that they needed help with these things but the most important support was emotional/moral support which was not always available. The common providers of support were female relatives who mainly consisted of mothers, mother in-law, sisters and sisters in-law. In some cases this also included grandmothers, aunties, older daughters and nieces. In a few cases male relatives like father in-law and sons were mentioned as providers of support. About a quarter of women also mentioned of receiving support from their husbands and friends. In general, women preferred source of support from their husbands. Some indicated that although they wanted support from their husbands, the latter were either too busy or unwilling to support them. A few women also mentioned that the norms prevent husbands from providing support. After the husband, the mother was the most preferred support provider.

2.8 Variable VI- Economic factor

When women are economically sound, they fulfil appointments because they are able to afford transport costs. Economically sound women are also able to access information on the benefits of health care services through various forms of technology which helps in the dissemination of information education and communication on health issues. Such technologies include television, internet facilities and computers.

Women with higher economic status, higher educational levels and who live in urban areas with adequate health care services are more likely to utilise health care services (MoH Republic of Indonesia, 2007). At the national level, previous analyses using various Indonesia Demographic and Health Survey data also confirmed that the association of these factors affects levels of antenatal or postnatal care service utilisation (IDHS, 2007).

Titaley et al., (2010) conducted a study on why some women do not attend antenatal and postnatal care services in West Java province, Indonesia. The study found that financial difficulty was a major issue among women who did not fulfil the minimum requirement of four antenatal care services or two postnatal care services within the first month after delivery. This was related to the cost of health services, transportation costs or both.

A study done in Nepal, Southern Asia, by Yamasaki in 2006 revealed that, women with low social status, poverty and low education levels have less access to modern health services and have more trust in traditional care, for example they are more likely than men to seek help from traditional healers.

According to literature reviewed a woman who is economically empowered and with a higher level of education is more likely to utilise postnatal care services.

2.9 Relationships between Variables

The literature reviewed has shown that there are a number of variables which affect the utilisation of postnatal care services. The relationships of the variables are outlined below. Knowledge on the benefits of postnatal care services will positively influence postnatal mothers to seek postnatal care services.

When mothers and health care providers are well informed about the importance of postnatal care services, it will lead to a positive change in their attitude towards utilisation of postnatal care services.

Knowledge acquired by postnatal mothers on the benefits of postnatal care services positively influence the attitude of mothers towards utilisation of postnatal care services which also lead to a positive change in the way mothers perceive cultural beliefs and this improves utilisation of postnatal care services.

A well informed social support system (knowledgeable) on utilisation of postnatal care services leads to a positive change in attitude towards postnatal care services which also lead to positive changes in cultural beliefs and this eventually leads to an improvement in social support of the mother towards utilisation of postnatal care services.

2.10 Conclusion

Literature review has shown that postnatal care being one of the elements of maternal and child health remains a serious problem in our society today. The literature review shows that there is high utilisation of antenatal care services as compared to low utilisation of postnatal care services. Considerable efforts have been made by many countries to provide prenatal and delivery care, but less attention has been paid to the role and content of postnatal care, yet most of the death of women and children happen in the post partum period. The studies show that inadequate knowledge, negative attitude, cultural beliefs, weak social support system and poor status are some of the factors that contribute to underutilisation of postnatal care services.

Therefore there is need to work out a lasting solution to the problem so as to increase the utilisation of postnatal care services and reduce maternal mortality. It is important that public health strategies take into account the availability, affordability and accessibility of health services. Poverty alleviation strategies will help financially deprived communities to use antenatal and postnatal care services .This study hopes to create a new body of knowledge to the existing problem.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the steps, procedures and strategies for gathering and analyzing the data in research investigations (Polit, Beck & Hungler, 2001). The purpose of this study was to determine factors contributing to underutilisation of postnatal care services among postnatal mothers.This chapter discuss the research design, research settings, study population, sample selection and sample size. It also gives an explanation on the data collection techniques, pilot study and ethical considerations.

3.2 Research design

According to Basavanthappa (2007), a research design is the overall design or blue print the researchers use to carry out the study. The design provides answers to the research questions or for testing the research hypothesis and it spells out basic strategies that the researcher adapts to develop information that is accurate and interpretable.

A quantitative, qualitative, explorative and descriptive non-interventional cross-sectional research design was used to determine factors contributing to underutilisation of postnatal care services among postnatal mothers in Zambia. The research was non interventional because it did not involve any manipulation of the subjects taken in a natural setting. It was explorative because it was done on a small scale of short duration as little was known about the problem under study. Basavanthappa (2007) defines descriptive studies as studies carried out for the purpose of providing an accurate portrayal of a group of subjects with specific characteristics. It was descriptive because it involved systematic collection and presentation of data so as to give a clear picture of the situation under study. The design was chosen not only for the purposes of gaining immediate knowledge and information on factors contributing to underutilisation of postnatal care services among postnatal mothers in Zambia, but also because it was less expensive and required to be completed within a short period of time .

The study was quantitative and qualitative. It was quantitative because the data collected was quantified in numerical values and percentages. This enabled statistical inferences. It was qualitative because it sought to describe life experiences based on knowledge, attitudes, cultural beliefs and social support among women and give them meaning.

Cross-sectional studies examine data at some point in time, that is, data are collected on only one occasion with the same subjects rather than on the same subjects at several points in time (Basavanthapa, 2007). This design was chosen because the researchers collected data only on one occasion with the same subjects rather than on the same subjects at several points in time. The research design was therefore appropriate for this study, as it explored all the necessary information in regard to the study objectives that were stated.

3.3 Research setting

Research setting is a physical location or condition in which data collection takes place in a study (Polit & Hungler, 2001). The study was conducted from four (4) different districts namely Chikankata, Monze, Choma and Chongwe.

The total population for each district are Chikankata 16,364; Monze 203,038; Choma 257,604 and Chongwe 245,473.

The numbers of women in the child bearing age in each district are: Chikankata 3600; Monze 44,668; Choma 56,673 and Chongwe 54,004.

Most of the populous occupation in the areas of study was either as commercial or subsistence farming.

The numbers of health centres and hospitals in the areas of study were as follows; Chikankata 3 health hentres and 1 hospital, Monze has 25 health centres and 2 hospitals, and Choma has 41 health centres and 2 hospitals while Chongwe has 35 health centres 2 hospitals.

The reasons the researchers chose to conduct research in these areas were because the researchers live in these areas and because of limited resources, therefore it was cheaper and affordable.

3.4 Study population

The study population is the category of persons or objects that meet the criteria for study established by the researcher, any set of persons, objects or measurements having observable characteristics in common (Basavanthappa, 2007). The study population consists of the target population and the accessible population (study unit).

3.4.1 Target population

According to Polit & Hungler (2001), a target population is the entire population in which the researcher is interested and to which he/she would like to generalise the results of the study.

The target population in this study comprised women in the child bearing age (15-45 years) who delivered in the months of September and October, 2012 at two health facilities in each of the four districts.

3.4.2 Accessible population

The accessible population is the portion of the target population to which the researcher has reasonable access (Burns & Groove, 2009). In this study, the accessible population was mothers, who delivered in the months of September and October, 2012.

3.5 Sample size

A sample is a set of elements that make up the population; an element is the most basic unit about which information is collected (Lobiondo & Wood, 2006).

The criterion that was used to decide on the representation of the population took into consideration the availability of resources in terms of time, manpower, transport and money. The sample size was 50 mothers from each of the districts under study making a total of 200.

3.6 Sample selection

Sample selection is the process of selecting a subset of a population in order to obtain information regarding a phenomenon in a way that represents the entire population (Basavanthappa, 2006).

In this study, simple random sampling which is a probability sampling method was used to select two health facilities in each study district. Simple random sampling is defined by Basavanthappa (2006) as a probability sampling procedure in which the required number of sampling units are selected at

random from the population in such a manner that each population element has an equal chance of being selected for the sample.

The investigators used simple random sampling because of the following main features: it involves one stage selection process, each unit or process has an equal or independent chance of being drawn, the accessible population can be identified. Moreover, it is simple and easy to use.

Two health facilities in each study district were selected by obtaining a list of health facilities from the District Health Management Team (DHMT).

The investigators' sampling frame were the birth registers from the two chosen health facilities in each study district where a list of names of mothers who delivered in the months of September and October 2012, were selected using a convenient sampling procedure. Convenient sampling is the use of the most readily accessible persons or objects as subjects in the study (Lobiondo & Wood, 2006). Convenient sampling was used because the study was conducted in a short period and the study population was limited to those who came for postnatal care services in order to have enough participants. Study units that were present at the time of data collection were selected.

3.7 Data collection tool

Data collection is a precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions or hypothesis of a study (Burns & Groove, 2005). It may take the form of a questionnaire, an interview schedule or some other type of tool for eliciting information.

A semi structured interview schedule was used to collect data. The semi structured interview schedule had four sections. Section A contained questions on the respondents demographic data, section B contained questions eliciting information on the respondents knowledge on postnatal care services, section C contained questions on utilisation of postnatal services by the respondents and Section D had questions eliciting information on social cultural factors.

The semi stuctured interview schedule had both open and closed ended questions. All the respondents were interviewed using the same tool. The Semi structured interview schedule was chosen due to its various advantages which include;

a. Respondents are able to describe a situation using their own words.
b. Misunderstandings are corrected on the spot.
c. Questions are rephrased while retaining the same meaning.

d. High response rate is obtained due to the presence of the researcher.
e. Body language is observed during the interview.

The disadvantage of using a semi structured interview schedule is that it is time consuming to both the interviewer and interviewee.

3.8 Data collection techniques

Data collection techniques allow to systematically collect information about our objects of study and about the settings in which they occur (Varkevisser, Pathmanathan & Brownlee, 2003). If data is collected haphazardly, it can be difficult to answer the research question in a conclusive way. In this study, the data collection technique used was the face to face interview. Data was collected over a period of 20 days and a range of 3 to 5 interviews were conducted per day. Each interview lasted 25 to 30 minutes.

The procedure for data collection in this study was as follows;

a. Permission was obtained from each DHMT and the incharges for the two selected health facilities in the four study districts.
b. Privacy was ensured by use of a separate room.
c. Self introduction of the investigator to the respondent was done to put the interviewee at ease.
d. An explanation of the purpose of the study was done.
e. Reassurance of respondents on confidentiality and anonymity was emphasised.
f. The respondents were informed on how the feedback would be provided.
g. After getting consent the investigator read out the questions to each respondent at a time.
h. The interviewers entered the responses as they were given by the respondents.
i. At the end of the interview, the investigators went through the interview schedule to check for consistency in the answers given and for completeness of the interview schedule.
j. The interviewer asked the interviewee for any questions, comments or contributions regarding the study and thanked the respondents for taking part in the study.

3.9 Validity

Validity refers to whether a measurement instrument accurately measures what it is supposed to measure. When an instrument is valid it truly reflects the concept it is supposed to measure (Basavanthappa, 2006). Validity of the measurement instrument was assessed after the pilot study (semi structured interview schedule) to assess if it measured what it intended to measure.

3.10 Reliability

Reliability is the consistency of measures obtained in the use of a particular instrument. If the same measurement scale is administered to the same individuals at two or more different times, the measurement is reliable if the individual's responses to the items remain the same (Burns & Groove, 2005). In this study the researchers ensured reliability by standardizing the instrument. The research tool was tested before the main study was conducted using a pilot study in an environment with similar characteristics as the environment in which the main study was to be conducted. This was done to determine stability of the data collection tool.

3.11 Pilot study

A pilot study is commonly defined as a smaller version of a proposed study to refine the methodology (Burns & Groove, 2005). It is developed much like the proposed study, using similar subjects, the same setting, the same treatment, and the same data collection and analysis techniques (Burns & Groove, 2005).

The researchers used the pilot study to determine whether the proposed study was feasible, to identify problems with the design, to determine the reliability and validity of research instruments and give the researcher experience with the respondents.

Pilot studies were conducted at Chikankata, Monze, Choma and Chongwe respectively because these areas had similar characteristics with the actual study settings. The study sample consisted of twenty (20) respondents from the study areas who were selected using convenience sampling method. The respondents were interviewed using semi structured interview schedule to test a data collection tool. After the pilot study, a few questions were rephrased so as to collect the required responses. The responses on question 15 in the questionnaire were changed from hospital and clinic to health institutions as place of delivery. Question 18 was changed from "when were you told to attend postnatal clinic?" to "when did you attend the postnatal clinic?"

3.12 Ethical considerations

A good research problem conforms to moral, ethical and legal standards of scientific enquiry. A research should have deep concern for human welfare and sensitivity for the rights of research subjects. Any research that may be harmful violates the ethical code of nursing and may be illegal (Basavanthappa, 2006).The respondents have the right to know the purpose of the research, risks involved in participating, nature of the study situation and the results of the study. They also have the right to confidentiality and the right to participate or withdraw from the study.

In this study, ethical issues were addressed by obtaining permission to conduct the study from Chikankata, Choma, Chongwe and Monze. Personal consent was secured from the clients who participated in the study. The respondents were briefed about the purpose of the study and that they had the right to participate or withdraw from the study. The respondents were assured of confidentiality of personal information shared with the researcher.

The respondents were told that their names would not be written on the questionnaire and that all the information given and the results of the study would be generalized to the population they represented. The completed semi structured interview schedule was kept under strict security conditions to avoid unauthorized access to the information contained therein.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

Chapter four provides information on data analysis and presentation on findings .The purpose of the study was to determine the factors contributing to underutilisation of postnatal care services in the four districts of Zambia. The analysis and presentation of findings was done systematically starting with demographic data, knowledge on postnatal care services, utilisation of postnatal care services, socio cultural factors and associations between the dependent and independent variables.

4.2 Data Analysis

Data analysis is a systematic organisation and synthesis of research data and testing of research hypotheses using those data (Polit, Beck & Hungler, 2001). After data collection, the interview schedules were sorted out and checked for completeness and consistency of information in the field before analysis. Responses from open ended questions were categorized and coded. All the coded responses from both closed and open ended questions were thereafter entered and analysed electronically using the Stastical Package for Social Sciences version 20.0 (spss v.20) and a scientific calculator. Descriptive statistics were computed in order to describe the factors influencing underutilisation of postnatal services. The relationship between demographic data, knowledge, socio cultural practices and utilisation of postnatal services were investigated.

4.3 Presentation of findings

The findings were presented according to the sequence of sections and questions of the interview schedule. Frequency tables, pie, bar and column charts were used to present data in order to make others understand the results better. Cross tabulations of variables were also presented. These show the relationship among variables.

4.3.1 Section A: Demographic Data

The demographic data included age, tribe, level of education, occupation, religion, marital status, distance to the health facility, mode of transport, number of pregnancies and children of respondents and age of the youngest child. Eight frequency tables and three figures have been used to display the respondents' demographic characteristics.

Table 4.1 Age Distribution (n-200)

Age	Frequency	Percentage
15-19	65	32.5%
20-24	54	27%
25-29	40	20%
30-34	23	11.5%
35-39	17	8.5%
40-44	1	0.5%
Total	**200**	**100%**

The age distribution ranged between 15 and 45years. Most 65 (32.5%) of the respondents were aged between 15 and 19 years, 54 (27%) were aged between 20 to 24 years, 40 (20%) averaged between 25 to 29 years, 23 (11.5%) were aged between 30 and 34 years. Furthermore the ages between 35 to 39 years were 17 (8.5%). The least was aged between 40 and 44 years with the frequency of 1 (0.5%).

Table 4.2 Tribe (n-200)

Tribe	Frequency	Percentage
Tonga	138	69%
Bemba	15	7.5%
Lozi	13	6.5%
Nyanja	20	10%
Others	14	7%
TOTAL	200	**100%**

The majority of the respondents were Tongas by tribe with a frequency of 138 (69%), followed by Nyanja who were 20 (10%) . The least of the respondents fell in the category of others accounting for 14 (7%).

Table 4.3 Level of education (n-200)

Education level	Frequency	Percentage
Secondary	100	50%
Primary	81	41%
Never	11	5.5%
College	7	3.5%
University	1	0.5%
TOTAL	**200**	**100%**

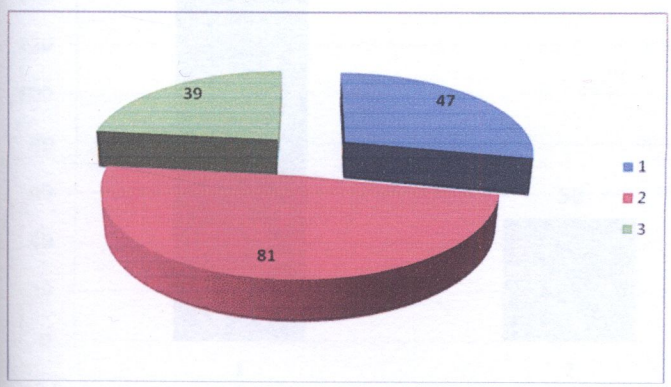
The majority 100 (50%) of the respondents had attained secondary school education, 81(41%) had attained primary education, 11 (5.5%) had never been to school. 7 (3.5%) had attained college education and 1 (0.5%) had university education.

Table 4.4 Occupation (n-200)

Occupation	Frequency	Percentage
House wife	102	51%
Unemployed	58	29%
Self employed	27	13.5%
Formal	13	6.5%
TOTAL	**200**	**100%**

The majority 102 (51%) of the respondents were housewives, while the least were in formal employment 13 (7%).

Figure 3 Husband`s occupation (n-167)



The majority of the respondents' husbands were self employed 81(48.5%), 47 (28.5%) were unemployed while 39 (23.4%) were in employment.

Table 4.5 Religion

Religion	Frequency	Percentage
Christian	199	99.5%
Others	1	0.5%
Total	**200**	**100%**

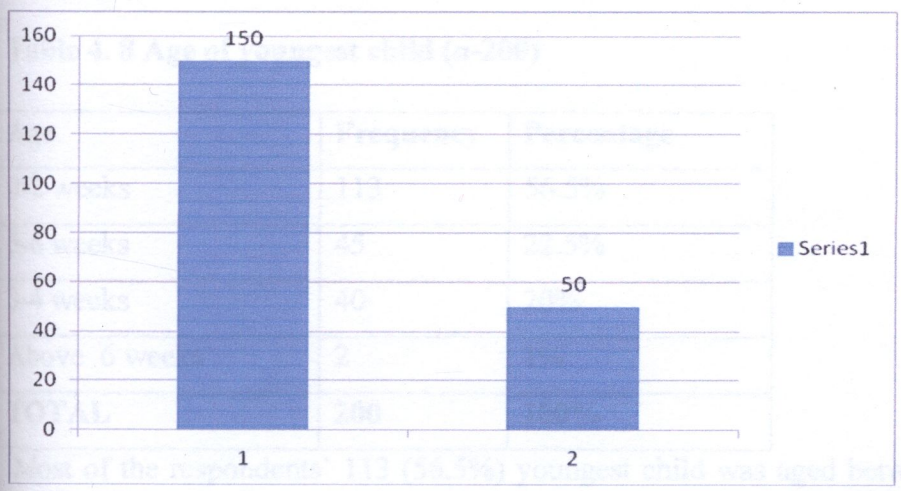
The majority of the respondents were Christians 199 (99.5%). Only 1 (0.5%) belonged to other types of religions.

Table 4.6 Marital status (n-200)

Marital Status	Frequency	Percentage
Married	164	82%
Single	33	16.5%
Divorced	2	1
Widow	1	0.5%
TOTAL	**200**	**100%**

The majority of the respondents were married 164 (82%), 33 (16.5%) were single, 2 (1%) were divorced and 1 (0.5%) was a widow.

Figure 4 Home location (n-200)



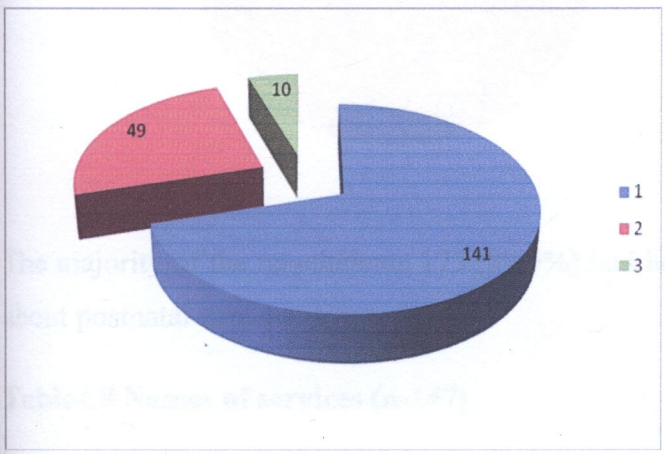
The majority of the respondents lived in the villages 150 (75%) while 50 (25%) lived in town.

Table 4.7 Number of pregnancies (n-200)

Number of pregnancies	Frequency	Percentage
1-3	137	68.5%
4-6	49	24.5%
7 and above	14	7%
TOTAL	**200**	**100%**

The majority of the respondents 137 (68.5%) have had 1 to 3 pregnancies, and 49(24.5%) have had to 6 pregnancies while 14 (7%) had the least number of pregnancies.

Figure 5 Number of live children (n-200)



Most of the respondents 141 (70.5%) had 1-3 number of children and 49 (24.5%) had 4-6 childre while only 10 respondents had 7 children or more.

Table 4. 8 Age of youngest child (n-200)

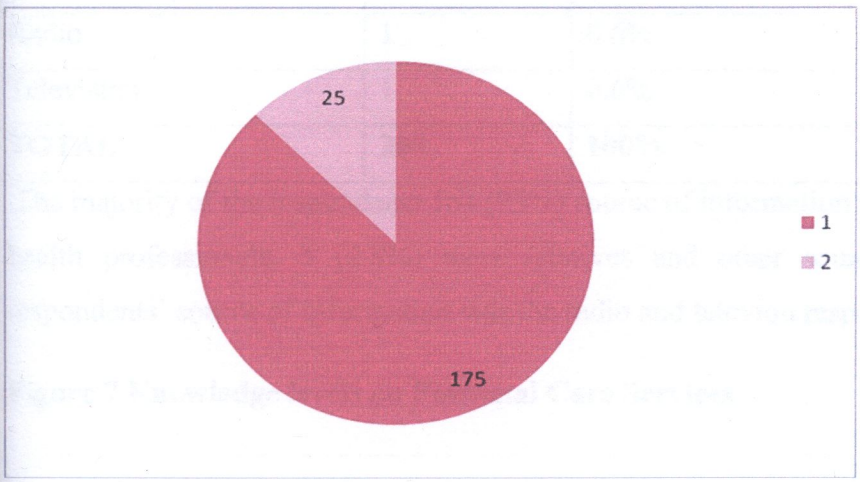
Age	Frequency	Percentage
0-2 weeks	113	56.5%
5-6 weeks	45	22.5%
3-4 weeks	40	20%
Above 6 weeks	2	1%
TOTAL	**200**	**100%**

Most of the respondents` 113 (56.5%) youngest child was aged between 0-2 weeks, 45 respondents (22.5%) youngest child was aged between 5-6 weeks, 40 respondents' (20%) youngest child was age between 3-4 weeks while 2 respondents' (1%) youngest children were aged above 6 weeks.

4.3.2 Section B: Knowledge on Postnatal Care

Knowledge assessment included data about the type of services available, when the postnatal services were offered and reasons for attending postnatal care services. Two frequency tables and figures were used to display the findings.

Figure 6 Had heard about postnatal services (n-200)



The majority of the respondents 175 (87.5%) had heard about postnatal while 25 12.5% had not heard about postnatal care services.

Table4.9 Names of services (n-147)

Service	Frequency	Percentage
Examination of mother and baby	67	41.1%
Immunisation	44	26.9%
IEC	38	23.3%
Family Planning	7	4.3%
Weighing of baby	7	4.3%
TOTAL	**163**	**100%**

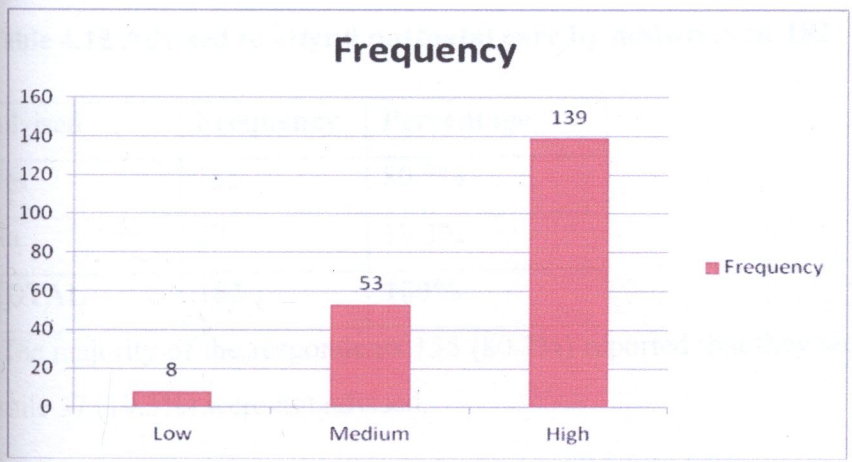
Most of the respondents 67 (41.1%) said that postnatal services was examination of mother and baby, 44 (26.9%) said it was immunisation, 38 (23.3%) said that postnatal services were information, education and communication, 7 (4.3%) said postnatal services were family planning and weighing of babies respectively.

Table 4.10 Source of information (n-200)

Source	Frequency	Percentage
Health professionals	168	93%
Relatives	5	2.8%
Others	5	2.8%
Radio	1	0.6%
Television	1	0.6%
TOTAL	**200**	**100%**

The majority of the respondents 168 (93%) source of information about postnatal care services was th health professionals, 5 (2.8%) were relatives and other sources respectively. 1 (0.6%) of th respondents` source of information was the radio and televion respectively.

Figure 7 Knowledge levels on Postnatal Care Services



Most of the respondents 139 (69.5%) had high knowledge on PNC services, 53 (26.5%) had mediun knowledge of postnatal care services and 8 (4%) had low knowledge PNC services.

4.3.3 Section C: Utilisation of Postnatal Services

This section presents information on utilisation of postnatal services. The variables that were measured include postnatal attendance, rating of services provided, postnatal examination, received IEC, waiting time before being attended to and if they could encourage someone to attend postnatal care services.

Table 4.11 Place of delivery of the youngest child (n-200)

Place of delivery	Frequency	Percentage
Health institution	155	77.5%
Home	45	22.5%
TOTAL	**200**	**100%**

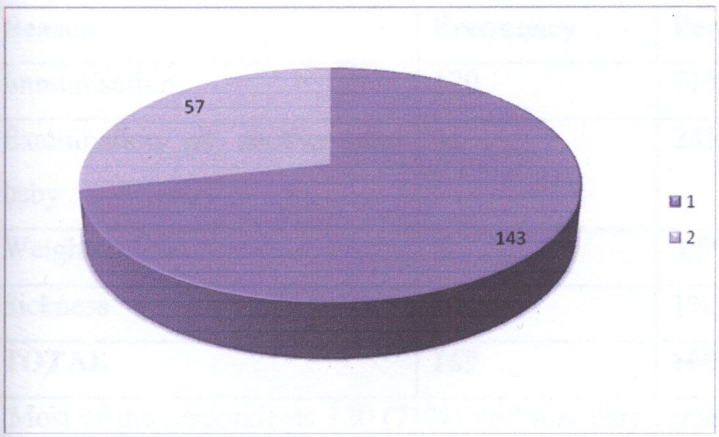
The majority of the respondents 155(77.5%) stated that they delivered their youngest child at the health institutions 45 (22.5%) delivered at home.

Table 4.12 Advised to attend postnatal care by midwives (n-182)

Advised	Frequency	Percentage
Yes	155	80.7%
No	37	19.3%
TOTAL	**182**	**100%**

The majority of the respondents 155 (80.7%) reported that they were advised to attend postnatal care while 37 (19.3%) were not advised.

Figure 8 Attended Postnatal clinic within 6 weeks of delivery (n-200)



The majority 143 (71.5%) of the respondents attended PNC within 6 weeks of delivery while 5
(28.5%) did not attend.

Table 4.13 Day/week of postnatal attendance (n-176)

Postnatal attendance	Frequency	percentage
At 6 days and 6 weeks	92	52%
Any other days	49	27.8%
After 1 week	29	16.5%
After 6 weeks	6	3%
TOTAL	**176**	**100%**

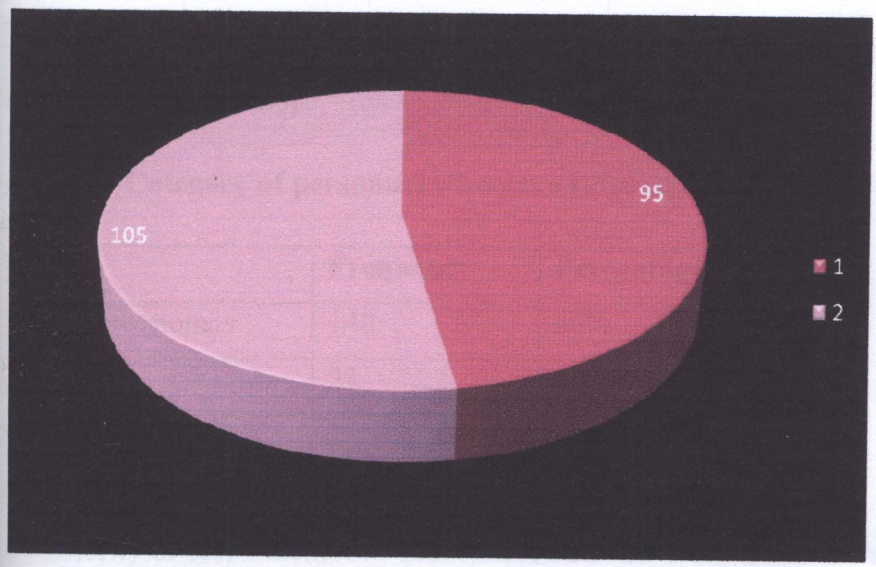
Most of the respondents 92 (52%) attended postnatal care services at 6 days and 6 weeks postnatally
49 (27.8%) attended postanatal any other day, 29 (16.5%) attended after 1 week and 6 (3%) attended
after 6 weeks.

Table 4.14 Reasons for attending postnatal clinic (n-156)

Reason	Frequency	Percentage
Immunisation	120	71%
Examination of mother and baby	41	24%
Weighing	6	3.5%
Sickness	2	1%
TOTAL	**169**	**100%**

Most of the respondents 120 (71%) said that they came for postnatal clinic for examination, 41 (24% came for examination of mother and baby, 6 (3.5%) said they brought the babies fro weighing and lea 2 (1%) said they came for postnatal because they were sick.

Figure 9 Postnatal examination conducted by Midwives (n-200)



The majority of the respondent 105 (52.5%) said that they were not examined when they visited the health facility after delivery while 95 (48%) said they were examined.

Table 4.15 Examined adequately by Midwives (n-95)

Examined adequately	Frequency	Percentage
Yes	50	52.6%
No	45	47.4%
TOTAL	**95**	**100%**

Out of the 90 respondents who were examined when they visisted the health facility 48 (53%) reported that they were adequately examined while 42 (47%) reported that they were inadequately examined.

Table 4.16 Received Information Education and Communication (n-200)

Received IEC	**Frequency**	**Percentage**
Yes	151	75.5%
No	49	24.5%
TOTAL	**200**	**100%**

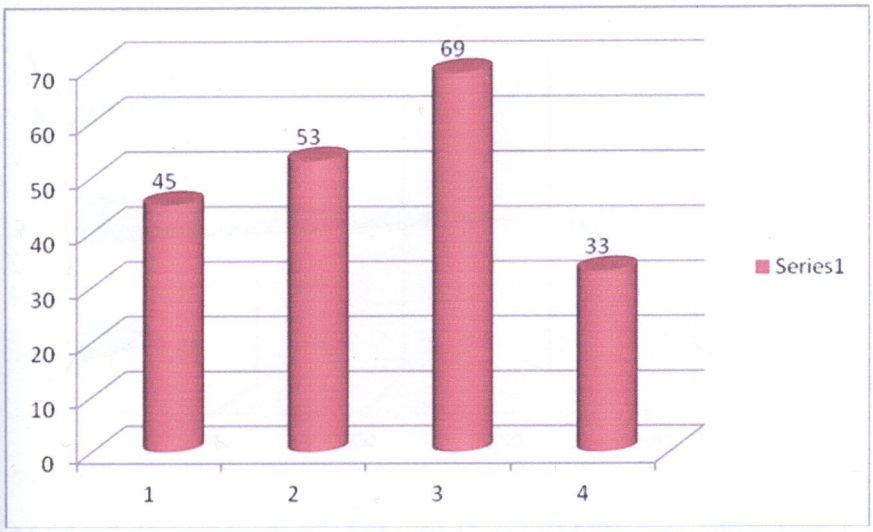
Most of the respondents 151 (75.5%) had received IEC on PNC when they visited the healt h facility while 49 (24.5%) had not.

Table 4.17 Category of personnel who gave Information Education and Communication (n-172)

Category	**Frequency**	**Percentage**
Health professionals	148	86%
CBAs	23	13.4%
Others	1	0.5%
TOTAL	**172**	**100%**

The majority of respondents148 (86%) received IEC from health personnel, 23 (13.4%) received IEC from CBAs and 1 (0.5%) received IEC from others.

Figure 10 Waiting time at the health facility (n-200)



Most 69 (34.5%) of the repondents waited for more than 1 hour at the health facility before they could be attended to, 53 (26.5%) waited between 30 minutes to 1 hour, 45 (22.5%) waited for less than 30 minutes and 33 (16.5%) were never attended to.

Table 4.18 Pleased with reception received at the health facility (n-200)

Pleased	Frequency	Percentage
Yes	192	96%
No	8	4%
TOTAL	**200**	**100%**

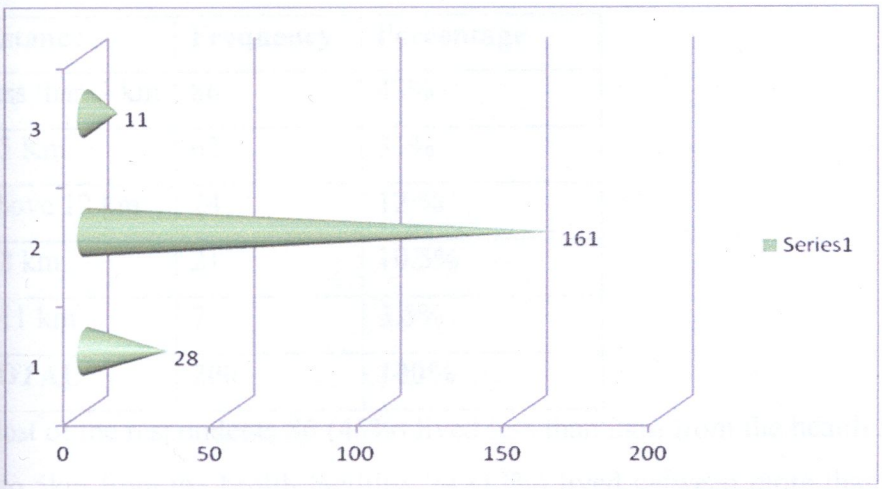
Most of the respondents 192 (96%) were pleased with the reception they received at the health facilities while 8(4%) were not.

Table 4.19 Attitude of health care provider (n-200)

Attitude	Frequency	Percentage
Positive	166	83%
Negative	34	17%
TOTAL	**200**	**100%**

Most of the respondents 166 (83%) rated the attitude of health care providers who attended to them at the health facilities as positive and 34 (17%) were rated to have a negative attitude.

Figure 11 Rating of care of health facility (n-200)



Most of the respondents 161 (80.5%) rated the care they had received at the health care facility good, 28 (14%) rated the care excellent and 11 (5.5%) rated the care as poor.

Table 4.20 Would encourage others to attend Postnatal Clinic (n-200)

Encourage	Frequency	Percentage
Yes	197	98.5%
No	3	1.5%
TOTAL	**200**	**100%**

The majority of the respondents 197 (98.5%) said that they would encourage someone to atte postnatal clinic for check up at the health facility while 3 (1.5%) said they would not.

Table 4.21 Distance to Health facility (n-200)

Distance	Frequency	Percentage
Less than 2 km	86	43%
3-5 Km	62	31%
Above 12 km	24	12 %
6-8 km	21	10.5%
9-11 km	7	3.5%
TOTAL	**200**	**100%**

Most of the respondents 86 (43%) lived less than 2km from the health facility, 62 (31%) lived between 3 to 5km from the health faciltity, 24 (12%) lived between more than 12 km from the health facility, 21(10.5%) lived between 6 to 8 km and 7 (3.5%) respondents lived between 9 and 11 km from the health facility.

Table 4. 22 Mode of transport to the health facility (n- 200)

Mode of transport	Frequency	Percentage
By foot	138	69%
By bus	37	18.5%
Others	15	7.5%
By Taxi	10	5%
TOTAL	**200**	**100%**

The respondents` commonest mode of accessing the health facilities was on foot 138 (69%), 37 (18.5%) used a bus 15 (7.5%) used other methods of transport and 10 (5%) used a taxi to access health facilities.

Table 4.23 Transport fare (n-47)

Fare	Frequency	Percentage
Kr 6-10	23	49%
Above Kr 16	19	40.5%
Kr 5 or less	3	6.5%
Kr 11-15	2	4%
TOTAL	**47**	**100%**

Most respodents 23(49%) spent between Kr6 to Kr10 to reach the health facility, 19 (40.5%) spent above Kr16, 3 (6.5%) spent less than Kr5 and 2 (4%) spent between Kr11 toKr15 to reach the health facility.

Table 4. 24 Time taken to reach health facility (n-200)

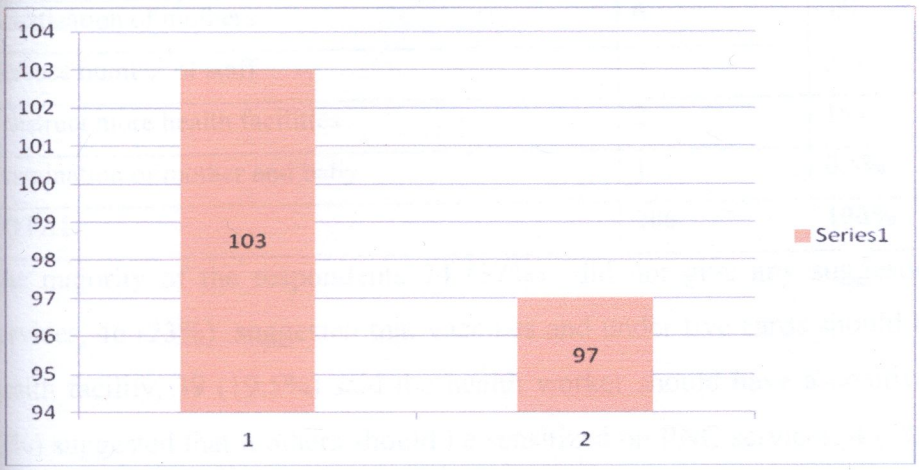
Time taken	Frequency	percentage
2 hours and more	64	32%
Less than 30 min	55	27.5%
1 hour – 1 hour 30 min	42	21%
30 min – 1 hour	39	19.5%
TOTAL	**200**	**100%**

The majority of the respondents 64 (32%) spent 2 hours and more to reach the health facility, 55 (27.5%) spent less than 30 minutes, 42 (21%) spent between one hour to 1 hour 30 minutes, 39 (19.5%) spent between 30 minutes and 1 hour to reach the health facility.

4.3.4 Section D: Socio-cultural factors

This section presents socio cultural factors that hinder mothers from utilising postnatal services. The assessment of socio cultural factors includes knowledge of socio cultural practices that could prevent them from attending PNC and also to give suggestions on how PNC could be improved.

Figure 12 Observed cultural practices (n-200)



The majority of the respondents 103 (51.5%) said that they observed some cultural practices that hinder them from attending PNC and 97 (48.5%) did not.

Table 4.25 Types of cultural practices (n-95)

Types of cultural practices	Frequency	Percentage
Seclusion	79	73.1%
Fear of mixing with others	29	26.9%
TOTAL	**108**	**100%**

The majority 79 (73.1%) of the respondents said that seclusion hinders them from attending postnatal services, and 29 (26.9%) said fear of mixing with others which can make the baby sick hinders them from attending postnatal clinic.

Table 4.26 Suggestions on improving postnatal care (n-200)

Suggestions	Frequency	Percentage
No suggestion given	74	37%
Vaccines and under five cards to be available	46	23%
Attitude of staff	39	19.5%
Sensitization of mothers	6	3%
Increase number of staff	4	2%
Construct more health facilities	2	1%
Examination of mother and baby	1	0.5%
TOTAL	**200**	**100%**

The majority of the respondents 74 (37%) did not give any suggestion on how to improve PNC services, 46 (23%) suggested that vaccines and under five cards should be available at all times at the health facility, 39 (19.5%) said the health worker should have a positive attitude towards mothers, 6 (3%) suggested that mothers should be sensitized on PNC services, 4 (2%) suggested an improvement in the level of staffing in health facilities, 2 (1%) said more health facilities should be constructed to reduce on the distance to access the health care services and 1 (0.5%) said that mothers and babies should be examined during the PNC services.

SECTION E: Relationship among variables

Section E represents information on the relationships between the independent and dependent variables. The main dependent variable of interest is utilization of postnatal care services within six weeks of delivery. The independent variables include knowledge levels, age, parity, education level of respondents and socio cultural practices.

Table 4.27 Relationship between knowledge level of postnatal care services and postnatal attendance

Knowledge on PNC	Attended PNC within 6 weeks of delivery		Total
	Yes	No	
Low	0 (0%)	8 (100%)	8 (4%)
Medium	37 (67%)	18 (33%)	55 (28%)
High	105 (77%)	31 (23%)	136 (68%)
Total	**142 (71%)**	**58 (29%)**	**200 (100%)**

As indicated by figure 7 most respondents 105 (77%) and with medium knowledge level 37 (67%) were more likely to attend PNC within six weeks of delivery than those with low knowledge level. This result was statistically significant (P value 0.00).

Table 4.28 Relationship between age and attendance of postnatal clinic (n-200)

Age	Attended PNC within 6 weeks of delivery		Total
	Yes	No	
15-19	41 (65%)	22 (35%)	63 (31.5%)
20-24	44 (80%)	11 (11%)	55 (27%)
25-29	26 (62%)	16 (38%)	42 (21%)
30-34	16 (76%)	5 (24%)	21 (10.5%)
35-39	15 (83%)	3 (17%)	18 (9%)
40-44	0 (0%)	1 (100%)	1 (0.5%)
Total	**142 (72%)**	**58 (29%)**	**200 (100%)**

Table 4.28 provides an overview of the relationship between age and attendance of PNC. Most respondents 15 (83%) aged between 35 – 39 years and 44 (80%) aged between 20-24 years were more likely to attend postnatal care within six weeks of delivery than those between the ages 25-29 years 16 (38%) and 15-19 years 22(35%). P value 0.110. This result was not statistically significant; therefore we fail to reject the null hhypothesis which states that there is no relationship between age of the mother and PNC attendance.

Table4. 29 Relationship between parity and postnatal clinic attendance (n-200)

Number of live children	Attended PNC within 6 weeks of delivery		Total
	Yes	No	
1-3	99 (70%)	43 (30.2%)	142 (71%)
4-6	35(73%)	13 (27%)	48(24%)
7 and above	8 (80%)	2 (20%)	10 (5%)
Total	**142 (71%)**	**58 (29%)**	**200 (100%)**

The majority of the respondents in this study were more likely to attend PNC within six weeks of delivery. However, 43 (30.2%) of those who had 1-3 children were less likely to attend PNC within six weeks of delivery. P value 0.744. This result was not statistically significant, therefore we fail to reject the null hypothesis which states that there is no relationship between number of children mothers have and PNC attendance.

Table 4.30 Relationship between level of education and postnatal clinic attendance (n-200)

Level of education	Attended PNC within 6 weeks of delivery		Total
	Yes	No	
Never been	5 (45%)	6 (55%)	11 (5.5%)
Primary	58 (72%)	23 (28%)	81 (40.5%)
Secondary	73 (73%)	27 (27%)	100 (50%)
College	5 (71%)	2 (29%)	7 (7.3%)
University	1 (100%)	0 (0%)	1 (0.5%)
Total	**142 (71%)**	**58 (29%)**	**200 (100%)**

The majority of the respondents in this study were more likely to attend PNC within six weeks of delivery regardless of their educational level. However, most 6 (55%) of those without formal education were less likely to attend PNC within six weeks of delivery.

P value 0.392. The result was statistically not significant; therefore we fail to reject the null hypothesis which states that there is no relationship between the mothers' educational level and PNC attendance.

Table 4.31 Relationship between socio cultural practices and postnatal clinic attendance

Socio practices	Attended PNC within 6 weeks of delivery		Total
	Yes	No	
Negative	59 (81.9%)	13 (18.05%)	72 (38.7%)
Positive	72 (63.7%)	41 (36.2%)	113 (60.7%)
Total	131 (71%)	54 (29%)	185 (100%)

Most respondents 59 (81.9%) who had no socio- cultural practice and 72(63.7%) of those who had socio- cultural practices which could affect PNC attendance attended PNC within six weeks of delivery. However, 41 (36.2%) of those who had socio -cultural practices did not attend postnatal clinic for check up within six weeks of delivery. P value 0.023. This result was statistically significant therefore we reject the null hypothesis which states that there is no relationship between socio- cultural practice and PNC attendance.

Table 4.32 Relationship between knowledge level and socio cultural practices (n-200)

Knowledge level	Socio cultural practices		Total
	Yes	No	
Low	3 (37.5%)	5 (62.5%)	8 (4%)
Medium	28 (51%)	27 (49%)	55 (27.5%)
High	82 (60%)	55 (40%)	137 (68.5%)
Total	**111 (56.5%)**	**87 (43.5%)**	**200 (100%)**

Table 4.32 shows the relationship between knowledge level on PNC and socio- cultural practices. Most respondents 82 (60%) with high knowledge level on PNC and 28 (51%) with medium knowledge level were more likely to have had socio cultural practices that could hinder them from attending PNC, 5 (62.5%) of those with low knowledge levels were less likely to have had no socio cultural practices that could have hindered them from attending PNC, P value 0.086.

This result was statistically not significant, therefore we fail to reject the null hypothesis which states that there is no relationship between knowledge on PNC and socio cultural practices. On PNC, 3 (37.5%) had socio cultural practices which could hinder them from attending PNC which could hinder them from attending PNC while 5 (62.5%) did not have.

Table 4.33 Relationship between waiting time and staff attitude (n-200)

Waiting time	Attitude of Health personnel		Total
	Positive	Negative	
< 30 min	38 (84%)	7 (16%)	45 (22.5%)
30min- 1 hour	42 (81%)	10 (19%)	52 (26%)
>1 hour	72 (88%)	10 (12%)	82 (41%)
Never attended to	11 (52%)	10 (48%)	21 (10.5%)
Total	**163 (81.5%)**	**37 (18.5%)**	**200 (100%)**

Most respondents in this study were more likely to report that the health staff at the health facilities had a positive attitude towards the mothers who attended PNC. However, most respondents 10 (48%) who were never attended to by health care professionals were less likely to report that the health staff at the health facilities had a negative attitude towards mothers than those who were attended to, P value 0.003. The result was statistically significant; therefore, we reject the null hypothesis which states that there is no relationship between mothers waiting time and health care staff attitude.

CHAPTER FIVE

5.0 DISCUSSION OF RESEARCH FINDINGS AND IMPLICATIONS FOR THE HEALTH CARE SYSTEM

5.1 Introduction

The main objective of the study was to determine factors contributing to underutilisation of postnatal care services in Chongwe, Choma, Monze and Chikankata districts of Zambia.

The assumptions before the study were that mothers who have inadequate knowledge on PNC are not likely to attend PNC, women who have many children may have a negative attitude towards PNC, some socio cultural practices hinder mothers from attending PNC, the lowly educated women are not likely to attend PNC and that the negative attitude of health care personnel contributes to women shunning PNC services.

The results were based on the analysis of 200 respondents selected from Chongwe, Choma, Monze and Chikankata districts.

5.2 Characteristics of the sample

The age distribution of the respondents ranged between 15 and 45 years. The majority of the respondents (32.5%) were mothers between the age of 15 and 19 years, followed by mothers aged between 20 and 24 years (27%) as shown in table 4.1 page 36. Most respondents in this study were younger due to the fact that child bearing starts early in Zambia. Furthermore, many young girls are married off early especially in rural areas. This finding is in line with Zambia Demographic Health Survey which reported a similar trend (CSO, 2002). Furthermore, the majority of the respondents were Christians 199 (99.5%) as shown in table 4.5. This is because most Zambians are Christians.

The majority of the respondents lived in the villages 150 (75%) while 50 (25%) lived in town as shown in figure 4.This could be due to the settings where data was collected from. Most of the respondents were Tongas as shown in table 4.2. This could be due to the fact that data was collected mostly from the southern province.

The findings showed that the majority of the mothers (68.5%) had 1 to 3 pregnancies and 49(24.5%) had 4 to 6 pregnancies while 14 (7%) had the least number of pregnancies (table 4.7). The findings also showed that many mothers above the age of 35 years had many children (above 4) and attended PNC services.

The majority of the respondents 100 (50%) had attained secondary school education. There were more respondents with secondary school education as shown in table 4.3. This is because of the settings from where data was collected had more basic schools and this could have enabled most women in these areas to attain secondary school education. Table 4.4, indicates that 51% of the respondents were housewives. This could be due to the women's low education status which hinders them from getting formal employment. The majority of the respondents' husbands were self employed 81(48.5%) as shown in figure 3. This could be due to the fact that there are less employment opportunities in the settings where data was collected.

5.3 Discussion of variables

5.3.1 Knowledge

Section B of the semi structured interview schedule contained questions that helped the researchers to determine whether mothers in the study had knowledge about PNC. A service can only be valued if one understands its intention and becomes aware of it and utilises it. The majority of the postnatal mothers (87.5%) in this study had heard about postnatal services (figure 6). Most (41.1%) respondents said that the postnatal care services prvided at the postnatal clinic were examination of the mother and baby (table 4.9). Majority of the mothers' source of information about postnatal care services was the health professionals (table 4.10). This therefore indicates that health professionals disseminate information about postnatal care services. The assessment of knowledge levels of postnatal mothers showed that 69.5% had high knowledge levels on PNC services as shown in figure 7. This finding is confirmed by Jacobs (2007) 's study which revealed that most women had knowledge about PNC even though they underutilised it. These findings therefore reject the hypothesis which states that mothers who had inadequate knowledge on PNC are not likely to attend and utilise PNC services. On the contrary, a study done in Uganda by Awadnsalmin, in 2009, revealed that 88% of mothers were not aware of PNC services and that 94% of mothers had insufficient knowledge on PNC. Another study by Nankwanga in Uganda (2004) revealed similar findings. .

5.3.2 Utilisation

Section C of the semi strured interview schedule contained questions that helped in determining the level of utilisation of PNC services by the mothers.

The majority of the mothers (77.5%) delivered their youngest child at the health institution (table 4.11).

About 80.7% of the respondents reported that they were advised by the health care provider to attend PNC services as shown in Table 4.12, however, only 52% attended postnatal clinic at six days and six weeks (table 4.13).

The percentage of women reported attending postnatal check up in this study (52%) is higher than the 30% reported by the Palestinian Women Research and Documentation Centre (2010). Furthermore, the study on women's uptake of maternity care conducted in the West Bank by the Palestinian Women Research and Documentation Centre 2010, found that 36.5% of the women in the study utilised postnatal care services. This figure is also quite low compared to this study finding. The findings reveal that majority of mothers (52%) attended postantal clinic within six weeks of delivery (table 4.13). Despite having high levels of knowledge on PNC services, mothers in this study did not understand the real fundamental purpose of PNC services as the majority (71%) stated that they attended PNC services mainly to have their babies immunised as shown in table 4.14. This suggests that the quality and content of the information, education and communication, offered at health facilities may not be adequate. It could also indicate that mothers do not perceive themselves to be sick following delivery. Most of the respondents (80.5%) reported that the care they had received at the health facility was good (figure 11). The majority of mothers who attended PNC (52.5%) were not examined by the health care provider as shown in figure 9. Of the 95 mothers who were examined by the health care providers 52.6% were adequately examined while 47.4% were inadequately examined as some had only the blood pressure checked, others were only examined on the abdomen or vulva and yet others were just asked how they felt instead of being examined thoroughly from head to toe (Table 4.16). Inadequate and /or lack of examination of mothers and their babies during PNC services may contribute to mothers underutilising the PNC services.

Most of the respondents 75.5% had recieved IEC on PNC (Table 4.17) and 86% received IEC from health professionals (table 4.18). The 34.5% of the mothers waited for more than one hour at the health facility before being attended to (Figure 10).

Most of the respondents (96%) were pleased with the reception they recieved from the health professionals from the health facility (Table 4.19) and 83% reported that the attitude of health personnel who attended to them at the health facility were positive (table 4.20). Almost all the respondents 98.5% stated that they would encourage someone to attend the postnatal clinic after delivery (Table 4.25). Most of the mothers 43% lived within 2 km of the health facilities and only 11.5% lived above 12 km from the health facilities as shown in table 4.21. The data shows that majority of the mothers 69% did not incur any transport costs to access health facilities (Table 4.22). This implies that most health facilities in this study are within easy reach (within 12 km) in most of the communities as recommended by the Ministry of Health. This result is contrary to other studies which showed that most women did not attend PNC services because most health facilities were not accessible due to long distance they had to cover (Nsemukila et al., 1998; Titaly et al., 2008). The majority of the mothers 96% were pleased with the reception they received from the health care providers during PNC as shown in table 4.31 and 81.5% said that the health providers had a positive attitude towards the clients (Table 4.3) .

5.3.3 Socio cultural practices

Section D of the semi structured interview schedule contained questions eliciting information about socio cultural practices among the PNC mothers that could hinder them from attending PNC services.

Socio cultural practices such as maternal seclusion after delivery play a vital role in the utilization of PNC services (Nepal Demographic Health Survey, 2001).

In this study, the respondents were asked to state whether there were any socio cultural practices that hinder them from attending PNC. The majority 103 (51.5%) said that they observed some cultural practices (Figure 12). Of the respondents who said that they observed certain cultural practices that could hinder them from attending PNC, 73.1% practiced seclusion during puerperium and 26.9% had fear of mixing with others when the baby was still small and before the cord drops as this could make the baby become sick (Table 4.26).

These findings are similar to a situation in Ethiopia where cultural practices hinder women from utilising PNC services (Aboubakary, 2010).

Most of the respondents in this study (37%) did not give any suggestions on how postnatal care services should be improved. However, 23% stated that vaccines and under five cards should be made available at the health facilities (table 4.27).

5.4 Association or relationships between variables

In this study, women with medium knowledge level (Table 4.27) were more likely to attend PNC within six weeks of delivery than those with low knowledge level (P=0.00).

Older women with age 35-39 years were more likely to attend postnatal care services than younger women (Table 4.29). Women that had more children were more likely to go to postnatal clinic for postnatal check up than those who had 1-3 children (Table 4.30). Women without formal education were less likely to attend PNC within six weeks of delivery than those with formal education (Table 4.31). Social cultural practice was found to be a significant predictor of utilisation of PNC services (Table 4.32).

5.5 Implication to the health care system

According to the study findings, most mothers (87.5%) had heard of PNC services but they did not utilise the services fully. Moreover, mothers' (71%) main reason for attending postnatal care was to have their babies immunised. This shows that there is inadequate sensitisation of mothers on PNC therefore; more sensitisation needs to be done. The study also showed that majority of mothers who attended PNC 52.5% were not examined and of the 95 who were examined, 47.4% were inadequately examined. This shows that even though mothers attended PNC services, most of them were inadequately examined by health care providers.

Inadequate and /or lack of examination of mothers and their babies during PNC services may contribute to mothers underutilising the PNC services. Therefore, mothers and their babies should be examined adequately when they attend PNC for them to appreciate the service. The study further showed that most of the health facilities were accessible to the respondents as they were within the 12 km radius. This implies that most health facilities are within easy reach (within 12 km) in most of the communities as recommended by the Ministry of Health.

The study also showed that the majority of the mothers 96% were pleased with the reception of the health care providers during PNC and the majority of the respondents 83% said that the health care providers had a positive attitude towards their clients.

Inspite of the above positive attributes of mothers, only 52% attended PNC at six days and six weeks. This implies that there could be other factors contributing to underutilisation of PNC services.

In addition, the study found that the majority 103 (51.5%) of the women observed some cultural practices while 97 (48.5%) did not. Based on the findings, it shows that there are socio cultural practices observed during postnatal period which hinder mothers from attending PNC services. Therefore, there is need for more sensitisation through different community groups such as the neighbourhood health committees.

5.5.1 Nursing practice

The health care system needs to identify new strategies in communication skills which will help mothers acquire adequate knowledge on utilisation of PNC services. There is also need for health care providers to improve the quality of care they provide to mothers as it was indicated in the study that the majority of the mothers (52.5%) were not examined and those who were examined 47.4% were not adequately examined. Full physical examination of both mother and baby needs to done during PNC services in order to identify the complications which can arise during puerperal period. Furthermore, health care providers need to improve on the quality and content of Information Education and Communication (IEC) given to the mothers during antenatal care (ANC), children's clinic and postnatal clinic. There is also need for the Ministry of Health to develop and distribute protocols to health facilities to guide health care providers on the quality and content of IEC to be given to postnatal mothers.

5.5.2 Nursing Administration

The investigators observed that majority of the mothers 69 (34.5%) waited for more than 1 hour before being attended to and this was attributed to shortage of staff in the health facilities. The shortage of staff has an effect on the problem of underutilisation of PNC as these mothers require specialized care by the midwives.

Nursing managers of these institutions should ensure that mothers are motivated to attend and use the PNC services by improving delivery of the care to the mothers. Therefore management has the duty to employ, maintain and retain the staff by motivating them. Nursing managers of health facilities should ensure that there is an adequate supply of equipment and supplies to enable the health care providers provide quality care.

The nurse managers must also ensure that they regularly supervise health workers to improve and maintain high standard of care.

5.5.3 Nursing education

The Ministry of Health (MoH) should continue to train nurses and midwives to improve on the staffing levels as this will enhance the provision of quality care to the mothers and their babies during the PNC services. The teaching staff in the schools of nursing should ensure that PNC topics in integrated reproductive health are thoroughly taught and adequate practical time is allocated for them to gain competence. The General Nursing Council (GNC) to ensure that curricular for nurses and midwives are reviewed regularly to incooperate new trends. The Ministry of Health should continue organising refresher courses for the practicing nurses and midwives on PNC services in order to acquaint staff with the new knowledge.

5.4.4 Nursing Research

Care provided to a mother during puerperal period is an important factor in the reduction of maternal and infant morbidity and mortality. Nursing and midwifery practice can only be improved with evidence based knowledge and practice. The study shows that despite mothers having high knowledge about PNC and delivering from the health institutions, there is still underutilisation of PNC services where only 52% of women came for PNC on six days and six weeks. There is need for the nurse researchers to conduct a more vigorous research and explore factors that contribute to underutilisation of PNC services in Zambia. A study to explore quality of postnatal care services provided to mothers should be conducted.

5.5 Conclusion

The purpose of this study was to determine factors contributing to underutilisation of postnatal care services in Chongwe, Monze, Chikankata and Choma districts of Zambia. A sample of 200 respondents was selected by convenient sampling method and interviewed. The findings indicated that most respondents had high knowledge levels on PNC services and 87.5% had heard about PNC. However, only 52% of the mothers attended postnatal care services at the recommended times.

Most respondents' reason for attending postnatal was to have their babies immunised. Quality of services provided could contribute to underutilisation of postnatal services by mothers. In this study, majority of mothers were not examined by health care providers when they attended PNC and 47.4% were inadequately examined. The study findings showed that 51.5% of the mothers observed some socio cultural practices which could hinder them from attending PNC services during postnatal period. The common cultural practice among mothers in this study was seclusion. This study demonstrates the importance of health promotion programmes for increasing community awareness about the necessity of postnatal services. It is also important that comprehensive quality postnatal care services are provided to mothers.

5.6 Recommendations

5.6.1 To the Ministry of Health

i. The Ministry of Health should develop or reinforce use of protocol guidelines on the components of Information Education and Communication given to postnatal in order to improve on the quality and content of Information, Education and Communication given to mothers.

ii. The Ministry of Health to ensure that quality services are offered to postnatal mothers by supervising the health care providers regularly and providing them with adequate equipment and supplies to enable them provide care.

5.6.2 To the District Health Management Teams/Hospitals

i. The District Health Management Teams/Hospitals should work in conjunction with Ministry of Health to conduct refresher courses for health care providers so as to keep abreast with new trends in health care delivery.

ii. The District Health Management Teams/Hospital management should improve on supervision of health care provision in the health centres to ensure improved and updated standards of care.

5.6.3 Maternal and Child Health department

i. The Maternal and Child Health (MCH) department should improve on the quality and content of Information, Education and Communication given to the mothers so that correct and timely information is disseminated.

ii. The Maternal and Child Health department should work together with the District Health Management Teams/Hospital management, Community leaders and

community based health agents to sensitise community members on the importance of PNC services.

5.6.4 Recommendation for further study

Similar studies should be conducted in other part of the country to enable generalisation of the findings to the rest of the country.

5.7 Dissemination of findings

Health system researches are conducted in order to obtain results that can be used to improve Maternal and Child Health care and health. The results from this research will be disseminated in order to provide evidence based care to improve the delivery of maternal and child health care. Therefore the results from this research will be disseminated to the relevant stake holders. A copy will be given to the Department of Nursing Sciences, University of Zambia medical library, Ministry of Health and to the four District Health Management Teams where the study was conducted.

5.8 Limitation of the study

This study has the following limitations:

i. Non probability sampling method called convenient sampling was used. Therefore, the sample may not be a representative of the entire population.

ii. The study was done in four districts; Monze, Choma, Chikankata and Chongwe, therefore, the results cannot be generalised country wide.

Nevertheless, the study provides data about stakeholders' perspectives of postnatal care services at the community level. This could inform policy makers to develop strategies to increase service uptake.

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APPENDIX i

THE UNIVERSITY OF ZANMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

QUESTIONNAIRE FOR POSTNATAL MOTHERS

TOPIC: FACTORS CONTRIBUTING TO UNDERUTILISATION OF POSTNATAL CARE SERVICES IN ZAMBIA

QUESTIONNAIRE NUMBER.....

PLACE/LOCATION.....

DATE OF INTERVIEW.....

INSTRUCTIONS FOR INTERVIEWER

1. Introduce yourself to the respondent.
2. Explain the purpose of the interview.
3. Obtain consent from the respondents.
4. Assure that information obtained in this questionnaire will be kept confidential.
5. Do not write the name of the respondent on the questionnaire.
6. Ensure that all questions are answered.
7. Tick in the bracket next to the respondent's choice.
8. For open ended questions write the responses in spaces provided
9. Use a pencil to write in the questionnaire.
10. Thank each respondent at the end of the interview

SECTION A

Demographic Data **For official use only**

1. How old were you on your last birthday?

   a) 15 to 19 years ( )

   b) 20 to 24 years ( )

   c) 25 to 29 years ( )

   d) 30 to 34 years ( )

   e) 35 to 39 years ( )

   f) 40 to 44 years ( )

   g) 45 and above ( )

2. What is your tribe?

   a) Tonga ( )

   b) Bemba ( )

   c) Nyanja ( )

   d) Lozi ( )

   e) Others (specify).....

3. What is your highest level of education?

   a) Never been to school ( )

   b) Primary level ( )

   c) Secondary level ( )

   d) collage ( )

   e) university ( )

4. What is your occupation?

a) Formal employment ( )

b) Unemployed ( )

c) Self employed ( )

d) Housewife ( )

5. What is your husband's occupation?

a) None ( )

b) Self employed ( )

c) Formal employed ( )

6. What is your religion?

a) Christian ( )

b) Moslem ( )

c) Hindu ( )

d) None ( )

e) Others (Specify).....

7. What is your current marital status?

a) Married ( )

b) Divorced ( )

c) Single ( )

d) Widowed ( )

e) Separated ( )

8. Where do you live?

a) Town ( )

b) Village ( )

9. How many pregnancies have you had in total?

a) 1-3 ( )

b) 4-6 ( )

c) above 7 ( )

10. How many live children do you have?

a) 1 to 3 ( )

b) 4 to 6 ( )

c) Above 7 ( )

11. How old is your last child?

a) 1-2weeks ( )

b) 3-4weeks ( )

c) 5-6weeks ( )

SECTION B

Knowledge

12. Have you ever heard about postnatal care services?

a) Yes ( )

b) No ( )

13. If yes, name these services

a) Examination of mother and baby ( )

b) Immunization ( )

c) IEC ( )

d) Weighing ( )

e) Family planning ( )

14. Where did you get the information on the postnatal care services?

a) Health professionals ( )

b) From relatives ( )

c) From the radio ( )

d) From the TV ( )

e) Others (specify)----------

SECTION C

Utilisation of postnatal Services

15. Where did you deliver your youngest child from?

a) Health Institution ( )

b) Home ( )

16. Did the nurse advise you to attend the postnatal clinic after you were discharged?

a) Yes ( )

b) No ( )

17. Did you attend postnatal care services within six weeks of delivery?

a) Yes ( )

b) No ( )

18. Which day/week did you attend the postnatal clinic?

a) After one week ( )

b) After six weeks ( )

c) Six days after delivery, then at six weeks again ( )

d) Any other days (specify)----------

19. Why did you go for postnatal care?

a) Examination of mother and baby ( )

b) Weighing ( )

c) Immunization ( )

d) Mother or baby was sick ( )

20. Did the health care provider examine you?

a) yes ( )

b) No ( )

21. If Yes were you adequately examined at postnatal clinic?

a) Yes ( )

b) No ( )

22. Have you ever received information education and communication on Postnatal care services?

a) Yes ( )

b) No ( )

23. If yes, who gave the Information Education and Communication on Postnatal care services?

a) The Nurse ( )

b) The Clinical Officer ( )

c) The Maid ( )

d) Others (specify) ( )

24. How long did you wait at the clinic before you were attended to?

a) Less than 30 minutes ( )

b) 30 minutes to one hour ( )

c) More than one hour ( )

d) Was never attended to ( )

25. Are you happy with the reception of the nurses at your local health facility?

a) Yes ( )

b) No ( )

26. How would you describe the attitude of the health care providers at your local health facility?

a) Positive ( )

b) Negative ( )

27. How would you rate the care you received at the health institution?

a) Excellent ( )

b) Good ( )

c) Bad ( )

d) Very poor ( )

28. How far is it from the health facility?

a) Less than 2Km ( )

b) 3 to 5Km ( )

c) 6 to 8Km ( )

d) 9 to 11Km ( )

e) 12Km and above ( )

29. How do you get to the clinic after delivery?

a) By foot ( )

b) By Bus ( )

c) Taxi ( )

d) Others (specify).....

30. If by bus or taxi, how much is the fair

a) Kr5 or less ( )

b) Kr6-10 ( )

c) Kr11-15 ( )

d) Above kr16 ( )

31. How long does it take you to walk to the health centre?

a) Less than 30 minutes ( )

b) 30 minutes to one and half hours ( )

c) More than two hours ( )

32. Would you recommend or encourage other women to come to this health facility?

a) Yes ( )

b) No ( )

SECTION D

Socio-Cultural factors

33. Are there any socio cultural practices that could prevent you from attending postnatal care services?

a) Yes ( )

b) No ( )

34. If yes, explain name your beliefs

a) Seclusion for one month ( )

b) Fear of mixing with others as it can make the baby to be sick ( )

35. Give suggestions on how PNC services could be improved in your health facility

a) Vaccines and under five cards to be readily available

b) Nurses to improve on their attitude

c) Reduce on waiting time

d) Mothers to be examined when they come for postnatal clinic

e) Improve on staffing levels

f) Construct more health facilities

g) No suggestion given

THANK YOU FOR YOUR PARTICIPATION

APPENDIX II

RESEARCH WORK SCHEDULE

ACTIVITY	DATES	DURATION	RESPONSIBLE PERSON
Research Proposal Development	10/06/12 to 28/09/12	96days	Researcher and Supervisor
Literature Review	Continuous	Continuous	Continuous
Clearance from School and Authority	28/09/12 to 2/10/12	5 days	Researchers
Pilot Study	03/10/12 to 05/10/12	2days	Researchers
Data Collection	08/10/12 to 02/11/12	20 days	Researchers
Data Analysis	07/11/12 to 07/12/12	30 days	Researchers
Report Writing	10/12/12 to 24/120/12	14days	Researchers
Draft Report to DNS	10/01/13 to 25/01/13	15 days	Researchers
Finalize Report	01/02/13 to 28/02/13	28 days	Researchers
Monitoring and Evaluation	Continuous	Continuous	Researchers and Supervisor
Dissemination of results	04/03/2013 to 08/03/13	4 days	Researchers

APPENDIX III: RESEARCH BUDGET

S/No	Item Description	Unit Cost in Kwacha	Quantity	Total Cost
	Stationary Requirements			
	Reams of paper	35,000.00	6	210,000.00
	Pens	1,000.00	3	30,000.00
	Pencils	500	20	10,000.00
	Scientific calculator	75,000.00	1	75, 000.00
	Stapler	30,000.00	4	120,000.00
	Staples	15,000.00	4 Boxes	60,000.00
	Filing Clips	1.500.00	22	33,000
	Folders	2,500.00	22	55,000.00
	Markers	25,000.00	1 Box	25,000.00
	Note Book	7,500.00	4	30,000.00
	Research Bag	50,000.00	4	200,000.00
	SUBTOTAL			**848,000.00**
	Field work and travel expenses for the investigator			
	Transport	50,000.00	4 x 20 days	4,000,000.00
	Meal allowance	50,000.00	4 x 20 days	4,000,000.00
	SUBTOTAL			**8,000,000.00**
S/ No	**Item Description**	**Unit Cost in Kwacha**	**Quantity**	**Total Cost**
	Secretarial Services			
	Research printing of proposal	2,000.00	300 pages	600,000.00
	Research photocopying			
	Binding the Report	300.00	4000 pages	1,200,000.00
		70,000.00	11 Copies	770,000.00
	SUBTOTAL			**2,570,000.00**
	SUBGRAND TOTAL			**11,418,000.00**
	Total Contingency 10%			1,141,800.00
	GRAND TOTAL			**12,559,800.00**

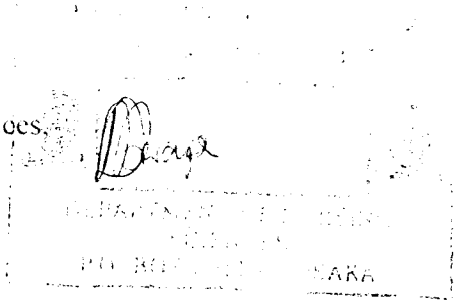
BUDGET JUSTIFICATION

1. **STATIONERY.** Stationary was necessary for photocopying research proposal, questionnaires and printing of the research report. The scientific calculator was used for data analysis. The files and folders were used for filing research documents. Staplers and staples were needed to secure papers and to maintain their proper arrangement. Markers for labeling the folders and, note books for noting down important information during the interviews. The research bag was for carrying the research documents for safety.
2. **FIELD WORK AND TRAVEL EXPENSES.** Transport to the various study areas and also for data collection during the 20 working days. The meals allowance for meals during data collection process
3. **SECRETARIAL SERVICES.** Money was needed to cater for printing, photocopying and binding the report
4. **CONTIGENCY.** This money was kept for any unexpected situation will require finances.

University of Zambia,
School of Medicine,
P.O Box, 50110,
LUSAKA
28 September, 2012.

The Senior Medical Officer,
Chikankata Mission Hospital,
Private bag S-2,
Mazabuka.

U.F.S: The Head,
Department of Nursing Sciences,
School of Medicine,
P.O Box 50110,
LUSAKA



Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT A PILOT STUDY

I am a 5th year undergraduate student in the Department of Nursing Sciences, School of Medicine, University of Zambia. In partial fulfilment of the Bachelor of Science in Nursing degree programme, I am required to conduct a research study. The title of my study is; **"Factors contributing to Underutilisation of postnatal care services in Zambia."** I will particularly conduct this study among postnatal mothers who delivered in the months of September and October, 2012 at the two selected health facilities in Chikankata catchment area.
I wish to conduct a Pilot study between 8th October and 2nd November, 2012.

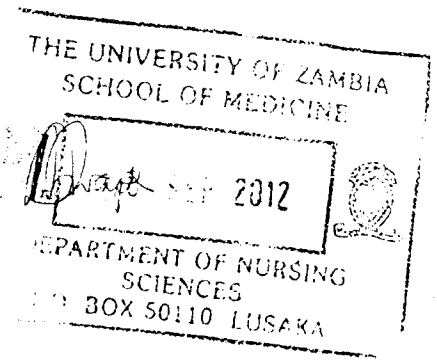
I am therefore requesting for permission to conduct my study at your institution. Your consideration will be highly appreciated.

Yours faithfully,

Sicheeba Changu Mildred.

University of Zambia,
School of Medicine,
P.O Box. 50110,
LUSAKA
28 September, 2012.

The Senior Medical Officer,
Chikankata Mission Hospital,
Private bag S-2,
Mazabuka.



U.F.S: The Head,
Department of Nursing Sciences,
School of Medicine,
P.O Box 50110,
LUSAKA

Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT A RESEARCH STUDY

I am a 5th year undergraduate student in the Department of Nursing Sciences, School of Medicine, University of Zambia. In partial fulfilment of the Bachelor of Science in Nursing degree programme, I am required to conduct a research study. The title of my study is; **"Factors contributing to Underutilisation of postnatal care services in Zambia."** I will particularly conduct this study among postnatal mothers who delivered in the months of September and October, 2012 at the two selected health facilities in Chikankata catchment area.
I wish to conduct my study between 8th October and 2nd November, 2012.

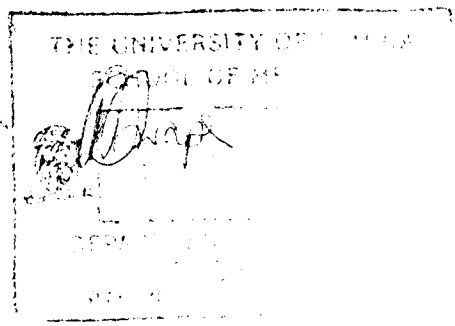
I am therefore requesting for permission to conduct my study at your institution. Your consideration will be highly appreciated.

Yours faithfully,

Sicheeba Changu Mildred.

University of Zambia,
School of Medicine,
P.O Box, 50110,
LUSAKA
28 September, 2012.

The Medical Superintendent
Monze District Medical office
Box 660144
Monze



U.F.S: The Head,
Department of Nursing Sciences,
School of Medicine,
P.O Box 50110,
LUSAKA

Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT A PILOT STUDY

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I wish to conduct a Pilot study between 8th October and 2nd November, 2012.

I am therefore requesting for permission to conduct my study at your institution. Your consideration will be highly appreciated.

Yours faithfully,

Priscilla Nalomba.

BRETHREN IN CHRIST CHURCH
MACHA MISSION HOSPITAL
P.O. BOX 630340
CHOMA – ZAMBIA
Fax 021-3-26-1006

10th October, 2012

Fuden Moono
5th year Undergraduate Student
Department of Nursing Sciences
School of Medicine
University of Zambia
P.O. Box 50110
LUSAKA.

U.F.S: The Head,
Department of Nursing Sciences
School of Medicine
P.O. Box 50110
LUSAKA

Dear Fuden Moono

REF: PERMISSION TO CARRY OUT A PILOT STUDY – YOURSELF

We received your letter dated 28th September, 2012, in which you were seeking permission to conduct a pilot study at our Institution.

Iam glad to inform you that Macha Hospital Management has authorised you to conduct a pilot study in the institution.

However note that the institution will not be responsible to provide materials and supplies required to conduct this study.

Wishing you the best in your endeavour.

Yours Sincerely,

Abraham Mhango
Executive Director (Acting)

C.C Head Clinical Care - Macha Mission Hospital
Snr. Hospital Administrator - Macha Mission Hospital

"All Correspondence should be addressed to the Executive Director"

BRETHREN IN CHRIST CHURCH
MACHA MISSION HOSPITAL
P.O. BOX 630340
CHOMA – ZAMBIA
Fax 021-3-26-1006

0th October, 2012

uden Moono
th year Undergraduate Student
Department of Nursing Sciences
School of Medicine
University of Zambia
P.O. Box 50110
LUSAKA.

U.F.S: The Head,
Department of Nursing Sciences
School of Medicine
P.O. Box 50110
LUSAKA

Dear Fuden Moono

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Wishing you the best in your endeavour.

Yours Sincerely,

Abraham Mhango
Executive Director (Acting)

C.C Head Clinical Care - Macha Mission Hospital
Snr. Hospital Administrator - Macha Mission Hospital

"All Correspondence should be addressed to the Executive Director"

The Salvation Army
Chikankata Mission Hospital
PB S-2, Mazabuka, Zambia

Office of the Chief Medical Officer
Email: zairemthiama@gmail.com
Ph: (+26) 0978124056

8th October, 2012

Sicheeba Changu Mildred
Department of Nursing Sciences
University of Zambia School of Medicine
Post Box 50110, LUSAKA

RE: ***Your application for permission to carry out project research on 'Factors contributing to underutilisation of postnatal care services in Zambia.'***

The above subject refers.

With regards to your application, I would like to inform you that permission has been granted to you to carry out research study at Chikankata Mission Hospital on the ***Factors contributing to underutilisation of postnatal care services in Zambia.*** Permission has been granted to you on the conditions that:

1. Strict confidentiality has been maintained with regards to participants'/subjects' information;
2. You remain within the boundaries of national legislation and institutional guidelines within this field of study;

On behalf of the Hospital Management Board, I wish you success with your research activities.

Yours faithfully,

Dr. Zairemthiama Pachuau
MBBS, PDHIV/AidsMan, MPhil, DHA
Chief Medical Officer

THE SALVATION ARMY
CHIKANKATA MISSION HOSPITAL
08 OCT 2012
CHIEF MEDICAL OFFICER
P/B 52, MAZABUKA.

Cc: The Head, Department of Nursing Sciences, University of Zambia School of Medicine
Cc: The Hospital Administrator
Cc: The Senior Nursing Officer
Cc: I/C Nurse, MCH

REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

LUSAKA PROVINCIAL HEALTH OFFICE

Office of the Director, P.O. Box 32573, Lusaka, Zambia
Tel: 260 – 211 256815; Telefax: 260 – 211 256814

15th October 2012

To: **The District Medical Officer,**
Chongwe DHO,
Chongwe.

Dear Sir,

REF: INTRODUCTION OF BSc NURSING STUDENT TO COLLECT RESEARCH DATA

Reference is made to the above subject matter.

This memo serves to introduce to you Greenford Tembo Computer No. 10111280 who is a 5th year student at the University of Zambia, School of Medicine, Department of Nursing Sciences.

The student is required to carry out a research project in partial fulfillment for the Bachelor of Science Degree in Nursing. The research study title is, **"Factors contributing to under – utilization of postnatal care services in Zambia".**

Please provide him with all the necessary support to make his research fruitful.

Yours

Dr Tackson Lambart

Provincial Medical Medical

APPENDIX iv: THE GHANTT CHART

Tasks to be undertaken	Person Responsible	June	July	August	September	October	Novermber	December	January	February	March
Research Proposal Development	Researcher										
Literature Review	Researcher										
Clearance from School and Authority	Researcher										
Pilot Study	Researcher										
Data collection	Researcher										
Data Analysis	Researcher										
Report Writing	Researcher										
Draft to DNS	Researcher										
Finalize Report	Researcher										
Monitoringand Evaluation	Researcher										
Dissemination of Results	Researcher										