

**EXPERIENCES OF HIV POSITIVE WOMEN WHO UTILISED THE PMTCT
PROGRAMME IN ONE OF THE CENTRAL HOSPITALS IN BULAWAYO,
ZIMBABWE.**

by

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Dedication

I would like to dedicate this study to our heavenly Father, for the gift of life and giving me the resilience to move on even when the going was tough.

DECLARATION

I declare that the thesis on **EXPERIENCES OF HIV POSITIVE WOMEN WHO UTILISED THE PMTCT PROGRAMME IN ONE OF THE CENTRAL HOSPITALS IN BULAWAYO, ZIMBABWE** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete referencing.

A handwritten signature in black ink, appearing to read 'Idah Moyo', written in a cursive style.

Idah Moyo

Date: 19th February 2016...

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ABSTRACT

This qualitative descriptive phenomenological study explored the experiences of HIV positive women utilising PMTCT services at a central hospital in Zimbabwe. Data was collected using in-depth interviews of fifteen participants. The interviews were audio recorded and transcribed verbatim. Using the Interpretive Phenomenological Analysis framework for data analysis, two super-ordinate themes emerged, namely resources for provision of PMTCT services and approaches and nature of PMTCT care. The study revealed challenges experienced by HIV positive women emanating from material, financial and human resource related constraints in the PMTCT setting. The resource challenges negatively affected access and utilisation of PMTCT services. A practice model, whose purpose is to enhance the quality and utilisation of PMTCT services, was developed and described. The model was evaluated using Chin and Krammer (2011) criteria plus a modified form of the Delphi technique. These findings have implications for effective PMTCT service provision. The key lessons learnt for programmatic improvement were that in order to provide quality and accessible PMTCT services the health care system will need to be well resourced. There is need to strengthen the health care system in line with HIV related programmatic changes.

Key Terms:

PMTCT, experiences, health care system, HIV positive.

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LIST OF ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal care
ARV	Antiretroviral Therapy
ART	Refers to antiretroviral drugs
DNAPCR	Deoxyribonucleic Acid Polymerase Chain Reaction
DBS	Dried Blood Spot
DFID	Department for International Development
EID	Early Infant Diagnosis of HIV
HIV	Human Immunodeficiency Virus
IMAI	Integrated Management of Adolescent and Adult Illness
IMNCI	Integrated Management of Neonatal and Childhood Illness
IMPAC	Integrated Management of Pregnancy and Childbirth
MICS	Multiple Indicator Cluster Survey
MOHCW	Ministry of Health and Child Welfare
MMRate	Maternal Mortality Rate
MNCH	Maternal and Neonatal Child Health
MTCT	Mother-to-child-transmission of HIV
MDGs	Millennium Development Goals
NVP	Nevirapine
PCR	Polymerase chain reaction
PICT	Provider-initiated counselling and testing
PMTCT	Prevention of mother to child transmission of HIV
PNC	Postnatal Care
SdNVP	Single dose Nevirapine
SADC	Southern Africa Development Community
UN	United Nations
UNICEF	United Nations Children's Fund
UNAIDS	Joint United Nations Programme in HIV/AIDS
UNISA	University of South Africa
USAID	United States Agency for International Development
WHO	World Health Organization
ZNAPS	Zimbabwe National HIV and AIDS Strategic Plan

CHAPTER 1

ORIENTATION TO THE STUDY

1.1. INTRODUCTION

The Prevention of Mother to Child Transmission (PMTCT) of HIV was considered one of the most important Millennium Development Goals by 2015. According to Marino (2015:1) the PMTCT programme has a great potential to reduce the risk of HIV infection from the mother to child during pregnancy, child birth and the breast feeding period. The Joint United Nations Programme in HIV/AIDS [UNAIDS] (2012a:1) report that in Europe the mother to child transmission of HIV rates are very low, varying between 0.8 to 1.2%. Marino (2015:1) indicates that in the United States of America, the mother-to-child transmission of HIV has been reduced to less than 2% due to effective implementation of PMTCT programme. In South Africa, In the first national evaluation of PMTCT impact conducted by the Medical Research Council (MRC) of South Africa and the Department of Health, it was found that HIV transmission from mother to child was reduced from 3.5% in 2010 to 2.7% in 2011 (UNAIDS 2012b; also see Pillay (2012) in Shisana, Rehle, Simbayi, Zuma, Jooste, Zungu, Labadarios, & Onoya, et al. 2014:1). Currently, mother to child transmission of HIV is below 2%. The decline was attributed to improved implementation of PMTCT programme. However, in Zimbabwe the mother to child transmission rate of HIV is 7% (Zimbabwe Ministry of Health and Child Care 2013a:2). Hence this this qualitative descriptive phenomenological study explored and described the experiences of women attending the Prevention of Mother to Child Transmission (PMTCT) of HIV programme at one of the central hospitals in Bulawayo, Zimbabwe.

This chapter provides an overview of the entire study. It includes a background and a problem statement that indicates the rationale that motivated the researcher to conduct the study. Included in this chapter also are methodological issues, such as research design, methods, aims and objectives of the study. The layout of the entire thesis is provided at the end of this chapter.

1.2. BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

In this section, a general overview of the HIV epidemic is provided followed by specific aspects related to the PMTCT Programme.

1.2.1. HIV Epidemic-overview

The human immunodeficiency virus (HIV) is still a global issue. According to [UNAIDS] (2015:1), it is estimated that 36.9 million people were living with HIV globally at the end of 2014. Both HIV prevalence and numbers of people dying from HIV/AIDS related conditions vary greatly between African countries. In addition, the report pointed out the following: the African continent is the most heavily affected by HIV. The prevalence of HIV is the highest in Eastern and Southern region as compared to Western and Central Africa.

The situation is worse in sub-Saharan Africa where UNAIDS (2015:1) indicated that in 2014, there were 25.8 million people living with HIV and AIDS. The same report highlighted the fact that this region had 1.4 million new HIV infections, accounting for 70% of the total new HIV infections in Africa. The report further highlighted the fact that as of 2014, women accounted for more than half of the total number of people living with HIV and AIDS in sub-Saharan Africa. In the same region, 790 000 people died from AIDS related conditions in 2014. The Southern Africa Development Community (SADC) report (2011:1) indicated that the SADC region was at the epicentre of the global HIV epidemic. According to this report, SADC was more heavily affected by HIV than any other part of the world, with member states having adult HIV prevalence of at least 10%. According to UNAIDS (2015a:1), the top five countries which are severely affected by the HIV epidemic are: Swaziland (25.9%), Botswana (21.9%), South Africa (19.1%), Zimbabwe (15%) and Malawi (10.6%). Zimbabwe forms part of the Sub-Saharan Africa area and is bordered by Mozambique on the east, South Africa on the south, Botswana on the west and Zambia on the north and northwest. (see Fig 1.1. showing the map of Zimbabwe & neighbouring countries).

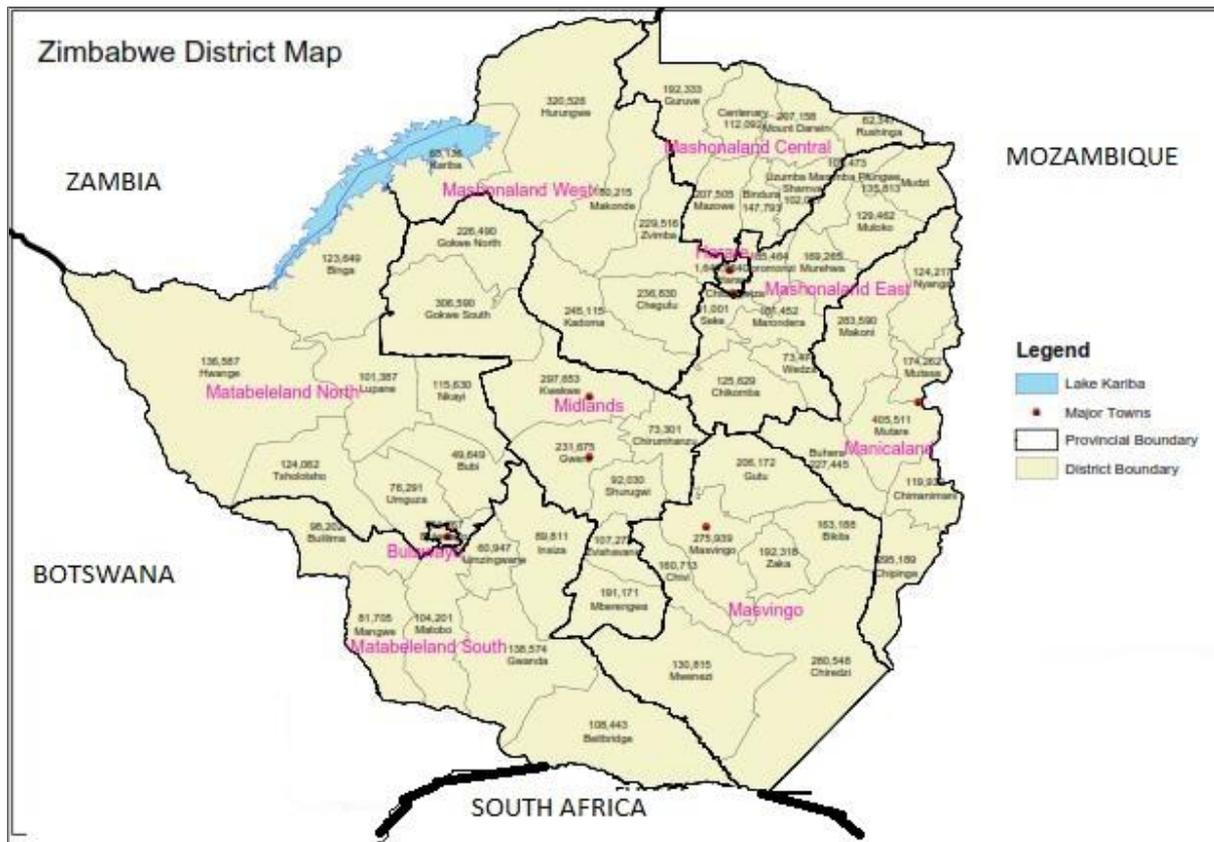


Figure 1.1 Map of Zimbabwe & the neighbouring countries (World Atlas 2015)

According to the 2012 census, the population of Zimbabwe was 12, 973 808 million (Zimbabwe National Statistics Agency 2012:11). Though Zimbabwe's HIV prevalence is slightly lower than that of Swaziland, Botswana, and South Africa, it is still among the countries which are severely affected by the HIV epidemic in the world. According to the Zimbabwe National AIDS Council (2015:1) situation analysis of HIV/AIDS in Zimbabwe, it was estimated that 1 390 211 people were living with HIV in December 2014. Similar to the UNAIDS (2015b:1) report, The Zimbabwe National Statistics Agency (2012a:220) reported an adult HIV prevalence of 15% in 2012. The same report indicated that among the women aged 15-49 years, the prevalence is 18%, compared to 12% among men in the same age-group.

Zimbabwe has ten administrative provinces. According to the Zimbabwe National Statistics Agency (2012:220) the HIV prevalence in the stated provinces was thus: Harare (13.4%), Mashonaland Central(13.7%), Manicaland (14.1%), Masvingo (14.4%), Mashonaland West (14.8%), Midlands (15.4%), Mashonaland East (15.7%), Matabeleland North (18.3%), Matabeleland South (21.2%) and Bulawayo Metropolitan (19.1%). The three Matabeleland provinces (among which Bulawayo falls) have the

highest HIV prevalence in the country. Bulawayo province where the study was undertaken has a population of 676 650 as stated by the Zimbabwe National Statistics Agency (2012b:13-14).

The Zimbabwe Ministry of Health and Child Care (2013b:1) reported that the national antenatal HIV sero-prevalence was 16.1% between year 2011 and 2013. In 2012, among 17 785 pregnant women who tested for HIV in Bulawayo, 2449 were HIV positive, reflecting an HIV positivity rate of 14% (National AIDS Council 2013:17). This statistics has an implication in the prevention of mother to child transmission of HIV.

1.2.2 An overview of the PMTCT Programme

The PMTCT programme was piloted in most Sub-Saharan countries in 1999, and has been a major breakthrough in the prevention of HIV transmission from mother to child (Zimbabwe Ministry of Health and Child Care, 2011b:10). According to Marino (2015:1) the PMTCT programme has a great potential to reduce the risk of HIV infection for the infant during pregnancy, child birth and the breast feeding period. An extended period of highly active antiretroviral therapy is also associated with reduced transmission. Like the global differences regarding to HIV prevalence, the rate of transmission of HIV from the mothers to children, varies from countries to countries and also from regions to regions.

According to UNAIDS (2012a:1) in Europe the mother to child transmission of HIV rates were very low, varying between 0.8 to 1.2%. In the United States of America, the mother-to-child transmission of HIV is less than 2%. The low HIV transmission rate from mother to child is attributed to effective implementation of PMTCT programme (Marino 2015:1). However, according to Hampana (2013:1) in a PMTCT study, 50% of HIV positive pregnant women in sub-Saharan Africa are not accessing the PMTCT programme. The same author further stated that the PMTCT clients are not adhering to necessary strategies to prevent or reduce mother to child vertical transmission. All these have contributed to failure of Sub-Saharan countries to meet the Millennium Development Goals by 2015. Related to this, Hardon, Vernooij, Bongololo-Mbera, Cherutich, Desclaux and Kyaddondo (2012:1) state that this underutilisation of PMTCT services in African countries implies that HIV positive women remain at high risk of transmitting the HIV to their infants. Lucas (2012:1) further mentions that paediatric HIV contributes significantly to infant and child mortalities in sub-Saharan Africa. Muchedzi (2010:1)' study found that about 22% of HIV positive pregnant women reported a delay of more than three months

after being referred to access PMTCT programme despite the proximity of their homes to the health care facilities. The failure to utilise PMTCT services was mostly associated with stigma at a PMTCT setting which resulted to non-adherence to treatment and not attending PMTCT services (Tshadinyana 2011:1).

The Zimbabwe Ministry of Health and Child Care (2013b:1) indicated that the PMTCT programme is a highly effective intervention and has a huge potential to improve both maternal and child health. This serves to underline the fact that a proper and effective implementation of this programme remains critical. To ensure proper and effective implementation of the PMTCT programme, Zimbabwe adopted the four pillars of PMTCT based on WHO 2013 guidelines namely: primary prevention of HIV transmission among women of reproductive age, prevention of unintended pregnancies among the HIV infected pregnant women, prevention of mother to child transmission of HIV and provision of care and support for HIV infected pregnant women, their children and their families. (Zimbabwe Ministry of Health and Child Care 2011b:10). Zimbabwe adopted the option that recommends lifelong ART for all HIV positive pregnant and lactating mothers, for their own health and prevention of mother-to-child transmission of HIV (Zimbabwe Ministry of Health & Child Care 2013a:38).

1.3 STATEMENT OF THE RESEARCH PROBLEM

Despite the implementation of the PMTCT programme for the past fifteen years, the paediatric antiretroviral therapy coverage has remained as low as 40% compared to 85%-the universal access target (SADC 2012:15). In an assessment carried out in Zimbabwe by UNICEF and World Health Organisation (2012:9), the coverage of paediatric ART at the study setting was estimated to be less than 50%. In addition, the median age at first PCR for the study site (a central hospital) was estimated to be 13weeks (UNICEF & WHO 2012:10). According to the Zimbabwe Ministry of Health and Child Welfare (2013b:43), the recommended period for initial PCR testing is 6 weeks. Also of concern is the fact that in 2012, of the children born to the infected mothers, 18% were HIV infected (SADC 2013:15). Statistics still show a high mortality rate among children below the age of five (Zimbabwe Statistics Agency 2012a, Zimbabwe Ministry of Health and Child Care 2013b). The high under-five mortality rates, according to Rosen, de Zoysa, Dehne, Mangiaterra and Abdool-Karim (2012:1) and the Joint United Nations Programme in HIV/AIDS [UNAIDS] (2012:1) are associated with the high HIV prevalence rate.

The mother to child transmission rate of HIV in Zimbabwe is 7% (Zimbabwe Ministry of Health and Child Care 2013:2). The Zimbabwe Ministry of Health and Child Care (2013a:29) in its guidelines for antiretroviral therapy indicates that mother to child transmission of HIV is responsible for more than 90% of HIV infections in children. Two thirds of these infections occur during pregnancy and delivery. In order to reduce transmission of HIV from mothers to children, Zimbabwe was also among the countries which piloted the PMTCT programme in 1999 (Zimbabwe Ministry of Health and Child Care, 2011a:10). As the success of PMTCT programme is mostly linked to the utilisation of the programme by women living with HIV and AIDS, the researcher found it important to explore what PMTCT clients experienced when utilising the PMTCT services.

1.4 AIM OF THE STUDY

The aim of this study was to explore the experiences of HIV positive women and develop a practice model for enhancing the effective utilisation of PMTCT services.

1.4.1 Research Purpose

The purpose of the study was twofold:

- 1) To gain an understanding of the experiences of HIV positive women regarding their utilisation of PMTCT services at a central hospital in Bulawayo
- 2) To develop a contextual relevant PMTCT model for enhancing effective utilisation of PMTCT services.

1.4.2 Research Objectives

The objectives of the study were as follows:

- 1) To explore and describe the experiences of women who have utilised the PMTCT programme.
- 2) To develop a PMTCT practice model that will enhance the effective utilisation of the PMTCT programme

1.5 SIGNIFICANCE OF THE STUDY

Available literature reveals that most of the studies on PMTCT in Zimbabwe focused on institutional capacity assessment of the health care institutions to roll out or expand the

PMTCT related activities (Zimbabwe Ministry of Health & Child Care 2011b; Sibanda, Hatzold, Mugurungi, Ncube & Dupwa 2012). Quantitative studies by Muchedzi (2010:5), Tshadinyana (2011:1), and Wiegert, Dinh, Mushavi, Mugurungi & Kilmar (2014:6) cited several challenges that were encountered by HIV positive PMTCT clients. The significance of this study is that the findings will add to the existing body of knowledge which was mainly quantitative in nature. The qualitative descriptive phenomenological approach was applied to provide a unique insight on the experiences of PMTCT clients and will add to the understanding of acceptability and other factors from a client's perspective of PMTCT services within a cultural and country context. Although this study is contextualised within the Zimbabwean context, the findings may be relevant to all other resource-poor developing countries to improve the delivery of PMTCT services.

1.6. DEFINITION OF KEY CONCEPTS

The key terms and operational definitions that were used and applied in the study are experiences, HIV positive, health care system and PMTCT clients. The following is an outline of the operational definitions of the key concepts that were used in the study:

1.6.1. Effective utilisation

Effective refers to producing results that are wanted or intended (Oxford Advanced Learners Dictionary 2010:469). Utilisation means use for practical purposes (Advanced Learners' Dictionary 2010:1646). In the context of this study effective utilisation will be used to refer to how the PMTCT services were used to achieve the intended outcomes of the programme.

1.6.2. Experiences

According to Witty (2008:116), an experience refers to the knowledge gained through observation or practice. It may also refer to an incident which actively involved the person (individually or in a group context) at emotional, physical or social level. In this study, experience refers to feelings, perceptions and observations encountered by HIV positive women as they journeyed through the continuum of care, that is during antenatal care, the delivery process and postnatal care and until the baby was two years old.

1.6.3. HIV Positive

A person is HIV-positive when antibodies against HIV have been detected on a blood test or saliva test. Synonym: seropositive (UNAIDS 2015:12). In this study, it refers to women living with HIV and meet the inclusion criteria.

1.6.4. Health care system

The health care system is a framework of health service delivery that include components such as the nature of health services, the characteristics of the health workforce, the health information system, health service delivery-related equipment, supplies and financial resources (World Health Organization 2011:104).

1.6.5. Model

Bailey (1984:322) cited in de Vos (2011:36) defines a model as a copy, replica or analogy that differs slightly from the real life situation with the aim of providing guidelines about a phenomenon and/or to show relationships between critical elements of the phenomenon. A model case has been described as a pragmatic example of the use of a concept that includes all defining attributes (Walker & Avant 2005:28). Fowler, Hardy and Howarth (2006:40-41) refer to a model of care as a practice model and define it as an operational model of redesigning nursing and midwifery practice for the provision of patient care in an organisation. In this study, a model referred to a schematic representation of how PMTCT services can be organised to enhance the management of PMTCT clients.

1.6.6. MTCT

MTCT is a term that refers to mother to child transmission of HIV from an HIV positive woman to her child during pregnancy, labour, delivery or breastfeeding (World Health Organisation, 2014b:1).

1.6.7. PMTCT

According to the Zimbabwe Ministry of Health and Child Welfare (2011a:6) PMTCT is a term that refers to measures that are put in place to prevent the transmission of HIV from an HIV positive woman to her child during pregnancy, labour, delivery and the breastfeeding period.

1.6.8. PMTCT Clients

In this study PMTCT clients referred to HIV positive women, aged between 18 and 49 years, and who had attended antenatal care, delivered a live baby, received postnatal care and follow up care of the baby until the age of two years at a specific hospital.

1.7. THEORETICAL FOUNDATIONS OF THE STUDY

This study was based on philosophical foundations of a qualitative phenomenological research approach. The brief outline below gives a reflection of the research paradigm, research approach, research design as well as the assumptions that formed the baseline for the study on experiences of women who have utilised the PMTCT services.

1.7.1. Research Paradigm

According to Thomas Kuhn (2011:1), a research paradigm is a framework that contains acceptable views about a subject or a pattern of thinking. A research paradigm provides a structure and direction that the research should take and details of how it should be performed. In the context of this study an interpretivist paradigm was taken. More details regarding this paradigm are discussed in chapter 3.

1.7.2. Research Approach

The study utilised a qualitative research approach. According to Houser (2012:36) qualitative researchers believe that there are many views of the same reality. The focus of qualitative research methods is to gain an understanding of the meaning of an experience from the individual's perspective. In this context, the focus was on understanding the experiences of HIV positive women with regards to the utilisation of PMTCT services.

1.7.3. Research Design

The researcher used a qualitative approach to the study. Phenomenology as the research design was used to determine the lived experiences of the PMTCT clients. This information was used to develop a practice model which was validated by using a modified Delphi approach. The purpose of a phenomenological design according to Rees (2011:43) is to describe lived experiences by study participants. Streubert and Carpenter (2011:72) posit that the phenomenological approach is relevant and useful in nursing research since professional nursing practice is enmeshed in the life experiences of people. In this context, the lived experiences and perceptions of HIV positive PMTCT

mothers as they interacted with PMTCT services were explored phenomenologically. Experiences are considered to be unique to each individual and within given contexts.

1.7.4. Theoretical Framework

1.7.4.1. Systems Theory

The systems theory formed the basis for this study. According to Ravitz, Sapirstein, Pharm and Doyle (2013:355) a system refers to a collection of different elements or parts that together produce results that cannot be obtained by the relevant individual elements in isolation. The emphasis of the systems theory is on the interdependence and interconnectedness of different parts of a system. The researcher used the systems perspective to underpin the research study. The rationale for using the systems theory was enhanced by the fact that as a point of departure the world is viewed as a system made up of sub-systems that were interconnected and interdependent to form an integrated and holistic system. The study was carried out in a health care institution which is composed of different units, departments and programmes. One of those programmes is the PMTCT programme. The PMTCT programme is a sub-system of the whole health-care system and is influenced by the environment and context (WHO 2012a:104-110). According to Ravitz et al (2013:354) dis-functionality in any of the sub-systems affects the whole system. Given below (figure 1.2) is a diagrammatic depiction of the systems theory.

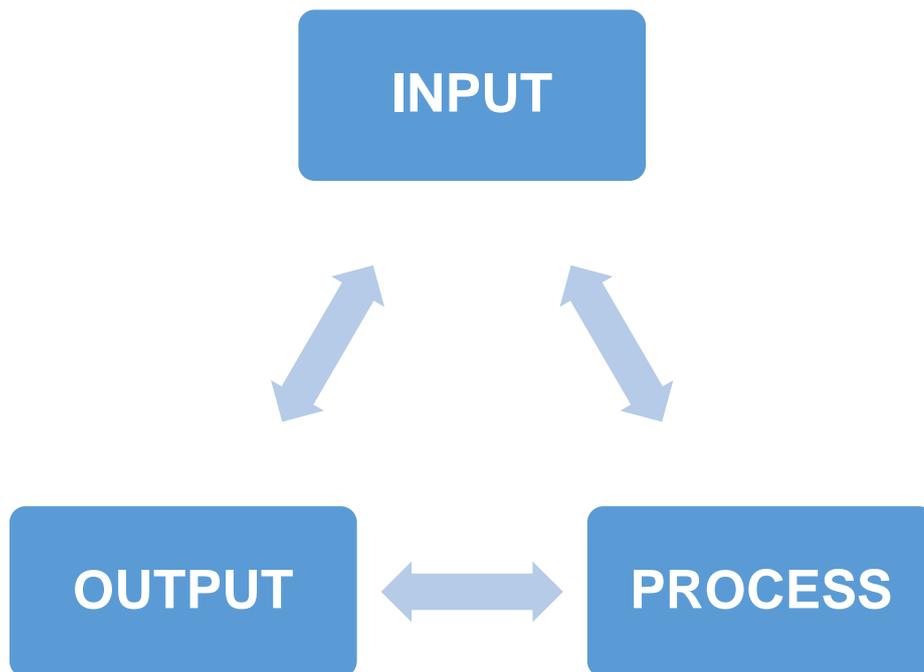


Figure 1.2: Diagrammatic representation of the systems theory

1.8 RESEARCH METHODOLOGY

The study was carried out in two phases. The first phase was a situational analysis where the researcher explored the experiences of women utilising the PMTCT programme. The second phase was model development.

1.8.1. Phase 1: Situation analysis

The study population was that of HIV positive women in the PMTCT programme. Sampling from the study population of the participants was done through non-probability sampling. The sample consisted of females aged 18 to 49 years, who were positively diagnosed with HIV, delivered a live baby and were attending the PMTCT programme. The study participants were accessed during their antenatal or postnatal period and/or when bringing their babies for follow up care. HIV positive women who had not received antenatal care and/or delivered at the institution of study were not included in the study.

1.8.1.1. Data collection procedures

Data was collected through open ended in-depth interviews that were audio recorded and transcribed for reference purposes and to ensure the validity of data. The researcher also utilised field notes to capture verbal and non-verbal behaviours occurring during the interview as well as noting personal reflection about the interview process.

1.8.1.2. Data analysis procedures

The data from the tape recorded interviews was transcribed verbatim into text as Microsoft word documents. The data was complemented by the researcher's field notes. Data was analysed using Interpretive Phenomenological Analysis (IPA) by the researcher as well as by an experienced co-coder. A detailed description of the data analysis procedures is given in chapter four of the study.

1.8.2. Phase 2: Model development

Phase two encompassed model development based on the findings of phase 1. The model development process involves designs and methods making use of concept analysis, synthesis and derivation (Walker and Avant 1995). For rigor and trustworthiness the researcher utilised the principles of Chin and Krammer (2011:237) as well as a modified version of the Delphi technique for expert and peer review (Hasson and Keeney, 2011:1696).

1.9 SCOPE OF THE STUDY

The research study explored the experiences of women in the PMTCT programme at one central hospital in Bulawayo Metropolitan Province of Zimbabwe.

1.10 STRUCTURE OF THE THESIS

This thesis consists of six chapters and sub-sections. Resumes of each of these chapters are offered below to allow readers to follow and understand discussions on issues presented.

Chapter 1: Orientation to the Study.

This chapter provides an overview of the entire study. It includes a background and a problem statement that indicates the rationale that motivated the researcher to conduct

the study. Included in this chapter are also methodological issues, such as research design, methods, aims and objectives of the study.

Chapter 2: Literature Review.

Chapter two focuses on literature reviewed. It highlights literature search strategy, appraisal of identified literature and themes which emerged from the literature reviewed

Chapter 3: Research Design and Method.

This chapter provides detailed information on the research paradigm, approach, design and methodology for situational analysis. There is the description of the study site, sampling method, data collection and analysis, measures to ensure trustworthiness and ethical issues. It also provides detailed process followed for model development.

Chapter 4: Analysis, Presentation and Description of Research Findings.

The analysis, presentation and description of the research findings is done in this chapter. This discussion formed the basis the development of a relevant model which explains and guides the improvement of PMTCT services with the aim of better utilisation by HIV positive mothers.

Chapter 5: The PMTCT Practice Model.

This chapter gives an overview of the model. It provides a description of the model, in relation to the systems approach. It also highlights the assumptions, purpose and structure of the model.

Chapter 6: Conclusions and Recommendations of the Study.

In this chapter, a summary, recommendations and final conclusions based on the findings of the study are presented.

1.11. CONCLUSION

This chapter gave an overview of the whole study. The chapter outlined the background and context of the study. The problem statements, purpose of the study as well as research questions were highlighted and the rationale for the study illustrated by discussing the significance and contribution of the study. The researcher gave a brief outline of the theoretical foundations of the study which will be further discussed in chapter 2. The research methodology was briefly discussed and its application will be reported in chapter 3.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

The preceding chapter has provided an orientation to the study, its background, purpose and objectives as well as theoretical foundations. This chapter is on reviewed relevant literature that was conducted to generate a picture of what is known and not known about the experiences of HIV positive women in the PMTCT programme. The major aim of the literature review is to assist the researcher to gain insight into the problem under study, verify the significance of the problem, and put the research problem in context. Literature review also assists the researcher in determining the most appropriate research methodology, including the research instrument to be utilised. The chapter provides the scope of literature review, thematic areas reviewed and the systems theory.

The main sourcing of literature was done. Several data sources were searched and these included Ebscohost, BMC Health Services Research, Google Scholar and SAGE. Literature search also focused on national (Zimbabwean) and International guidelines related to HIV treatment and care, Sexual and Reproductive Health as well as PMTCT guidelines. The process also involved updating the reviewed literature according to latest guidelines and protocols.

2.2. SCOPE OF THE LITERATURE REVIEW

The literature that was reviewed focused on the Millennium Development Goals linked to maternal and child health. An overview of the PMTCT programme was necessary so as to put the study into context. The period covered by the literature review was between year 2010 and 2015. Because the study focused on the experiences of clients as they interfaced with the health care system, health care system factors and their impact on service provision were reviewed. Other aspects of the literature review such as financial, material and human resources as well as user fees and male involvement emanated from the research findings and therefore needed to be explored. In addition, the reviewed literature presented related studies on experiences and challenges of HIV positive PMTCT mothers as they sought maternal and child care services. Literature review also covered the systems theory because it is the theoretical framework that underpinned the study since the PMTCT clients were viewed from a holistic perspective. Relevant literature was reviewed from a global, regional and country perspective.

Several databases were searched for existing literature relevant to the study. Examples of the databases searched were Ebscohost, BMC Health Service Research, Global Business and Technology, Contemporary Nursing Journals, Google scholar, Zimbabwe government website and SAGE. A number of search words and phrases were used during the literature search process. Examples of terms used are PMTCT, services, PMTCT clients, PMTCT challenges, systems theory, and PMTCT programme. All the articles were reviewed. The process of reviewing each research article was based on established and validated models of critical appraisal, such as those offered by Polit & Beck (2012:342), and Botma, Greeff, Mulaudzi and Wright (2010:232). The following were the stages of appraising the research articles used in this study.

- Stage 1: Reading and re-reading the articles
- Stage 2: Initial note making
- Stage 3: Development of emergent themes: looking for themes
- Stage 4: Searching for connections across the emergent themes
- Stage 5: Development of final themes

2.3 THEMES THAT EMERGED FROM THE APPRAISAL OF LITERATURE

Below is an outline of the final themes that emerged from the appraisal of reviewed literature:

- Overview of the PMTCT programme,
- Services offered to PMTCT clients and
- Challenges experienced by PMTCT clients.
- Systems theory.

The discussion below gives an overview of the PMTCT programme.

2.3.1. Overview of the PMTCT Programme

This theme covers the strategic framework for the PMTCT programme, PMTCT coverage, impact of the PMTCT programme and barriers to the success of PMTCT programme.

2.3.1.1. The Strategic Framework for the PMTCT Programme

The strategic framework for the PMTCT Programme in Zimbabwe is anchored on the four prongs World Health Organisation (WHO)-promoted PMTCT strategic elements. The strategic elements are stated as: primary prevention of HIV, prevention of unintended pregnancies in women living with HIV, prevention of mother to child HIV transmission and, provision of care and support for women living with HIV, their children and their families (World Health Organisation 2012c:2). It follows that the first and second prongs emphasise the important role of the primary prevention of HIV among women of reproductive age and the need to prevent unintended pregnancies among HIV infected women. The third prong targets pregnant women already infected and advocates for integrating HIV testing in maternal and child health units where ARVs are provided to prevent infecting their babies as well as improving women 's health. The fourth and last prong calls for better quality care, treatment and support for HIV positive women and their families.

As a mechanism for enhancing an effective environment for the PMTCT programme these prongs call for prevention of HIV, enable planned pregnancy, integration of PMTCT services within maternity services and ensure care, treatment, support and community engagement in the PMTCT programme (Pathfinder International 2013:2). According to the World Health Organization (2012c:2), this strategic framework provides a foundation from which plans and strategies for HIV prevention and treatment measures are based.

2.3.1.2. Coverage of the PMTCT Programme

The Joint United Nations Programme in HIV/AIDS (2013:1) reported that in 2012, the PMTCT coverage in sub-Saharan Africa reached 65% with countries such as Botswana, Ghana, Mozambique, Namibia, Rwanda, Sierra Leone, South Africa, Swaziland, Togo, Zambia (with Zimbabwe included) reporting a PMTCT coverage of more than 80%. On the other hand, the same report stated that some countries such as Angola, Chad, Democratic Republic of Congo, Ethiopia, Guinea, Nigeria and South Sudan had PMTCT coverage of less than 50%. However, the coverage of antiretroviral therapy for PMTCT was only 57% in low and middle income countries. With in-depth reference to Zimbabwe, UNAIDS (2014:10) reported that the PMTCT programme is provided in 95% of the 1,560 health facilities. The report also highlighted the fact that in 2013, 93% of the HIV positive pregnant women had received antiretroviral therapy to reduce mother-to-child-

transmission. In addition, 57% of the infants born to HIV positive women had received a virological test for HIV within two months of birth. Of concern in the same report was the fact that only 18% of the pregnant women attending antenatal care in Zimbabwe had their male partners tested for HIV.

2.3.1.3 Impact of PMTCT Programme

According to UNAIDS (2011a:1), sub-Saharan Africa has the highest HIV/AIDS burden compared to any region globally. It was further stated that of all children that were newly infected with HIV in the year 2011, 90% of them resided in sub-Saharan Africa. With that context in mind, an effective implementation of the PMTCT programme becomes critical in order to reduce the HIV burden in this region. The UNAIDS (2011a:1) indicated that with the continued scale up and effective implementation of the PMTCT programme, it is possible to reduce the number of newly infected children by 90%. The same UNAIDS report highlighted the fact that the PMTCT programme has been effectively implemented and has reduced the mother-to-child transmission of HIV to less than 2% in industrialized countries.

For example the United Nations Children's Fund [UNICEF] (2013:1) examining the impact of the PMTCT programme indicated that according to the Medical Research Council of South Africa the rate of mother to child transmission of HIV was as low as 2.7% in that country. Related to this, the Ghana AIDS Commission (2014:62) in its progress report, stated that the mother to child transmission rate in that country had decreased to an estimated rate of 2.74% and 1.87% in 2012 and 2013 respectively. Though in other countries the mother to child transmission of HIV is below 2%, in Zimbabwe the transmission rate is still above 9%. On a positive note, The UNAIDS report (2014:11), indicated that the national estimates in Zimbabwe showed that mother to child transmission rate had been reduced from 18% in 2011 to 9.6% in 2013. The same report made a reflection of the impact of the national HIV response in 2013 as follows: the infections that were averted by PMTCT programme were increased from 6.1 in 2011 to 15.11(thousands) in 2013. The deaths averted by PMTCT (0-4 years) increased from 2.91 in 2011 to 5.4 (thousands) in 2013. Furthermore, according to Buzdugan, McCoy, Watadzaushe et al (2015:17) in an evaluation of the impact of the PMTCT programme in Zimbabwe, it was estimated that 90.9% of the HIV exposed infants were alive and HIV uninfected at 9to 18months of age and 8.8% were HIV infected.

2.3.1.4. Barriers to effective PMTCT Programme

Aizire, Fowler and Coovadia (2013:1) indicated that there were barriers to achieving comprehensive coverage of the PMTCT programme in the sub-Saharan Africa. The cited barriers within the health care system included a shortage of manpower and lack of access, lack of partner support and funding related issues. On the other hand, according to the United Nations Zimbabwe report (2012:9) the major barriers to access to PMTCT services include; unaffordability of maternity fees, reduced attendance of expectant mothers to antenatal clinics due to associated costs or distances to clinics and inability of some women to make choices on reproductive health issues due to social and cultural pressures. Related to this, Ladner, Besson, Rodrigues, Saba and Audureau (2015:9-10) in a PMTCT study in sub-Saharan Africa recommended health care system strengthening, increasing educational strategies and community engagement as mechanisms for improving access to PMTCT services in sub-Saharan Africa.

2.3.2. Services offered to PMTCT clients

World Health Organization (2014c:1) indicates that the mother-to-child transmission (MTCT) of HIV refers to the transmission of HIV from an HIV-positive woman to her child during pregnancy, labour, delivery or breastfeeding. Mother to child transmission is the most common way that children get infected with HIV and accounts for 90% of these infections. The same report states that in the absence of effective interventions, transmission rates range from 15-45% whereas with effective interventions the rates can be reduced to levels below 5%. According to the World Health Organization (2013a:1) & the Zimbabwe Ministry of Health & Child Welfare (2011a:10), the comprehensive PMTCT package offers the following services:

- Comprehensive health education.
- Routine antenatal care services, including syphilis testing, family planning and HIV prevention awareness, provider-Initiated HIV Testing and Counselling (PITC).
- Infant feeding counselling and support
- Offering ARV prophylaxis to HIV-infected women during pregnancy and to their infants and ART to HIV-infected mothers who are eligible.
- Routine postnatal services including follow-up of mothers living with HIV and their children.
- Initiation of first-line antiretroviral therapy including ART adherence counselling.

- Additional counselling and provision of services as appropriate to prevent unintended pregnancies.
- Reassessment of family HIV treatment and care needs for infants and young children. (Zimbabwe Ministry of Health & Child Welfare 2011a:10, WHO 2013a:1).

2.3.2.1. HIV Testing within the PMTCT Context

According to the Zimbabwe Ministry of Health and Child Welfare (2014a:55) the HIV testing and counselling strategy is a major entry point to accessing prevention, care and support services. The Zimbabwe Ministry of Health and Child Welfare (2014a:26) in its HIV testing guidelines indicated that the country had adopted a provider initiated HIV testing (PITC) approach for all pregnant women attending clinics for antenatal care. This implies that all pregnant women are offered HIV testing routinely as part of the standard antenatal care. The aspect of voluntarism is emphasised during testing. The same document indicates that when the client tests HIV negative, they should be retested for HIV between 32 and 34 weeks of pregnancy so as to detect late sero-conversion. This strategy is taken to facilitate the implementation of PMTCT interventions. On the other hand, if the client tests HIV positive, the client is supposed to be offered post-test and adherence counselling, and initiated on antiretroviral therapy on the same day they get an HIV positive test result.

In an Ugandan PMTCT study, Rujumba (2012:39) found that while the clients appreciated the benefits of the HIV counselling and testing programme, they perceived it as compulsory particularly because the nurses did not emphasise the opt out option clearly. The element of coercion was also found in a South African study by Groves, Maman, Msomi, Makhanya and Moodley (2010:1) as well as in a Ugandan study by Hardon Vernooij, Bonglolo_Mbera, Cherutich, Desclaux, Kyddondo and Obermeyer (2012:13). Some of the challenges associated with provider initiated testing is the problem imposed on the women who are then obliged to disclose their HIV status to their male partners and convince them to go for HIV testing as the study by Njeru, Blystard, Shayo, Nyamongo and Fylkesnes (2011:8) in Kenya found. Similar findings were cited by Larson, Thorson, Pariyo, Conrad, Arinaitwe, Kemigiswa, Eriksen, Tomson, Ekstrom (2011:74) in Uganda. Falnes, Moland, Tylleskar, de Paoli, Msuya and Engebretsen (2011:6) in Tanzania found that women were not confident or empowered enough to ask their partners to go for an HIV test. Instead they preferred that the invitation be initiated by the health care provider. On the other hand, a related study by Ujiji, Rubenson, Ilako,

Marroneg, Wamalwa and Ekstrom (2011:5) found that about 80% of the pregnant women who tested for HIV did not fully appreciate the meaning of the opt out concept of HIV testing.

Hardon, Vernooji, Bongololo-Mbera, Cherutich, Desclaux, Kyddondo and Obermeyer (2012:13) found that pregnant women were positively inclined towards HIV testing as they perceived themselves as having been faithful to their male partners. This may reflect the patriarchal nature of the Zimbabwean society where women are expected to be faithful in comparison to their male counterparts and related to that having a low risk perception of themselves. This is ironical because as cited elsewhere their male partners work elsewhere and may be involved with other women (Mantula 2011:1). On the other hand, Musheke, Ntalasha, Gari, Mckenzie, Bond, Martin-Hillber, & Merten, (2013:7-9) found the following reasons for not testing for HIV testing: the psychological burden, lack of trust in the health care system, low risk perception and undermining the quality of HIV testing. Several studies in sub-Saharan Africa found beneficial effects of the shift from voluntary to a provider initiated one. For instance MacCarthy, Rasanathan, Ferguson and Grusken (2012:127) cited an increase in the numbers of pregnant women testing during the antenatal period as a result of the shift.

In Zimbabwe an evaluation of the institutional capacity of the health care system of implementing provider initiated HIV counselling and testing found a high acceptance by both staff and patients because of the perception that it enhanced the early detection of HIV and thus saved lives (Sibanda, Hatzold, Mugurungi, Ncube and Dupwa 2012:3-6). However, the same study found challenges relating to space, staff and shortage of HIV testing kits as constraints to the proper implementation of the provider initiated HIV testing and counselling.

2.3.2.2. *Early infant diagnosis*

According to WHO (2014c:21) infants infected with HIV during the perinatal period, including those infected in utero or intra-partum have a high morbidity and mortality as compared to those who contract HIV after birth, hence the significance of early infant diagnosis of HIV and the resultant linkage to paediatric HIV care. The early initiation to antiretroviral therapy also becomes a critical strategy in this context. The turnaround

period for the Deoxyribonucleic acid Polymerase Chain Reaction (DNA-PCR) test results is one such key strategy.

A PMTC study in Zimbabwe by Wiegert, Dinh, Mushavi, Mugurungi and Kilmar (2014:6) established that the turnaround time for DNA-PCR test results using Dry Blood Spot as part of the Early Infant Diagnosis services was found to be longer than the recommended four weeks period at 81% of the health facilities and in the majority of cases it was longer than two months. This delay was attributed to lack of capacity at the National Main Reference Laboratory, which is the only public laboratory that performs HIV DNA/PCR in Zimbabwe. According to the Zimbabwe Ministry of health and Child Care (2013b:25) mid-term report, out of the DNA-PCR tests that were done in Zimbabwe only half of the clients received their results, with the lowest proportion being 44% being Mashonaland West and the highest being 64% in Bulawayo. This impacted negatively in linkage to HIV paediatric ART care.

A study on Early Infant Diagnosis Programme for the period 2007-2012 by Mtapuri-Zinyowera, Mangono, Gumpo, Munemo, Mangwanya, Simbi, Nyamayaro, Ruhanya, Muchemje, Makomva and Mangwendeza (2015:1) attributes these problems to challenges such as weak linkages with other programmes (Early Infant Diagnosis and Expanded Programme on Immunization), centralised DNA PCR testing, inadequate transportation system for specimens to the central laboratory. Mtapuri-Zinyawera et al (2015:1)'s study further underscores the fact that Early Infant Diagnosis programme is critical in averting mortality and enhancing access to paediatric treatment. The study further advocates for innovative strategies that would reduce the unacceptable turnaround period for DNA-PCR test result. These cited recommendations include: increasing the capacity of the National Microbiology Reference Laboratory, strengthening sample transportation and or decentralising DNA-PCR testing to other sites like Bulawayo and Mutare.

According to WHO (2014c:17) a diagnosis of HIV infection among infants and children is a challenge particularly in resource poor settings. The importance of Early Infant Diagnosis in HIV exposed infants at 4-6 weeks is cited as an essential prerequisite for starting early treatment yet it is stated to be one of the bottlenecks of scaling up ART initiation in children. The World Health Organisation (2014:21) indicates that HIV related mortality in infants peaks at around 2-3 months of age. Due to the fact that there are

delays in returning test results, poor linkage to HIV care, the majority of infants living with HIV die before getting the opportunity to be treated.

Studies on early infant diagnosis point to an improvement in resource poor settings (World Health Organisation 2014:c17-18). However, studies cite challenges related to processing and communication of test results from the laboratory to the health facility and subsequent linkage to care. These studies by Ciaranello, Park, Ramirez-Avila, Freedberg, Walensky, and Leroy (2011:4-8), Sutcliff, van Dijk, Hamangaba, Mayani and Moss (2014:4-5) and Chandra and Yadav (2015:293-295) stress the need for speedier processing of results to facilitate treatment initiation. However the Malawian experience on the turnaround for the DNA PCR test results provides a salutary lesson for resource poor settings (WHO 2014c:12-13). The use of sms digital technology to communicate results and facilitate linkage to HIV care reduced the turnaround period from between 40 and 50 days to 14 days.

2.3.2.3. Infant feeding in the context of PMTCT

Various scholars in sub-Saharan Africa have contributed to the debate on breastfeeding in the context of HIV and PMTCT (Doherty, Sanders, Goga & Jackson 2011:62-67, Samuelsen, Norgaard & Ostergaard 2012:70, Goga & Jackson 2010:62). One such study conducted in West Africa by Samuelsson et al (2012:70) found that breastfeeding is regarded as an important aspect of motherhood, by all mothers and the community in general. A study to determine different feeding options and counselling strategies in Burkina Faso, Cameroon and Cambodia by Desclaux and Alfieri (2009:1) found that counselling strategies and feeding options are determined by structural constraints, social and economic contexts, and institutional interpretation of national and international guidelines.

HIV infected mothers should be provided with appropriate ARV interventions (lifelong ART or ARV prophylaxis) whilst giving their infants niverapine (NVP) prophylaxis to reduce HIV transmission through breast feeding according to National guidelines. If the mother is on ART the baby breast feeds up to 24 months and should receive daily NVP prophylaxis from birth until 6 weeks of age. On the other hand, if the mother received ARV prophylaxis the baby breast feeds for 24months whilst receiving daily NVP prophylaxis from birth until one week after all exposure to breast feeding has ended. With reference to exclusive breast feeding, it should be done for the first six months of life

regardless of DNA PCR results of the infant (Zimbabwe Ministry of Health & Child Welfare 2012a: 5-6).

The Zimbabwe Ministry of Health & Child Welfare (2014c:67) cites the following as infant feeding recommendations for mothers who are infected with HIV:

- Breast feed exclusively for the first six months of life regardless of DNA PCR results of infant.
- When the infant reaches six months of age, continue breastfeeding and introduce adequate complementary foods that are nutritionally balanced and safe.
- Continue breastfeeding until the infant is 24 months and beyond.
- If the mother is on ART, the baby breastfeeds for 24 months or beyond and should receive daily NVP prophylaxis from birth until six weeks of age.

According to Fadness, Doherty, Jackson, Engebretsen and Goga (2013:4) early cessation of breastfeeding at around 6 months of age, was previously recommended by WHO as a strategy to limit exposure to HIV through breast milk, but is no longer recommended since evidence from Zambia has shown that the benefits of continued breastfeeding outweigh child survival risks of early cessation of breastfeeding under poor social economic status and food insecurity as locally available foods often do not meet the nutritional needs of non-breastfed infants between 6 to 12 months of age. Guidelines by WHO (2010:3-6) also emphasise the fact that given the importance of breastfeeding as a child survival intervention, the provision of paediatric ARVs is important in reducing child mortality.

Goga and Jackson (2010:62) discussing infant feeding indicate that HIV infected mothers should only choose not to breastfeed if their infants will consistently receive adequate and safe replacement feeds and complementary foods from 6 months of age onwards. Commercial infant formula as a replacement feeding method is only advised if the criteria of affordable, feasible, acceptable, sustainable and safe (AFASS) are met. The same authors discussing the value of counselling indicate that information giving and counselling assists patients in making informed decisions.

In its latest PMTCT guidelines, the Zimbabwe Ministry of Health & Child Welfare (2014c:67) indicates that WHO has specified six environmental and social conditions, which must be met, for safe replacement feeding. These six conditions are represented by the acronym AFASS- acceptable, feasible, affordable, sustainable and safe.

- Safe water and sanitation are assured at household level and in the community, and
- The mother or caregiver can reliably provide sufficient infant formula milk to support normal growth and development of the infant, and
- The mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries low risk of diarrhoea and malnutrition, and
- The mother or caregiver can, in the first six months, exclusively give infant formula milk, and
- The family is supportive of this practice, and
- The mother or caregiver can access health care that offers comprehensive child health services.

According to Young (2010:6-7) 's study on infant feeding practices in Tanzania infant feeding practices among HIV positive women resulted in infants receiving far less breast milk and more mixed complementary feeds than recommended, thus placing them at greater risk of malnutrition and HIV infection. The study therefore recommended an environment that enabled adherence to national guidelines and this calls for more intensive infant feeding counselling.

In another study by Sprague, Chersich and Black (2011:3-4) carried out in South Africa on challenges of infant feeding, (also presented at the 2010 International AIDS Conference in Vienna, Austria) it was indicated that one of the weakest aspects of the PMTCT programme was guiding mothers on infant feeding. It was found that women struggled to make feeding choices that matched their socio economic contexts and accepted cultural norms (where formula was stigmatized). In addition to this, the research participants practised mixed feeding (a practice not advocated for by the International guidelines on infant feeding) and felt that the counselling services and support on feeding options they had received was inadequate.

The effectiveness of PMTCT requires close adherence of the mother (or guardian) to strategies outlined for infant care practices. These include heat treating of breast milk, exclusive breast milk feeding and bottle feeding. These innovative practices are seen as strange in most African contexts, and are not seen as acceptable, especially if the mother is perceived to be healthy (Consultancy Africa Intelligence 2011:3).

Cames, Saher, Ayassou, Coumil, Media and Simondon (2010:254) in a study in Burkina Faso on the acceptability and feasibility of WHO recommendations of infant-feeding options within the mother to child transmission found traditional and cultural barriers to exclusive breast feeding. Exclusive formula feeding was easier to implement for women with supportive partners or were of better socio-economic status. Despite the challenges, the study recommended exclusive breast feeding for the first six months coupled with such strategies as partner involvement and promotion of voluntary counselling. In a related PMTCT study, Levy, Webb and Selen (2010:7) found that in a country such as Burkina Faso exclusive breast feeding was not always possible. While acknowledging that exclusive formula feeding was difficult, the study recommends interventions like adequate counselling, education and support as well as clear communication of the medico-scientific rationale for the recommended infant feeding practices. Oladokun, Brown and Osinusi (2010:1) also found that it was possible with proper counselling to practise formula feeding as long as issues of stigmatization were pre-empted by counselling.

According to Doherty, Sanders, Goga and Jackson (2011:62-63) the new South African PMTCT guidelines indicate that the programme needed to adopt an approach to infant feeding that maximized child survival and not only focused on avoidance of HIV transmission. The same authors, therefore further highlighted the fact that it was in this context that South Africa advocated for exclusive breastfeeding with ARV interventions as an appropriate option for the country given the socio-economic status of most PMTCT mothers.

Mothers feel the need to protect their children against HIV infections but often their choices are questioned by others. It is very important for a mother to make informed choices when it comes to feeding options that would be best for her and her baby. However, due to HIV stigma and lack of information, these choices are often influenced by fear and guilt (Koricho, Moland & Blysta 2010:5). On a similar issue of concern, according to UNAIDS (2012a:9), early advice on infant feeding and HIV lacked clarity as experts struggled to balance the disadvantage of formula feeding with the risk of HIV transmission through breast feeding. Infant feeding counselling based on international guidelines is considered a cornerstone in the prevention of mother to child transmission of HIV. The perinatal anti-retroviral prophylaxis currently administered through PMTCT programmes in sub-Saharan Africa greatly reduces the transmission of HIV to the baby during labour and delivery but it does not reduce the transmission during breast feeding.

2.3.2.4. Psychosocial Support and counselling in the PMTCT context

Van Dyk (2012:235) defining counselling writes: “Counselling is a facilitative process in which the counsellor, working within the framework of a special helping relationship, uses specific skills to assist clients to develop self-knowledge, emotional acceptance, and personal resources.”

The author also indicated that the aims of counselling were twofold:

- To help clients manage their problems more effectively and develop unused or underused opportunities to cope more fully, and
- To help and empower clients so that they become more effective self-helpers in their everyday lives.

Kourkouta and Papathanasiou (2014:65-67) underscored the importance of interpersonal communication in a clinical setting because of the powerful influence it has on the quality of patient care and health outcomes. Similarly, the findings of a study by Buskens and Jaffe (2008:5) emphasised the importance of counselling as a strategy. In a PMTCT study in Kenya, Ndonga Ng’anga, Muniu, Karamba and Matu (2014:4) cited inadequate staffing levels and work overload as impacting negatively on the quality of counselling for HIV positive mothers.

An important and critical strategy in the provision of PMTCT services is the provider initiated testing and counselling for HIV- according to the Zimbabwe Ministry of Health and Child Welfare (2014a:21). In addition, it also acts as an entry point to HIV prevention, treatment and care for PMTCT clients. The Zimbabwe Ministry of Health and Child Welfare (2014a:9-11) in its HIV testing guidelines further indicates that for this model, the pre-test information giving approach is preferably given through group education, followed by an offer for a rapid HIV test where the client can chose to proceed or opt out. The major emphasis in this approach is individual post-test counselling.

Levy (2009) cited by World Health Organization (2013b:9) in a Malawian study, found that participants indicated that counselling was largely biomedical and overlooked addressing psychosocial issues. Related to this, Sprague (2011:1) ‘s study in South Africa underscored the need for psychosocial support including aspects associated with comfort and support. Echoing the same sentiments, Larson, Thorson, Pariyo, Conrad, Arinaitwe, Kemigiswa, Eriksen, Tomson and Ekstrom (2012:69) indicated that women in

Uganda reported low levels of PMTCT knowledge and highlighted the fact that they were not sufficiently empowered even to ask questions during a counselling session.

According to the World Health Organization (2013b:9) in a systematic review on the women 's experiences on services for PMTCT, the overall impression of the review was that an assumption exists in the majority of places that the post-test counselling provided at the time of diagnosis should be sufficient to link the woman to HIV care. In addition to this, the review found that deficiencies in the content and quality of counselling of pre and post-test sessions were noted across a range of context.

In a study to explore how loss to follow up (LTFU) had affected the successful implementation of PMTCT programmes in Sub-Saharan Africa, Kalembo and Zgambo (2012:3-4) found that studies conducted in Uganda and Kenya had revealed that the shortage of PMTCT staff, shortage and interrupted supplies of materials, shortage of counselling space were some of the reasons leading to loss of clients in the PMTCT programme. These constraints further led to long waiting times for post-test counselling with some women leaving without getting their HIV test results. In addition to this, the same study also revealed that there was compromised privacy and confidentiality in counselling sessions. Another study in South Africa, by Sprague et al (2011:3) established that clients had received inadequate information on PMTCT services during the counselling sessions, given the fact that they could not remember/recall the information that was communicated during counselling. It was also stated that clients only made use of the counselling services once during their first visit and not on subsequent visits irrespective of their HIV status, suggestive of limited or poor rapport between the clients and service providers.

PMTCT counselling is the most important service of all the services that make up the package of PMTCT services offered to PMCT clients. A study carried out in Ethiopia found that the majority of clients were satisfied with PMCT services provided at the service delivery facility on the day of their ANC visit (71.2% in public health institutions). The pregnant women's satisfaction with PMTCT services was associated with liking the discussion they had with the counsellor. Other reasons for the satisfaction with PMTCT services were associated with feeling comfortable with their handling by the counsellor and perceived presence of privacy. Gamell (2013:6), describing the motivation for adherence and compliance in HIV positive PMTCT mothers posits that: "As seen in a Brazilian study we expect pregnant women to be highly motivated to protect their babies,

especially if they are periodically counselled and a simple regimen with not many pills per day is prescribed.”

Couple counselling is also considered an important strategy before discharge from a health facility. Such a forum would provide an opportunity for the couple on the importance of family planning, safer sex, disclosure, treatment adherence and support system (Zimbabwe Ministry of Health & Child Welfare 2014c:146)

In a study carried out by the Zimbabwe Ministry of Health and Child Welfare (2010b:56) to assess the Provider Initiative Counselling and Testing programme, the findings revealed these two major concerns compromising the quality of counselling services: occasional breaches of confidentiality and the multi-tasking that the nurse had to engage in that compromised the quality of counselling.

Njeru, Blystad, Shayo, Nyamongo and Fylkesnes (2011:9-10) 's study on perceptions and experiences of the provider initiated testing and counselling model in PMTCT settings of selected districts in Kenya, Tanzania and Zambia found that whilst the counselling concept was well appreciated, challenges emerged. The study, revealed that implementation of the stated approach on a large scale resulted in compromising the quality of counselling since the concept of voluntarism before HIV testing was affected.

According to Bwalya, Kankasa, Babaniyi and Siziya (2011:2) research in South Africa and Brazil showed that the quality of counselling provided to HIV positive mothers on safer infant feeding options was inadequate. This was despite the fact that health providers had good general counselling skills and received training on HIV and infant feeding counselling. On the other hand, a study conducted in Kenya by Omondi, Ongo're, Ngugi and Nduati (2012:1) found that the majority of HIV positive women felt that the PMCT counselling services they had received were good.

The Zimbabwe Ministry of Health & Child Welfare (2012a:7-9) indicates that the most reliable method for diagnosing HIV infection in infants and children less than 18months is a virological test (HIV DNA on whole blood specimen or DBS, HIV RNA on plasma or DBS and Up24Ag on plasma or DBS). For these investigations to be performed effectively this calls for quality counselling. The same authors advocate for a family centred counselling that observes aspects such as voluntarism and or free of coercion, confidential and informed consent.

Boateng, Kwabong and Agyei-Baffour (2013:2) in a study in Ghana found that mother's knowledge and practices on HIV/AIDS, PMTCT and ART have been shown to influence their motivation, uptake and adherence of ARVs for PMTCT. In addition, the authors also indicate that knowledge levels are critical in making important PMTCT decisions such as choice of mode of delivery and whether or not to breast feed. On a similar note, the US Department of Health and Human Services, Health Resources and Services Administration (2014:57-60) suggests that informed and empowered patients are better able to achieve healthy outcomes as a result of improved communication and development of trust with their care providers. In addition to this, it is highlighted that given the complexity/dynamics of HIV/AIDS, patient education should be an on-going activity and a key aspect of the clinical care of HIV patients. A related study by Otieno (2010:733) to establish the determinants of failure to access HIV care found that those who accessed HIV care were more knowledgeable and informed about the disease than those who did not.

Goga and Jackson (2010:63) discussing contextual factors for effective counselling posit that: "Effective counselling and learning between health care staff and pregnant women cannot take place if the clinic is itself dysfunctional." Ferguson, Grant, Watson- Jones, Kahawita, Ong'ech and Ross (2012:576-577) 's study linking women who test HIV positive in pregnancy related services to long term HIV care and treatment services, systematic review, found that accessing these was complicated and the drop-out rate was high. It also found that what was promising was providing "family focused care", integrating CD4 testing and provision of antiretroviral therapy and PMTCT services as well as addressing at individual level issues that cause stigma. The study recommended a health level facility intervention aimed at addressing the attrition rate. The research further advocated for an integrated comprehensive service package including among other things: psychosocial support for clients and significant others, family planning and infant feeding counselling.

Mucheto, Chadambuka, Shambira, Tshimanga and Gombe (2011:4-6) found that lack of psychosocial support and counselling were major drivers behind non-disclosure. The authors further indicated that identifying women with social challenges and stress, referral for psychosocial support can improve disclosure of HIV status and reduce mother to child transmission of HIV. The Zimbabwe Ministry of Health & Child Welfare (2014c:74-75) in its PMTCT guidelines emphasises the importance of counselling pregnant women about family planning options during the antenatal visits. It is further highlighted that

giving women this information on family planning options during the antenatal period, avails the client ample time to consider, discuss with her partner, family or significant others and make informed decision about her reproductive choice. It follows that a woman who has made a decision about family planning before giving birth will be psychologically prepared to use the chosen method in the postpartum period

The Zimbabwe Ministry of Health & Child Welfare (2014c:145) in its PMTCT guidelines, indicates that HIV positive women/couples need to be provided with family planning counselling and or should be linked to family planning services. It is stated that HIV – infected women and their partners have special family planning needs as follows:

Counselling on the importance of disclosure.

- Information on the risks of future pregnancies (planned pregnancies).
- Information on the risks and benefits of each of family planning method for their particular situation so that they make informed choice.
- Support for access to family planning information and services during follow- up clinical care and support.
- If a woman plans to stop breastfeeding, she should be counselled and provided with the family planning method of her choice.

Family planning services can help to prevent unintended pregnancy and thus prevent MTCT of HIV. On the other hand, if a woman wants more children she should be advised to wait at least two to three years before becoming pregnant again.

2.3.2.5. Male Involvement

A study by Koo, Makin and Forsyth (2013:43) found that HIV positive women whose partners attended antenatal care were more likely to adhere to PMTCT strategies resulting in positive health outcomes. A study by Auvinen, Kylma and Suominen (2013:169) established that supportive male partners were amenable to getting an HIV test and communicating with their partners about sexual and reproductive health issues thus increasing commitment of pregnant women to PMTCT programmes. On the other hand, the same author states that non-supportive partners were less likely to discuss reproductive issues openly with their partners, with many such female partners reporting violence, abandonment or fear of abandonment.

These findings concur with a USAID (2010:40) PMTCT study in Tanzania which established that a few men were involved in their wives' health issues. This lack of involvement was discussed in the context of not going with the wives to the clinics. In addition to this, in situations where men escorted their wives to the health facility, they would remain outside or leave their wives at the clinic. In fact the study found that participation of family and friends in the treatment of a sick person becomes a community action tied to the collective system of life.

According to Haile and Brhan (2014:3-5) in a study in Ethiopia, male partner involvement in ANC/PMTCT services was found to be low. The study called for comprehensive strategies that would sensitize and advocate for the importance of male partner involvement in such critical health care services. An integrative review on male involvement in the PMTCT programmes in sub-Saharan Africa by Auvinen, et al (2013:169) found that men had positive attitudes towards the programme. However, the study identified barriers to male involvement such as negative health worker attitudes, lack of resources, fear of HIV, marital difficulties, problems with health care services as well as cultural barriers. The same study recommended strategies for improving male involvement and these included: sensitizing the community and men in particular about antenatal care (ANC) and PMTCT, providing couple counselling and the development of health care services (tailoring the services and environment to be male friendly).

One of the barriers to male partner involvement at PMTCT sites was the relationship dynamics. Farquhar, Mbori-Ngucha, Bosire, Nduati, Kreiss and John (2001) and Aarnio, Olsson, Chimbiri and Kulmala (2009) cited in Morfaw, Mbuagbaw, Thabane, Rodrigues, Wunderlich, Nana and Kunda (2013:7) in a systematic review indicated that weaker relationships acted as barriers to male involvement because the couples were not staying together and were or in a distant relationship. Another study by Nkuoh, Meyer, Tih and Nkfusai (2010:a363) in Cameroon found that cultural barriers that acted as disincentives to male participation in PMTCT activities as such participation was viewed as a female domain.

Morfaw et al (2013:7) in a systematic review found that there were health care system barriers to male partner involvement at PMTCT settings. The review established that long waiting times at antenatal care clinics were another cited barrier. In addition to this, these studies found that the antenatal care services were unfriendly for men and acted as a limiting factor. On the other hand, on a positive note, a study carried out in Zambia by

Wall, Kilembe, Nizam et al (2012:9) found that the use of invitation letters, involvement of influential community leaders and agents motivated male counterparts to take part in HIV counselling and testing. Related to this, the study by Nyondo, Muula and Chimwaza (2013:5) on male involvement in Malawi showed that men preferred a notification card from the service providers. The study demonstrated that successful male partner involvement depended on a variety of interconnected strategies that were culturally and politically correct in different communities. Other studies by Becker, Mlay, Schwandt and Lyamuya (2010:558) in Tanzania and by Ditekemena, Matendo, Koole, Colebunders, Kashamuka and Tshetu (2011:165) in the Democratic Republic of Congo found that offering routine voluntary counselling and testing for HIV as an entry point into PMTCT services acted as a facilitator for male partner involvement. Additionally, the two studies also established that providing antenatal care services for couples during weekends or non-working hours also facilitated male partner involvement.

Pathfinder International (2013:7) noted barriers in the PMTCT strategies in Nairobi and advocated for recommendations that seemed to display a positive impact. The recommendation involved having a buy in from the community to improve male involvement in the PMTCT programme, for example gaining men's support in women's clinic attendance. The strategy also involved having male peer educators called "male champions" to carry out the community mobilization exercise. This strategy proved that male involvement could play a significant role in improving women and family health. As a mechanism to enhance the stated strategy, health workers made sure that couples that came together at any point during care were given priority through expedited tracking within the PMTCT facility. Couples were also assisted in joint decision making during these visits.

A study by the World Health Organization (2012d:4) shows how, historically reproductive health has been viewed as women's domain. It advocates for a paradigm shift so that men are seen as important constituents of reproductive health practice and policy. The paper highlights positive yields in the entire family which can only come about from a constructive involvement of men. However, the paper also cites obstacles to male partner involvement such as fear of stigma and discrimination.

According to the National AIDS Council (2013:30-31) in its mid-term review report, clients cited the following barriers to male partner involvement in PMTCT sites in Bulawayo (where the study site falls):

- too many antenatal care visits,
- too much paper work,
- long waiting time in queues,
- user fees and purchase of own materials for use in clinics and hospitals,
- work commitments by men, embarrassment of being attended to by largely, female cadres and
- fear of having an HIV test.

In addition the report indicated that the set national target male partner testing during the antenatal period was 30%. However the results showed that for Harare and Bulawayo, the results were lowest with less than 10% male partner involvement.

The Zimbabwe Ministry of Health & Child Care (2014c:145), in its PMTCT guidelines advocates for encouraging and supporting male involvement in the PMTCT programme. It is indicated that in most communities, traditionally, men are rarely involved in the postpartum and new born care. However, the same document highlights the fact that when encouraged, men are willing to be involved. It is further stated that the PMTCT health setting should provide a comfortable environment where men can feel comfortable to sit and receive information from a service provider about the post-partum period as well as safer sex practices.

The Zimbabwe Ministry of Health & Child Care (2010b:35) in its assessment of the Provider Initiated Testing and Counselling Programme (PITC), revealed that participants were willing to disclose their HIV status to someone close. The major reasons for wanting to disclose were to get relevant care and support, it might result in safer sex practices and that it can act as a catalyst for partners to get tested. In a study carried out in Uganda to explore reasons for disclosure of HIV status, Ssali, Atuyambe, Tumwine, Sugujja, Nekesa, Nannung, Ryan and Wagner (2010:675) found that most participants reported having disclosed to either partner/spouse or family member. The most common reason for disclosure was to receive support, on the other hand the reason for non -disclosure was cited as fear of abandonment particularly among young women disclosing to the spouse/partner. According to Duff, Kipp, Wild, Rubaale and Okech-Ojony (2010:6), non-disclosure of a client's HIV –positive status was the second most cited barrier to enrolling in the ART programme and continuing treatment. In addition to this, the HIV positive women explained that they withheld their status from their partners out of fear of blame,

domestic violence, abandonment, divorce and loss of economic support that might ensue.

2.3.2.6. Family Centred Approach in PMTCT

The Zimbabwe Ministry of Health and Child Welfare (2014b:145) in its PMTCT guidelines advocates for a family centred approach as an important part of the package of the comprehensive approach in the PMTCT programme. Betancourt, Abrams, McBain and Smith Fawzi (2010:8-9) advocate for a paradigm shift from a biomedical paradigm in the PMTCT programme to a more comprehensive family-centred approach that is ideal for a resource poor setting like Zimbabwe by addressing not just the prevention of mother to child transmission but also the physical and mental health of the whole family unit. On a related note, Luyirika, Towle, Achan, Muhangi, Senyimba, Lule and Muhemail (2013:7-8) advocate for family centred HIV care models that target children and their families and further provide integrated health services for the family unit's range of care needs. The authors further highlight the fact that this integrated service provision includes incentivizing care-seeking as a family, creating a child friendly service environment, institutionalizing early infant diagnosis and provider initiated testing and counselling.

Studies on the importance of the family centred approach highlight the critical role of male partner involvement in PMTCT programmes as seen for example in Falnes, Moland, Tylleskar, de Paoli, Msuya and Engebretsen (2011:9-10) and WHO (2012d:2-3). The latter study demonstrated that male partner involvement is crucial to the attainment of Millennium Development Goals (3 to 6) Furthermore, the study showed how the involvement of men can have benefits that cascade to the entire family by creating a positive social environment or a health seeking behaviour. As demonstrated in the studies cited above, the rationale for a family centred approach is premised on the fact that the well-being and health state of the child is very much related to the family centred health care system.

2.3.2.7. Benefits for the PMTCT Programme

The U.S. President's Emergency Plan for AIDS Relief [PEPFAR] (2015:2) highlighted the broader and combined benefits of the PMTCT programme. The programme provides an opportunity to improve coverage for the HIV positive women to access antiretroviral therapy and thus significantly reducing the risk of HIV infection to infants and uninfected partners. In addition to this, when an HIV positive woman enters a health facility, it

provides an opportunity for the family to access HIV care services such as HIV counselling and testing and male circumcision. In the same vein, the Zimbabwe Ministry of Health & Child Welfare (2011b:11-12), indicates that the PMTCT programmes therefore present a major opportunity to go beyond the prevention of infant infections to allow diagnosis and management of previously-unrecognized maternal HIV infections and the prevention of HIV-related orphans.

The importance of an effective antiretroviral therapy as part of the PMTCT programme has highlighted the fact that it has been shown globally that without treatment, HIV positive infants would die before their second birth day or before they begin school (UNAIDS 2012a:6). WHO (2012c:3) indicated that “option B+ as an ARV regimen provides greater assurance that women in need of treatment received fully suppressive triple antiretroviral therapy regimen, to minimise the risk of infant infections and maximise the benefit of their own health”. Hirnschall, Doherty and Shaffer (2013:1271-1272) discussing the Option B+ strategy, indicated that the package was recommended for treatment for all people irrespective of the CD4 cell count and was considered as a test and treat approach for the vulnerable population (HIV positive pregnant women). The same authors further indicated that mounting evidence supported the fact that Option B+ was a combination prevention strategy that prevented HIV transmission to infants, minimised transmission to uninfected sexual partners, averted orphan hood and protected maternal health. According to Schouten, Jahn and Midiani (2011:282-284), the Option B+ initiative was first proposed in Malawi as a novel approach to increase access to antiretroviral therapy for HIV positive pregnant women and has since displayed impressive successes. It is stated that Malawi envisioned that Option B+ would be easier to implement due to its simple “one size fits all” approach which enabled women to have increased access to ART even in health settings with poor access to CD4 testing (UNICEF 2012:3)

2.3.3. Challenges experienced by PMTCT clients

This theme is about challenges experienced by PMTCT clients. The challenges highlighted include health care system factors, user fees, Attitudes of health workers, shortage of staff and discharge planning.

2.3.3.1. Health care system factors

Chevo and Bhatasara (2012:3) whose conceptual framework of a health system is borrowed from the WHO 2007, posit that the framework has six components seen as building blocks: health services, health workforce, health information system, medical products, vaccines and technologies, health financing and leadership and governance. The World Health Organization (2012a:104) advocates for a renewed interest in applying systems thinking in health care delivery systems. According to WHO (2012a:104) the health care system should be viewed or understood within the context of a health system's building blocks. In addition, this systems thinking identifies where the system succeeds, where it breaks down and what kind of integrated approaches will strengthen the overall system and the achievement of the PMTCT strategies and the Millennium Development Goals. It is in that context that the PMTCT programme must be understood within the context of the four pronged approach.

In another study, Adedimeji (2012:5-6) indicated that the effectiveness of PMTCT interventions rested on a well-functioning health care system that recognised the importance of social, economic, cultural contexts that HIV positive pregnant women lived in. Many third world countries hospital settings have health care systems characterised by constant shortage of resources or malfunctioning equipment affecting the quality of service provision as well as staff morale as a Tanzanian study by Penfold, Shamba, Hanson, Jaribu, Manzi, Marchant, Tonner, Ramsey, Schellenberg and Schellenberg (2013:5-9) demonstrates.

Good health and quality of life are influenced by several factors. The economic challenges the country is experiencing are adversely affecting the health and quality of life for all Zimbabweans through difficulty in accessing preventive and curative health care, adequate nutrition and stress resulting from household financial constraints. According to the Zimbabwe Ministry of Health & Child Welfare (2014b:4) adequate resources and an appropriate enabling environment are critical prerequisites for the successful delivery of health services. Various studies and surveys carried out in Zimbabwe over the past three years point towards the inadequacies of the six health system building blocks (human resources, medical products, vaccines and technology, health financing, health information, service delivery, leadership and governance) that are prerequisites for a functional health delivery system, resulting in the public shying away from public health institutions. In addition to this, the Zimbabwe National Health

Strategy of 2014-2018 further states that health professionals cannot provide services without adequate medicines and equipment. Access to essential drugs and supplies has been greatly reduced with stock availability ranging between 29% and 58% for vital items and 22% and 36% for all categories of items on essential drugs list in 2008. Ideally, vital items should always be 100% available. Access is another key principle in the HIV Care and Treatment Strategic plan for year 2013 to 2017. That has to do with access, which states that: “equity in accessing quality health care goods and services is a fundamental human right regardless of one’s gender, social and economic standing, language, religion, race and creed.” (Zimbabwe Ministry of health and Child Welfare 2013b:31).

Gourlay, Birdthistle, Mburu, Lorpanda and Wringe (2013:10), in a systematic review of factors obstructing the uptake of PMTCT services in sub-Saharan Africa, cite numerous factors such as the following: poor health care infrastructure, shortage of staff, poor referral links and lack of communication between different health services and within the health system. Other cited barriers are associated with poor integration of PMTCT and family planning services, poor coordination between different levels of the system, plus poor quality of counselling as well as health worker’s poor attitudes and interactions with clients.

The study by Rujumba (2012:11) found that health care providers felt left out in the implementation, design and the strengthening of the PMTCT programme in Uganda. The study also found that the programme implementation was hindered by stock outs of vital supplies and kits and constraints of poorly trained manpower. It called for the strengthening of the health system, continuous manpower development and the reduction of its heavy workload and the need for support of community based interventions. A related study in Tanzania by Penfold, Shamba, Hanson, Jaribu, Manzi, Marchant, Tonner, Ramsey, Schellenberg and Schellenberg (2013:1) found a situation of chronic shortage of drugs and other supplies negatively affecting patient care.

According to Barker, Rollins and Mphatswe (2011:e45-e47), antiretroviral (ARV) drugs used for the prevention of mother to child transmission (PMTCT) of HIV can virtually eliminate the risk of childhood HIV infection and improve maternal survival. In addition to this, the PMTCT “cascade” identifies the sequence of steps needed to deliver ARV interventions to HIV infected women and their infants: counselling, HIV testing, CD4 testing, dispensing of ARVs at antenatal and labour wards, and testing of infants at 6 weeks. However, the output of this sequence, prevention of HIV transmission, is

significantly affected by the reliability of the health system to deliver each step in the sequence. The same researchers indicated that the findings of a South African PMTCT study revealed that for the PMTCT programme to be effective each step of the PMTCT pathway needed to be delivered with greater than 90% reliability. This called for high levels of performance by the health care system. According to Gamell, Letang, Jullu, Mwaigomole, Nyamtema, Hatz, Battegay and Tanner (2013:5) a PMTCT study conducted in rural Tanzania showed that there was lack of clarity regarding the services responsible for administering post-partum prophylaxis (labour ward or postnatal ward). Data from South Africa on the operational performance of onward referral from PMTCT services of women identified as HIV- positive in pregnancy suggests that, whilst a high proportion of pregnant women may be HIV tested and receive ART prophylaxis for PMTCT at the ANC, a significant proportion are not assessed during pregnancy for eligibility to receive lifelong HAART or do not receive HAART if they are assessed as needing it (Moodley, Srikewal, Msweli & Maharaj, 2011:1, Hussain, Moodley & Naidoo, 2011:6).

Literature on PMTCT cites challenges HIV positive women experience in trying to access services. According to Deborah, Rebecca and David (2012:5), the majority of women testing HIV-positive at the main antenatal clinics who require HAART were unable to navigate and complete the complex cascade of steps needed to ensure they start HIV treatment in pregnancy, even where PMTCT services and HIV treatment clinics were in the same town or even in the same hospital. Furthermore, because adult HIV care and treatment services are very busy, pregnant women often are not enrolled and assessed during pregnancy. Another, but related study by Richard & Emmanuel (2012:14) found that poor linkage of PMTCT services was associated with uncoordinated patient flow, long waiting time for services, poor counselling content and delayed release of laboratory results. Similarly, a Ghanaian study by Boateng, Victor and Jasaw (2012:134-135) found that while the patients spoke positively of the quality of care, they noted some deficits in the health care delivery system among others the long waiting times and inadequate waiting space, drug unavailability and lack of client follow up.

Muchedzi, Chandisarewa, Keatinge, Chibanda, Woelk, Mbizvo and Shetty (2010:7-8) 's PMTCT study findings seem to reinforce the importance of an informative referral system in the continuum of health care. The study also found challenges and barriers in accessing HIV care and treatment for example long waiting times, unreliable access to

laboratory testing and high transport costs. Goga and Jackson (2010:63) indicated that accessibility to PMTCT care, according to the current standards, is influenced by clinic resources, clinic layout, booking systems; patient flow plans, testing methods, linkage and referral system, post natal follow ups, health worker training and community engagement.” Another important strategy for linking PMTCT clients to care, advocated for by Ferguson, Grant, Watson Jones, Kahawita, Ong’ech and Ross (2012:1) is a better referral and tracking internal system to enable management of clients between hospital departments

In a research study carried out to determine factors that influence the transition of HIV infected women from maternal to continuing care in Nairobi;Kenya, Otieno, Kohler, Bosire, Brown, Macharia, Grace and Steward (2010:4) found that shortage of money, lack of confidentiality, dislike of the facility, poor services and stigma were cited as barriers that resulted in high attrition rates. On the other hand Otieno et al (2010:4-7) further established that partner involvement, a standardised referral process and a more comprehensive HIV education for HIV positive mothers were important factors that enhanced successful transition between PMTCT and HIV care programmes.

A study carried out in Ethiopia on challenges associated with the PMTCT programme by Balcha, Lecerof and Jeppsson (2011:190-192) used programme reports that were analysed against the international and national policies, guidelines and priorities. The study revealed several challenges. It showed that 65% of the HIV positive women left the health facilities without the relevant PMTCT interventions. On a related note, the study also found that 71% of the babies born to HIV positive mothers did not access prophylaxis drugs.

Bancheno, Mwanyumba and Mareverwa (2010:1130) ‘s PMTCT study in Swaziland found that the provision of comprehensive prevention of mother-to-child transmission services in resource limited settings is possible but highlighted associated challenges such as inadequacy of staff plus socio-economic and service related factors. In addition to this, the same study found that acceptance of HIV testing at the first antenatal visit and the proportion of clients collecting CD4 and DNA-PCR test results was low and thus the need for advocating for mechanisms/strategies for improving these areas of concern.

Another study by Sprague, Chersich and Black (2011:6) also found that there was inadequacy of data and information systems for monitoring and evaluation of the PMTCT

programme. In essence, the study showed that data was generally of poor quality and the generated data was not being used to improve current practices and systems.

UNAIDS (2012a:18-19) further advocates for active participation, mobilization and empowerment of communities for the success of the PMTCT activities. In addition to this, the same report elaborates on how the community based workers such as peer counsellors, traditional midwives, mentor mothers have been successfully utilised in PMTCT programmes in countries like Uganda, Lesotho and Cote d'Ivoire.

In another related PMTCT study carried out in West Africa, Msellati (2013:810-811) found that it was possible to build programmes at a national level that have a high degree of acceptance of testing and intervention, with a progressive decline in HIV infection among children. However, the author indicated that many obstacles remained: the necessity to broaden access to HIV screening, the need to develop mass campaigns on testing for couples and to improve HIV care and training among care givers. The author further writes: "Because HIV-infected pregnant women are experiencing great psychological distress, health care providers must use an approach that is as friendly as possible."

One of the maladies that have plagued health care systems both in the first and third world is that of fragmentation and disintegration. Elhague (2010:1-2) posits that the two preceding terms can be seen as synonymous with regards to health care system. The concept refers to a situation where more than one decision maker has to make a decision about a patient. Because these decision makers are not exposed to the full picture about the patient, there is a risk that the interventions they make may be wrong since they would not have the full picture.

Chi, Bolton-Moore and Holmes (2013:2) concur with the above observation. For them, integration is the very opposite and is very advantageous in a number of ways: reducing the number of visits by the patient to one, improving adherence and generally improving sustainability and efficiencies. In this way, they argue, integration strengthens health care services.

A study on integration of HIV/AIDS services into the existing health services by Pfeiffer (2010:5-7) found that the integration approach enabled the public health sector system to test more patients for HIV, placed more patients on antiretroviral therapy more quickly and efficiently, reduced loss-to-follow-up, and achieved greater geographical HIV care coverage compared to the vertical model. In addition, integration would also make

decentralization possible by maximizing utilisation of limited space, infrastructure and health workforce, at the same time improving the system efficiency and quality through linkages of services that ultimately reduced loss to follow up and missed opportunities. Related studies in Khayelisha in South Africa by Patten, Wilkinson, Conradie, Isaakidis, Harries, Edginton, De Azevedo and van Cutsem (2013:1) and Cox, McDermid and Azevedo (2013:1) found that integration of services resulted in decreased time to ART initiation from 36days to 7days. They also found that the proportion of clinics initiating ART before delivery increased from 55% to 85,5%.

According to an article entitled “HIV Stigma and PMTCT; Dilemmas faced by HIV positive mothers” published by Consultancy Africa Intelligence (2011:2), non-adherence and dysfunctional health systems demonstrate PMTCT to be ineffective in reducing infant HIV infections. Furthermore, HIV stigma forms a backdrop of most societies in Sub-Saharan Africa and poses threats for patients to access HIV care services. Stigma undermines efforts aimed at managing and preventing HIV. Interestingly, most experiences of HIV stigma take place within health care facilities. Due to the impact that HIV and AIDS has had on Sub-Saharan Africa, health care systems are faced with a lot of structural challenges in responding to prevention, care and treatment of the pandemic. Health care systems experience the reality of overcrowding, staff shortages and having limited infrastructure. A combination of these factors, within the context of a high HIV stigma, undermines the effectiveness of efforts to address HIV. These conditions prove to be inconvenient and discomforting for patients, as they may experience their rights to privacy and confidentiality being undermined. The lack of privacy and confidentiality that may be encountered by the patient could lead to personal information being divulged without the permission of the patient.

One of the most important services that constitute the PMTCT package is the concept of counselling. This is a point stressed by Asefa and Mitiki (2014:5). However their study in Ethiopia found that only 52% of the PMTCT clients had an opportunity to access this important service. Related to this, an Indian study by Kumar, Singh and Kusuma (2015:12) on counselling services found the following challenges as barriers to effective counselling: lack of a conducive atmosphere for counselling, lack of confidentiality, lack of a two way communication and deficiencies in the quality and content of counselling.

2.3.3.2. User fees

The Zimbabwe Ministry of Health and Child Welfare issued a policy circular number 1/53/30 to the effect that health institutions should stop charging maternity user fees as from 1 July 2013. According to Mambo (2013:7) in a press report, in the Zimbabwe Independent of October 18, 2013, lack of funding had hindered or affected scrapping of maternity fees in public hospitals and council clinics contributing to an increase in maternal deaths. Muchetu (2015:1-2) of the Sunday News of March 22, 2015, highlighted the fact that government health institutions were having a financial crisis. In the same article the Chief Executive Officer of Mpilo Central Hospital, stated that for the year 2015, the institution had sent a budget proposal of 13.5 million US dollars but had only been allocated \$560 000 by treasury. Therefore the fact that Ministry of Finance continued to allocate the Ministry of Health and Child Welfare insufficient funds, contravenes the Abuja Declaration that stipulates that 15% of member countries' national budgets should go to health issues (WHO 2011:1).

According to the Zimbabwe Ministry of Health and Child Welfare (2014b:7), the health system is grossly underfunded. The current revised budgetary allocation works out to approximately US\$7 per capita per annum against the WHO recommendation of at least US\$34. UNICEF Zimbabwe (2011:16) highlighted the fact that: "Although the 2011 government budget for the health sector is US\$256 Million (9 per cent of the total budget), the actual disbursement depends on the availability of resources. For example, in 2009 only US\$15 Million was disbursed (10 per cent) of the originally allocated budget of 150 Million was disbursed to the Ministry of Health and Child Welfare for service delivery.

The Zimbabwe Ministry of Health and Child Welfare Circular 1/53/30 cited above stipulates the payment of user fees for different categories of people. However exceptions are made for the following categories: under-fives, women accessing maternity services, clients for HIV treatment and care, patients aged 65years and over. Patients with tuberculosis/epilepsy/mental illness also receive free treatment. For other chronic conditions (in a general hospital) such as hypertension, a consultation fee of \$12-00 is required and this fee is inclusive of drugs.

Studies on user fees and their impact on maternal and reproductive health in PMTCT sites in low resource settings show that user fees have a negative regressive effect on the utilisation of services:(Pearson, Gandhi, Admasu and Keyes (2011:314) in Ethiopia,

McPake, Witter, Ensor, Fustukian, Newlands, Martineau and Chirwa (2013:3) case studies in Zimbabwe, Zambia, Nepal, Ghana and Sierra Leone). However, the studies also highlight concomitant issues related to the abolition or waiver of fees: the quality of the workload, provider satisfaction and implementation challenges. Also, there were challenges about how to ensure an uninterrupted supply of health care inputs. In Ghana, an evaluation of free maternal and child health services found that its provision substantially reduced maternal mortality (HERA & Health Partners Ghana 2013:1-4). It also found that the facilities increased the use of institutional deliveries.

Another illuminating study on user fees was that by Johnson, Goss, Beckerman and Castro (2012:1786-1787). The study cited important conferences, political and economic events as backgrounds against which the introduction or removal of user fees in the health care systems were made in sub-Saharan Africa. According to WHO and UNICEF (1978) in Johnson et al (2012:1786-1787), at the Alma Ata conference of 134 countries including Zimbabwe, countries committed themselves to the universal access to primary health care. However, the following challenges confronted many countries with regards to that noble concept: inflation, foreign debt, recession and Economic Structural Adjustment Programmes. As a result, governments were faced with two dilemmas: to reduce public health care expenditures and to improve impact and reach of primary health care system as per the Alma Ata Declaration (Cuerto, 2004 in Johnson et al 2012:1786). As a result of these challenges, the governments were urged to adopt a system of user fees as per the Bamako Initiative (1987) and World Bank Policies (Akin, Birdsall & De Ferranti 1987 in Johnson et al 2012:1787). These efforts were aimed at supporting the development of decentralised primary health care systems and improving equity. Furthermore, according to Musgrove (1986) cited in Johnson et al (2012:1787), the aim of these initiatives was to improve efficiency, enhance quality and sustainability through cost recovery measures and encourage community engagement.

As a result of these cost sharing measures there were increased inequalities in access to health care because of the massive reduction in the use of health care facilities by the poor (Deiniger and Mpunga, 2004 in Johnson et al 2012:1788). Jacob and Price (2004) in Johnson et al (2012:1788-9) noted another disturbing trend as a result of the introduction of user fees: poverty induced delays in health seeking behaviours. In another related study, Largade and Palmar (2011:2-3) observed that utilisation of health care services decreased with the onset of user fees. Conversely, Masiye, Chitah and McIntyre (2010:743) in Zambia found that the removal of user fees resulted in the increase in

service utilisation. Similarly, Dhillon, Bonds, Fraden, Ndahiro and Ruxin (2012:71) conducted a study in Rwanda that established that the increased utilisation of services by as much as three times in one month was associated with the subsidisation of public health insurance and suspension of co-payments. In Sierra Leone, Medicines Sans Frontiers (MSF) (2008) in Johnson et al (2012:1787), observed that the removal of co-payments saw an improvement in under-five mortality.

Johnson et al (2012:1788-89) conducted a study on the downstream impact of user fees beyond utilisation of health services on household decision making, timely access to care, food security and gender inequality. The following were some of the findings: delayed or incomplete care, indirect costs such as bus fare, fixed consultation fees, lost work time, cost of medicines, cost of diagnostic procedures and services. Their study also found that the delays in seeking treatment were caused by fear of compromised food security and indebtedness. Other cited challenges were situations where patients were forced to seek alternative health care services like traditional medicines and getting unauthorised medicines in the street. UNICEF Zimbabwe (2013:4) supports the Malian study findings by Johnson et al (2011:1790-91). The study established that the high maternal mortality rates and delays in health seeking behaviours were related to co-payments and indirect costs.

According to McPake et al (2013:2) universal health coverage has become an international policy acknowledged as such by World Health Organization. In the top priority of this policy has been access to reproductive health and that of under-fives. Therefore, these were included among the MGDs. This was a culmination of a series of conferences aimed at protecting the reproductive rights of girls and women: the 1994 International Conference on Population and Development in Cairo and subsequent conferences in Copenhagen and Beijing. This paradigm shift was premised on the fact that user fees were barriers to equitable access to essential health. A study on user fee removal in sub-Saharan countries: Burkina Faso, Burundi, Ghana, Liberia, Senegal and Uganda by Meesen, Hercot, Noihomme, Ridde, Tibouti, Tashobya and Gilson (2011:12) demonstrated that whilst there was political will by the countries concerned to abolish user fees there were other factors that often militated against that.

Zimbabwe's health care delivery system has also been supported by donors. UNICEF Zimbabwe report (2011:9) indicates that the Health Transition Fund (HTF) is a multi-donor pooled fund managed by UNICEF to support the Zimbabwe Ministry of Health and

Child Welfare to achieve planned progress towards achieving the highest possible level of health and quality of life for all Zimbabweans. The Health Transition Fund is aimed at supporting the efforts of mobilising necessary resources for critical interventions to revitalize the health sector. These efforts are also aimed at increasing access to care by eliminating user fees for maternity mothers and under-fives. Such interventions will reduce maternal and under five mortality (MDG 4 & 5), reduce the prevalence of underweight in under five year olds (MDG1c) and assist in combating HIV, malaria and other diseases (MDG 6).

However, the above notwithstanding, for Zimbabwe the situation has not been rosy. Du Toit (2013:1-2) reported how, contrary to the global trend, Zimbabwe has seen a dramatic increase in maternal deaths which is currently at 50% higher than the sub-Saharan average yet Zimbabwe had launched a campaign to reduce maternal mortality in 2012. This was in spite of the steps that government had adopted to combat maternal mortality- at least on paper. In March 2013, it had announced a user fee waiver for pregnant mothers. In May 2013, it had also adopted a new constitution acknowledging explicitly the right to reproductive health care. But the high maternal mortality rate is a sign of the government failure to fund public health adequately in spite of the provisions of the Maputo protocol and the Abuja Declaration. Du Toit (2013:1-2) reported for example how Zimbabwe had allocated a mere 8% of its budget to health care in 2012. If, as she observed, the government had allocated the necessary resources, the maternal user fees waiver and constitutional entrenchment of the right to health then the campaign on Accelerated Reduction of Maternal Mortality it had embarked on would make sense.

The Zimbabwe Ministry of Health and Child Welfare (2014b:70) reported a gross under funding of the health sector with a budgetary allocation of approximately US\$7 per capita per annum against the recommendation of the World Health Organisation of at least US\$ 34. To further illustrate that the situation had not changed, Langa (2015:4) in the News Day of March 2, 2015 reported that the parliamentary portfolio committee on health and child welfare report of 2014 had stated the fact that the Ministry of health faced serious challenges. The ministry had submitted a budget request of US 712 million, but only received US\$337 million (47%) which was inclusive of salaries. It further noted that the health budget allocation for 2015 declined from US\$ 337 million in 2014 to US\$301 million, a decrease of 11% from the 2013 allocation. The committee had noted that the erratic fiscal disbursements in 2014 had hampered programmes in the ministry.

Universal health coverage for vulnerable groups outside the formal economy in resource poor settings is often a challenge. Literature on alternative funding mechanisms seems to focus on community based health insurance schemes with emphasis on population coverage, cost coverage and service coverage. This comes against a background of the need to provide protection against user fees. Chuma, Mulupi and McIntyre (2013:10-11) drawing on evidence from the Asian experience advocate for an innovative approach to health insurance as they perceive contributory community insurance schemes as being fraught with problems. Instead they call for a tax funded and or donor supported schemes to ensure universal coverage. The same authors also cite the fact that several African countries (Ghana, Zambia and Gabon) have also adopted such innovative schemes and achieved considerable success.

2.3.3.3. Attitudes of health workers

Literature on staff attitudes indicates that users are very perceptive in defining and assessing the quality of care they are receiving. This is important because clients can then choose where to go and get care based on their opinions and previous experience with the health care system. Illuminating studies in Nepal by Karkee, Lee and Pokharel (2014:6), Nigeria by Shoyele (2013:362-363), Kenya by Nyongesa et al (2014:016-017) and in Ghana by Dzomeku (2011:32-33) and in Malawi by Kawale, Mindry, Phoya, Jansen and Hoffman (2015:5-6). These studies highlighted the need for improved interpersonal skills by health workers.

The World Health Organization (2013b:10) in a systematic review of women's experiences at PMTCT settings indicated that many studies described suboptimal interactions between health workers and clients such as uncaring attitudes and outright discrimination. Studies in Malawi found that health workers were perceived as harsh, threatening and lacking respect (O'Gorman, Nyirenda & Theobald 2010:354 and Kasenga, Hurting & Emmelin 2010:27). Similarly, teen mothers in South Africa reported hiding their HIV status during delivery because they perceived the health workers' attitudes as gruff and uncaring. This was despite the fact that these mothers knew the risks associated with not giving their HIV exposed babies nevirapine as prophylaxis (Varga & Brookes 2008 in WHO 2013:11).

A Malawian study by Kumbani, Chiwara, Malata, Odland and Bjune (2012:5) found that health workers were perceived as displaying discriminatory attitudes towards clients

particularly during labour and delivery. On the other hand, a related study in Ghana by Dzomeku (2011:32) on maternal satisfaction with care during labour established that the service providers exhibited both positive and negative attitudes. On a positive note, the health care givers were perceived as warm and approachable. The negative attitudes cited by the author included being shouted at, being ignored and not receiving explanations. Of note, the Ghanaian researcher found that negative attitudes had a more lasting impression on the clients than the positive ones.

In another, but related, study in Botswana, Kebaabetswe (2007) in WHO (2013b:12) found that negative health worker attitudes were cited as barriers to accessing health services at a PMTCT setting. In contrast, WHO (2013b:11) cited Creek (2009) 's study in Botswana that constituted an anomaly in this regard since no women reported experiencing negative health worker attitudes and the clinic staff were perceived to be comfortable taking care of HIV positive clients. Another study in Ethiopia by Tilahum, Bengistie, Egata and Reda (2012:1) on health workers' attitudes on sexual and reproductive health services for unmarried adolescents revealed that whilst the majority of the health workers had a positive attitude towards the provision of services to the mentioned group, a minority displayed negative attitude. The authors felt that this posed a significant barrier towards the utilisation of services and countered efforts by the government and Non-Governmental Organizations to reduce sexual transmitted infections and unwanted pregnancies among adolescents. In the same study, the researchers further advocated for adolescent friendly services and more client friendly training.

In another PMTCT study carried out in Malawi, Kasenga (2010:30) writes: "It is clear that apart from financial constraints as a barrier, there are also other challenges that prevent women from accessing the services at the hospital. Negative attitudes of health workers were observed as one of the barriers that prevent women from accessing maternity care. Pregnant women in delivery suits would like to be treated as human beings with respect and dignity, an observation that was echoed as missing among some midwives at the facility's labour ward. The same women preferred home delivery with the assistance of traditional birth attendants to hospital delivery due to the warm reception the traditional birth attendants accorded them. Previous successful home delivery experiences, provision of warm bath, porridge, respect and dignity to the women before and after delivery were said to be some of the motivating factors for the women to continue having some home deliveries."

Adedimeji et al (2012:3-5) in a study in Ethiopia, found that stigmatising attitudes and discriminatory behaviour from health workers was another cited barrier. For example health workers were said not to be enthusiastic about handling deliveries for HIV positive women. Luvuno (2011:120-121)'s findings revealed that HIV positive PMTCT mothers felt that the effects of related stigma outweighed the gains of being on treatment. It follows that stigma and discrimination by health workers compromised their provision of quality care, which is critical for helping patients adhere to medication and maintaining their overall health and wellbeing.

Duff et al (2010:7) in a study carried out in Uganda, state that long waiting times and negative interactions with staff, were some of the health care services barriers to accessing or continuing antiretroviral therapy for HIV positive women. In the same study, 33% of the research participants reported negative encounters with health service providers such as rude comments, displaying favouritism, shouting or neglect by health workers as reasons for not returning to the health facility.

However, other studies cited positive perceptions of health worker attitudes by clients. The positive perception of the reception is also cited by Sholeye et al (2013:359) in Nigeria. Similarly, in Kenya respondents expressed satisfaction with the positive attitudes of health workers in a study by Nyongesa et al (2014:14-16). Omondi, Ongo're, Ngugi and Nduati (2012:55) in a PMTCT study in Kenya found that respondents felt that the attitudes of health workers were good. The researcher further established that the participants were given information on what to expect during the counselling session and clients felt that they were free to talk about sensitive personal issues with the service provider.

2.3.3.4. Shortage of staff

The Zimbabwe Ministry of Health & Child Welfare (2014b:4) in its National Health Strategy of 2014-2018 indicated that the Public sector human resources for health vacancy levels were at unacceptable levels of for example 69% for doctors and 80% for midwives. In addition to this, DFID (2012:22) in its human resource impact assessment of Zimbabwe indicated that contrary to the WHO recommendations of 2.3 health workers per thousand populations (nurses, midwives and doctors), the Zimbabwean situation was different, even when compared to the region. The actual doctor density was between 0.01 and 0.02 per thousand populations and nurse density was 0.5 per thousand. This is

not surprising since a study by Mantula (2011:68) had shown a crippling brain drain from the health sector.

Various studies have reported the critical shortage of staff largely due to the mass exodus of critical skills to countries like South Africa, Botswana and New Zealand (Clemens & Moss 2005 in Chirwa, Witter, Munjoma, Mashange, Ensor & McPake 2013:6). In fact Chikanda (2005) in Chirwa et al (2013:6) put the emigration of cadres like doctors, nurses, pharmacists and radiologist trained since independence at 80%. This has had a crippling effect on the Zimbabwean health care system with cadres having had to carry a heavy workload. Such a heavy workload often results in burnout as the Kenyan study by Ndonga et al (2014:4) found.

Chirwa et al (2013:6) reported that a health assessment of maternal and neonatal health services carried out in 2004 by the Ministry of Health and Child Welfare (MOHCW), found a severe shortage of nurses and midwives at the primary health care level, 40% for nurses and 50% for midwives. While the standard requirement is that at secondary level there should be two doctors per facility, the study found that 30% had only one doctor and 20% had no doctor at all. This meant that patients who complicated were referred to a higher level of care resulting in delays in care. In addition, at secondary level 30% of the facilities did not have a nurse anaesthetist implying therefore that they could not perform caesarean sections. At tertiary level, it was observed that there was a shortage of such critical cadres as laboratory technicians, paediatricians and obstetricians. Hyperinflation and the economic depression of the mid 2000s compounded the shortage. According to the 2009 Zimbabwe health workforce observatory, Chirwa et al (2013:7) reported that Zimbabwe lost 3588 health cadres leading to the closure of some training schools. MacKinnon and MacLaren (2012:9-10) 's study also found the same, thus further corroborating this grim picture.

The Gupta and Dal Poz (2009) report in Chirwa et al (2013:7) noted that Zimbabwe had only 7% of the doctors and nurses and midwives, 46% and 19% respectively. The same report cited vacancies for all cadres compounded by a hiring freeze. By the end of 2009, vacancies for nurses had dropped from 87% in 2005 to 10% and for doctors from 50% in 2005 to 20%. In spite of this, Chirwa et al (2013:7) reported a severe shortage of specialist categories like obstetricians and gynaecologists. Thus government continued to recruit foreign staff from countries like The Democratic Republic of Congo and Cuba.

According to Nguyen, Oosterhoff, Ngoc, Wright and Hardon (2009) in Ndonga, Ng'ang'a, Miniu, Karama and Matau (2014:4), a trained health service workforce is critical to ensuring good quality service delivery to people with HIV. There is a need for significant investment on improving the staffing levels. The researchers further found that high workloads and inadequate staffing were some of the major barriers in integration of PMTCT services into the existing Sexual and Reproductive Health Services. On a related note, Toure, Audibert and Dabis (2010:2) discussing health workforce shortage indicate that in fact, low and middle income countries not only have the highest rates of HIV worldwide, but also face a severe shortage of health care workers. The researchers further stated that staff shortages in resource limited settings are a major obstacle to the scaling up of HIV care and treatment, including PMTCT. The added workload brought on by the HIV epidemic has increased the strain on the fragile health systems and already overstretched health workers.

A study on initiation on antiretroviral therapy in Cape Town-South Africa by Stinson, Boule, Cotzee, Abrams and Myer (2010:829-831) found that given the manpower constraints of limited clinical personnel, there was need for a nurse/midwife driven integrated model. In their view, this approach would address the challenge of missed opportunities that was identified in the study. In a study carried out in Ethiopia on barriers to PMTCT services, Adedimeji et al (2012:3-5) found that inadequate human resource capacity was also identified as a major constraint to effective delivery of PMTCT services. Furthermore, another key issue identified in the mentioned study was inadequate monitoring and referral structures within the health system.

Lack of understanding among the health service providers about when women should be referred after being given their HIV results (Deborah, Rebecca & David 2012:7), as well as inadequate health worker knowledge in South Africa (Sprague et al 2011:6-7) were found to contribute to a low referral rate, and to impact negatively on a number of steps in the PMTCT care continuum. Even where the health workers were aware of the HIV referral system, basic misunderstanding in how this should be implemented, due to lack of standard procedures, coupled with unclear post-test counselling messages have resulted in low linkage of HIV-positive mothers to PMTCT (Deborah et al, 2012:7).

2.3.3.5. Lack of effective discharge planning

The Zimbabwe Ministry of Health & Child Welfare (2001:1-2) defines discharge planning as the process of moving the patient from one level of care to another. The process should start on admission of the patient by assessing the patient's needs and identifying resources available. The process should take a multi-disciplinary approach and involve all health professionals appropriate in the care of the patient. The ministry indicated that the vision of discharge planners is to ensure continuity of quality patient care by involving the family or significant others. Another significant aspect that is highlighted in the discharge planning process has to do with reminding the patient and relatives about the importance of follow up system and the need to observe review dates and replenishment of drugs.

In the continuum of care, a discharge plan is important. According to Lees (2013:3), an effective discharge planning process is crucial to ensure timely discharge and continuity of care. The author further cites one other important aspect of the discharge planning process as follows: ensuring discharge check lists are completed on the day of discharge. In addition to this, there is also need to ensure that the patients understand their diagnosis, treatment and side effects of medicines. On a related subject, Rodak (2013:2) discussing the discharge planning process indicated that it was very crucial to assume that every inpatient required a discharge plan so as to reduce the risk of adverse health consequences post discharge and the risk of complications or readmissions. The author further states that there is need to tailor the discharge plan to the needs of the individual patient.

2.3.4. The Systems Theory

Ravitz et al (2013:355) conceive the idea of the systems theory as a collection of different parts that cannot independently produce results but only as a whole. The authors underscore the importance of interdependence and interconnectedness that underpins this theory. For Ibadin (2015:1), this theory has four basic components: inputs, process, output and feedback. The author posits that there is a dynamic interaction between these systems to bring about holism to the entity.

Chitty & Black (2011:272-273) indicated that the nursing management that is informed by the systems theory is more likely to be effective in bringing about change in the care

for the patients. The authors perceive nursing from a systems perspective. The following are some of the essential elements:

- each component is a self-contained unit, but part of a wider higher order,
- the sub-system is interconnected and interrelated to its environment,
- while the system is complex, its sub-systems can be analysed, understood and reassembled into a whole,
- it has constituent elements of objectives and relationships,
- a network of interconnected elements acting on each other and inducing change in them and
- a serial arrangement of input, throughput and output. In this case the input refers to the raw material that is required to achieve the purpose of a system. Throughput is about the different processes of transforming the raw material to a usable product. Ultimately the output is the end result or product.

Leddy and Pepper (1998:168) state that the systems theory is one concerned with changes due to interaction among variables in a situation. This implies a dynamic relationship between a person and the environment. Applied to nursing, the theory is useful in predicting, understanding and controlling the effects of nursing care on a patient. Auger (1976) in Leddy and Pepper (1998:169) states that the systems theory aims at understanding the interaction among parts of a system and not functions. Sills and Hall (1977) in Leddy and Pepper (1998:169) view a human being as a complex organism, interrelated, interdependent and interacting, influencing and being influenced by the environment. Leddy and Pepper (1998:170) in applying the systems theory to the nursing process argue that it directs the nursing process of all variables that impact on the client-environment interaction. They argue that the nursing intervention must anticipate the impact of the change.

According to WHO (2012a:105), a well-functioning health care system calls for inputs such as governance, leadership, health information systems, human, material and financial resources for the system to produce output (service delivery). Echoing similar sentiments, Meyer and O' Brien-Pallas (2010:2831-2833) posits that systems are made of four components: inputs (materials or energy applied into the system), processes (actions that take place to bring about the change to the input), output (results from the processes), feedback (information used to evaluate or monitor the actions of a system). However sight must not be lost of the fact that the whole is greater than the components.

The sub-systems are interrelated and there is a dynamic interaction between the elements bringing about the wholeness to the system. With regards to the PMTCT services, studies that advocate for service integration for example Pfeffer (2010:1), Patten et al (2013:5-6) and Cox et al (2013:1) are in keeping with the systems perspective in health care delivery services. See figure 1.2 for a diagrammatic depiction of the systems theory.

2.3. CONCLUSION

This chapter began by giving an overview of three Millennium Development Goals related to this study that is four, five and six. This was followed by giving an in-depth insight of the strategic framework of PMTCT concepts- that is, the four prongs of the PMTCT programme as outlined by the World Health Organisation. The coverage and the impact of the PMTCT programme was highlighted from a global, regional and national perspective. Various services that are offered within the PMTCT concepts were discussed. Furthermore, literature on experiences and or challenges on the PMTCT programme in Zimbabwe, in Sub – Saharan Africa and elsewhere particularly in resource poor settings was examined. The following chapter describes the research design and method that was utilised for the study.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

The previous chapter gave a detailed discussion on relevant literature reviewed regarding PMTCT. It also highlighted the challenges experienced by the women on the PMTCT programme. Finally it addressed the systems theory in relation to the PMTCT programme. As this study was conducted in two phases, this chapter provides detailed information regarding methodology for each phase. Phase one provides a detailed process of the situational analysis on the experiences of PMTCT clients. Phase two provides detailed process followed for the model development.

3.2 PHASE ONE: SITUATIONAL ANALYSIS

Phase one describes detailed information on the research paradigm, approach, design and methodology for the situational analysis. A description of the study site, sampling method, data collection and analysis is also provided. Measures to ensure trustworthiness and ethical considerations for the study are also provided in this section

3.2.1. Research Paradigm

According to Kuhn (2011:1), a research paradigm is a framework that contains acceptable views or beliefs about a subject or a pattern of thinking of a person. The paradigm formed a critical role, in that it provided a structure and direction of how the research was undertaken and how the results were interpreted. In this study an interpretivist paradigm was utilised. This paradigm according to Green and Martelli (2015:22) has its origins in sociology and phenomenology. The authors further indicate that interpretivism is more common in social sciences, the domain within which PMTCT services fall. This paradigm assumes that people are social actors on their environment and thus promote the idea that subjective thought and ideas are valid. Within this perspective, the lived experiences of the PMTCT programme as experienced by the participants were explored.

This paradigm reflects the epistemological, ontological and methodological assumptions of the study. Hofstee (2011:88) indicates that assumptions are beliefs or views that are taken to be true by the researcher with or without evidence based testing of the truth. According to Bryman (2012:30-32) assumptions are enmeshed in the philosophical

foundation or paradigm for the study and form the base line for research design and interpretation of research findings. Below is a reflection of the epistemological, ontological and methodological assumptions of the study:

3.2.1.1 Epistemological assumptions

Epistemology according to Greener and Martelli (2015:41) is a debate or assumption of how knowledge is generated. The researcher belongs to the school of epistemology that postulates that knowledge is a social construct and that individuals experience a phenomenon in a unique way and hence requires detailed exploration. In this context, the researcher aimed at generating knowledge from the perspective of participants involved in the study, to understand their actions which are influenced by their social world (Bryman et al 2014:15). In this study the epistemological assumptions were as follows:

- Narrative data from the in-depth interviews would reveal the experiences of PMTCT clients. Exploring these experiences would form the baseline for determining the level of utilisation and acceptance of the programme and will be utilised to improve the quality of PMTCT services.
- The research participants would be able to narrate their experiences as lived by them. These would be unique for each participant.
- The research process would continue until saturation of rich data, about the experiences of PMTCT clients have been obtained.
- Model development in this study will enhance the care made available for PMTCT clients.

3.2.1.2 Ontological assumptions

Apart from their specific epistemology, the interpretivists have their own ontology. Ontology is a philosophical perspective of reality (Curtis & Drennan 2013:21). According to Bryman (2012:32), ontology refers to the nature of social reality. Within the interpretivist context, reality is assumed to be socially constructed. As an interpretivist, the researcher's assumptions were as follows:

- Human beings are social and unique in nature. Participants would be able to narrate their experiences as lived by them and these would be distinctive.
- Reality/meanings are socially constructed during social interaction.

- Multiple realities exist with regards to the experiences of PMTCT clients and therefore these were explored individually using a qualitative approach.

3.2.1.3 Methodological assumptions

Methodological assumptions provide structure and direction of how the research is to be carried out scientifically. This implies that reality is a social construct that is flexible, has emergent properties and is influenced by an individual's experience and context (Bryman 2012:36).

- Phenomenological research approaches generated data inductively and this data will form the baseline for model development.
- In qualitative research data is collected in naturalistic settings with the view that knowledge is social determined and is contextual.

According to Bryman et al (2014:32), interpretivists assert that social phenomenon and their meanings are established during social interaction and are in a state of continuous change.

The above mentioned paradigm was used to establish the meaning about the lived experiences of PMTCT clients during the utilisation of PMTCT services. In this context, the researcher aimed at generating knowledge from the perspective of women of the PMTCT programme. As a point of departure, this paradigm formed the philosophical foundation of exploring the lived experiences of HIV positive PMTCT clients as they utilised the PMTCT services. This in turn reflected the services offered and how the PMTCT programme was interpreted by clients, and how they felt about certain practices and different treatment they experienced. The researcher belongs to the school of thought that holds that there are multiple realities in knowledge generation. The researcher assumed that what was previously side-lined or ignored would emerge. Therefore this philosophical perspective influenced the research methodologies to gaining knowledge in this study.

3.2.2 Research Approach

This study took a qualitative research approach. According to Polit and Beck (2012:60) in qualitative studies, the researcher collects primarily qualitative data that is narrative descriptions. Narrative information can be obtained by having conversations with the participants, by making detailed notes about how participants behave in naturalistic

settings. Qualitative research according to Houser (2012:36) is based on a naturalistic paradigm. This belief system is represented by a view of reality that is constructed by the individual, not the researcher. In the naturalist view, reality is not a fixed entity, but rather in the context of what the research participant believes it to be. Qualitative researchers believe that many different views of reality are possible, and all of them are right and that there are always multiple interpretations of reality, and that can only exist within an individual. In addition, the author highlights the fact that qualitative methods focus on an understanding of the meaning of an experience from the individual's perspective.

The researcher saw the qualitative approach as the most suitable for this study as the study purpose was to gain understanding of the experiences of clients regarding their utilisation of PMTCT services at a central hospital in Bulawayo. The in-depth understanding of the women experience was possible when women were narrating their experiences.

3.2.3 Research Design

Moule and Goodman (2011:168) indicate that a research design is a map of the way in which the researcher will engage with the research participants in order to achieve the outcomes needed to address the research aims and objectives. The research study in question used a descriptive phenomenological design—a type of phenomenology developed by Husserl, whose philosophy emphasised descriptions of human experience (Polit & Beck 2010:268, Rees 2011:43-44). Kisber (2010:60-61) further indicates that participants may not experience the phenomena in the same way, given that each context, no matter how similar, is always unique to an individual. On a related note, Englander (2012:25) states that in phenomenological research the aim is to encounter the phenomenon via the person's description. In this particular instance, the researcher was interested in understanding the meaning of the experiences of the PMTCT clients as described by them. Descriptive phenomenological studies often involve bracketing, intuiting, analysing and describing. Therefore, in this study the researcher made all efforts of identifying and holding in abeyance preconceived beliefs and opinions about the experiences of the clients in the PMTCT programme.

The researcher also entered the field with an open mind and remained open to the meanings attributed to the experiences of the PMTCT clients. The researcher utilised this research design because in its exploration it focuses on the integrated whole as stated

by Streubert and Carpenter (2011:88). In addition, as the authors observe, nursing practice grounds its practice in a holistic belief system of care for the human being as a whole (concentrating on mind, body and spirit). This makes this design the most appropriate (Streubert and Carpenter (2011:88).

Streubert and Carpenter (2011:88) further highlight the fact that since professional nursing practice is enmeshed in the life and experiences of people it makes the phenomenological approach the most suitable approach to nursing research. It was against this background, and in this context that the lived experiences and perceptions of HIV positive PMTCT clients as they interacted with the PMTCT services were best investigated qualitatively and phenomenologically.

3.2.4. Research Methods

According to Rees (2011:244) research methods refers to the steps, procedures, principles and strategies for collecting and analysing the data in a research investigation. This section will address study setting, sampling, data collection and data analysis.

3.2.4.1. Study setting

According to Polit and Beck (2010:261) a study setting refers to the actual physical location and conditions where data collection takes place. In addition to this, the authors indicate that qualitative researchers usually collect their data in real-world, naturalistic settings. The study was conducted in Bulawayo which is one of the Provinces of Zimbabwe. (Detailed information about Zimbabwe is provided in chapter 1, see map on figure 1.1). A map of Bulawayo province is reflected in figure 3.1 below. Bulawayo has a population of 676 650 thousands adult HIV prevalence of 19% (Zimbabwe National Statistics Agency (2012a:220). In addition to this the HIV positivity rate among pregnant women was 14% in 2012 (National AIDS Council 2013:17). In this particular scenario the study setting was a central hospital, one of the major referral centres in the city of Bulawayo. The hospital provides specialist services of midwives, gynaecologist and paediatricians, just to mention a few relevant services for the target population under study (HIV positive women in the PMTCT programme). The hospital also provides ART for PMTCT clients, other clients plus children. Care in this hospital is provided by specialist physicians, gynaecologists, paediatricians, anaesthetists, midwives and counsellors. All these constitute part of the team that provides care. In addition to this, the study setting is a training institution for nurses, midwives and medical doctors. The

hospital receives referrals from Matabeleland, Midlands and Masvingo provinces for specialised care.

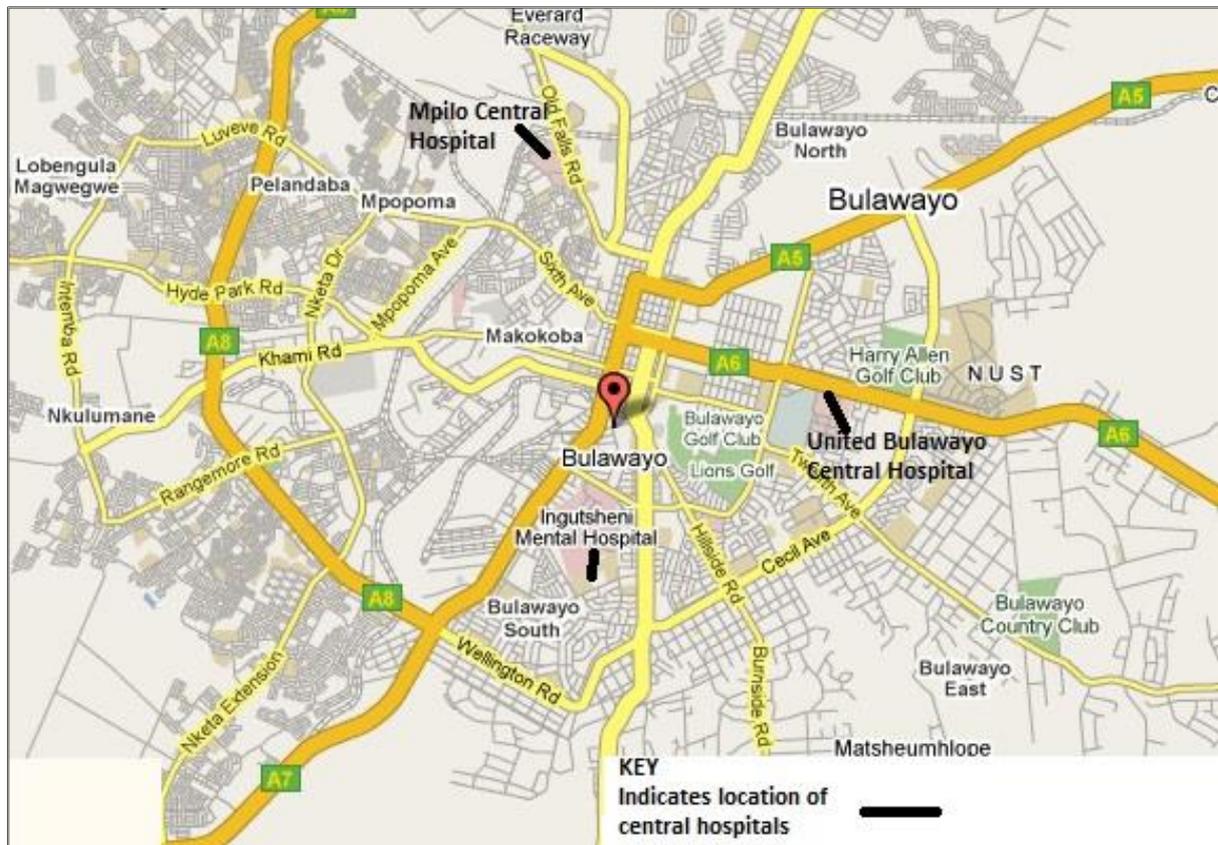


Figure: 3.1. Map showing the districts of Bulawayo and location of Central Hospitals
Source (World Atlas 2015)

3.2.4.2. Population

According to Parahoo (2014:411) population is defined as the entire set of individuals or objects having some common characteristics, from which data are collected and in this case who meet the sampling criteria. Furthermore De Vos et al (2012:223) defines a population as the totality of person, events, organization units, case records or other sampling units with which the research problem is concerned. In this study, the population was that of women that were HIV positive and were on the PMTCT programme at central hospitals in Bulawayo Province. The set inclusion and exclusion criteria were used to develop the desired sample.

3.2.4.3 Sampling and sample size

A sample is a subset of the population that is selected to participate in a research study (Polit and Beck 2012:750). The researcher used judgemental purposive sampling. According to Borbasi and Jackson (2012:135) in this type of sampling the units to be observed are selected on the basis of the researcher's judgement about which one will be most useful or representational. Another author, Parahoo (2014:44) indicates that this type of sampling involves making a judgement or relying on the judgement of others in selecting a sample. In qualitative research, although participants are selected (sampled) according to the inclusion and exclusion criteria, relevant to the purpose of the study, the number of participants is essentially determined by the level of saturated data. Researchers use knowledge of potential research participants in the recruitment exercise. The author further states that the purpose of such type of sampling is to obtain as many perspectives of the phenomena as possible. It is important to note that from the foregoing this type of sampling is appropriate for labour intensive; in-depth studies of very small samples and populations within qualitative research, hence the relevance of this sampling method. The judgement for selecting the sample was based the following criteria:

- Being a woman living with HIV.
- Aged from 18 to 49 years.
- Booked and received antenatal care at the study setting.
- Having utilised PMTCT programme at the study setting.
- Delivered a live baby at the study setting
- Attended post-delivery services of follow-up baby care at the study setting up to the time their babies are two years old

A total of fifteen HIV positive women in the PMTCT programme were utilised for the study. The number was determined by data saturation. The issues of data saturation were asserted by Mason (2010:2) who indicated that the concept of saturation is the most determining factor for sample size in qualitative research. Nakkeeran and Zodpey (2012:8) describe data saturation as a stage in data collection when the researcher feels that no new themes, ideas, or insights are emerging and continuing data collection does not enrich or expand explanations already arrived at. It marks the end of data collection. For this study, saturation was attained (at participant number twelve) when no new information emerged and there was only repetition of previously collected data. Three

more additional participants were interviewed before closure was reached at participant number 15. The demographic data of the participants are shown in chapter four, table 4.1.

3.2.4.4. Data collection

Burns & Grove (2011:536) defined data collection as a precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions or hypotheses of a study. The researcher was the main data collection tool for this phenomenological study. Christensen, Johnson and Turner (2011:274) mentioned that a researcher should adhere as closely as possible to the data collection procedure as planned. According to Waltz, Strickland and Lenz (2010:293-297) there are steps that can be followed when choosing interviews as a method of data collection in a qualitative research. This study followed the steps below in order to improve the trustworthiness of the research findings:

3.2.4.4.1 Pilot study

Moxham (2012:35) views a pilot study as a micro version of the main study to assess how adequate and feasible the main one will be. This process will facilitate identification of potential problems and taking of remedial action. Before conducting the actual data collection the researcher conducted a pilot study in one of the Central hospitals in Bulawayo that was not part of the study site with three HIV positive clients on the PMTCT programme. The pilot study was done so as to establish if research participants would understand the central question used in the study “what have been your experiences in the PMTCT programme from the time you tested HIV positive up to now”. This process enabled the researcher to rephrase the question particularly in vernacular (Ndebele and Shona) and how to explore and ask probing questions. However the grand question remained basically unchanged.

3.2.4.4.2. Recruitment of study participants

Before conducting face to face interviews, the researcher introduced herself to potential study participants, showed them the ethical clearance obtained from the University of South Africa and one from the institution of study. Study participants were assured that the information obtained during the course of the study would be used solely for study purposes. The researcher sought permission from each individual participant prior to each individual procedure. In addition to this, the researcher requested for permission from each participant to tape record each interview.

3.2.4.4.3 Conducting Interviews

Data was collected by means of interviews. Babbie (2010:318) defines a qualitative interview as an interaction between an interviewer and a participant in which the interviewer has a general plan of inquiry including topics to be covered, but not a set of questions that must be asked with particular words and in a particular order. In this study, the researcher probed deeply to uncover new clues, to open up new dimensions of a phenomenon and give detailed accounts that are based on the personal experience of the research participants. The researcher conducted in-depth face to face interview stemming from the following central question: “May you kindly describe your experiences as an HIV positive woman as you received PMTCT services from the antenatal period up to now.”

The researcher used Kvaales’s (1996) guidelines of interviewing as cited in Babbie (2010:322). The steps taken are outlined below:

- The interview focused on the experiences of HIV positive women after utilising the PMTCT services.
- The interview process utilised open ended questions in such a way that the research participants expounded on the topic.
- The researcher used active listening skills in trying to clarify, understand and interpret what the participants were saying throughout the interview process. This facilitated the expression of lived experiences.
- The interviews were audio recorded,
- The researcher also made use of field notes during data collection. She recorded what she was hearing, seeing, experiencing and thinking in the course of collecting and reflecting on the process. She also observes both verbal and non-verbal behaviours of study participants.
- The interviews were conducted in private consultation rooms at the PMTCT site.
- The interviews were conducted in the language convenient to the study participants (Ndebele, Shona and English).
- Validation was done by asking questions to verify facial expressions, verbal and non-verbal cues and gestures that were observed during the interview process.
- Written notes included observations of both verbal and non-verbal behaviours as they occurred, and immediate personal reflections about the interview.

The researcher made sure that each of the audio recorded interviews were transcribed verbatim within 48 hours of conducting the interview. All transcripts were further coded. An independent analyst was requested to analyse all the transcripts and this report was compared with initial results for data analysis as a measure to enhance the credibility of the data. Data analysis, systems theory that underpinned the study and the literature review, all formed the baseline for the model development.

3.2.4.5. Data analysis

Grove, Burns and Gray (2013:46) define data analysis as a process that reduces, organises and gives meaning to the data. For Bryman (2012:13) data analysis is a stage of reducing the large corpus of information that the researcher gathered so as to make sense or generate meaning out of it. Data analysis is a systemic organization and synthesis of the research data (Polit & Beck 2012:725). In this study, all audio recorded interviews were transcribed verbatim into Microsoft Word document. The data was analysed using Interpretive Phenomenological Analysis (IPA) framework for data analysis. According to Langdrige (2007:13) this type of phenomenological analysis facilitates understanding of in-depth accounts of research participants. The analysis was done in stages as reflected below.

The first stage of data analysis was about “*reading and re-reading*” the transcript several times. The first reading of the transcript was done at the same with listening to the audio recording related to the particular transcript. This was done at least twice for each transcript. This process was carried out in a quiet environment for the researcher to remain focused and to familiarise herself with narrations. Stage two involved “*initial note taking*” as the researcher continued to read the transcripts make comments reflecting similarities, differences, anything of interest or significant about research participants’ experiences. The process led to the next stage “*developing emergent themes*”. From the potentially important and provisional notes, the researcher noted the interrelationships, connections and patterns that emerged in data. These were developed into themes reflecting participants’ meanings from the narratives. The next stage was about “*searching for connections across emerging themes.*” This involved exploration, fitting and drawing together all related themes. This data analysis process finally resulted in the formulation of a master list containing superordinate themes, sub-themes and related quotes from transcripts highlighting different parts of the transcript where the information on each theme was found. This resultant master list of themes for each transcript

revealed new themes. These revelatory themes gave birth to two major themes that finally emerged reflecting the experiences of HIV positive women in the PMTCT programme.

3.2.5. Ethical Considerations and Procedures

According to Streubert and Carpenter (2011:62) ethics in social research refers to what is proper and improper in the conduct of scientific inquiry. Therefore ethical issues that were considered in this qualitative research included the following: protection of the rights of the institution, informed consent, confidentiality/anonymity/privacy and potential harm.

3.2.5.1. Protecting the rights of the institution

Protecting the rights of the institution is considered an important ethical issue, therefore in order to adhere to that, ethical clearance for the study was obtained from the Higher Degrees Committee of the Department of Health Studies, at the University of South Africa before commencement of the study (see Annexure A). In addition, permission to carry out this research study was obtained from the Zimbabwe Ministry of Health represented by the Chief Executive Officer (CEO) of the central hospital, where the study was undertaken (see Annexure B).

3.2.5.2. Informed consent

The researcher provided key information about the study to potential research participants and obtained verbal consent expressing their interest to participate in the study. The researcher set up appointments with potential participants where necessary in order to get informed consent. According to Moule and Goodman (2014:63) informed consent refers to the process of gaining agreement from an individual to participate in a research study, based on having been given all relevant information, in a manner that is appropriate for that individual, about what participation means, with particular reference to possible harms and benefits as well as the inclusion criteria. In addition the consent should be informed and be purely voluntary. This implies that the research participants should give consent after assimilation of essential information. Clients were provided with a detailed written consent form which was read by the client and or was read and explained to those not able to read in lay terminology. The written consent was in two national languages: Ndebele and English (see Annexure C). Furthermore the researcher provided an opportunity to answer questions and concerns raised by participants. Thereafter the researcher obtained a signed written consent from each research

participant. The research participants were also informed that they had a right to withdraw from the study at any time if they so wished without even giving the reason and that is not going to affect their care

3.2.5.3. Confidentiality, Anonymity and Privacy

Below is an outline of how this principle of confidentiality, anonymity and privacy was maintained.

3.2.5.3.1. Confidentiality

Confidentiality, according to Babbie (2010:67) refers to the researcher's responsibility of making sure that the information obtained during the course of the study is not divulged to any other person without the permission from the study participants. Therefore it was explained to research participants that information would not be shared without their permission. Participants were also informed that because of the nature of the research, during the data analysis stage other researchers may read the raw data in order to establish confirmability of the findings. However, the participants were assured that the confidentiality would be maintained throughout. The participants were also informed that in the interest of maintaining confidentiality the raw data, the taped interviews and transcriptions would be locked in a cupboard in the researcher's office to be disposed of properly after a minimum of two years.

3.2.5.3.2. Anonymity

Grove, Burn and Gray (2013:172) state that anonymity exists if research participants' identity cannot be linked with individual responses. In the context of this study, the research participants were informed that their individual identities would not be disclosed in the research findings. Therefore the researcher made use of pseudonyms in transcripts. Interview tapes were stored in a locked cupboard as indicated above (under confidentiality), stored separately from participants' contact details. This process ensured that there were no details that made the client identifiable.

3.2.5.3.3. Privacy

According to Grove et al (2013:169) privacy refers to an individual's right to determine the time, extent and circumstances under which personal information can be shared or withheld from others. In a bid to maintain privacy, in this study interviews were conducted in separate consultation/counselling rooms in the hospital. In addition to this, the

participants were allowed to discuss issues that they felt comfortable to talk about and the researcher only asked information that was relevant for the study.

3.2.5.4. Non-maleficence

Rees (2011:103) discussing the concept of non-maleficence posits that the researcher has an obligation to protect the rights and welfare of research participants. According to Babbie (2010:71) this principle refers to the researcher's responsibility and duty to avoid, prevent or minimise harm to research subjects. In this study, the researcher was sensitive to asking questions that are triggering emotions. Questions were asked in a non-discriminatory manner. However, in instances where emotions or psychological distresses were triggered as the participants described their experiences, they were referred to the counsellors or to the clinical psychologist within the hospital.

3.2.5.5. Beneficence

Moule and Goodman (2014:57) indicate that the ethical principle of beneficence refers to maximising benefits versus risks in a study and preventing any harm. In this study there were no direct individual benefits to the study participants. Therefore this aspect was explained to the participants prior to the commencement of the study. It was further explained to the study participants that a significant potential benefit would be the development and refinement of knowledge that would accrue from the study and benefit HIV positive PMTCT clients accessing the PMTCT services. Direct benefits could include referral to other service providers and information giving and further counselling if there was need.

3.2.6. Measures to enhance trustworthiness

According to Lincoln and Guba (1985) in Moule and Goodman (2014:188) trustworthiness refers to a method of establishing or ensuring scientific rigor in a qualitative research without sacrificing relevance. According Streubert and Carpenter (2011:48) the goal of rigor in qualitative research is to accurately represent study participants' experiences, in this case, the experiences of PMTCT clients as they interfaced with PMTCT services. This resulted in the development of the PMTCT practice model for enhancing the provision of PMTCT services. It was therefore essential to enhance trustworthiness in this study for the following reasons:

- The researchers and health practitioners need not doubt the rigor and trustworthiness of the study and its findings.
- If the findings are biased or are not a true reflection of the experiences of HIV positive women in the PMTCT programme, the research findings and the proposed model cannot be used as evidence for clinical practice.

The researcher therefore complied with measures that ensure rigor and trustworthiness as propounded by Lincoln and Guba (1985) cited by Moule and Goodman (2014:188). These included: credibility, dependability, confirmability and transferability as described below:

3.2.6.1 Credibility

According to Lincoln and Guba (1985) in Streubert and Carpenter (2011:49) credibility is about the research findings being a true reflection of the participants' experiences, views and beliefs. In addition, the authors indicate that the readers must have confidence that the interpretation remains faithful to the insider views. According to Moule and Goodman (2014:188), a study has credible findings if it reflects the experiences and perceptions of research participants. In addition to this, the authors further indicate that those reading the research must believe that data presented is a "true" representation of the participants' views, experiences or beliefs. A tape recorder was used to capture the data and information that was shared during the interview. This process helped to ensure that data was recorded correctly and that no information was missed. By transcribing verbatim what research participants said, truthfulness or true value of data was ensured. In addition to this, the participants' own words were used to ensure correct representation of their voices. To enhance credibility, the researcher made efforts to build rapport and trust with research participants. The following strategies were used to enhance credibility:

3.2.6.1.1 Prolonged engagement

According to Krefling (1991:217) prolonged engagement, allows the researcher to check perspectives and also allows the research informants to become accustomed with the researcher. The author further highlighted the fact that this intense participation leads to increased rapport and research participants may volunteer different and more sensitive information. Lincoln and Guba (1985:302) further state that prolonged engagement is of paramount importance for the purpose of building trust between the researcher and participants. In addition to this, it is imperative that the researcher spends adequate time

to get oriented with the situation. In this instance the researcher spent enough time to assess the site suitability for the interview, seeking permission, talking informal and making appointments with potential candidates – this way the researcher was able to build trust. The researcher also disclosed to the participants that she was a midwife and a counsellor. The situation was further enhanced by the fact that the participants and the researcher shared a similar culture and language. All this assisted in the building of a trusting relationship. The whole period of familiarization, data collection, data analysis and member checking lasted for a period of six months commencing in January 3 to June 30, 2014. This period of interaction facilitated the prolonged engagement advocated for by Lincoln and Guba (1985:302).

3.2.6.1.2 *Bracketing*

According to Giorgi (2011:195) in phenomenological research bracketing refers to a process whereby the researcher deliberately suspends or puts aside her own beliefs or presuppositions about the phenomena under investigation. In that regard the researcher sought not to allow her own interpretations to enter the unique world of the respondents. Instead the researcher strove to exclude her own personal views and preconceptions during the entire process. This strategy was adopted by the researcher throughout the research process that is during research proposal writing, literature review, data collection and analysis as advocated for by Chan, Fung and Chien (2013:3). Furthermore, the researcher kept a reflexive diary to help awaken the researcher's preconceptions and made sure that the interview questions were open ended throughout the data collection period.

3.2.6.1.3 *Member checking*

Lincoln and Guba (1985) cited in Loh (2013:6) discussing the concept of member checking posit that central to the credibility of qualitative research, is the ability of participants to recognise their experiences in the research findings. Loh (2013:6) further cites Creswell (2009:199) who describes member checking as a process whereby “the final report or specific description or themes” are taken back to the participants so as to offer them an opportunity to provide their view points, provide context and alternative interpretation. In this study, the research participants were allowed to listen to the taped

interviews to give them an opportunity to react, to ensure that there were no distortions or missing data and to allow participants to check and verify information recorded.

When data themes had been finalised, the researcher presented these findings to the group of HIV positive women in the PMTCT programme at the study setting who had participated in this study and they noted no departure from what they said. According to Loh (2013:6) member checking is not member validation but is important in the analysis and interpretation of the experiences of the participants' experiences and serves to enhance the trustworthiness of the data and the findings. In that regard as indicated above the researcher went over the taped interviews and the interpretations with the participants in order to gain better insight into not only their experiences but also the context in which these experiences occurred as well as their responses to those experiences.

3.2.6.1.4. Peer debriefing

According to Streubert & Carpenter (2011:316) peer debriefing is based on the same principle as member checking but involves the researchers discussing the research process and findings with an impartial colleague who has experience in qualitative research methods. The authors further state that this process enhances honest in the researcher and emerging questions may contribute to deeper reflective analysis by the researcher. In this study a colleague enhanced credibility by checking data categories and did constructive criticism. In addition to this, the participant's verbatim accounts (tape recorded data) and transcripts were availed to the same colleague. The researcher also had peer debriefing sessions with colleagues to enable articulation and reflection on research procedures. In the context of this study, the colleague who participated in peer debriefing was experienced in qualitative research, was able to provide feedback, express views on issues she agreed with and aspects she felt I needed to relook at.

3.2.6.2. Transferability or applicability

Transferability refers to the degree to which the research findings can be applied to other contexts or settings or with other groups. It is the ability to generalise from the findings to the larger population. The ability to generalize is not relevant in a qualitative study (Krefting 1991:216). Lincoln and Guba (1985) cited Krefting (1991:216) state that research meets this criterion when findings fit into contexts outside study situations that are determined by the degree of similarity or goodness between the two contexts. The

authors further indicate that transferability is the responsibility of the person wanting to transfer the findings to another situation or population than that of the researcher of the original study. Lincoln and Guba (1981) cited in Moule and Goodman (2014:189-190) emphasise the importance of purposeful samples, the selection of participants which should be representative of the phenomenon under study. In this study, purposive judgemental sampling was used to select women that were HIV positive and were in the PMTCT programme. In addition to this the concept of member checking was utilised. It follows that these study findings would have the same meaning to other HIV positive PMTCT clients.

Field and Morse (1985) cited by Krefting (1991:220) indicate that it is critical that researchers provide dense or thick descriptions of participants' lived experiences, demographic information, research context and setting so as to allow others to assess how transferable the findings are. In this study, detailed descriptions were done about the research context and assumptions that were central to the study, the study sample, research process as well as study setting; all this was to enhance rigor and a clear trail for the benefit of other researchers. As a mechanism of ensuring trustworthiness, the participants' social contexts were described in detail. Transferability was further ensured by providing thick descriptions of data through usage of direct quotations of study participants as shown in chapter four on research findings.

3.2.6.3 Dependability

According to Moule and Goodman (2014:189) dependability refers to the reliability of data over time and the conditions under which it was obtained. The authors further indicate that establishing dependability can be seen as a parallel process to that of confirming reliability in quantitative data. On a related note, Rees (2011:239) indicates that if credibility is established then dependability is said to have been achieved. Dependability was enhanced by the fact that the exact methods of data gathering, analysis and interpretation were described in greater detail. In addition to this, the inclusion criteria (HIV positive women in the PMTCT programme, booked, received antenatal care and delivered at study institution and were aged between 18 and 49 years) and characteristics of study participants were clearly described in the chapter on research findings.

As a way of further enhancing dependability in this study, the researcher conducted a code-recode procedure on her data during the data analysis phase of the research study.

After coding the data, the researcher waited for a period more than two weeks, returned to the data and recoded the same data. The results of the two pieces of data were then compared for any differences. The fact that peer debriefing was done, also enhanced the dependability of the study. A co-coder was also utilised in data analysis.

3.2.6.4 Confirmability

Moule and Goodman (2014:190) indicate that confirmability refers to a mechanism of ensuring that the data represents information that the participants provided and is a measure of objectivity of the data. These authors further highlight the fact that the findings are then subjected to an audit to establish the trustworthiness of the data. This strategy goes hand in hand with auditability. According to Bryman (2012:393) auditability refers to the rigorous development of a decision trail that is reported in sufficient detail to allow a second qualitative researcher, using the original data and decision trail, to arrive at conclusions similar to those of the original qualitative researcher. In this case, confirmability was ensured by checking of facts and follow up questions, which needed to be checked if the researcher understood exactly what the participant had said and what they meant. In addition, the researcher kept records of main decisions and events during field work in the form of dates and venues. According to Lincon and Cuba (1985) cited in Moule and Goodman (2014:190) records need to be kept to facilitate an audit trail. The researcher therefore kept the following records: raw data (field notes and audio recordings), transcribed data and synthesised data (thematic categories, interpretations). All these records were kept in a locked cupboard in the researcher's office where they would be retained for a minimum of two years. In addition to this, the preliminary findings were presented to HIV positive women in the PMTCT programme who did not take part in the study. This was done while withholding the identity of study participants.

Auditability confirmation suggests that another researcher could arrive at comparable conclusions given the same data and research context. The author considers the process of research, as well as the product, data, findings, interpretations and recommendations (Lincoln and Guba 1985).

3.3. PHASE 2: MODEL DEVELOPMENT

The phase two of the research design was on model development aimed at enhancing the provision of PMTCT services as reflected in chapter five. The PMTCT practice model was developed based on the research findings in phase one of the study on experiences of HIV positive women after utilising the PMTCT services as discussed in chapter four. The conceptual framework (systems theory), the literature review also formed the basis for developing this model. Model development also integrated elements of the systems theory: environment, input, process and output so as to formulate a PMTCT practice model. All these were organised following theory development designs and methods described by Chin and Kramer (1991:74) and Walker and Avant (1995:39), making use of concept analysis, synthesis and derivation. The model was further refined and evaluated using a modified Delphi technique (Hasson & Keeney 2011:1696).

3.3.1. Concept Analysis

Walker and Avant (2011:160) define concept analysis as a mechanism for identifying a set of characteristics that are essential to give meaning to a particular concept. The authors further state that this process of concept analysis may be done when concepts are not clear or are outmoded. In this study this process formed the basis for developing a practice model for PMTCT services. Therefore in this study, the term “PMTCT services/care” was described and utilised within the systems context of the study. According to Walker and Avant (2011:160), the first and most important step in conducting concept analysis is concept selection. The concepts that were selected for this study were: PMTCT services delivery, within the context of the systems theory. The systems approach was used to analyse the Zimbabwean PMTCT service delivery.

Following an in-depth review of literature, the researcher selected the concept of PMTCT services/care because of its appropriateness to the topic under study that had to do with experiences of PMTCT clients as they interfaced with the health care system. The PMTCT services were viewed from a systems perspective. Different views of a systems approach in health services delivery were identified from different authors. (World Health Organisation 2012a, Ravitz et al 2013:355, Brailsford 2012:1). A system was then defined as a whole, with interrelated parts characterised by elements such as: having PMTCT programme inputs, processes, and output/outcome or impact. These components for the systems theory formed the basis for model development. (see chapter 5, section 5.3 on structure of the model).

3.3.2. Synthesis

According to Walker and Avant (2011:107-118) synthesis refers to the generation of new ideas by examining data of new insights or develop statements about relationship through observations of phenomena. Concept synthesis always begins with raw data. In the context of this study, the research findings from phase one of the study, reviewed literature, systems theory that underpinned the study, all facilitated generation of innovative approaches for developing the PMTCT practice model. The researcher also utilised the systems perspective for identifying key and relevant concepts for the model as well as fitting the results of concept analysis within the selected theoretical framework (systems theory). The relationship of all these elements within the context of the systems approach remains critical in the establishment or formulation of the PMTCT practice model. (See figure 5.5 in chapter 5 reflecting the relationship between different elements of the models).

3.3.3. Derivation

Grove et al (2013:118) indicate that concept derivation is done in situations where the researcher or theorist finds no concept in nursing to explain a phenomenon. These concepts that are identified would provide the insight required. The authors further highlight the fact that in such a scenario it is critical that the selected concept is examined for its fit, meaning and modified so that it is consistent with the nursing context.

According to Walker and Avant (2011:172) the process called theory derivation refers to a scenario of transposing or redefining a concept or theory from one context to another. This approach of theory building may be necessary if the existing theories are considered outdated and new innovative approaches/perspectives are required. According to Walker and Avant (1995) the purpose of theory derivation is to get strategies of explanation or prediction about a particular phenomenon, that is poorly understood and there are no current means to study it .In this study theory derivation was conducted in all phases of the study, in interpreting data on experiences of participants, linking and discussing research findings with literature that was reviewed. In addition to this, the study utilised basic approaches of Walker and Avant (1995) and the systems perspective to develop the PMTCT practice model. Finally, the researcher utilised Chin and Krammer (2011:237)'s criteria (modified) for evaluation and a modified version of the Delphi technique as cited by Hasson and Keeney (2011:1696) for peer review to refine the model. The evaluation process is thoroughly discussed in chapter 5(section 5.5).

3.3.4. Model Evaluation and refinements

For model evaluation and refinement, the Delphi technique was used. Hasson and Keeney (2011:1696) state that it is a technique used to explore and predict group attitudes on a particular subject. The authors state that the Delphi technique is characterised by anonymity, controlled feedback and aggregation of group responses. According to Wilkes (2015:43), this technique is often used by nurses for a variety of purposes: tool development, nursing standards and curriculum development. Adler and Ziglio (1996) in Wilkes (2015:46) state that the criteria for the selection of the panel of experts are usually knowledge and experience, capacity and willingness to participate and effective communication. In this case a panel of four experts was purposively selected for their expertise in nursing, midwifery, nursing education, PMTCT and model development. The table 3.1 below reflects the panel. The experts were coded 1, 2, 3 and 4.

Table 3.1: Panel of expert reviewers

Expert	Country/Address	Rationale	Comments
1	University of Saskatchewan, College of Nursing Science. Canada.	Expert in model development and research. Vast experience in nursing education in Zimbabwe and in Canada	For the model to be versatile, incorporate the global perspective, for it to be used in other Third World settings
2	University of Zimbabwe, College of Health Sciences, Harare, Zimbabwe.	Vast experience in nursing education and research. Also an experienced midwife.	Present model in broken down elements. Put arrows to show interconnectedness of elements
3	National University of Science and Technology, School of Health Sciences, Bulawayo Zimbabwe.	A researcher. An experienced midwife and midwifery tutor. Experienced in PMTCT care and practice.	Reduce the number of circles to enhance simplicity and clarity. Model can be incorporated into the midwifery curriculum
4	Mpilo School of Midwifery, Bulawayo, Zimbabwe	A researcher. An experienced midwife and midwifery tutor. Experienced in PMTCT care and practice.	Model too busy. Remove nursing process. Model can be a useful tool for teaching purposes

Three rounds of communication were done before the model was finalised. The mode of iteration was mainly by way of email and Skype. The panel was requested to evaluate the model in terms of clarity, simplicity, generality, accessibility and importance of the model through a questionnaire (see annexure G). Detailed below is the procedure followed plus the responses from expert reviewers:

Expert reviewer 1, an academic with expertise in model development, teaching in Canada but also familiar with third world contexts like Zimbabwe and having taught midwifery and practised as a midwife in Zimbabwe, recommended that the model should be applicable in resource poor settings other than Zimbabwe. So the reviewer felt the global

environment of the model must be incorporated. Subsequently the global perspective was incorporated in the environmental context.

Expert reviewer 2, an academic and experienced researcher felt the model could be made simpler by first breaking it down to its various elements before putting them together. Another comment from the model expert was that the interconnectedness of the model elements should be reflected by the use of arrows to enhance clarity. Subsequently this was attended to.

Expert reviewers 3 and 4, the two midwifery tutors with extensive experience in midwifery and PMTCT practice, generally felt the model was too “busy” and could be made simpler and clearer if the many circles were removed. These were removed. In addition, expert reviewer 4, stated that the description of the processes should be simplified and not involve processes like the nursing process within other processes. The recommendation was implemented. The two midwifery tutors were generally impressed by the fact that the model included aspects of quality assurance and felt that it could be used for teaching purposes in midwifery schools.

The researcher emailed the questionnaire to the experts who in turn emailed back their responses. Following the first round of responses from reviewers, the researcher duly made adjustments as per recommendations. The adjusted model was then emailed back to the expert reviewers. This round was then followed by a Skype interview which yielded nothing divergent. The researcher then emailed the reviewed model back to the expert reviewers. The feedback from the reviewers reflected generally satisfaction with the adjustments made on the model. The general feeling was that overall the elements of the PMTCT practice model and overview were clear and well explained.

3.4. CONCLUSION

The research design and methodology for the study on experiences of HIV positive PMTCT clients as they interfaced with the PMTCT services at a central hospital in Zimbabwe was discussed. A descriptive phenomenological approach was utilised for the study. To ensure scientific rigor, the study employed measures of trustworthiness. The chapter also gave a detailed description of the data collection and analysis process. The chapter also gave a snap shot of the model development process. The succeeding chapter is on data analysis, interpretation, presentation and description of research findings for the study.

CHAPTER 4

PRESENTATION, INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS

4.1. INTRODUCTION

Chapter three addressed the research design and methodology. This chapter gives an account of the research findings. The research findings were derived from the analysis of the interview transcripts of women involved in the PMTCT programme and participated in the study at one of the major Central Hospitals in Bulawayo, Zimbabwe. The data collection process followed a qualitative approach and was done mainly through in-depth interviews, with the aim of exploring the experiences of women who have utilised the PMTCT programme as they interfaced with the health care system. Data is presented in the form of Super-ordinate themes, themes and sub-themes that emerged from data analysis. In this chapter the researcher will also give an interpretive report on the meaning of the data in relation to the literature reviewed.

4.2. DEMOGRAPHIC DATA OF THE PARTICIPANTS

A total of fifteen HIV positive women in the PMTCT programme in one of the Central Hospitals in Zimbabwe participated in the study. The table 4.1 below shows the demographic data of participants. Provision of demographic data of participants in qualitative studies enhances transferability of the study findings as it allows for comparability of findings in settings similar to the one studied (Bryman, Bell, Hirschsohn, Dos Santos, Du Toit, Masenge, Van Aardt & Wagner 2014:45). Demographic data also assists the readers to understand the sources of the information.

Table 4.1: Demographic data of participants

Code	Age	Marital status	Level of education	Occupation
A1	33years	Married	Secondary	Unemployed
B2	37years	Married	Primary	Unemployed
C3	26years	Married	Secondary	Unemployed
D4	39years	Married	Secondary	Unemployed
E5	30years	Married	Secondary	Unemployed
F6	32years	Married	Secondary	Unemployed
G7	33years	Married	Secondary	Unemployed
H8	34years	Married	Secondary	Unemployed
L9	33years	Married	Secondary	Unemployed
J10	26years	Married	Secondary	Unemployed
K11	24years	Single	Secondary	Unemployed
M12	35years	Married	Secondary	Unemployed
N13	34years	Married	Secondary	Unemployed
O14	34years	Widowed	Secondary	Unemployed
P15	18years	Married	Primary	Unemployed

The ages of the participants ranges from 18 to 39years. All participants were married except one 24 year old who was single and another one who was widowed. In terms of the level of education, the majority (13) had secondary education and two had only reached grade seven. All participants were unemployed. All of them had tested HIV positive at the institution of study, received antenatal care and delivered at this same hospital. At the time of the interview, the majority (11) of the women attended the clinic for the six weeks postnatal follow-up visit. The remainder (4) had come for paediatric follow up care. In the context of this study, it should be noted that all participants had been referred from City Health clinics or district hospitals for further management at the Central hospital that was the study setting. The first interview was conducted on the 23rd of January 2014 and the last one was done on 27th of March 2014 when data saturation had been reached.

4.3. EMERGENT THEMES

The following two superordinate themes emerged from data analysis:

(i) Resources for provision of PMTCT services and (ii) Approaches and nature of PMTCT care. Each superordinate theme has several themes and sub-themes as shown in table 4.2.

Table 4.2: Summary of the results

Superordinate themes	Themes	Sub-themes
Resources for provision of PMTCT services	Financial resources	<i>Payment of services which are supposed to be free</i>
		<i>Inconsistency regarding payments</i>
		<i>Unaffordability of health care services</i>
	Material resources	<i>Items for use in theatre</i>
		<i>Shortage of medicines</i>
	Human resources	<i>Shortage of staff</i>
<i>Attitude of health practitioners</i>		
Approaches and nature of PMTCT care	Counselling Model	<i>Individual Counselling</i>
		<i>Provider initiated HIV testing & Counselling (PITC)</i>
	Nature of education related to PMTCT	<i>Group education</i>
		<i>Individual Education</i>
	Content of PMTCT services	<i>Couple Centred Approach</i>
		<i>Discharge plan and referral</i>
	Infant/Child Care	<i>DNA PCR Testing</i>
		<i>Infant Feeding</i>

4.3.1. Superordinate Theme 1: Resources for the provision of PMTCT services

This superordinate theme is around resources for the provision of PMTCT services at the study site. Themes under this superordinate themes included financial, material and human resources. Data analysis proved that the experiences were mainly around deficiencies and limitations of material, financial and human resource related challenges.

4.3.1.1. Theme 1: Lack of financial resources

This sub-theme gives a reflection of clients' experiences as relating to *payment of services and* inconsistency regarding payments

4.3.1.1.1. Payment for services which are supposed to be free

The Zimbabwe Ministry of Health and Child Welfare (2013), Circular number 1/53/30, in paragraph 1 indicates that there should be no payment by users for maternity services at all levels of health care including central hospitals. Though it is documented that maternity services are free of charge, on the ground the availability of resources is a challenge and hence clients are sometimes requested to pay for services contrary to the provisions of the circular. A respondent was denied the opportunity to book for antenatal care in one of the Central Hospitals in Zimbabwe, because she did not have booking fees.

"I know that maternity service is free of charge. I have even read the policy, which stipulated all the free services which included maternity and immunisation for children. I was surprised when I arrive at the hospital that I was supposed to pay \$50 for booking in order to be assisted. I was told that I cannot be treated if I don't have money" (E5).

According to the PMTCT clients that participated in the study, they were allowed to book for antenatal care on condition that they had a booking fee of \$50-00. Worse still one respondent was denied access to antenatal care services because she did not have a booking fee. The demand for maternity user fees is against government policy. It also detracts from the government efforts of attaining the Sustainable Development Goals by year 2030 (WHO 2015:1-3). Related to this, a study conducted in Ghana by HERA and Health Partners Ghana (2013:1-4) showed that the provision of free maternal health care initiative during the period 2008 and 2011 saved more than 3000 maternal lives. This should be seen against a background of a statement by Margaret Chan, Director of World

Health Organisation (2012) citing the need for universal health coverage particularly that of Reproductive Maternal and Child Health care. Studies in sub-Saharan Africa demonstrated that while there is political will to waive user fees for vulnerable groups such as pregnant women it is not always feasible (Meesen, Hercot, Noirhomme, Ridde, Tibouti, Tashobya and Gilson (2011:ii'27). These findings by Meesen et al (2011:ii'27) are congruent to the situation in Zimbabwe where policy and practice are not always the same. Furthermore, a study on user fees and maternity services in Ethiopia by Pearson et al (2011:313-314) found that among other things the user fees have a regressive effect on access to health and that the fee waiver or exemption policy was not uniformly implemented.

4.3.1.1.2. Inconsistency regarding payments

Besides payments for the services which are supposed to be free, participants raised the issue of lack of transparency and inconsistency regarding fees to be paid by clients on PMTCT programme.

“During the time I booked I was told that I was expected to pay a sum of only \$50 because there is a government subsidy. To my surprise when I was discharged, I was given an invoice for \$78-00. That made me become confused as it seems that there is no clear process with the whole issue of payment” (O14)

The study found that the policy on exemption of user fees was inconsistently applied and there was a perception that “charging would be locally determined.” This concurs with findings of a study by McPake et al (2013:2) that reviewed financial policies in Ghana, Nepal, Sierra Leone, Zambia and Zimbabwe found that inconsistency in user fees had a negative impact on the utilisation of health services.

4.3.1.1.3. Unaffordability of health care services

It was noted that the research participants expressed the view that the health services were inaccessible because of the unaffordability of the costs of these services.

“When I came to this hospital, I had been referred from the clinic for raised blood pressure and I had been told that I needed to deliver at a central hospital. On arrival, I was told by the clerk at the reception desk that I needed to have a booking fee of \$50 for me to be attended to, which I did not have, I had to go back home without being attended to. As I am not working \$50 is too much for me. I was only able to

get \$50.00 after two weeks, came back and I was booked. So if I failed to get money, I would have end up being dead at home.” (F6).

The high cost of maternity fee is preventing individuals from getting treatment on time. This can be dangerous when people have complications, like elevated blood pressure which can be dangerous to both the woman and unborn child. A study by WHO (2013b:11) found that the high health care costs are prohibitive. In a PMTCT study in Malawi, another resource poor setting like Zimbabwe, Kasenga (2010:4) cited financial constraints as a barrier to accessing health services in a PMTCT setting. Similar observations on economic constraints in Uganda were cited by Duff et al (2010:5). Studies in sub-Saharan Africa demonstrated the regressive effect of user fees. For example a systematic review by Largade and Palmer (2011:4) found that in Gabon the increase in consultation fees saw a disproportionate decrease in outpatient visits. John (2013:196-202) cites similar findings in Lesotho by Bennet (1989), in Kenya by Collins, Quick, Musau, Kraushaar, Hussein (1996), in South Africa by Wilkins, Grouwns, Sach, Karim (2001) and in Uganda by Buurnham, Pariyo, Galiwayo and Wabwire-Mangen (2004).

In contrast, to the preceding, study findings in Sudan were that when user fees were reduced there was an upward trend in the number of pregnant women and children seeking health care services (John 2013:196-202). In the context of this study, all study participants belonged to the indigent group and could not afford to belong to any medical aid scheme since medical aid contributions are for the employed and these were not. Literature suggests that this in contrast to the experiences of some Asian and some African countries. Studies by Chuma, Mulupi and McIntyre (2013:10-11) cite evidence of innovative strategies of community based health insurance scheme for the vulnerable through government and donor subsidy in countries like the Philippines and Vietnam(Asia), Ghana, Gabon and Zambia (Africa). The unaffordable health care service is also worsened by shortage of material at the health care facilities.

Results also indicated that, apart from payment of basic requirements for antenatal care, for those who needed additional care due to other complications of pregnancies, including access to basic procedures for monitoring the health of the unborn baby such as being put on a Computed Tomographic scan, the woman had to pay additional funds. In case of specialist radiological services, the women had even to pay even more which, for some, was putting them in more debt. The following is an excerpt from a client:

“My blood pressure went up and I was requested to have an ultrasound scan done but I was told that it could not be done if I did not have money to pay for it. I had a challenge of raising the money and I ended up borrowing money from a neighbour because the nurses were saying they could not clearly detect the heart beat for my baby” (E5).

Another client narrated her experiences as follows:

“I was advised that if possible I should have an ultrasound scan done to check on the condition of my baby since my blood pressure was elevated. The required money was \$30; it was not done because I did not have the money.” (D4)

Another finding from this study was that for clients who had complications and required additional services, for example an ultrasound scan, challenges associated with costs were even more. Clients expressed the view that they even had to borrow money from neighbours to cater for those costs so as to access such services. A study by Bakeera et al (2009:1478) indicates that the utilisation of health care services is an important determinant of health. In fact the utilisation of health care services for the most vulnerable and underprivileged population has been recommended by World Health Organisation as the basic primary health care concept. Health care should be universally accessible without barriers based on affordability or acceptability of services. Universal access should be a core strategy for achieving increased health care utilisation and reducing disparities therein. In the context of this study where participants were made to pay for maternal and child health services, this payment in itself constitutes a barrier to accessing universal care which detracts from WHO and government of Zimbabwe health objectives of improving maternal health and reduce mother to child transmission of HIV (WHO 2014c:27).

That the clients were made to pay in order to access antenatal care services must be seen in the context of gross under funding of the health system with budgetary allocations working out at approximately US\$7 per capita per annum against the recommendation of the World Health Organisation of at least US\$ 34 and the Abuja Declaration that advocates for 15% of the national budget (Zimbabwe Ministry of Health and Child Welfare 2014b:7). Further illustration of underfunding is found in UNICEF Zimbabwe (2011:16) which highlighted the fact that: “Although the 2011 government budget for the health sector is US\$256 Million (9 per cent of the total budget), the actual disbursement depends

on the availability of resources. For example, in 2009 only US\$15 Million (10 per cent) of the originally allocated budget of 150 Million was disbursed to the Ministry of Health and Child Welfare for service delivery. As such, significant external financing is required to restore and maintain service delivery and improve health outcomes.” This bleak situation has not changed as highlighted by Langa (2015:4) in the News Day of March 2, 2015. The newspaper article indicated that the parliamentary portfolio committee on health and child welfare report of 2014 had stated the fact that the Ministry of health faced serious challenges. The ministry had submitted a budget request of US 712 million, but only received US\$337 million which was inclusive of salaries. Of concern was that the budget allocation for 2015 declined from US\$ 337 million in 2014 to US\$301 million.

As cited below, clients went through an unacceptable experience for example having to borrow money from neighbours and another client cited before in this study had to wait for two weeks to put together the requisite financial resources. The researcher feels that even if clients were to appeal to higher authorities the process would prove to be long, bureaucratic, more uncomfortable and unlikely to be productive whilst the client went unattended.

The above confirm the challenges associated with underfunding of the health care system leading to negative experiences by study participants. Apart from being required to pay for hospital services, participants faced another challenge of having to supply the hospital with items. This is illustrated by the following sub-theme and the discussion on it.

4.3.1.2. Theme 2: Material resources

This theme covers different aspect of material resources which are supposed to be utilised by women on PMTCT programme. It highlights shortage of material resources which are supposed to be used in theatre and other relevant equipment which are necessary for ensuring that PMTCT women receive comprehensive care.

4.3.1.2.1. Items for use in theatre

All the participants that delivered through a caesarean section (five) indicated that they experienced major problems as there were no items required to be used during caesarean section in the hospital. They mentioned the fact that they were required to buy all the disposable items which were required during the procedure such as gloves catheter and urine bag. The quote below reflects that experience:

“When it was my week to go for a Caesarean section, the doctor wrote a list of items that were required in my maternity book (she opened the book with the following items listed: surgical gloves, catheter, and urine bag)”. (F6)

The situation seems to be a huge burden to the already financially compromised women. For the majority of participants the burden of buying the required items was too much as they had to buy almost everything to be utilised in theatre.

“I cannot fully remember, but what I remember is that I bought six drips, a tube for urine, needles, injections and something to put on the head – the total bill for these items was \$80. My husband was saying that he does not have that money as it was half of his salary and he still had to buy the items for the unborn child and also feed the rest of the family. And I had to borrow money from my cousin because without that material, I don’t know what would have happened to me and my baby.” (G7)

Clients were expected to purchase these materials for use in theatre because the hospital did not have these items in stock. This is further corroborated by a client who indicated that she overheard nurses requesting for these items from another hospital. The following is a quote from such a client who was being prepared for an emergency caesarean section:

“When I was being prepared for the operation I remember I was told that there were no intravenous fluids, injections and drugs for putting me to sleep. I overheard them phoning another hospital requesting for items for use during the operation.” (M12)

Another experience from a different client who was also being prepared for a caesarean section was expressed as follows:

“What pained me most was the fact that when I was supposed to go to theatre there was a challenge of a urinary catheter. The one that had been used on me was big and painful. The nurses advised me to buy another catheter, which I bought then it was used on me and I felt comfortable. Later on I went to theatre for a caesarean section.” (D4)

The study findings demonstrated that participants experienced serious constraints associated with unavailability of health care resources for example for use during the operation in theatre. This resulted in clients experiencing unexpected out of pocket

expenses. With regards to the shortage of material resources for use in theatre, it is instructive to refer to the Tanzanian study by Penfold et al (2013:1) which found a situation of chronic shortage of drugs and other supplies negatively affecting patient care. The situation was not only related to basic requirements of the baby and delivery, but also the treatment required for the health of the mother. This finding concurs with Rujumba et al (2012:1) 's PMTCT study carried out in Uganda that found that the programme implementation was hindered by stock outs of vital supplies.

4.3.1.2.2. Shortage of medicines

This study sought to document the experiences of women in the PMTCT programme as they interfaced with the health care system. Some PMTCT clients had challenges associated with management of some conditions related to pregnancy. An example given was the management of pregnancy induced hypertension and a client had this to say:

“I had a problem of high blood pressure which became worse during pregnancy. I had to take treatment every day. Every time the treatment got finished the doctor wrote a prescription for me to buy drugs for raised blood pressure. Sometimes when I had no money I spent days without taking the treatment” (H8)

For most participants, the treatment was so expensive that they could not even afford it at all

“The doctor told me that I had a high blood pressure and said I should go to the pharmacy with a letter to get treatment. My major challenge was money for buying these drugs, they were expensive, the cost was \$15 for two weeks” (E5)

While this issue of purchasing drugs is not in line with government policy, it should be understood in the context of serious economic challenges in the country leading to underfunding of the health sector and the other social services. Given the fact that the Zimbabwe Ministry of Health and Child Welfare Strategy states that in 2008 availability of essential drugs and supplies had been reduced with stock availability for drugs ranging between 29% and 58% for vital items and of 22% and 30% for all categories of items in the essential drugs list it is not surprising that the study found that some study participants were made to purchase their own materials in order to access services (Zimbabwe Ministry of Health and Child Care Welfare 2014b:4).

With respect to the institution where the study was carried out, in an interview by Muchetu (2015:1-2) of the Sunday News of March 22, 2015, the Chief Executive officer said with regards to 2015, the institution had submitted a budget proposal of 13.5 million US dollars, but had been allocated only 560 000 US dollars. All this is attributable to the economic crisis of the country resulting in underfunding of the Zimbabwean health services. Apart from this, what has turned out to be a common phenomenon in Zimbabwe is that the Treasury allocates monies on paper to different government ministries, but never releases the full figure due to pandemic financial constraints. The situation whereby funds are not released by Treasury up to the end of financial year is cited by the Zimbabwe Parliamentary Portfolio Committee on Health report in News Day of March 2, 2015 (Langa 2015:4). In theory indigent patients can be assisted by the Ministry of Social Welfare but it also is underfunded and overwhelmed by claims it cannot meet.

Clients who participated in this study, who had complications associated with hypertension during pregnancy, indicated that a prescription was written for them to buy these antihypertensive drugs from a pharmacy. In addition to this, the same clients expressed the fact that they experienced financial constraints being related to purchasing the prescribed drugs. Of concern was the fact that one client clearly stated that in some situations as the above quotations from the clients demonstrate, when she did not have the money to buy these drugs, she spent days without taking treatment for hypertension. It is worth mentioning that monitoring and control of raised blood pressure is critical during pregnancy, for the health and wellbeing of both mother and baby. Related to this study, Boateng et al (2012:134) in a study in Ghana found that drug unavailability had a negative influence on HIV positive women's access of health care services. Adedimeji et al (2012:1), also emphasises the importance of having adequate resources in health care institutions as a mechanism for enhancing service provision. In addition, this shortage of drugs discouraged the clients from returning to the health facility. This concurs with the findings of this study where PMTCT mothers expressed the fact that they had experienced so much stress because they had to borrow money from neighbours so as to buy for example antihypertensive drugs.

According to the United Nations-Zimbabwe (2012:47) on its 2012 Millennium Development Goals Progress Report, there were challenges associated with attainment of Goal 5: Improve Maternal Health. The following are some of the challenges: unavailability of critical drugs, maternity fees and lack of communication. The study findings concurred with the Millennium Development Goals Progress Report. According

to the World Health Organisation-WHO (2014b:43), Zimbabwe was among those countries that had not made sufficient progress with regards to reduction in maternal mortality trends as well as attainment of the Millennium Development Goal 5. WHO (2014:27) further states that countries that had made sufficient progress like Cambodia were characterised by an enabling environment with distinct features: improved referral systems, communication, transport, equipment, drugs and other supplies. Furthermore, the report indicates this enabling environment would eventually be able to support effective delivery of a broader range of health services. The health care inadequacies identified in the study can be attributable to the absence of such an enabling environment at the study site.

Access is another key principle in the HIV Care and Treatment Strategic plan for year 2013 to 2017 that has to do with access, which states that: “equity in accessing quality health care goods and services is a fundamental human right regardless of one’s gender, social and economic standing, language, religion, race and creed.” (Zimbabwe Ministry of health and Child Welfare 2013b:31). This is the opposite of the situation on the ground, since unavailability of resources and imposition of maternity user fees acted as a barrier in terms of access contrary to the stated government policy. The study established that clients who delivered through a caesarean section had challenges in procuring material resources required for use in theatre. The fact that clients had even to borrow money from neighbours in order to have a booking fee or purchase the required materials or drugs is a cause of concern. The researcher is of the opinion that this gap can be addressed by having the Zimbabwean government properly financing the health care system.

The study shows that adequate health resources and an appropriate enabling environment are prerequisites for the successful delivery of health services. The economic challenges facing the country have resulted in serious challenges manpower shortage, drugs and material resources shortage and poor health financing. These are compounded by poor communication. All these factors have negatively impacted on the quality of PMTCT service provision as the experiences of the PMTCT clients show. It is in that context that the health system must be understood. Within this context the health care system has six components seen as building blocks: health services, health workforce, health information system, medical products, vaccines and technologies, health financing and leadership and governance. The building blocks, the researcher argues, are interrelated and inter-connected; the effect on one part influences the other,

the efficacy of the PMTCT programme will depend on the capacity of the health care system to deliver on all these.

Apart from financial and material resource challenge, PMTCT clients encountered problems related to human resources.

4.3.1.3. Theme 3: Human resources

This theme is about human resource challenge which impact on the experiences of PMTCT clients. This section highlights the shortage of staff and also the attitudes of health practitioners.

4.3.1.3.1. Shortage of staff

Participants mentioned that there was a limited number of staff in the hospital. The impact of staffing levels manifested themselves in delays in service provision with patients being seen after having to wait for long for the doctor, even in cases of emergencies. The study findings reflected that there were delays in service provision as experienced by PMTCT clients as they have to wait for one health personnel to first finish what they are doing before receiving the health care services. The following excerpts are a reflection of the delays that occurred in service provision.

“I got to the stage where I was coming for my routine check-up on a weekly basis, my blood pressure was much raised and I was admitted at the new maternity wing. I had come to the hospital in the morning and only seen by the doctor late in the evening because they said the doctor was committed elsewhere.” (N13).

One of the research findings was the fact that participants expressed the view that they experienced a challenge in accessing the services of a medical practitioner for an emergency operation as follows:

“On one of the days, when I had come for my weekly check-ups my blood pressure was found to be high. The nurses told me that the heart-beat of my child could not be heard clearly and therefore I needed to have an emergency operation. I was then taken to theatre but the challenge that arose was that the doctor who had to operate on me was nowhere to be found. The nurses found him after about thirty minutes” (E5).

The manpower shortages could have been a factor contributing to the negative experiences of study participants. The Ministry Of Health National Strategy for 2014-2018 states that public sector human resources health vacancies were at unacceptable levels of 69% for doctors and 80% for midwives (Zimbabwe Ministry of Health and Child Care 2014b:6). DFID (2012:22) in its human resource impact assessment for Zimbabwe indicated that WHO recommends 2.3 health workers per thousand populations (nurses, midwives and doctors). Of note is that the health workforce is still very low compared to WHO recommendation and the region. The actual doctor density was between 0.01 and 0.02 per thousand populations and nurse patient ratio was 0.5 per thousand.

The above come against a backdrop of massive brain drain that has nearly crippled delivery of health services as Mantula (2011:68) study indicates. Citing WHO (2010) study, Toure et al (2010:2) posit that while Sub-Saharan Africa is home to 11% of the global population and about two thirds of people living with HIV/AIDS, it has only 3% of the world's health care givers. The study argues that in Third World countries manpower constraints are a major barrier to the scale up of HIV care and the provision of PMTCT services. The HIV epidemic has added an additional workload to an already overburdened group of health workers. Equally illuminating are the findings of a study in Ghana by Boateng et al (2012:135) who found that nurses complained of long working hours and understaffing. The findings of the study on manpower constraints are also consistent with the Ethiopian study by Adedimeji et al (2012:2-3) that cites inadequate human resource capacity as a major obstacle to the provision of PMTCT services as well as by Gourlay et al (2013).

The delays in service provision experienced by PMTCT clients at the study setting may be attributable to high vacancy levels for doctors and midwives noted in the Zimbabwe National Health Strategy for 2014-2018. From the systems perspective, this reflects inadequacy in terms of inputs, in terms of what WHO (2012a:104) refers to as one of the building blocks in the health care systems- human resources. These deficiencies in input (shortage of manpower), have an impact on the processes (services delivery) manifesting themselves as delays in service provision. This is in keeping with the interconnectedness of different parts of the system and the resultant cascading effect as noted by Ravitz et al (2013:354).

4.3.1.3.2. Attitude of health practitioners

Attitudes of health workers are the most influential factor that determines the success of innovation, adoption and implementation of programmes like the PMTCT programme. In this context the attitudes of health workers influenced the prevailing environment at this particular health institution of study. The theme is on attitudes of health care practitioners that were both positive and negative and how the positive ones changed prior client perception. The discussion that follows demonstrates that.

A significant number (ten out of fifteen) PMTCT clients that participated in the study indicated that the health care providers were receptive, warm, caring, loving and non-discriminatory. This positive perception by PMTCT clients of the kind of reception is also cited by Sholeye et al (2013:362) in Nigeria. Similarly in Kenya respondents in a maternity hospital expressed satisfaction with the positive attitudes of health workers, this was captured in a study by Nyongesa et al (2014:014-016). From the experiences of six clients, this warm environment resulted in having negative prior experiences changed.

The following statement reflects the example of a quote made by a client who felt that the hospital environment was receptive, warm and caring:

“When I came to this hospital, I was received with a warm welcome and cared for very well to such an extent that I wished I had come straight to this hospital because of the care that I received. I have a heartfelt sense of appreciation because of the care that I received.” (L9).

The quote below is an illustration of a client who indicated that negative prior experiences were changed following care received:

“Before coming to the hospital, I had heard a lot from people about their negative experiences from the hospitals in general. When I came to this hospital, I already had negative feelings about nurses and the hospital environment. I had been told that nurses are rough to patients, but in my case I never experienced that.” (J10).

It was also clear that the client’s previous experiences in other health settings influenced the client’s current expectations of the same service as shown below:

“Because of the negative experiences that I had had previously in one of hospitals, I was not expecting such good care in this hospital. I thought I would receive unfair and unfriendly treatment as before. Even when I came for delivery I just could not believe the kind of care that I received” (L9).

Health workers’ attitudes form an important and key aspect to care. Clients value the way they are treated when they present themselves in health care settings or when they receive services. With regards to care received, eight out of fifteen clients indicated that they had positive experiences with none having undergone discriminatory practices. Clients had preconceptions that they would be stigmatised but they found an environment that was reassuring, accommodating and non-discriminatory as illustrated by the following extract:

“I was cared for very well and I was not treated differently from other patients, especially considering the fact that I bled profusely. They reacted promptly to my bleeding and took me to theatre.” (A1)

Another comment to do with absence of discrimination was as follows:

“The nurses were helpful, I did not feel discriminated and they made me feel free in my condition. The general perception is that this hospital is a difficult and complicated institution but my experience was different. For me it was helpful” (K11)

In addition, the nurses were perceived to be encouraging as follows:

“The nurses gave us a lot of encouragement and told us that in spite of our HIV positive status we were human beings with rights. I never experienced any negative situations. In fact the care that I received was excellent in spite of what people told me.” (B2).

In Malawi, a study by Kumbani, Chirwa, Malata, Odland and Bjune (2012:5) found that health workers’ attitudes were a great challenge in the provision of health care and they were accused of exhibiting discriminatory practices particularly during labour and delivery. Similarly, Adedimeji et al (2012:4), in a PMTCT study in Ethiopia found that stigmatizing attitudes of health workers were prevalent. The study established that health workers were not enthusiastic about handling deliveries for women who were known to be HIV positive. In contrast, this study found that the situation was different on that respect.

Contrary to the warm hospital environment that was perceived by a significant number of study participants, the five clients' experiences were less positive. Examples of the experiences were poor client reception, with the client being denied antenatal care booking, delays in getting prophylaxis treatment, a negative and non-accommodative attitude displayed and health workers being perceived as rough by some study participants.

There were negative perceptions highlighted by clients such as *feeling belittled and being unhappy* about hospital payment conditions. These were highlighted by minority (five) clients. In one instance a patient felt insulted and felt that the nurses were displaying a negative attitude by their comments and not being accommodative as reflected below:

A day after a caesarean section, I was still in pain and had difficulties in sitting up and feeding my baby. The sisters said I should start being ambulant and stop being a cry baby. I was hurt by the way the comment was put across and I felt belittled.” (D4)

Furthermore, the enforcement of hospital user fees was not perceived in positive ways by participants at the Central hospital. Payments for hospital services as well as payment terms were perceived to be negative. An example of an excerpt from one client is cited below:

“I wish the hospital could be more accommodating and allow even payment terms. I was reminded by a hospital clerk that there was nothing for free and that if I had wanted that arrangement I should have come earlier. On that aspect associated with payment I (feel they were rough “(F6).

According to Deressa et al (2014:7-8) health care providers' attitudes were cited as the main barriers to the utilisation of maternal and child health care services in Ethiopia. The negative provider's attitudes were in the form of mistreating clients. This concurs with some of the negative health worker attitudes that were portrayed in this study. The perception by clients of negative attitudes by staff was also found in the study in Nepal by Karkee et al (2014:6). The researchers advocated for the need to train staff on communication and interpersonal skills.

There were challenges of accessing nevirapine prophylaxis as reflected below:

“During the antenatal educational sessions, we had been taught over and over that a baby from an HIV positive mother needs to be given a drug called nevirapine. After delivery my baby was not given the drug. I had to remind the nurse the following day of delivery that my baby had not been given niverapine. It was only then that my baby was given the niverapine” (G7).

In practice, nevirapine is administered to HIV exposed babies within 72hours. That this was not done on time, with the procedure being carried out following a reminder from a client could also be attributed to the attitude of the staff. In normal clinical practice, admitted patients should have their drugs administered by trained practitioners. In this study, the scenario was different. One client, when asked about how she was taking her antihypertensive drugs, responded thus:

“When I was admitted in hospital for a raised blood pressure, there was no person giving me drugs, but, I was keeping and taking the drugs for myself in the ward at my own time. Nobody even cared if I had taken the treatment or not” (H8).

Proper patient assessment is critical and forms the baseline for quality nursing care. This study found that, that aspect of patient care was poorly done. This could be attributable to either staff shortage or attitudes of staff. Another, but related, study by Duff et al (2010:7) carried out in Uganda, states that long waiting times and negative interactions with staff, were some of the health care services barriers to accessing or continuing antiretroviral therapy for HIV positive women. In the same study, some research participants reported negative encounters with health service providers such as being rude and shouting at patients and displaying favouritism as other cited barriers. These findings concur with findings of this study where some negative attitudes of some service providers were displayed. On the other hand, the issue about accessing prophylaxis could also be related to manpower shortages.

A related study in Ghana by Dzomeku (2011:32) on maternal satisfaction with care during labour found both positive and negative attitudes of service providers. On a positive note, as was the case with this study, the health care givers were perceived as warm and approachable. The negative attitudes cited by the author included being shouted at, being ignored and not receiving explanation. Significantly the Ghanaian researcher found that negative attitudes had a more powerful influence on the clients than the positive.

It should be noted that to a greater extent positive health worker attitudes prevailed as experienced by study participants. On the other hand there was a minor display of negative attitudes. It follows that for appropriate care for a patient to be properly planned, the environment needs to be convenient and conducive. In instances where positive attitudes of health workers prevailed, it ultimately resulted in an enabling environment conducive for appropriate patient care. On the other hand, in situations where there were negative attitudes of health workers as experienced by some clients, this negatively affected interpersonal communication.

In this study, some degrees of negative attitudes of health care providers were displayed as experienced by clients. According to Meyer and O' Brien-Pallas al (2010:2831-2833) the dynamic interactions between the components of a system play a crucial role and a change in one part affects the other parts and the whole system in general. In the context of this study, the inadequacies in financial, material and human resources as inputs had a negative impact manifesting itself as low morale and negative health worker attitudes. All these had a bearing on the processes. From the systems perspective it can be concluded that these factors had an effect on the functioning of the PMTCT delivery.

4.3.2. Superordinate Theme 2: Approaches and nature of PMTCT services

This Superordinate theme is about the approaches that were used to offer PMTCT services at the study setting as reflected by the experiences of PMTCT clients. It emerged from the study that counselling and patient education and counselling were the main approaches utilised. In addition to this, other aspects of health services delivery that were revealed included some aspects of couple centred approach as well as a deficient discharge plan. Furthermore, aspects including child care such as DNA PCR testing and infant feeding are also included. The following discussion unveils the approaches of care that were used at the study setting:

4.3.2.1. Theme 1: Counselling Model

This theme reflects the counselling model that was utilised at the PMTCT setting. The counselling was provided as individual counselling or provider initiated HIV testing and counselling. The discussion below reflects that:

4.3.2.1.1. Individual Counselling

Counselling is defined by Van Dyk (2012:235) as a facilitative process in which the counsellor, working within the framework of a special helping relationship, uses special skills to assist the clients to develop self-knowledge, emotional acceptance and personal resources. In an ideal PMTCT setting, counselling plays a pivotal role in addressing the individual needs of an HIV positive client. According to Zimbabwe Ministry of Health and Child Welfare (2014c:145) in its PMTCT guidelines, PMTCT counselling is the most important service out of all the services that make up the PMTCT package because of the nature of influence it has in service provision.

One sub-category that emerged was about the counselling experiences for the PMTCT mothers. Of the fifteen research participants only six indicated that they had been counselled and were very appreciative. The remainder (majority) indicated they had not received counselling. Further probing by the researcher to establish reasons why they had not been, revealed that some clients felt that the information they had been given in group educations was adequate. Others indicated that the opportunity to go through individual counselling was not availed to them. Yet others did not know why they were not counselled. The theme reflects experiences on counselling related issues.

Out of the fifteen clients that participated in the study only four had an experience of individualised counselling. Of the four clients that benefited from the experience, the result was disclosure of HIV status by one which resulted in getting support from the family. The other three felt they benefited from the counselling experience, although in one case, a closer scrutiny reveals deficiency in terms of content and quality.

The study findings reflect that there were limited but beneficial counselling encounters as stated below:

“On arrival at this hospital, I was received very well, went through counselling. Nurses encouraged HIV testing and highlighted associated benefits. I finally got tested for HIV and turned out to be HIV positive. I started reflecting, and began to realize that the deaths of my three children could have been associated with an HIV positive status. Nurses provided me with a lot of support.” (A1).

“The counselling sessions empowered me to realise that being HIV positive was not the end of the world. There was also emphasis on positive living strategies like: the

importance of nutrition, exercise, adequate rest, protected sex and adhere to prescribed ARVs.” (C3).

On the same vein, one respondent had this to say:

“When I came to this hospital, I was tested for HIV and I tested HIV positive. Thereafter, I was very much stressed and I started calculating how long I was going to live. I was counselled and got a lot of encouragement and support from the counsellor. The counselling encounter assisted me to gain confidence and move on with life.” (K11).

The following is an extract from a client who never received counselling:

“From the time I started coming to this hospital, I never received any counselling. I never witnessed that, we used to come here in the morning, receive an educational talk, we were then examined and thereafter went home.” (F6).

On the same vein, another client had this to say:

“We were given information as a group. I never had an opportunity to interact on a one to one basis with the nurses” (J10).

Asked if she had received counselling the respondent had this to say:

“The nurse indicated that those who wanted to see her privately could come into a separate room where she was. I did not go in for counselling because I felt the information given in the educational talks was adequate” (H8).

As the above quote demonstrates, the study found that some aspects of counselling in its professional sense were either inadequate or non-existent and yet according to the Zimbabwe Ministry of Health & Child Welfare (2014:145-146) in its PMTCT guidelines, counselling for HIV positive mothers and their partners is pivotal. Consistent with the findings of a study by Asefa and Mitiki (2014:5) in Ethiopia, this study established that only a few of the interviewed clients had experienced some form of counselling. In this study, the few clients that experienced a counselling encounter felt that it was beneficial and they got a lot of support from the health workers. This study also found that the counselling mode was more about information giving and health education at best. On a related note, Ndonga et al (2014:4) in a PMTCT study in Kenya cited inadequate staffing

levels and work overload key barriers to the provision of adequate and quality counselling of HIV positive mothers.

On a related note, Gamell et al (2013:6) describing the motivation for adherence and compliance in HIV positive mothers posit that: “As in a Brazilian study, we expect pregnant women to be highly motivated to protect their babies, especially if they are periodically counselled and a simple regimen with not many pills per day is prescribed.” The researcher argues that such kind of motivation for an HIV positive PMTCT mother can only be established if proper and effective counselling is done from the outset. Zimbabwe Ministry of Health and Child Welfare (2012a:7-9) further advocates for family centred counselling that observes aspects such as voluntarism and or free of coercion, confidential and informed consent. This study found that PMTCT services at the study site were deficient in that respect (that is devoid of family centeredness).

According to Rodak (2013:1) a discharge plan is necessary for every patient and that there is need to tailor this discharge plan to the needs of individual patients. The researcher feels this can only be established during an individual counselling session, which does not seem to be the norm in this study setting.

On the other hand, the researcher argues that the group educational sessions on their own would not empower an HIV positive PMTCT mother to move on. Counselling becomes a very important strategy that would create a one to one interaction between the service provider and client. In addition, it was assumed it would be able to address individualised personal sensitive issues of the client for example safe sex, disclosure and psychosocial concerns of the client. In contrast to this, the majority of research participants in this study never experienced any form of counselling. It is in that context that communication becomes an important strategy during a nursing encounter, therefore mechanisms of communication such as health education and counselling have to be modified to suit clients' needs.

4.3.2.1.2. Provider initiated HIV Testing and Counselling Model

According to the Zimbabwe Ministry of Health and Child Welfare (2014a:21), provider initiated testing and counselling is an HIV testing strategy initiated by the health provider. This acts as an important and critical strategy in the provision of PMTCT services. In addition, it also acts as an entry point to HIV prevention, treatment and care for PMTCT clients. The Zimbabwe Ministry of Health and Child Welfare (2014a:9-11) in its HIV

testing guidelines indicates that for this model, the pre-test information giving approach is preferably given through group education, followed by an offer for a rapid HIV test where the client can choose to proceed or opt out. The major emphasis in this approach is individualised post-test counselling.

From the experience of 10 out of 15 clients that participated in the study, it was evident that the clients had an HIV test done through a provider initiated HIV testing approach. The following quotes display the experiences of clients on that aspect:

“It did not even cross my mind that I will be tested for HIV. When I arrived to the clinic for antenatal booking, nurses encouraged HIV testing and highlighted associated benefits; I finally got tested for HIV and turned out to be positive”
(A1).

Another client had this to say:

“When I came to this hospital I tested HIV positive, I was empowered that the child should be protected from getting HIV infection.....” (C3).

Data analysis revealed that as an aspect of provider initiated HIV testing, participants were offered and encouraged to have HIV testing done. It should be understood that the PITC approach cannot be discussed in isolation, information giving and counselling are important aspects that provide the continuum of care from the PITC and the resultant HIV test result.

Of concern in this study was the fact that counselling was not the general trend. This was indicated by the following quotation:

“After testing HIV positive, I had a problem because I did not understand how I get infected as my two children were delivered in the clinic and I was HIV negative. The nurses did not have time to talk to me. They just told me that there is a long queue of people waiting outside; She just took more blood and told me that we shall talk during the next visit” (D4).

Studies on PITC in similar resource poor settings in Kenya, Tanzania and Zambia found that, as in Zimbabwe, in this study counselling was limited (Njeru et al 2011:9-10). This study found that as part of the PITC strategy, the group educational session that preceded the HIV testing was empowering and stressed the associated benefits of HIV

testing. In contrast, a study in Uganda by Larsson et al (2010:69) found that this was not the case. Poor counselling can lead to non-adherence of clients to PMTCT Programme. It can also make HIV positive women not to know how to live positively while protecting re-infection.

4.3.2.2. Theme 2: Nature of education related to PMTCT

Data analysis proved that PMTCT related education at the study setting took two forms namely: group education and individual education. Kourkouta et al (2014:2) emphasise the importance of interpersonal communication in a medical setting in that because of its powerful influence it has a bearing on the quality of patient care as well as health outcomes. On a similar note US Department of Health and Human Services, Health Resources and Services Administration (2014:57-60) suggests that informed and empowered patients are better able to achieve healthy outcomes as a result of improved communication and development of trust with their care providers. Therefore, given the complexity of HIV/AIDS, especially in association with pregnancy and child bearing, patient education should be an on-going activity and a key aspect of the clinical care of HIV patients. The discussion that follows gives a reflection of the nature of education as experienced by clients.

4.3.2.2.1. Group education

The group information given at the PMTCT setting should address HIV and PMTCT related issues and should be given to all women coming for the first time or repeat antenatal visits (Zimbabwe Ministry of Health & Child Welfare 2014c:10). Goga and Jackson (2010:62) emphasise the significance of information giving in that it assists patients in making informed decisions. Another study by Boateng et al (2013:2) further underscores the importance of health education in a PMTCT setting in empowering mothers and enhancing their decision making process on PMTCT issues.

Fourteen out of the fifteen participants highlighted the fact that they had access to comprehensive and relevant information regarding PMTCT and positive living. The components of the group education covered aspects of PMTCT, positive living, infant feeding and exclusive breast feeding, cotrimoxazole and niverapine prophylaxis ARVs and adherence and hygiene. In a few cases there was mention of aspects such as malaria in pregnancy, sexually transmitted infections (STIs) and baby layette. The

following three quotes reflect the comprehensiveness of the content of the group education sessions conducted at the study site.

“The sessions entailed the following: the importance of protecting the baby from getting HIV infection, safer sex and prevention of reinfection. Another issue that was tackled was the importance of having good nutrition. In addition to this, the nurses emphasized the need to seek medical advice in the event that an HIV positive mother requires another child” (P15).

“The aspect included: the importance of good hygiene for a pregnant mother, importance of safer sex during pregnancy and breastfeeding period so as to protect the child from contracting the HIV infection. The nurses also mentioned that the baby required clothing that needed to be brought to the hospital. In addition the education also included the importance of avoiding stress and how to look after the baby” (N13).

It was also established from the experiences of participants that group information sessions were routinely given. The interviewed clients indicated that as part of the entry point during each health care visit all clients were exposed to a group educational session. The following reflect the experiences of participants on that aspect:

“...the nurses encouraged me to come early for group educational sessions which are done at 8oclock in the morning routinely. Each time I came for my routine check-ups, I received a lot of information. (A1).

Data analysis displayed that the educational sessions were non-discriminatory and inclusive in nature as reflected by the quotes below:

“These educational talks were given to all mothers regardless of their HIV status there was no discrimination in their educational sessions and no one felt left out. The nurses taught in a manner that made one understand the nature of the disease” (J10).

“We had combined educational sessions of pregnant mothers of (either status). Some of the topics covered included: (nutrition), the importance of (safer sex) during pregnancy and breastfeeding period so as to protect the child from contracting the HIV infection” (B2).

The US Department of Health and Human Services, Health Resources and Services Administration (2014:57-60) calls for patient empowerment in health care settings. In this regard, a very positive and important aspect in the continuum of care that was displayed in the study findings was that there was clarity on PMTCT related issues.

4.3.2.2.2. Individual information

Apart from group education, participants also mentioned the individual information which is provided. From the experiences of ten clients, it became clear that education on cotrimoxazole and niverapine was also comprehensive with clear instructions on dose and administration given. The following example is all illustration of the clarity given:

“I was given niverapine to be given to the baby daily 1,5mls at the same time every day” (L9)

“....in addition it was said the child was going to receive some medicine (Nevirapine). This drug was stopped today and the child was started on (cotrimoxzole), which is going to be continued until one week after stopping breastfeeding” (K11).

“Furthermore the nurses indicated that after delivery the mother should collect and give the baby a drug called nevirapine” (P15).

“After delivery the baby was given niverapine. I was told that the baby has to take this drug for six weeks and had to be started on cotrimoxazole “(B2).

With reference to this study, it was established that there was clarity on PMTCT related issues. Research participants displayed an appreciation of the fact that their HIV exposed babies needed to be put on niverapine immediately after birth or were already taking the drug. In addition, the respondents were knowledgeable about the issue of starting cotrimoxazole at the age of six weeks as well as DNA/PCR testing. In contrast to this study's findings, an Indian study on counselling for PMTCT clients by Kumar et al (2015:12) found that both the quality and content of counselling were deficient.

Another study by Boateng et al (2013:2) further underscores the importance of health education in a PMTCT setting in empowering mothers and enhancing their decision making process on PMTCT issues. The research finding concerning the health education given at the study setting showed that educational sessions were detailed. This is positive

in the continuum of health care for HIV positive PMTCT clients as findings in a study in Nairobi – Kenya carried out by Otieno et al (2010:733) revealed that a more comprehensive HIV education for this target group was one of the important factors in enhancing successful transition between PMTCT and HIV care programmes.

According to research participants, on issues concerning child care, the educational sessions covered the concept of exclusive breast feeding and prophylaxis for HIV exposed babies.

Apart from the educational sessions that the PMTCT mothers were exposed to, some clients also experienced some degree of counselling. It emerged from the study that clients were able to access information mainly through health education and to a lesser extent through counselling.

4.3.2.3. Theme 3: Content of PMTCT service delivery

The sub-theme discusses the experiences of the respondents with regards to PMTCT service delivery. It examines in particular the couple centred approach and the discharge plan.

4.3.2.3.1. Couple centered approach

Male partner involvement is a key and important strategy in the PMTCT programme. This approach creates an opportunity for accessing pregnant mothers and their partners so as to reverse the HIV transmission during pregnancy, labour and the breastfeeding period. The Zimbabwe Ministry of Health & Child Welfare (2014:145) in its PMTCT guidelines advocates for encouraging and supporting male involvement in the PMTCT programme. It is indicated that in most communities, traditionally, men are rarely involved in the postpartum and new born care. However, the same document highlights the fact that when encouraged, men are willing to be involved. It is further stated that the PMTCT health setting should provide a comfortable environment where men can feel comfortable to sit and receive information from a service provider about post-partum period as well as safer sex practices. The researcher argues that the above stated guidelines would be the most ideal for settings similar to the study site.

On issues to do with couple centred approach, four varying aspects emerged in this study; there was an instance where there was couple testing only but not couple centred.

In this first scenario, the husband was left out when the woman was entering different consultation rooms.

The findings also reflect that the care does not seem to include partner involvement as reflected by the following excerpts:

“When I was coming for routine check-ups during pregnancy my husband would accompany me. Well when I was moving from one hospital consultation room to the other, my husband was seated outside; he did not go into the consultation rooms.” (B2).

There was also another instance where the partner was involved throughout and proved to be supportive. The following was an illustration:

“When I came for antenatal booking I came with my husband, tested for HIV together and we were both started on treatment. We went through counselling sessions together with my husband. My husband was also very supportive throughout” (C3).

Clearly even when the spouse was present, no effort was made to involve him. Yet studies by Koo et al (2013:43) indicate that HIV sero-positive women whose partners attended antenatal care are more likely to use nevirapine prophylaxis and adhere to the chosen infant feeding practice hence positive PMTCT outcomes. In another study by Auvinen et al (2013:169) supportive male partners were willing to get an HIV test and communicate with their partners about sexual and reproductive health issues thus increasing commitment of pregnant women to PMTCT programmes. On the other hand, the same author states that non-supportive partners did not discuss reproductive issues openly with their partners, with many women reporting violence, abandonment or fear of abandonment. In this study, there was minimal male/partner involvement. The minimal partner involvement found in this study could also be attributed to traditional and cultural values as cited by Adedimeji et al (2012:6) whose study on barriers on PMTCT in Ethiopia showed that the overall, social and cultural issues constitute serious challenges to the PMTCT programme.

In this study, it was evident that men were not involved in the care of their wives. One participant clearly stated that she had come with her husband but he was left out (see the preceding excerpt of client B2). This concurs with a USAID (2010:40) PMTCT study

in Tanzania where it was found that a few men were involved in their wives' health issues. This lack of involvement was discussed in the context of not going with the wives to the clinics. In addition to this, in situations where men escorted their wives to the health facility, they would remain outside or leave their wives at the clinic. That there was no men involvement could be an established but negative cultural practice which the researcher could not establish as it was beyond the scope of this study.

The fourth scenario that was cited by four clients was a situation whereby the nurses encouraged clients to bring their partners but instead did not participate as they were said not to be interested or working far. The following is an excerpt:

“During information giving the nurses encouraged us to come with our husbands but in my case my husband used to stay in Botswana and could not accompany me to the hospital”. (B2).

This scenario is typical of the pattern of labour migration by male partners to work in the neighbouring countries due to the shrinking economy in Zimbabwe (Mantula 2011:1). Considering the fact that the study was carried out in Matabeleland region which is characterised by the majority of male partners working in the neighbouring countries, involvement of other key family members in care remains crucial but this did not seem to feature in this study. Betancourt et al (2010:8-9) advocate for a paradigm shift from a biomedical approach in PMTCT programmes to a more comprehensive family centred approach that is ideal for resource poor settings like Zimbabwe by addressing not just PMTCT during pregnancy and delivery but also focusing on the physical and mental health of the whole family unit.

Also instructive are the research findings by Ferguson et al (2012:564). The study linking women who test HIV positive in pregnancy related services to long term HIV care and treatment services, a systematic review found that accessing these was complicated and the drop-out rate high. Instead it found that what was promising was providing “family focused care”, a comprehensive approach aimed at addressing the high attrition rate, by integrating CD4 cell count testing, HAART provision and PMTCT services. In addition it advocated for a health level facility that would provide psychological support for clients and significant others. Luyirika et al (2013:7-8) further advocated for family centred HIV care models that provide integrated health services for the family unit's range of care needs. In the context of this study, the limited nature of male partner involvement was

influenced by sociocultural orientation. This is also evident in studies elsewhere (Larsson et al 2010:74 in Uganda and Njeru et al 2011:9-10 in Kenya, Tanzania and Zambia).

Zimbabwe Ministry of Health and Child Care (2014c:145) in its PMTCT guidelines advocates for a family centred approach as an important part of the comprehensive approach in the PMTCT programme. The researcher is of the opinion that the family or significant others play a crucial role in supporting an HIV positive PMTCT mother. Within the context of this study, it was established that taking a family centred approach in care was not effectively implemented, involvement of partners was also found to be lacking. It can then be assumed the family and support system were not adequately utilised.

4.3.2.3.2. Discharge plan

Discharge planning is the process of moving the patient from one level of care to another. The process should start on admission of the patient by assessing the patient's needs and identifying the resources available. In addition, the process should involve all the appropriate health team professionals and offer holistic patient care. The vision of discharge planning is to ensure continuity of quality patient care by preparing the family or significant others. This process also encompasses education of the patient, spouse, family or care giver on patient's condition, management and any changes in the life style (Zimbabwe Ministry of Health & Child Welfare 2001:1-2).

Four clients highlighted the fact that they received clear instructions on review and follow-up dates. The following is an example:

“The nurses indicated that I should bring the baby back to the hospital according to the set review dates so that the child is monitored (seen by the doctor)” (L9).

On the other hand, the discharge plan was found to be deficient or compromised. An example is a situation where the client mentioned that she was asked to tell a relative to bring his/her national registration card to facilitate her discharge from hospital. One client had this to say:

“The nurses told me that the person coming from home to collect me should bring their identity card so as to facilitate the signing of my discharge papers”.
(B2)

According to Lees (2013:1), effective discharge planning is crucial to care continuity and there is need to involve the patient and family. The discharge plan and proper adherence to it is critical considering that it has to address the support system that the PMTCT client obviously requires. The significant others (spouse or some close relative) should constitute an important component of the discharge plan to assist for example the PMTCT mother in breast feeding and drug adherence for both mother and child. Related to this, research findings from a PMTCT study by USAID (2010:88) showed that women are more likely to adhere to PMTCT strategies if they have support from their partners. The same study also stated that it is crucial for PMTCT programmes to create communication strategies that target various members of the family rather than focus their communication efforts on mothers alone.

On the other hand, Otieno et al (2010:733) further established that partner involvement, a standardised referral process and a more comprehensive HIV education for HIV positive mothers were important factors that enhance successful transition between PMTCT and HIV care programmes. The findings reflect that the care does not seem to include partner involvement for example one client clearly stated that she was being accompanied by her husband for six weeks postnatal visit but the husband was being left out, not being involved in any aspect of the PMTCT care. On another, but related study, Moyo (2003:73) found that as the discharge planning process knowledge improves the quality of home based care is enhanced. The same study found that the study participants that were not involved in the discharge planning process had insufficient information on their disease condition as well as the medication they were taking. These research findings are in accord with the findings of this very study where the experiences of study participants display the opposite of an ideal family centred and discharge planning process in the study area.

It is instructive to look at the South African experience as it relates to the discharge plan or referral of clients for HIV care. Lack of understanding among the health service providers about when women should be referred after being given their HIV results (Deborah et al 2012:5-7), as well as inadequate health worker knowledge in South Africa (Sprague et al 2011:6-7) were found to contribute to a low referral rate, and to impact negatively on a number of steps in the PMTCT care continuum. Even where the health workers are aware of the HIV referral system, basic misunderstanding in how this should be implemented due to lack of standard procedures, coupled with unclear post-test

counselling messages have resulted in low linkage of HIV-positive mothers to PMTCT (Deborah et al, 2012:5-7).

The PMTCT cascade should be viewed as a system with the following integral components: provider initiated HIV testing and counselling, group education, counselling, discharge plan and the referral system. The components play a critical role in the quality of PMTCT outcomes in that an effect in one aspect influences the other positively or negatively- a systems perspective advanced by Ibadin (2015:1). Another view of a systems approach is that for a system to function effectively it requires input (materials or energy applied into the system), processes (actions that take place to bring about the change to the input), output and feedback (Meyer & O' Brien-Pallas 2010:2831-2833). The input will need to be transformed or converted to output. In the context of this study input in the form of counselling in its varying aspects (individualised, family centred, couple centred counselling) were found to be deficient. Various authorities have underscored the importance of counselling in the PMTCT cascade (Kourkouta & Papathanasiou 2014:65-67, Ndonga et al 2014:4). These deficiencies affected the PMTCT outcomes. The other components for example, acceptance of HIV test results and linkage to HIV care depends largely on the adequacy or quality of counselling in terms of input.

4.3.2.4. Theme 4: Infant/Child Care

This theme is about clients' experiences concerning important issues in the continuum of care of child care post-delivery such as DNA PCR testing and infant feeding.

4.3.2.4.1. DNA PCR test results

According to UNICEF (2012:1) early infant diagnosis of HIV is a critical and important strategy that forms the baseline for initiation of antiretroviral therapy (ART). It is further stated that HIV infected infants will die before the age of two and hence ART initiation should be done before 12 weeks. This mechanism is said to reduce mortality among the HIV infected infants by 76%. This evidence thus signifies the importance of an early turnaround period for DNA PCR test results.

Among study participants, five were coming for paediatric follow up care and these are the clients who had had an experience of having their babies tested for DNA PCR. Four of these clients had waited for these results for a minimum of three months and one of them could not remember any experiences associated with DNA PCR testing for their

child. These research participants expressed the fact that they were anxious and had a difficult time whilst waiting for their children's DNA PCR test results. These clients were not able to get the results on time. Concerning the long wait for DNA PCR test results a client had this to say:

“I came back at three months and the results were not ready. During the period I was waiting for the results I was worried and anxious” (G7).

“Ah I cannot clearly remember how long I waited but I think I waited for three months and I was worriedly waiting” (M12).

“My baby was tested for HIV at the age of six weeks and the results came late when the child was three months old. At the time I was full of anxiety” (H8).

According to World Health Organisation (2013b:140), a study in South Africa revealed that women were unaware of early infant diagnosis services which impeded uptake. This is in contrast to the findings of this particular research study where the awareness levels on this aspect were high and the women were keenly waiting to have their babies tested for HIV. However, in both contexts, the delayed laboratory test results (DNA PCR) was a cause for concern. On a related note, Sutcliffe (2014:4-5) in a study conducted in rural Zambia revealed that the turnaround time from sample time collection to return of results to the care giver was 92 days. The same author further states that early infant HIV diagnosis is a great challenge particularly in sub-Saharan Africa.

The Zimbabwean situation is clearly not unique and is comparable to that of other Sub-Saharan African countries like South Africa and Zambia as reflected above because in all these instances the specimens have to be transported to the central laboratories and in this case to a central laboratory in Harare. In contrast to this, Malawi provides salutary experience of how digital technology can be used to reduce the turnaround period for DNA PCR results. According to the World Health Organization (2014b:28) report discussing the Malawi's experiences on the implementation of Option B+ in the PMTCT programme, that country was able to reduce the turnaround period from the initial period of between 40 and 50 days to 14 days following the use of sms technology for giving feedback on results from one health facility to another. This improvement in communication strategies to give feedback to care givers would empower clients to be linked to HIV care for their HIV positive infants.

The results from this study showed that the clients experienced delays in getting feedback on DNA PCR test results for their babies. This in turn meant delays in linkage to HIV care for their babies. From the systems perspective, feedback forms a critical component in the cyclical nature of the system (Ibadin 2015:1). In the context of this study, where feedback came after three months, the system had failed the client. In Zimbabwe the DNA PCR laboratory services which are a sub-system of the whole health care system are centralised in Harare, the capital city, resulting in delays attributed to inadequate transportation system for specimens cited by Mtapuri-Zinyawera et al (2015:1).

4.3.2.4.2. Infant feeding options

The Zimbabwe Ministry of Health & Child Welfare (2014c:67) cites the following as infant feeding recommendations for mothers who are HIV–infected: Breast feed exclusively for the first six months of life regardless of DNA PCR results of infant. If the mother is on ART, the baby breastfeeds for 24months or beyond. In its latest PMTCT guidelines, the Zimbabwe Ministry of Health & Child Welfare (2014:67) indicates that WHO has specified six environmental and social conditions, which must be met, for safe replacement feeding. These six conditions are represented by the acronym AFASS- acceptable, feasible, affordable, sustainable and safe. In this study, the fact that many opted to breastfeed was influenced by both sociocultural and environmental factors. One client for instance opted to breastfeed for economic reasons. In addition, it should be understood that breastfeeding is the culturally accepted mode of infant feeding and not surprisingly many opted for it.

One positive fact that emerged from the study was that clients were given options and freedom of choice at the PMTCT study setting. From the experiences of four clients, it was established that clients were given options and freedom to choose feeding preferences. The following excerpts reflect the choice that was made by a client on infant feeding:

“The nurses also talked to us about the advantage and disadvantages of infant formula feeding. They also highlighted advantages of exclusive breastfeeding. Due to my financial situation, I opted to breast feed the child. Exclusive breastfeeding was explained as: breastfeeding the child on demand and not giving

the child other feeds for six months. The importance of such a practice was also explained. After weighing my options, I opted to breast feed.” (N13).

“The emphasis was on feeding the baby exclusively on breast milk without giving water or other feeds for six months. The nurses stated that other feeds would cause injury to the child’s stomach leading to HIV transmission” (J10).

It is interesting to compare these findings with findings of studies in other resource poor settings. In a study by Sprague et al (2011:3-4) carried out in South Africa on challenges of infant feeding, (also presented at the 2010 International AIDS Conference in Vienna Austria) it was indicated that one of the weakest aspects of the PMTCT programme was guiding mothers on infant feeding. It was found that women struggled to make feeding choices that matched their socio economic contexts and accepted cultural norms (where formula was stigmatized). In addition to this, the research participants practiced mixed feeding (a practice not advocated for by the International guidelines on infant feeding) and felt that the counselling services and support on feeding options they had received was inadequate. On a similar issue of concern, according to UNAIDS (2012a:9), early advice on infant feeding and HIV lacked clarity as experts struggled to balance the disadvantage of formula feeding with the risk of HIV transmission through breast feeding. Infant feeding counselling based on international guidelines is considered a cornerstone in the prevention of mother to child transmission of HIV. In this study, the researcher is of the opinion that the clients received adequate guidance on infant feeding that conformed to international standards.

Goga and Jackson (2010:62) discussing infant feeding indicate that HIV infected mothers should only choose to not breastfeed if their infants will consistently receive adequate and safe replacement feeds and complementary foods from 6months of age onwards. Commercial infant formula as a replacement feeding method is only advised if AFASS criteria (affordable, feasible, acceptable, sustainable and safe) are met. The same authors discussing the value of counselling indicate that information giving and counselling assists patients in making informed decisions. Another study by Boateng et al (2013:2) further underlines the importance of health education in a PMTCT setting in empowering mothers and enhancing their decision making process on PMTCT issues

4.4. CONCLUSION

The research findings were discussed under two major themes namely: resources for the provision of PMTCT services and models and nature of PMTCT care. The experiences of study participants revealed that at the institution of study there were challenges emanating from material, financial and human resource related constraints. These challenges were associated with user fees, inadequacies of medical consumables and drugs. While to a larger extent, health care providers were perceived to be receptive, warm, caring and non-discriminative, a minority viewed them as having negative attitudes. The study also showed that provider initiated HIV testing, group education and counselling were major approaches used to offer PMTCT care at the study setting. Furthermore, the research findings revealed that there were other aspects that emerged such as: a degree of couple centred approach to care, discussions on feeding options and clarity on issues to do with continuity of care for the child post-delivery. On the other hand, there were delays in service provision as well as deficiencies in the discharged plan. The health care system was viewed as a complex system, with components (financial, material and human resources). All these are interconnected, with a cascading influence on the other (Ravitz et al 2012:354-355) with deficiencies in any of them affecting the PMTCT health outcomes. The next chapter will highlight the recommendations to address the gaps identified in the study. It will also discuss an ideal recommended model for use in a PMTCT setting.

CHAPTER 5

THE PMTCT PRACTICE MODEL

5.1. INTRODUCTION

Chapter four gave a detailed description of the research findings. The findings revealed that the women in the PMTCT programme experienced challenges associated with financial, material and human resources. It also emerged from the study that information giving was dominantly through group education as opposed to individual counselling encounters. Also of concern was the fact that there were delays in some aspects of the PMTCT service provision such release of DNA PCR test results and subsequent linkage to HIV care. Based on the gaps identified during the study the researcher developed a PMTCT practice model. The purpose of the development of the model for PMTCT practice is to enhance provision and utilisation of PMTCT services. The model was developed using theory development, designs and methods according to Chin and Krammer (2011:237) and Walker and Avant (2011:195). The model development was also informed by systems theoretical processes that the researcher views as ideal for addressing the aforementioned gaps and challenges. In this chapter an overview of the model is discussed. Description of practice a model in relation to PMTCT, purpose of the model and description of the structure of the model are provided. Measures applied to ensure trustworthiness/validity and reliability of the model, assumption of the model, implications of the proposed PMTCT practice model are also provided.

5.2. DESCRIPTION OF A PMTCT PRACTICE MODEL

The PMTCT practice model developed is based on the practice model for nurses focusing on improvement of patient outcomes, namely PMTCT women and their children. According to Chamberlain, Bersick, Donna, Craig, Cummins, Duffy, Hascup, Kaufmann, McClure and Skeahan (2013:16-18) a practice model for nurses is one which describes practice and also relies on professionalism of care delivery to improve patient outcomes. The characteristics of a nursing practice one reflect the nursing values and culture. They primarily aim at providing a supporting relationship between the nurse and the client, in this case, the nurse and the PMTCT clients. Chamberlain et al (2013:16-18) further assert that such a model may be found in any area where nurses are practising and providing care, in this context in PMTCT service provision. On the other hand, according to MainLine Health (2015:7-9), this is a system or framework that supports nurses in their

everyday practice. It defines components of nursing practice that emphasise their daily work and standards. Although PMTCT programme is not solely provided by nurses, they are the ones at the centre of care for PMTCT women and their children.

5.3. PURPOSE OF THE PMTCT PRACTICE MODEL

- The purpose of the development of the PMTCT practice model is to enhance provision and utilisation of PMTCT services.

5.4. THE STRUCTURE OF THE ELEMENTS OF A PMTCT PRACTICE MODEL

The PMTCT practice model is composed of the following elements: context, input, processes, output and outcome. These elements were adopted from the systems theory. Each element will be described separately.

5.4.1. Context

A context is characterised by a 'specific set of properties pertaining to a phenomenon and a particular set of circumstances', within which an action takes place (Strauss & Corbin 1990:101 in Bruce & Klopper 2010).

The figure 5.1 below depicts the context in which the PMTCT practice model was formulated. The context is at three levels, namely global, national and institutional level. At global level there is the WHO Sustainable Development Goals and the WHO PMTCT Strategic Plan for 2010-2015. At a national level is the Zimbabwe Health care system. At institutional level is the study setting which is a central hospital in Bulawayo: Zimbabwe.

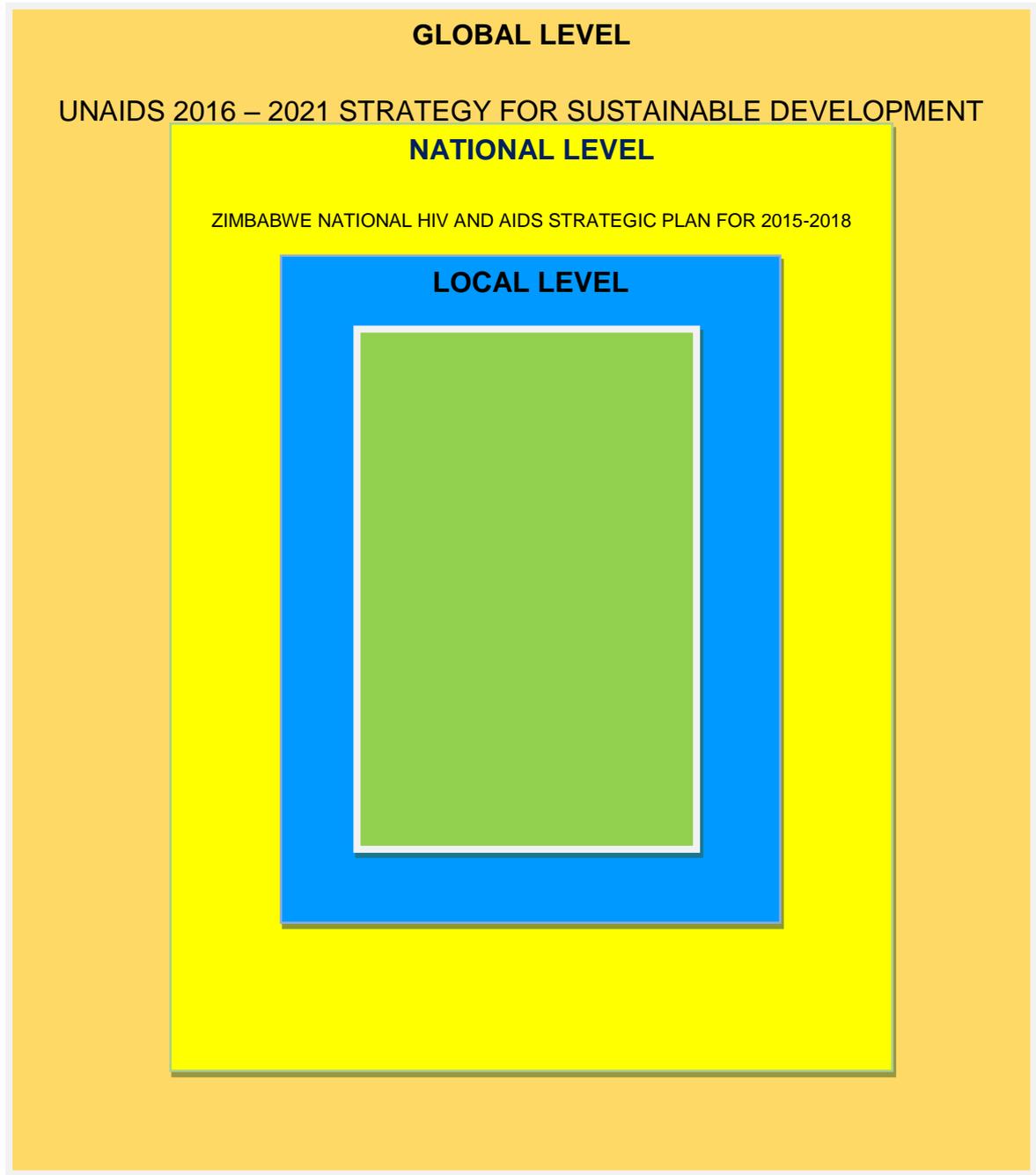


Figure 5.1: The context for provision of PMTCT services

The global context is represented by the outer rectangle, followed by the national context (Zimbabwe) in the middle and the inner rectangle reflects the PMTCT study setting.

5.4.1.1. Global context

The global context is represented by the outer rectangle in figure 5.1. It is composed of the Sustainable Development Goals and WHO PMTCT Strategic framework.

The macro or global factors are as follows:

5.4.1.1.1. Sustainable Development Goals

The Sustainable Development Goal 3, is of concern and captures major aspects of achieving good health. Of particular interest in this study are aspects relating to reduction in child mortality, improvement in maternal health and combating HIV/AIDS. An efficient and effective implementation of the PMTCT programme will contribute to the attainment of Sustainable Development Goal number three.

5.4.1.1.2. The WHO PMTCT Strategic framework for 2020

The WHO PMTCT Strategic framework for 2020 is aimed at improving maternal and child health outcomes (such as reduction in maternal and infant mortality). The following are the key elements: reduction of mother to child transmission of HIV to less than 5% by 2020 and the integration of maternal, new-born and child and reproductive health programmes.

The midwifery practice at any PMTCT setting is often linked the Sustainable Development Goal number 3 and the PMTCT Strategic frameworks; these provide operational guidelines or benchmarks in clinical practice indicators of quality of the maternal and child health care.

5.4.1.2. National level: Zimbabwe healthcare system context

The national level determined by Zimbabwe healthcare system context. This context is composed of the following are the national level factors:

The following are the national level factors:

5.4.1.2.1 Zimbabwe National Strategic Plans

The following national strategic plans apply:

Zimbabwe National HIV and AIDS Strategic Plan for 2015-2018

The national Health Strategy for Zimbabwe 2014-2018

Zimbabwe HIV Care and Treatment Strategic Plan 2013-2017

The strategic plans outline the national context within which the PMTCT programme operates.

5.4.1.2.2. Public Finance and Health Transition Fund

The current health finance model is both public and donor funded. (UNICEF 2011:9; Zimbabwe Ministry of Health & Child Welfare 2015:13-16; Public Finance Management Chapter 22:19). However it has its challenges.

The economic crisis gripping the country has seen the public fiscus allocating amounts well below the 15% recommended by the Abuja Declaration (WHO 2011:1).

Often the approved the budgetary allocation is not disbursed in full. The government policy of user fees exemption is often inconsistently applied or not at all. The proposed model recommends a more realistic, sustainable alternative way of funding public health.

5.4.1.2.3. Human Resource for Health Policy

The current human resource for health policy was developed before new diseases like HIV/AIDS emerged and the PMTCT and the PMTCT programme evolved (Zimbabwe Ministry of Health & Child Care 2014b:96-97). In fact the Department for International Development (2012:30-31) states that staff establishment in the past thirty years has remained largely static in spite of the change in disease pattern and population increases. The situation has been worsened by the freeze in recruitment. This comes against a backdrop of a massive brain drain (Mantula 2011:1-2). The proposed model calls for a review of the current human resource allocation policies in line with the epidemiological trends.

5.4.1.3. Institutional level-The Central Hospital

The study setting is a central hospital and a referral centre that is meant to offer specialist services but is under resourced. There is need to properly resource the institution in order for it carry out its mandate and service PMTCT clients well. The study setting is located in Bulawayo, one of the major cities in Zimbabwe. The structural and regulatory policies that govern the Zimbabwe health care system discussed under national context can act as implementation enablers or barriers. Examples of these include the financing and budgetary system.

5.4.2. Input

Input refers to resources required to carry out a process/procedure or provide a services. (Meyer & O' Brien-Pallas 2010:2831-2833). In the context of the PMTCT practice model the inputs required are financial, physical, human and material resources.

The figure below shows the proposed inputs that are necessary to create an enabling environment for the provision of PMTCT services.

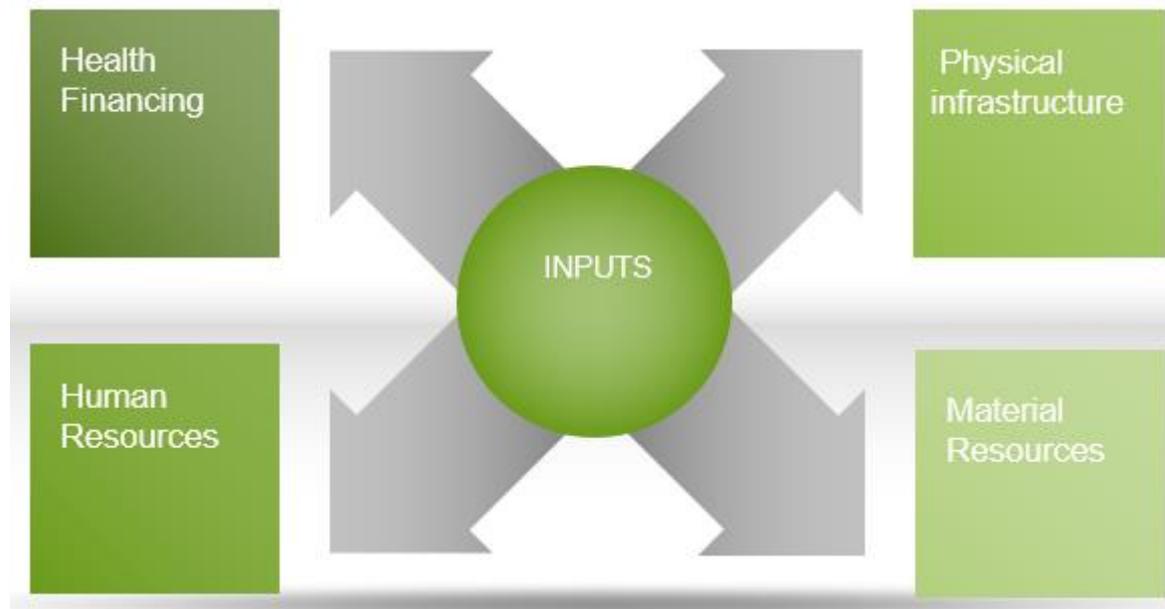


Figure 5.2: The inputs required for the PMTCT practice model

5.4.2.1. Financial Resources

Research findings indicated that the PMTCT setting had challenges associated with underfunding of the institution by central government. Health institutions have to be innovative and mobilize resources and not rely only on conventional methods of funding but involve the community in resource mobilization. Non-governmental organizations, private companies and church institutions should be requested to adopt certain programmes or departments in a public-private partnership initiative.

Institutions need to come up with cost saving and cost cutting measures and prioritize expenditures, making resources available for emergency care for example for surgical operations, blood transfusion and maternity services.

These would require team building and team collaboration so that fundraising is channelled to offer meaningful support to staff and clients involved in PMTCT programme.

5.4.2.2. Human Resources

A shortage of staff was another major finding that emerged from the study. The Ministry of Health and Child Welfare, Health Services Board, Civil Service Commission and the Ministry of Finance need to revisit current staff establishment ratios. The hospital has a nursing establishment of 684 nurses, with 44 vacant posts (7% vacant posts). The hospital had an initially had a bed state of 500. The bed state increased to a 1000, after commissioning a paediatric and maternity wing with a total bed state of 500. The mentioned new wings were commissioned without proportionally increasing nursing establishments. Furthermore in year 2012, all vacant posts in the Public Service were frozen (Zimbabwe Ministry of Health & Child Care 2014b:96-97; Department of International Development 2012:30).

In light of the new HIV epidemiological trends, emergence of health settings such as the PMTCT and Opportunistic clinic, nursing staff ratio should be proportional to the workload and programme expectations. These have resulted in a lot of task shifting among nursing personnel (Zimbabwe Ministry of Health & Child 2014:97). Nursing assignments and job descriptions need to take cognisance of new disease patterns and programmes. Within the context of this study, the model calls for regular in-service education for health care workers.

Furthermore the nursing and midwifery curricula should address the dynamic and important aspects of the PMTCT programme, in particular the use of the nursing process and incorporate the discharge planning concept at pre-service and in-service education of both general nurses and midwives. The idea of lobbying Zimbabwean nurses in the diaphora to voluntarily offer services and transfer of skills during vacations would help to alleviate the manpower shortages.

5.4.2.3. Physical Infrastructure

Physical infrastructure refer to buildings and hospital consultation rooms. These physical facilities play an important and key role as one of the required inputs. In order to provide an environment that is client friendly, that provides privacy and confidentiality, the recommended model calls for modification or adjustments to the current health infrastructure to promote amongst other things client safety, privacy and quality of care. In the light of emerging disease patterns (in this context HIV/AIDS) and in keeping with

international best practice, the existing infrastructure does not have the kind of privacy that the PMTCT model requires because these structures are archaic and out-moded.

5.4.2.4. Reference Materials

According to the European Commission Joint Research Centre (2015:1) reference materials refer to documents that provide background information or quick facts on any given topic or procedure. In addition, reference materials are reliable quality assurance tools, in this context in a PMTCT setting. Examples include PMTCT and ART guidelines, Standard Operations Procedure Manuals. These should be available as reference materials for service providers as they implement care. In Besides the aspects of being available, the model proposes that such guidelines incorporate aspects of quality assurance standards in PMTCT care. The model also calls for training and mentorship on quality assurance standards for all health care workers offering PMTCT services. Such mentorship would for example call for exchange visits with first world hospitals, developing a professional relationship with Zimbabwean nurses in the diaspora to tap on their skills, training and experience.

5.4.3. Processes

Process refers to the manner in which inputs (raw products) are transformed into usable products-outputs and or services (WHO 2012a:104-110).

The discussion below gives an outline of factors that are impacting on the processes and the proposed processes for the PMTCT practice model. These processes are meant to address the challenges experienced by PMTCT clients and enhance utilisation of PMTCT services. The processes include quality assurance activities, organisation and provision of PMTCT services as well as communication. The discussion below reflects the factors impacting on the processes and the proposed processes.

Figure 5.3 depicts the processes at a PMTCT setting in Zimbabwe.



Figure: 5.3. The processes for PMTCT practice mode

5.4.3.1. Proposed processes in the model

The following processes are key for an effective functioning of the proposed PMTCT practice model as reflected below: the nursing process, quality assurance activities, and communication and referral networks. The model asserts that implementation of the processes will enhance utilisation of PMTCT services.

5.4.3.1.1. Quality Assurance

The research study found that at the PMTCT institution of study, the quality of care compromised. The provision of quality of care is dependent on set standards. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2014:6-9) describe a standard as a written description that reflects the desired level of performance and is usually associated with a measure of excellence. Accordingly, these standards are used in the organisation of maternity care and to evaluate the actual performance during clinical decision making. Therefore as part of the implications to policy for the purposes of this study the researcher advocates for the development and definition of quality assurance standards. These will represent an ideal standard of how the care should be implemented and or provided. The researcher further advocates for the

utilisation of the following standards of care: technical competence, privacy and confidentiality, informed choice and consent, continuing of care, communication and documentation of care.

The standard on technical competence indicates that all staff providing PMTCT services should be properly trained, have regular in-service training to enhance technical competence. Informed consent and choice standards states that services need to be patient focused, ensuring good communication, provide clear sufficient patient information to facilitate appropriate decision making about clients. The clients need to be informed about PMTCT related services, risks, benefits, in the context of this study the clients need take critical decision for example infant feeding options, mode of delivery and other reproductive health goals.

On privacy and confidentiality, services should be provided in observance of the confidentiality policy (client information and records). Continuum of care is another important standard that is advocated for by the model. Within the context of the study the focus would be to make sure PMTCT clients are linked to HIV care and continue lifelong ART therapy. Another important aspect, is giving review dates and appointments appropriately.

The provision of PMTCT services, therefore needs to be supervised and feedback given on performance according to set standards. Therefore there should be a regular audit of clinical service provision in terms of quality, access, process and outcome issues from the customer view point. The results of the audit would need to be acted upon to ensure appropriate improvements in service provision through monitoring and evaluation activities. Lastly the researcher underscores the critical role of documentation in a PMTCT setting, as this will form the baseline for evaluating care provided and hence is one of the standards recommended in the proposed PMTCT practice model.

5.4.3.1.2. Organisation of care and provision of PMTCT services

The study established that there were elements of delays detected in care provided as well as lack of individualised care and or lack of couple centred approach. The organisation of care will include issues such as tracking the client flow, providing individualised and couple centred PMTCT care.

5.4.3.1.3. Communication and the Referral System

As a mechanism for reducing the turnaround period for DNA-PCR test results the central hospital of study needs to adopt an sms technology so as to give feedback on results. The same model of communication would also be utilised to track mothers and HIV exposed infants to ensure that they are linked to HIV care.

Another critical communication strategy that is advocated for by the proposed model would be to have community sensitization meetings through stakeholders such as residents association and Ward AIDS Action Committee structures so as to communicate issues to do with user fees, importance of male partner involvement (found lacking in this study) and referral procedures. Also of significance is the fact that the referral system should be modified in such a way that it informs people of expectations at every level of care.

The community would need to be informed on the eligibility criteria for the fee waivers and services exempted from user fees. The patients' charter is also another tool that needs to be communicated to clients and stakeholders.

Communication and the referral system need to be strengthened. The establishment of referral tools and tracking of referred clients to see if they get to the intended referral facility is advocated for. A public relations desk has to be put in place so as to keep clients informed and to direct queries appropriately. A suggestion box can or has to be utilised. Also of great importance is a mechanism of getting client feedback. There is need to conduct client exit interviews periodically to capture client satisfaction with care as well as what clients see as factors that facilitate or hinder continuity of PMTCT care.

5.4.4. Output

Output has to do with tangible products, outcome, goods or services that a system produces (Ravitz 2013:354-355).

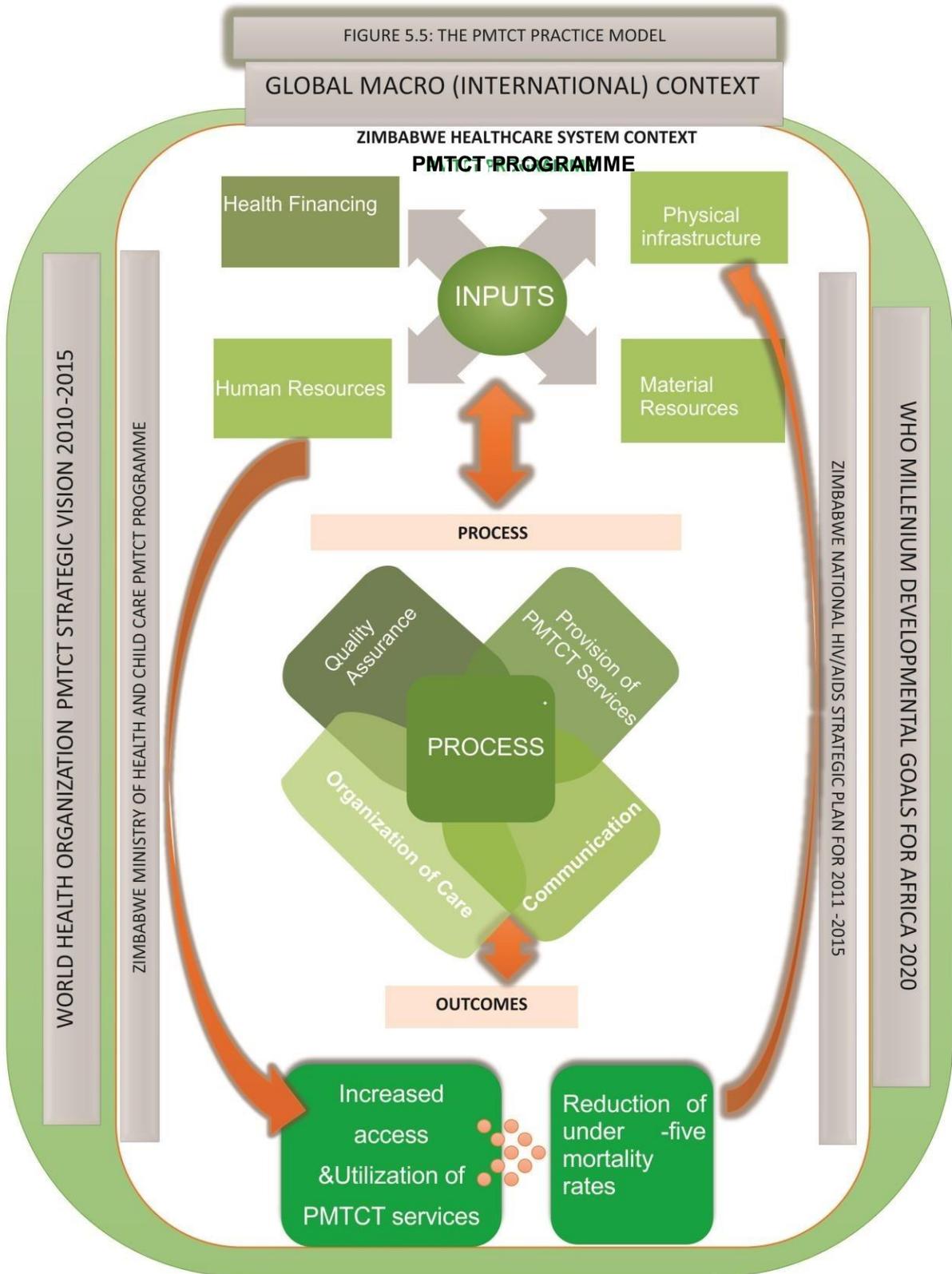
The figure 5.4 below reflects the expected outputs.



Figure 5.4: The expected output for the PMTCT practice model

It is anticipated that if human and material resources are adequately allocated under input as spelled out by the proposed model, processes will also be carried out according to set WHO and Zimbabwean standards for the PMTCT model A and the resultant output will be enhanced quality of care for PMTCT services, increased access and utilisation of PMTCT services and the resultant reduction in under-five mortality rates.

The figure 5.5 below gives a visual illustration of the recommended PMTCT practice model for the management of PMTT clients within the Zimbabwean context and being influenced by the global context. It reflects the different parts of the model and how it is envisaged to work and interrelationships between different structures of the model



5.5. DESCRIPTIVE SUMMARY OF THE PMTCT PRACTICE MODEL

The model is composed of the following elements: context (global, national and micro level), input (financial, material and human resources), processes (quality assurance activities, organization of care, communication and provision of PMTCT services) and output (increased access and utilisation of PMTCT services and reduction in paediatric HIV infection) as depicted diagrammatically in Figure 5.4. The use of connecting arrows between different levels and elements of the model show the interrelatedness of these factors. These inputs should be made available and accessibility facilitated to enable the PMTCT care system to function. The process then transforms and utilises these inputs to produce the “health management capacity” and optimal PMTCT services and quality assurance monitoring to achieve the desired PMTCT output. A proper and effective functioning of all these segments of the system is important for the ultimate achievement of the desired product (quality PMTCT care).

5.6. TRUSTWORTHINESS/VALIDITY AND RELIABILITY OF THE MODEL

For measures of trustworthiness, see also chapter three on research design. To establish trustworthiness and validity, the research study was supervised by two experts in qualitative research as well as in model development. The model was evaluated using Chinn and Kramer (2011:237)’s criteria (modified) for evaluation plus the modified version of the Delphi technique.

According to Yousuf (2007:1-6), Hasson and Keeney (2011:1696) and Rowe and Wright (2011:1487-1490) the Delphi technique is a group process employed to collect the opinion of experts on a particular subject. This interaction involves the researcher and the experts. It is characterised by geographical distance of the experts from each other and consensus building. The expert reviewers were purposively sampled for the diversity of their skills and professional training. Four experts were involved (two experts in midwifery and maternal and child health, an expert in professional nursing practice and an expert in nursing education and model generation). As per the Delphi technique, the following steps were followed in the evaluation of the PMTCT model as advocated for by Hassen and Keeney (2011:1696) so as to add rigor and trustworthiness to the study.

Selection of experts (in Canada and in Zimbabwe).

- Construction of a questionnaire-a tool for expert review.

- Emailing of questionnaire for first and third round
- Use of Skype for consensus building.

To add rigor to the model development, the model was also evaluated using Chinn and Kramer (2011:237)'s criteria (modified) for evaluation which included clarity, simplicity, generality, accessibility and importance of the model.

In that regard, the model was shared and reviewed by nursing colleagues with PMTCT and maternal and child health expertise for consensual validation. The model was presented at a clinical meeting for midwives working at a Sexual and Reproductive Health setting. Comments from the participants which touched on model clarity were taken on board. Following the adjustments the model was presented to a bigger group of nurse midwives attending a refresher course. The midwives were asked to evaluate the model using Chin and Krammer (2011:237) evaluation guide. The results confirmed the validity of the model

Comments from experts were compared with the ones from midwives. Areas where there was no consensus were revisited for example, use of simple English language and visual presentation of the model (reducing the amount of narrations on visual diagrams).

The results confirmed the validity of the model as follows:

Clarity

Refers to how well the model can be understood and consistency in terms of terminology and structure. Concepts that were unclear as identified by the first group of midwives were clarified and conceptualized within the model.

Simplicity

Simplicity means that the number of concepts and their interrelationships are minimal. Some midwives felt some parts needed clarification. The researcher revisited these and it was then felt that the model was simple and user friendly.

Generality

Generality of a theory has to do with its breadth and scope, displayed by the scope of concepts and purpose with the theory (Alligood, 2010:12). In the context of this study, all

evaluators agreed that even though the model had been developed within the Zimbabwean context, it could be utilised in other contexts.

Accessibility

Accessibility is concerned with addressing the extent to which empirical indicators can be identified and how usable the model is. The evaluators of the model felt that the empirical grounding of this PMTCT practice model was clear. Hard and electronic copies of the model will be made and availed to all stakeholders on request

Importance of the model

The model generated a lot of excitement and interest among midwives who felt that PMTCT settings would find it user friendly.

5.7. ASSUMPTION OF THE MODEL

The model assumes that if PMTCT services are viewed as a system and are well resourced, this will improve the quality and enhance utilisation of these services.

Assumptions

The systems theory was used as a point of departure for developing the PMTCT practice model. Health care systems were seen as open systems that are open and are influenced by environmental factors. The functioning of these systems is dependent on the prevailing environment for PMTCT services to effectively take place.

PMTCT services need to be viewed from a systems perspective so as to provide an enabling and effective environment for PMTCT care. PMTCT services were viewed as a sub-system of the main health care system (promoting maternal and child health care).

The overall health care system can enhance or deter provision and utilisation of PMTCT services due to structural or service related challenges.

Provision of PMTCT services is one such model of care within health care services that improves maternal and child health care outcomes.

Nurses constitute the largest number of health cadres and play a pivotal role in midwifery and PMTCT settings and so they need empowerment which this model can bring about.

Developing standards of care and implementing quality assurance activities at a PMTCT setting will enhance PMTCT health outcomes.

A well-resourced PMTCT health care environment is essential so as to increase access and utilisation of PMTCT services.

5.8. IMPLICATIONS OF THE PROPOSED PMTCT PRACTICE MODEL

- THE PMTCT practice model calls for a paradigm shift by the Health Services Board and other policy makers and treasury in terms of staff patient ratios and task shifting and financing of public health since all these factors have a bearing on quality PMTCT service provision.
- Another implication of this model is that both pre-service and in-service training and midwifery curricular need to include aspects of quality assurance in order for nurses and midwives to have an appreciation and apply concepts of quality assurance that are fundamental to this model.

5.9. SUMMARY AND CONCLUDING REMARKS

The PMTCT practice model was developed from the research findings. Its philosophical underpinning is the systems theory. The elements for the model are: context, input, processes and output. The PMTCT model advocated for addresses critical factors discussed at global, national and institutional level. These are discussed within the context of a systems approach with inputs, processes and outputs. The practice model views the institution of PMTCT care (in a central referral hospital setting) as a system, operating in an enabling environment. A systems approach was used as a point of departure for the formulation of this model. To reinforce a nursing utility of the model, an additional nursing theory perspective was used to underscore ways in which the health care institution can be viewed as a health and nursing system that needs to function as a whole. The ultimate goal of this PMTCT model is the creation of an enabling environment, empowerment of PMTCT clients and the resultant linkage to HIV care.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

6.1. INTRODUCTION

This chapter contains the major findings and conclusions of the study. It also gives a highlight of the PMTCT practice model that was developed and its evaluation. In addition, it describes the recommendations and limitations of the study. This was a phenomenological study undertaken with a two-fold purpose: to gain an understanding of the experiences of HIV positive women regarding their utilisation of PMTCT services at a central hospital in Bulawayo in order to develop a contextual relevant PMTCT practice model for enhancing effective utilisation of PMTCT services. To achieve this purpose the objectives were:

- To explore and describe the experiences of women who have utilised the PMTCT programme.
- To develop a PMTCT model that will enhance the effectiveness of the PMTCT programme.

The chapter also gives a brief overview of the research design, methods and findings. In addition it also gives recommendations and concluding remarks.

6.2. SUMMARY OF THE INTERPRETATION OF THE RESEARCH FINDINGS

6.2.1. Objective 1

For objective 1, a descriptive phenomenological design was used to explore and describe the lived experiences of HIV positive women who have utilised the PMTCT programme. It collected rich data through in depth interviews and field notes. A purposive judgemental sampling was used resulting in a sample of 15 HIV positive women in the PMTCT programme when data saturation had been reached. Data analysis was conducted using Interpretative Phenomenological Analysis (IPA). The experiences of the clients revealed that at the institution of study there were challenges emanating from financial, material and human resource related constraints. These challenges were associated with user fees, inadequacies of medical consumables and drugs. While to a larger extent health care providers were perceived to be receptive, warm, caring and non-discriminatory, a minority viewed them as having negative attitudes. The study also showed that provider initiated HIV testing, counselling and group education were the major approaches to

PMTCT care at the study setting. Furthermore other aspects emerged: a degree of couple centred approach, feeding options and issues associated with child care post-delivery.

6.2.2. Objective 2

Objective 2 aimed at developing a PMTCT practice model to enhance the effective utilisation of the PMTCT programme. The model was developed following a situational analysis of the experiences of the women who had used the PMTCT services in phase one of the study. The researcher used the system theory to underpin the development of the model. The emphasis of this theory is interconnectedness and interdependence of different parts of the system. The model development process involved designs and methods, making use of concept analysis, synthesis and derivation (Walker & Avant 1995). For rigour and measures of trustworthiness the author utilised the principles of Chin and Kramer (2011:237) and a modified version of the Delphi technique for expert and peer review (Hasson and Keeney 2011:696).

The PMTCT practice model is composed of the following elements that are interconnected and interdependent: context, input, process, and output/outcome. At global level the contextual environmental setting is the WHO Sustainable Development Goals and the WHO PMTCT Strategic Plan for 2010-2015. At national level is Zimbabwe HIV and AIDS Strategic plan for 2014-2018 and the health financing and budgeting framework (Ministry of Health and Child Welfare 2015a:13-16) the human resource and governance policy (Ministry of Health and Child Welfare 2014b:96-97). At micro level is the study setting – a central hospital in Bulawayo which is also referral centre.

Inputs: these are the resources required to carry out a process/procedure. For this model they are financial, physical facilities, human and material resources.

Processes: the manner in which inputs are transformed into usable products or services (WHO 2012:104). The following are the processes: management of the health services, provision of PMTCT services, and organization of care and quality assurance process and creation of an enabling environment.

Outcomes/Outputs – this has to do with tangible products, outcome, goods or services that a system produces (Ravitz 2013:354 – 355). If the anticipated inputs (material resources) are adequately allocated and the processes carried as per WHO and

Zimbabwean PMTCT standards, the outcome will be a reduction in under five mortality rates.

6.3. CONCLUSIONS

6.3.1. Resources for the provision of PMTCT care

6.3.1.1. *Financial and material resources*

The study established that whilst there is a policy on exemption on user fees for maternity clients, there was no uniformity or consistency in applying it. This is consistent with findings by McPake et al (2013:2-3).

Also established was the fact that there were serious material resource challenges in the hospital forcing patients to incur out of pocket expenses as they were made to purchase items required to facilitate conducting caesarean sections. Similar findings by Rujumba (2012:11) in Uganda noted that the health care system was characterised by stock outs of vital supplies.

The inconsistency in the application of the user fee exemption policy and the material resource shortages could be attributed to underfunding of the public health sector by the fiscus, as was noted by UNICEF Zimbabwe (2011:16) and Zimbabwe Ministry of Health (2014:4).

6.3.1.2. *Human resources*

The study established that some health care service providers displayed negative attitudes towards clients. In addition, clients experienced delays in service provision. The conclusion to be drawn from these two findings is that there was a shortage of human resources resulting in work overload. Studies elsewhere by Boateng et al (2012:135) in Ghana and Adedimeji (2012:3-5) in Ethiopia cite inadequacy of human resources as impacting negatively on the health care delivery system. In addition the Zimbabwe Ministry of Health and Child Welfare (2014b:4) in its 2014-2018 National Health Strategy highlighted the human resource challenges.

On the other hand, the study concluded that the more prevalent health worker attitude was one that was more caring, positive and non-discriminatory. Similar findings were also cited by Sholeye et al (2013:362-363) in Nigeria and Nyongesa et al (2014:016-017) in Kenya.

6.3.2. Approaches and nature of PMTCT care

6.3.2.1. PMTCT information dissemination

The study concluded that provider initiated HIV testing and counselling was routinely offered but individual counselling encounters were limited. Another conclusion that was drawn was that couple counselling was almost non-existent. As alluded to before, staff constraints were yet another challenge to which could be attributed the inadequacy in the counselling mode as was found by Ndonga et al (2014:4). The experiences of study participants show that from the manner in which information was disseminated it can be concluded that group education was the major mode of accessing information related to PMTCT services.

6.3.2.2. Male partner/family involvement

The migratory pattern of male partners in the South Western region of Zimbabwe cited by Mantula (2011:1) could explain the low male partner involvement found in the study.

To be concluded from this study is that whilst the Zimbabwe Ministry of Health and Child Welfare (2001:1-2) developed the discharge planning process guidelines in year 2001, these have not been fully utilised as was evident from the study. It would be prudent to review these guidelines to be in keeping with the current HIV care protocols and monitor their proper implementation and utilisation.

6.3.2.3. Delays in service provision

Another conclusion from the study was that the turnaround period for DNA PCR test results and linkage to HIV care was too long. A similar situation obtained in Zambia (Sutcliff 2014:4-5). However the situation could be improved as the Malawian experience where the sms digital technology was used to convey feedback on results demonstrated (World Health Organisation, 2014b:12-13).

6.4. RECOMMENDATIONS

The following recommendations are about how the model can be utilised.

6.4.1. PMTCT Health Care System

- The model can be used to strengthen the referral and communication system.
- The model can be used for the appraisal and re organisation of health resources in order to strengthen the provision of PMTCT services.
- It can also be used to develop a standard operations manual that is institution specific with such elements as technical competence, informed consent, client safety and continuum of care. This will allow for proper auditing and adherence to set standards.
- The use of sms digital technology to reduce the turnaround period for DNA PCR results and facilitate linkage to care.

6.4.2. Nursing/Midwifery Practice and Education

- The model can be incorporated into the pre-service and in-service curriculum for nurses and midwives.
- The model can also be used to include discharge planning in the nurse training programmes at both in-service at pre service level.

6.4.3. Recommendations for further research

- Whilst this research focused on the experiences of only one of the actors in the PMTCT paradigm, another important constituency in the provision of health services are the health care providers. There is need for more research to be carried out to establish the experiences and perceptions of health care workers as they provide PMTCT services.
- This research was qualitative and phenomenological in nature; perhaps other researchers could explore the use of quantitative approaches of research in the PMTCT programme.
- One of the findings of this study was the problem of user fees. However this was a qualitative study confined to Bulawayo, further research is recommended on the negative impact of user fees on a macro scale on PMTCT services versus socio-economic status and gender inequity.

6.5. CONTRIBUTIONS OF THE STUDY

Whilst studies in sub-Saharan Africa have largely focused on uptake, expansion and scaling up of PMTCT services (Bancheso et al 2010;1130-1135, Isangula 2011:1 and

Hussain et al 2011:1), very few, with the exception of researchers like Cames et al (2010:253-265) and Duff et al (2010:1) have focused on direct client experiences which was the focus of this study. It is noteworthy, that this study was qualitative and phenomenological in approach in keeping with the best practice in nursing research as was recommended by Streubert and Carpenter (2011:88). This was a pioneering and ground breaking in the context of Zimbabwe. The research sought to explore the lived experiences of HIV positive PMTCT clients as they interfaced with PMTCT service provision. It was holistic in approach and produced rich data.

Apart from contributing to the existing corpus of knowledge, this study will provide policy makers with evidence based data for policy formulation. In addition, the research findings should challenge and provoke other scholars to adopt a qualitative approach in their work. The PMTCT model that was developed, having been informed by gaps in the system identified by the study plus reviewed literature should contribute significantly to strengthening of the PMTCT programme. The systems approach that formed the basis for developing the model can also be adopted and adapted for use as the best practice in any health care system.

6.6. LIMITATIONS OF THE STUDY

The researcher acknowledges the fact that the study had a limitation due to the fact that a purposive (convenient) facility based sampling from one Central Hospital was utilised. This affected the applicability of the findings to all HIV positive women in the PMTCT programmes across other provinces in Zimbabwe. The study was conducted in one province-Bulawayo-and a sample size of fifteen women was utilised. Whilst the findings of this study may not necessarily be applicable to the health settings in other provinces in Zimbabwe, their transferability to other PMTCT settings in Zimbabwe and in Sub-Saharan Africa cannot be doubted. The gaps and challenges identified will help form a baseline for enhancing the quality of care for this group in question. Therefore similar studies can be conducted in other provinces of Zimbabwe particularly Harare, which like Bulawayo is a Metropolitan Province and is also the capital city of Zimbabwe.

6.7. CONCLUDING REMARKS

The research had two objectives: to discuss the experiences of the HIV positive mothers in their interaction with the health care system and to develop a practice model of the basis of the findings. Both objectives were attained. The study found that whilst the focus

of policy and decision makers was on expansion and scaling up of PMTCT services, scanty regard had been paid to the experiences of PMTCT clients themselves. These clients had experienced a warm caring, non-discriminatory treatment by health care providers.

On the other hand, the clients had been confronted by a system characterised by financial, material and human resource constraints due to underfunding of the health care system. The system also produced anxious moments as clients waited for DNA PCR test results and linkage to HIV care. It also emerged that there were inadequacies in the quality and quantity of counselling as well as in the discharge planning process. Whilst acknowledging the limitations of the study as being unique to these respondents in this setting, clinical practice can draw invaluable lessons from the study findings in order to strengthen health care and enhance the quality of PMTCT outcomes. In addition, it is important to bear in mind the illuminating observations by Streubert and Carpenter (2011:88) on the critical role of the phenomenological approach to nursing practice and research since it is holistic in nature.

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ANNEXURE B: LETTER REQUESTING FOR PERMISSION TO CONDUCT STUDY AT HOSPITAL X

109 Roslyn Street
Manningdale
Bulawayo
Zimbabwe

The Clinical Director
Mpilo Central Hospital
PO Box 2096
Bulawayo

Dear Dr Ndebele

RE-PERMISSION TO CARRY OUT A RESEARCH STUDY AT YOUR INSTITUTION

I am a Doctor of Literature and Philosophy student registered with the University of South Africa (UNISA). As part of the requirement, I am expected to carry out a research study. The research topic is as follows:

“The experiences of HIV positive women in the PMTCT programme”

The aim of the study is to gain an understanding of the experiences of HIV positive women after utilising PMTCT services at your institution and develop a contextualised relevant PMTCT practice model for enhancing effective utilisation of PMTCT services. In order to carry out the study, I will need to conduct in-depth interviews of HIV positive women in the PMTCT programme. The research will be qualitative and phenomenological in nature. The central question for the study refers:

“ May you kindly describe what your experiences have been at this hospital, from the time you tested HIV positive, received antenatal care, went through the delivery process up to now.”

This communication, therefore serves to request for your permission to collect data at your institution. A research proposal for the study is attached. All the information concerning the research study is included in the proposal. The proposal has also been approved by the Research Ethics Committee of the Department of Health Studies at

UNISA. The ethical clearance certificate as well as the example of the consent form is attached.

When the study has been completed and the final report written, feedback will be given and a copy of the research study availed to the institution.

Yours Faithfully

Idah Moyo

Student Number 7441002

Contact Details of the Researcher:

Cell Number: 263 776 306 719

Email: idah.moyo@yahoo.co.uk

Contact and Contact Details of the Study Promoters:

Prof H. Mavhandu-Mudzusi & Prof SP Human

University of South Africa

Department of Health Studies 392

PO Box

0003

Telephone 27 12 4296338

Signature of Student.....

Date.....

Signature of Supervisor.....

Date.....

ANNEXURE C: LETTER OF APPROVAL FROM HOSPITAL X

Unk... agreed to start.

Reference

Telephone: 09-212011

Fax: 09-205078



P20
MPILO CENTRAL HOSPITAL
PRINCIPAL NURSING OFFICER
27 JAN 2014

P. O. BOX 2096, BULAWAYO
ZIMBABWE
MINISTRY OF HEALTH
AND CHILD WELFARE
MPILO CENTRAL HOSPITAL
P O BOX 2096

ZIMBABWE

BULAWAYO

01 November 2013

109 Roslyn Street
Manningdale
Bulawayo

Attention: Idah Moyo: Student Number: 0744 100 2 (UNISA)

**RE: REQUEST FOR PERMISSION TO COLLECT DATA FROM PMTCT
MOTHERS AT MPILO CENTRAL HOSPITAL**

Reference is made to your minute in connection with the above matter.

The institution has no objection in you undertaking the study.

May you give us the results of your study.

Thank you

[Signature]
MPILO CENTRAL HOSPITAL
CLINICAL DIRECTOR
DR W NDEBELE
2013
For: CHIEF EXECUTIVE OFFICER
MPILO CENTRAL HOSPITAL

Board members: Dr R. Labode-Chairperson, Dr P. Moyo - Deputy Chairperson, Dr L.O.S. Mantiziba - Chief Executive Officer, Mr I. Mabuka, Mr D.S. Abu-Basutu, Dr N. Ndiweni

ANNEXURE D: LETTER OF OBTAINING CONSENT FROM STUDY PARTICIPANTS

Dear Prospective participant

I am a University of South Africa (UNISA) Doctoral of Literature and Philosophy in Health Studies student. I am carrying out a research study on experiences of HIV positive women in the PMTCT programme at this hospital, in partial fulfilment of the requirements of the Doctoral Programme. I am going to give you information and request you to participate in the mentioned study

The study and its procedures have been approved by UNISA and by the Zimbabwe Ministry of Health and Child Welfare. I have also sought and have been granted permission by the hospital authorities to carry out the study.

Purpose of the research

The purpose of the study is to explore the experiences of HIV positive women after utilising the PMTCT services. This would be followed by the development of a model that is meant to enhance the quality of PMTCT services.

Participant Selection

You are being requested to participate in this research study because it is felt that you have the relevant experience as an HIV positive woman who have gone through the PMTCT programme to contribute to our understanding and knowledge of health care practices within the PMTCT context.

Voluntary Participation

Your participation in the study is purely voluntary; you are under no obligation to participate. If you choose not to participate all the services you receive at this hospital will continue and nothing will change. You are free or have a right to withdraw from the study at any time and the care of your family member or your relationship with health care team will not be compromised.

Procedures

The procedure will involve participation in an interview concerning your experiences as you interacted with the PMTCT services. The period of focus would be from the time you tested HIV positive, received antenatal care, delivered in this hospital and accessed post natal care up to now.

The interviews will be conducted in a quiet room in the hospital so that there are no distractions during the interview process. The interview will take about 30 minutes. The interview discussion will be captured using a tape recorder with your permission, so as to help me accurately capture all your insights/experiences in your own words. Questions will be asked and you will be expected to answer to your satisfaction. If you do not wish to answer any of the questions during the interview you may say so and the interviewer will move to the next question. Further questions may be asked for clarity. Field notes may also be taken to keep a record of your responses.

Risks

The study procedures involve no foreseeable risks or harm to you and your family. If you feel that the questions asked are too personal or talking about the subject makes you uncomfortable, you are free not to answer any questions or take part in the discussion. You will have access to a professional counsellor at the hospital if needed during the process of the study.

Benefits

There will be no direct benefit to you, but your participation in this study will enhance understanding of the experiences that clients in the PMTCT programme go through. Your views will assist the researcher in identifying gaps or challenges and this information will assist in the development of the PMTCT practice model that will assist in improving the quality of care and support for HIV positive women in the PMTCT programme.

Confidentiality

Your participation in this study will remain confidential and anonymous. The study data will be coded so it will not be linked to your name. Your name and identifying information will not be associated with any part of the written report of the research, any information about you will have a code in it instead of your name. All data will be collected by the

researcher, stored in a secure place, and not shared with any other person without your permission.

Right to Refuse or Withdraw

You do not have to take part in this research if you do not wish to do so. You may stop participating in the discussion interview at any time that you wish but the health services you access at this health facility will not be compromised. I will give you an opportunity at the end of the interview to review your remarks, and you can ask to modify or remove portions of those, if you do not agree with my notes or if I did not understand you correctly.

Who to contact

You are free to ask any questions pertaining to the study or about being a research subject and you may call Mrs I. Moyo on +263 776 306 719. Email address:

idah.moyo@yahoo.co.uk.

I am therefore requesting for your permission to participate in this study by completing and signing the consent form below:

Thank You

Yours Faithfully

Idah Moyo

CERTIFICATE OF CONSENT

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

My input will in no way be linked to me personally and my rights to confidentiality will at all times be protected. I understand that at any given point during the study I may withdraw if I may so desire. I consent voluntarily to be a participant in this study.

Name of Participant.....

Signature of Participant.....Date.....

I have accurately read out the information sheet to the potential research participant and to the best of my ability made sure that the participant understands the information. I also confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given voluntarily

Signature of researcher

Date

ANNEXURE E: VERBATIM TRANSCRIPTION OF INDIVIDUAL INTERVIEW**VENUE: PMTCT SETTING CONSULTATION ROOM****LENGTH OF INTERVIEW: 34 MINUTES****KEY: R** (Researcher)**F** (Client F)**R:** Good morning madam.**F:** Morning**R:** How are you keeping and how is the weather where you are coming from?**F:** Am ok, the weather has been on the cool side and it has been raining on and off since last week.**R:** I would like to take this opportunity to welcome you and thank you for agreeing to participate in this study. My name is Idah Moyo, a student at the University of South Africa.**F:** Thanks for the welcome.**R:** I am happy that you managed to honour this appointment for this interview, and am also happy that you consented to participate in this research study.**F:** It's ok**R:** As I explained earlier on, I am conducting a study to explore the experiences of HIV positive women who have utilised PMTCT services in this hospital. At the end of this study, I intend developing a model (framework) that will be utilised in a PMTCT setting and this is aimed at enhancing the quality, access and increased utilisation of PMTCT services. Your participation in this study is of great importance so that you share your experiences in this hospital as you utilised the PMTCT services.**F:** I hope I will be able to share the information that is appropriate.**R:** Yes, I think you have the relevant experience to share with me. I am therefore requesting you to freely discuss with me and share your experiences. I shall be asking questions as we go through the discussion. May I also request for your permission to tape record the interview so that I do not miss any of your important information and also

because I may not be able to write fast enough to capture everything you say. I will also be writing notes. May I also request you to speak up so that all the information is properly captured. All the information we discuss here will be kept confidential, anonymous and locked up. Do you give the permission to tape the discussion?

F: Yes, you can proceed.

R: Thank you so much, before we proceed, I would be happy if you can briefly tell me about yourself.

F: I am a (married) lady, (aged 32years), have (three children).

R: May I request that you talk about your experiences in this hospital as a PMTCT client, from the time you started receiving services, after testing HIV positive, you received care during pregnancy, the period you delivered your baby up to now.

F: It's fine. I think the story is a long one.

R: Its fine, it would really be nice to share the long story. You can go ahead. Let me also remind you that you agreed to participate in this study and you signed a consent form. However you are free to stop me from continuing anytime. Also let me know if you are not comfortable to talk about anything. Do you have any questions to ask so far?

F: I don't have questions, we can continue with the discussion.

R: Ok, what would you say were your experiences as you received PMTCT services?

F: I came here following a (transfer from the clinic) because my blood pressure was elevated

R: What happened when you got here?

F: When I came to this hospital, I had been (referred from the clinic) for a (raised blood pressure) and had been told that I needed to deliver at a central hospital. On arrival I was told by the clerk at the reception desk that I needed to have a (booking fee of \$50) for me to be attended to, which I did not have. She told me that since I did not have the money I needed to go back home, without being attended to and bring the money first.

R: How did you feel about not being attended to? And what happened after that?

F: I felt disappointed and frustrated for being denied a service in a hospital and I did not have money. I was only able to get \$50 (after two weeks), came back and I was then allowed to book for antenatal care. It was then that I was also found to be HIV positive and my CD4 cell count was 202”.

R: How was the issue of booking fee explained to you?

F: The clerk asked me when I thought I would get the required amount of money and I stated that I (did not know when that was going to be) (she indicated she could allow me to book if I knew the date when I would get the money) but I told her I was not sure when I would get the money) and therefore I had to go back home.

R: How did you feel about that experience?

F: I got worried because I did not have the money and worse still it was now getting to my sixth month of pregnancy. I was worried because I knew I did not have the required amount of money even at home.

R: From what you said, you seem to have been booked after getting the money. May you share with me what transpired when you were eventually booked?

F: When I brought the money, I was allowed to receive antenatal care. On the day I arrived in the hospital I was then tested for HIV and turned out to be (HIV positive). I received my CD4 cell count results and it was 202. The nurse explained that my CD 4 cell count was low and it was important that I start taking antiretroviral drugs so as to protect my baby and for the benefit of my health as well. I was then started on antiretroviral drugs on the next visit.

R: Ok, you indicated that you were commenced on ARVs, would you mind discussing about how you felt about taking these drugs and which ones were you were put on?

F: Initial I was anxious but I realised it was important that I take them as was explained by the nurse. I was put on (Tenolam and Nevirapine). It was stated that I should take these drugs religiously for them to work properly.

R: What would be your comment on how you were given your antiretroviral drugs?

F: They used to (educate us on how drugs were taken. First of all they asked me if I was committed to start taking ARVs. They asked me if I was in agreement to taking ARVs,

and indicated that if I was in agreement I should sign as a way of making the commitment. I therefore indicated that I (was in agreement and I was then (started on ARVs). I was given information on how I was going to take the ARVs). The nurse also explained to me the importance of me starting to take ARVs since my (CD 4 cell count was low). The nurse also emphasised that I needed to (take my drugs religiously and according to instruction).

R: It is good that you are taking your drugs according to instruction. Let me ask another question, would you mind elaborating further on other activities/issues that took place during the time you were receiving health services?

F: Each time I came here we would start with a prayer, sing a song then we were given (group educational talks) on the (PMTCT) programme, expectations if one is HIV positive, (ARVs) and how they are taken and time specifications.

R: You have highlighted that you were given group education by the nurses. As an individual are there any discussions/interactions that you had with the nurses or other health care workers?

F: I do not want to tell lies; from the time I started coming to this hospital, I (never received any counselling). I (never witnessed) that, we used to come here in the morning, (receive an educational talk); we were then examined and thereafter went home.

R: Suppose you had been offered to have a one to one discussion with a nurse would you have taken the offer?

F: Yes I think that would have been great for me, maybe I would have asked questions if I needed to.

R: Earlier on you indicated you were given information as a group. Would mind to share what this group session was all about?

F: The nurse told about the importance of using condoms, breast feeding, good nutrition, taking ARVs properly, niverapine and cotrimoxazole for the baby if the mother is HIV positive.

R: How often was information given in a group?

F: The education was given every time we attend the hospital visit, it was actually the first activity before we were examined or seen by the doctor.

R: Considering that you had tested HIV positive and you had been started on ARVs, on issues to do with care for your child what issues did you discuss with the nurse?

F: during the educational talk there was always mention that if the mother is HIV positive, the child was going to be given (niverapine) for six weeks and then be started on (cotrimoxazole). It was also stated that child would be tested for HIV at the age of six weeks. My child has come for HIV testing today.

R: Ok, you talked about the issue of niverapine, looking at issues of infant feeding what issues were discussed?

F: It was said I should (breast feed my child exclusively) without giving anything else for six months. I was given this information in a group session.

R: You talked about the nevirapine for the baby, is there anything else you want to share as part of your experiences you went through as you received care in this hospital? May be delivery process?

F: Since I come here because of a (raised blood pressure), so (each time I would come here I would be seen by the doctor before going back home). So during the last days my blood pressure went up and I was requested to have an ultrasound scan done three times. During that third time I had a (challenge of raising money) and I ended up (borrowing money from a neighbour) because the nurses were saying they could not hear the baby's heartbeat. The scan revealed that the (baby was big and hence I needed to deliver by caesarean section).

R: What then happened?

F: I was then told to come to the hospital for admission on a Monday and the operation was to be done the following day (Tuesday). Since I did not have the money to buy the list of items required for the operation, I asked the doctor what the way forward was going to be. The (response from the doctor was that it was up to me to see what to do).

R: May you describe what further took place?

F: Since I had opted to deliver through a caesarean section because I did not want to infect my baby during normal delivery. When it was a week to go for a caesarean section, the doctor wrote (a list of items) that were required in my maternity book

R: You can continue the narration about what eventually happened?

F: Since we (did not have the money), I therefore requested my husband to go and (borrow some money) for that purpose. My husband indicated that he was going to bring the required items the following day. Whilst I was in the waiting room, I got into labour, taken to the labour ward. The nurses assisted me and (delivered well).

R: Ok, so you finally delivered normally?

F: Yes I did, but had stitches done on me.

R: Earlier on you indicated that there were items that needed to be bought for use during the operation; do you remember what those items were?

F: Yes, the list is written in my maternity book. (She opened the book with the following items listed: surgical gloves, catheter, and urine bag)

R: Would you mind elaborating further what happened after delivery

F: The sister who delivered me asked if I had baby clothing, then I indicated that I had brought only a nappy plus a baby wrapper. (She then wrapped the baby on those). (She gave the baby to me) and (asked me to sit by the bench outside). Thereafter the (nurse took our delivery records), (calling each one of us one by one). She (brought a wheel chair, sat me on it), (my baby plus my bag and wheeled me to the old maternity ward where I was admitted).

R: Is there anything else you would want to share?

F: Also soon after delivery I was given (nevirapine) for the baby and they taught me on how I was going to give the nevirapine (to be given once a day at the same time). After two days my blood pressure had gone down and I was discharged home.

R: You also stated that the nurses were asking whether you had taken your blood pressure drugs, please elaborate on that experience.

F: The doctor had told me that since my high blood pressure was elevated I needed to go to the pharmacy with a letter to purchase the drugs. I bought those drugs and I was keeping them with me in my bag, and taking the drugs for myself in the ward. But my major challenge was money for buying these drugs. They were expensive. They cost \$15 and lasting only for two weeks.

R: Was your husband involved in your care?

F: The nurses asked me to (encourage my husband to come for HIV testing) but he (does not seem interested). He is not keen to accompany me to the hospital but I always try to pass the message from the hospital that he is expected to attend with me.

R: If you were asked to comment on the overall care you received at this hospital what would you say?

F: By and large the (care was good), food was also good. On the other hand they made me buy tablets for blood pressure. In addition to this I (was not happy about the payment conditions); they (wanted all the cash (\$50) upfront to facilitate antenatal booking). I (wish the hospital could be more accommodating and allow even payment terms). I was reminded by a hospital clerk that there was nothing for free and that if I had wanted that arrangement I should have come earlier. On that aspect associated with payment I (feel they were rough).

R: What would you say were your happiest times in this hospital as you utilised the PMTCT services?

F: I think my happiest moments were when I got information from the nurses on how to look after myself as someone who is HIV positive, I felt encouraged with the hope of moving on.

R: What were your worst moments in this hospital?

F: My worst moment I should say were when I was denied to book for antenatal care because I did not have money.

R: Do you have any questions or comments to say?

F: Not really.

R: Thank you so much for your time, thank you for the opportunity of sharing your vital information on your experiences with me. I greatly appreciate the interaction I have had with you, it was a pleasure to talk to you. As I highlighted to you earlier on, I will come to you. Thank you.

ANNEXURE F: LETTER TO EXPERT REVIEWERS

109 Roslyn Street
Manningdale
Bulawayo
Zimbabwe

Dear Colleague,

RE-EVALUATION OF THE PMTCT PRACTICE MODEL

I am a Doctoral student with the University of South Africa. The title of my thesis is follows:

“Experiences of HIV positive women who utilised the PMTCT programme in one of the central hospitals in Bulawayo, Zimbabwe.”

I have developed a PMTCT practice model in partial fulfilment of the requirements of my studies. I am therefore requesting you to utilise your expertise and experience in evaluating and refining the attached PMTCT practice model. May you please complete the questionnaire by ticking and filling in the appropriate box and putting comments where appropriate in the attached guide. May you kindly email back your response. Please note that this will be followed up by a Skype interview.

Thank you for your support and agreeing to participate in this evaluation exercise of the PMTCT model. The following documents are attached: chapter 5, with a detailed description of the model for evaluation, chapter 3 (research design) and chapter 4 (on research findings) and a questionnaire. The model evaluation is an adaptation of Chin Krammer (2011) guidelines (addressing elements of clarity, simplicity, generality and accessibility) plus the modified Delphi technique.

Your Support is greatly appreciated

Thank You

Idah Moyo

ANNEXURE G: GUIDELINES FOR EXPERT REVIEWERS

ELEMENTS FOR REFLECTION	LIKERT SCALE					COMMENTS
	1	2	3	4	5	
CLARITY						
SIMPLICITY						
GENERALITY						
ACCESSIBILITY						
IMPORTANCE OF MODEL						

Please reflect your opinion on the model by ticking and commenting on the appropriate slot.

KEY

- 1 = POOR
- 2 = AVERAGE
- 3 = GOOD
- 4 = VERY GOOD
- 5 = EXCELLENT