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CHALLENGES FACED BY MIDWIVES IN IMPLEMENTING THE PREVENTION OF MOTHER TO CHILD TRANSMISSION PROGRAMME DURING THE POST-NATAL PERIOD AT KHAYELITSHA COMMUNITY HEALTH CLINIC, WESTERN CAPE PROVINCE.

A mini-thesis submitted in partial fulfillment of the requirement for the degree of Master Curationis at the School of Nursing, Faculty of Community and Health Science, University of the Western Cape.



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DECLARATION

I, Unathi Mecia Paul, declare that the study, *Challenges faced by midwives in implementing the Prevention of Mother to Child Transmission programme during the post-natal period at Khayelitsha Community Health Clinic, Western Cape Province*, is my original work, that it has not been submitted for any degree or examination at any other University and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Student's signature Date; ...November 2015

Unathi Mecia Paul



DEDICATION

I dedicate this mini-thesis to my GOD the Father, Son and Holy Spirit who gave me the strength and his grace to accomplish this mini-thesis. To my late mother, late grandmother and my husband for all their prayers, love and support during this trying times.



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ABSTRACT

Background: In the South Africa, the number of HIV- positive pregnant women is rising and has resulted in more than 70,000 babies being born with HIV infection annually since the year 2000. In response to the escalating number of HIV-positive pregnant women, the Department of Health of South Africa, decided, in 2002, to implement the Prevention of Mother to Child Transmission (PMTCT) programme at 18 pilot sites in the country. An effective PMTCT programme could reduce the incidences of maternal and child mortalities in the country. An evaluation of the effectiveness of the PMTCT programme that was done in 2010 showed that, although the programme was rendered effectively during pregnancy and labour, there were still irregularities that appeared, especially during the postnatal period. Khayelitsha was the first pilot site in South Africa to provide Antiretroviral Therapy and initiate the Nurse Initiated Management of Antiretroviral Therapy (NIMART) at primary care level in the public sector. Midwives are the health professionals who render the PMTCT services to HIV-positive mothers and their babies until six weeks post-delivery. They have managed to test almost 100% of pregnant women during the antenatal period and the HIV-positive women were started on the PMTCT programme during their first visit.

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Aim: The aim of this study was to explore the challenges that midwives faced in rendering care to postnatal HIV-positive mothers enrolled in the PMTCT programme at the Khayelitsha Community Health Clinic in the Western Province of South Africa.

Method: An exploratory design and qualitative approach was followed. The study population consisted of midwives who were rendering PMTCT services to HIV-positive mothers and their infants during the postnatal period. Purposive sampling was conducted until data saturation was reached. Six participants were included in the sample. The participants were informed about the study by means of an Information Sheet, advised that the study was voluntary and reminded that they could withdraw from the study at any time, without prejudice. In-depth, unstructured individual interviews were conducted with each of the participants. With the permission of participants, an audio tape recorder was used during the interviews to collect data, while the researcher took field notes to supplement and verify the voice recordings, after the interviews. The seven steps of Colaizzi were used to analyse the data. Six themes and sixteen sub-themes emerged during the data analysis. Trustworthiness

was maintained by using the criteria of Guba's model, i.e. credibility, transferability, conformability and dependability. Permission to conduct the study was obtained from the appropriate ethical committees; the Department of Health, the Khayelitsha Community Health Clinic, as well as, the Senate Research Committee of the University of the Western Cape. Participants were asked to sign Informed Consent forms before participating in the study. The ethical principles of privacy, anonymity, withdrawal, confidentiality and consent were strictly adhered to.

Findings: The study found several challenges faced by midwives while implementing the PMTCT programme during the postnatal period. These challenges included: the shortage of NIMART-trained staff attending to the high number of clients per day; the lack of manpower with data base systems to trace mothers who did not come back after delivery; and mothers who did not come back for postnatal appointments because of denial, non-disclosed HIV status and socioeconomic reasons. Furthermore, the participants also reported on midwives experiencing 'burnout' as a result of the hectic working environment at the Khayelitsha Community Health Clinic.

Recommendations: There is an urgent need for all midwives in the MOU's to be NIMART trained. NIMART should be standardize and be the part of the curriculum that taught in all the tertiary institutions and be updated in a yearly basis as part of the in-service training or education for all practising midwives. The South African Government should introduce home visits in the PMTCT programme. Data-bases of all MOU's and facilities that offer PMTCT services need to be synchronized and these MOU's and facilities should all follow the same PMTCT guidelines. Further research should be done on the same topic at other clinics and MOU's that render the PMTCT programme in the Western Cape.

ABBREVATIONS

AIDS - Acquired Immune Deficiency Syndrome

ART - Antiretroviral Therapy

HIV - Human Immunodeficiency Virus

MOU - Midwifery Obstetric Unit

MRC - Medical Research Council

MSF - Mèdecins Sans Frontières

MTCT - Mother to Child Transmission

NIMART - Nurse Initiated Management of ART

PHC - Primary Health Care

PCR - Polymerase Chain Reaction

PEPFAR - President's Emergency Plan for Aids Relief

PGWC - Provincial Government of the Western Cape

PMTCT - Prevention of Mother to Child Transmission of HIV/AIDS

UNICEF - United Nations International Children's Emergency Fund

USAID - United States Agency for International Development

WHO - World Health Organization ERSITY of the

UWC - University of the Western Cape

KEYWORDS

Challenges

Midwives

HIV-positive mothers

PMTCT programmes

Postnatal services

Interviews

Qualitative



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CHAPTER ONE

ORIENTATION TO THE STUDY

1.1. Introduction

This chapter is an introduction to the study which presents the statement of the problem, and discusses the aim, as well as, the significance of the study. The research objectives and definitions of key concepts are also introduced. The researcher further discusses an overview of the research methodology, sampling, trustworthiness, as well as, ethical considerations.

1.2. Background

According to the World Health Organization (2011), South Africa is one of the countries, worst affected by the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) epidemic. The World Health Organization (WHO) also states that South Africa has the highest number of HIV-positive pregnant women, with more than 70,000 HIV-infected babies born annually. The Annual Sentinel site, HIV-prevalence studies on antenatal clients, has been on-going since 1990 (WHO, 2011). The national antenatal survey shows that the HIV-prevalence rate among antenatal women, aged 15 to 49 years, in public facilities, is 29.3 % (WHO, 2011).

In 2002, about 69, 000 infants, world-wide, were found to be infected with HIV at birth, and a further 20, 000 was expected to become infected through breast feeding (WHO, 2011). In the same year, the Department of Health of South Africa decided to implement a pilot programme for the Prevention of Mother to Child Transmission (PMTCT) of HIV. This pilot programme was implemented at 18 pilot sites; two in each of the 9 provinces of the country. The aim of the PMTCT programme was to offer:

- voluntary counselling and HIV testing to pregnant women;
- infant-feeding counselling to new mothers;
- a single dose nevirapine to HIV-positive mothers and their infants; and
- follow-up tests for infants at six weeks of life (WHO, 2011).

The prevention of new HIV infections was a critical imperative for South Africa and the PMTCT programme was one of the most efficacious HIV prevention interventions (Western Cape Government, 2014).

Mother to Child Transmission (MTCT) occurs when HIV, the virus that causes AIDS, is passed from a mother to her baby during pregnancy, birth and/or during breastfeeding (Western Cape Government, 2014). For the PMTCT programme to be carried out effectively, programme policy guidelines recommend that the prevention of HIV among pregnant women and their infants be initiated during the antenatal period, and continue until six weeks postnatal (National Department of Health and South African National AIDS Council, 2010). After delivery, within the subsequent six weeks, mothers are expected to bring their infants to the nearest baby clinics for follow-up tests. During these follow-up visits, weight checks, immunization, HIV testing for HIV-exposed infants, as well as the monitoring of feeding practices are performed.

A survey evaluating the effectiveness of the national PMTCT programme, measured at six weeks postpartum in South Africa, was conducted by the National Department of Health, South Africa Centres for Disease Control and Prevention, Medical Research Council, South African School of Public Health, University of the Western Cape, United Nations International Children's Emergency Fund (UNICEF) and President's Emergency Plan for Aids Relief (PEPFAR) in 2010 (Goga, Dinh & Jackson, 2012a). The survey highlighted the need to review infant HIV testing strategies, so that early infant testing is offered at all six weeks immunization visits and at all child health service delivery points. Furthermore, the survey showed poor feeding practices among HIV-positive mothers during the first six weeks postnatal. This accentuated a need to intensify infant feeding counselling, adherence to postnatal prophylaxis and the monitoring of MTCT and HIV-free survival from six weeks up to 18 months. In the same survey, the Minister of Health of South Africa, Dr A. Motsoaledi, also mentioned that South Africa had managed to reduce the incidence of MTCT from 30%, of babies born to HIV-positive mothers, to 3.5% by eight weeks post-delivery.

Nevertheless, due to a high rate of mixed feeding by HIV-positive mothers, Dr Motsoaledi suggested a need for greater focus on infant feeding practices among HIV-positive mothers (Goga, Dinh & Jackson, 2012). He also mentioned that irregularities still existed in the

PMTCT programme, especially during the postnatal period, and that the MTCT rate between 6 and 18 months was unknown, and hence, the overall transmission rate, which needed to be investigated (Goga, Dinh & Jackson, 2012a).

Khayelitsha Community Health Clinic was the first pilot site in South Africa to provide Antiretroviral Therapy (ART) at primary care level in the public sector. HIV antenatal prevalence in women tested increased from 19.3 % in 2000 to 37% in 2011 (Stinson, 2014). This was the highest percentage in the Western Cape. In January 1999, the Provincial Government of the Western Cape (PGWC) started the first PMTCT programme in Khayelitsha, as a Primary Health Care (PHC) level demonstration project. Voluntary counselling and HIV testing were provided at the Site B Midwifery Obstetrics Unit (MOU) for pregnant women during their first antenatal visit. The HIV-positive pregnant mothers were given antiretroviral drugs in order to prevent the transmission of HIV to their unborn infants. Maternal antiretroviral and other HIV services were discontinued after the delivery of their babies.

According to the Western Cape Government (2014), the PMTCT programme process is as follows:

- When a mother goes to the MOU or hospital for her first antenatal visit, she should be offered routine HIV counselling and voluntary testing;
- Should the mother decide to take the test and the result is HIV-positive, she has the opportunity to join the PMTCT programme, free of charge. The results are confidential; for the eyes of counsellors and healthcare workers only;
- CD4 count, with WHO staging, is done so that the mother can be started on the ARV's. Antiretroviral treatment should be initiated as soon as possible after diagnosis or within seven days after diagnosis;
- During labour, women should bring their antiretroviral (ARV's) treatment to the labour ward and continue their medication;
- On discharge, the baby should be given Nevirapine syrup within 6 to 72 hours after birth, which should be continued for a further 4 to 12 weeks, depending on how long the mother has been taking ARV's;

- Counselling and advice regarding the proper feeding of infants should be given to HIV-positive mothers: breastfeeding is encouraged, however, mothers are given a choice to either exclusively breastfeed for six months or formula feed;
- Within one to two weeks after the birth, the mother and baby should visit the nearest baby clinic for follow-up tests;
- Thereafter, two-weekly visits are necessary to monitor the baby's weight, immunizations, check on the feeding practices and, if the mother chose to formula feed, to provide formula milk;
- The baby will undergo an HIV test at six weeks, which coincides with the first immunization;
- If the test result is positive, the baby must be given Co-trimoxizole and be referred for clinical assessment to start ARV treatment (Western Cape Government, 2014).

Mèdecins Sans Frontières (MSF), together with the PGWC, implemented a Nurse Initiated Management of Antiretroviral (NIMART) mentorship programme at Khayelitsha, in December 2011. The first NIMART-trained midwives to provide ART at the Site B MOU were introduced in May 2012 (Stinson, 2014). The Nurse Initiated Management of Antiretroviral mentorship programme has become policy since 2012.

According to statistics, the midwives in Khayelitsha have managed to test almost 100% of pregnant women, and 95% of the HIV-positive women were started on the PMTCT programme, within a week, at the Site B MOU (Tom, 2013). This strategy has managed to reduce the MTCT of HIV from 12.5% in 2002 to 2.7% in 2011, based on the Polymerase Chain Reaction (PCR) testing of all HIV-positive mothers and their babies at 6 weeks; and the figure is continuing to fall (Tom, 2013). However, experts are questioning whether this indicator is able to provide important information about postnatal HIV transmission, because, in the Western Cape, half of all new diagnoses are made in hospitals, among sick children, who were not included in the PMTCT programme. As the Western Cape has recorded these low numbers of transmissions, the relative importance of the pockets of missed clients, becomes more significant (Tom, 2013).

Midwives play an important role in rendering PMTCT services to HIV-exposed infants at the Khayelitsha Community Health Clinic. Through literature, the researcher became aware that

the PMTCT programme was being rendered effectively during pregnancy and labour, but was not as effective during the postnatal period (Goga, Dinh & Jackson, 2012a). With the PMTCT guidelines and NIMART mentorship programme at the Site B MOU, the researcher thought it important to explore the challenges faced by midwives, to successfully implement the PMTCT programme, during the postnatal period. Once these challenges are explored, recommendations could be made, aimed at improving the quality of PMTCT services provision, during the postnatal follow-up visits for HIV-positive mothers and their infants. The aim would be to reduce the HIV transmission from mother-to-child *after* delivery.

In developing countries, very little is known about the challenges faced by midwives in implementing the PMTCT programme to HIV-positive mothers and their infants during the postnatal period. This current study was conducted at the Khayelitsha Community Health Clinic, which is one of the primary health care units in the public sector.

1.3. Problem Statement

As stated previously, the prevention of new HIV infections was a critical imperative for South Africa and the PMTCT programme was one of the most efficacious HIV prevention interventions (Western Cape Government, 2014). The Prevention of Mother to Child Transmission policy guidelines recommend that the prevention of HIV in pregnant women and their infants should effectively be implemented during the antenatal, as well as, labour phases and should continue for six weeks postnatal (National Department of Health and South African National AIDS Council, 2010). Literature has identified a high coverage of PMTCT services during pregnancy and labour, but the postnatal follow-up of HIV-positive mothers and their infants has not been delivered according to expectations (Horwood, Haskins, Vermaak, Phakathi, Subbaye & Doherty, 2010).

The Khayelitsha Site B MOU employs sixteen midwives. According to Stinson (2014), midwives have managed to start 70 to 80 HIV-positive women on the PMTCT programme every month. In order for a midwife to provide effective care, the midwife to patient ratio should be 1:5 (Uys & Klopper, 2013). This, however, was not the case at the Khayelitsha Site B MOU, where the midwife to patient ratio was very high, as was commonly the case at most facilities in South Africa, because of staff shortages. The facility admitted more that 200 new antenatal patients every week. Out of these, about 30 % would be HIV-positive and only 3

PMTCT staff were in attendance (Stinson, Myer & Boulle, 2008). Despite the high midwife to patient ratio at the Khayelitsha Site B MOU, very little was known about the challenges that midwives faced in their attempts to render effective care to many HIV-positive, postnatal mothers in the PMTCT programme. A study by Horwood et al. (2010) portrayed the PMTCT services at the Khayelitsha Site B MOU as very poor, during the postnatal period.

1.4. Aim

To explore the challenges faced by midwives, who render postnatal services to HIV-positive mothers, enrolled in the PMTCT programme at the Khayelitsha Community Health Clinic.

1.5. Objectives

- To identify the challenges faced by midwives in rendering postnatal services to HIV-positive mothers, enrolled in the PMTCT programme at the Khayelitsha Community Health Clinic.
- To discuss the challenges faced by midwives, who are rendering postnatal services
 to HIV-positive mothers enrolled in the PMTCT programme at the Khayelitsha
 Community Health Clinic.

1.6. Research Question

What are the challenges faced by midwives, in implementing the PMTCT programme, during the postnatal phase, at the Khayelitsha Community Health Clinic, Western Cape, South Africa?

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1.7. Significance of the Study

Understanding the challenges faced by providers of care is of importance because it helps to improve the service. In this instance, understanding the challenges that midwives faced in rendering the PMTCT programme during the postnatal period will provide decision-makers and care-providers with information that will give them an opportunity to gain more insight into the phenomenon. This will inform the recommendations made for the improvement of care and follow-up, in order to provide quality care, treatment and support of HIV-positive mothers and their infants.

1.8. Definition of Key Terms

Challenges

Refer to all the situations and consents that limit midwives in rendering PMTCT services during the postnatal period (Miller, 2003).

Midwife

A midwife is a licensed person, who is registered with the South African Nursing Council (SANC), based on the completion of a recognized education and training programme to nurture, assist and treat the client, who can be a woman, neonate or a family, in the process of promoting a healthy pregnancy, labour and postpartum period (South African Nursing Council, Circular 5/2001, Nursing Act 5 of 2001).

HIV-positive mother

A woman having a positive reaction to a test for the HIV, which is used to indicate that an individual has been infected with the HIV, but does not yet have AIDS (Miller, 2003).

PMTCT programme

Refers to interventions used to prevent the transmission of HIV from a mother living with HIV to her infant during pregnancy, labour, delivery and breastfeeding (USAID, PEPFAR & AIDSTAR-ONE, 2013).

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Mother-to-child transmission

Mother to child transmission refers to a situation where the HIV virus that causes AIDs is passed from a mother to her infant during pregnancy, birth and breastfeeding (Western Cape Government, 2014).

Exclusive breastfeeding

Exclusive breastfeeding refers to an infant feeding option where the baby only gets fed breast milk with no tea, water, juice or solids for six months (WHO, 2011).

Postnatal period

This is the period that begins immediately after the birth of a baby and that extends for about six weeks (WHO, 2010).

Interview

This is a conversation in which one person (interviewer) elicits information from another person (interviewee) (Richard, 2014).

Qualitative

Is a research method in which the investigator seeks to identify the qualitative aspects of the phenomenon under study, from the participant's viewpoint, in order to interpret the meaning of the totality of the phenomenon (Dempsey & Dempsey, 2000).

Client

Is a person that receives a service from a professional person (Oxford Dictionary, 2014).

1.9. Chapter Outline

Chapter One

This chapter sets out the introduction and background of the study, presents the research problem, research question, aim, objectives and the significance of the study.

Chapter Two

This chapter discusses the literature review to locate the study in both international and local context and lays the foundation for a point of departure for the study.

Chapter Three

This chapter introduces the methodology that was used to investigate the research problem and answer the research questions posed in this study. An overview of the qualitative research methodology is discussed. The reason for using a qualitative approach is described and the limitations of using this approach are highlighted. Details of the study design, sampling, data collection and data analysis are presented and the measures to ensure trustworthiness of the research are described.

Chapter Four

The research findings are presented in this chapter. The results are presented by means of themes that emerged during data analysis, which were done using Collaizzi's seven steps method of qualitative data analysis (Streubert-Speziale & Carpenter, 2007).

Chapter Five

This chapter discusses in detail the findings of the study. The findings are compared with the findings from national and international studies. Each theme that emerged during data analysis is discussed in detail. The link between the themes is presented in the discussion of each theme. The summary, conclusion, recommendations and suggestions for further research are discussed in this chapter. Furthermore, recommendations to improve the PMTCT services during the postnatal period are proposed.

1.10. Conclusion

This chapter gave an overall view of the study. The statement of the problem, the aim and significance of the study were discussed in this chapter. The research objectives, concepts as well as definitions of key were communicated. The outlines of the chapters were also articulated in this chapter.



CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

A literature review refers to an organized written presentation of what has been published by scholars on a particular topic (Brink, Van de Walt & Van Rensburg, 2012). Some authors prefer to start with a limited review of the literature, as a means of an orientation to the study; others prefer not to do the literature review before the study, to minimize bias during the data collection process (Burns, Grove & Gray, 2013). Before embarking on this study, the researcher did a general reading on the study topic, in order to become familiar therewith. Thereafter, the literature review continued during the process of conducting this study.

The review of the available literature was conducted by using the Internet, Google scholar and data base to establish what had been published about the topic under investigation. The researcher also utilized the library at UWC, as well as, libraries from other learning institutions, to seek hard copies of theses that had not been published. Key words such as challenges, midwives, HIV-positive mothers, PMTCT programmes and postnatal services were used as searching terms to find literature on the study topic and to identify the limitations of the literature, in order to decide on the focus of the study.

This chapter, therefore, presents a review of literature related to the knowledge and attitude of midwives who render PMTCT services to HIV-positive pregnant women, as well as, the PMTCT coverage during pregnancy, labour and the postnatal period.

2.2. Knowledge and Attitude

Since its implementation, the PMTCT programme has been receiving an increasing amount of attention, internationally and in different areas of practice. There is ample literature on PMTCT from both developing and developed countries, however, in South Africa there is not much literature on the challenges of midwives, who render PMTCT services, compared to other countries. According to WHO (2010), assessments across sub-Saharan Africa have found that health providers lack the skills, training, knowledge and evidence to offer support

and advice on the breastfeeding options. This extends to both general breastfeeding support and specific considerations for women with HIV. When breastfeeding problems like cracked nipples and babies with latching problems arise, nurses and counselors are ill-equipped to offer advice. This leaves women confused about the risks associated with the various options and many opt for mixed feeding, the most dangerous feeding modality. In a study conducted by Eameri & Randall (2013) on the barriers to implementing WHO's exclusive breast feeding policy for women living with HIV in sub-Saharan Africa found that, of all the challenges in reducing vertical transmission of HIV, the one most poorly met to date is making infant feeding safer. Even within mainstreamed community-based infant feeding counseling programs, implementing the WHO's infant feeding guidelines remains challenging, because the evidence and guidelines are not reaching front-line workers, or at least not in a way that encourages their buy-in.

A qualitative study conducted by Nuwagaba-Biribonwoha, Mayon-White, Okong & Carpenter (2007) explored the challenges faced by health workers in implementing the PMTCT programme in Uganda, at five PMTCT testing sites. The study aimed at investigating the benefits, challenges and sustainability of the PMTCT programme. The found out that, staff members who were implementing the PMTCT programme in hospitals has a positive attitude, which led to changes in obstetric care, to the benefit of the patients. The findings of the study also showed many challenges to the PMTCT programme, which included the: non-consent for HIV testing; non- disclosure of HIV status; management of infant feeding; lack of definite infant diagnosis; and, shortage of staff, space and resources for more effective implementation. The authors recommended that, due to the many challenges opposing the PMTCT programme, there was a need to strengthen follow-up services for HIVpositive women, especially with their choices of infant feeding and family planning. In addition, Rispel, Peltzer, Phaswana-Mafuya, Metcalf & Trege (2009) who assessed missed opportunities for the prevention of mother-to-child HIV transmission in an Eastern Cape reveal that staff members of the service delivery facilities were found to have high awareness levels of HIV policies and most had received the relevant training. However, even though the staff had received training, there were many missed opportunities for the PMTCT programme, such as, 43% of pregnant women were tested during their previous pregnancies but not tested during their current pregnancies. The study showed that not all pregnant women were being offered voluntary counselling and testing during their antenatal period,

which may have been due to the staff's lack of knowledge and skills to give proper counselling on the prevention of MTCT during and after pregnancy. In the same study, nurses were found to be uncertain about family-planning guidelines for HIV-positive mothers. However, it was concluded that there were still priority areas that required reinforcement in the health sector including: HIV counselling and testing; family planning; and feeding counselling.

Furthermore, a study conducted in northern Tanzania by Leshabari, Blystad, Paoli & Moland (2007) on the challenges faced by nurse-counsellors, aiming to explore the experiences and situated concerns of nurses working as infant-feeding counsellors to HIV-positive mothers, enrolled in the PMTCT programme. The nurse-counsellors found themselves unable to give qualified and relevant advice to HIV-positive women on the best method to feed their infants. They also expressed a lack of confidence in their own knowledge of HIV and infant-feeding, as well as, in their skills of assessing the ability of HIV-positive women to adhere to one particular method of feeding, during the postnatal period. The study highlighted the immense burden placed on nurses, in their role as infant-feeding counsellors, in PMTCT programmes, and the urgent need for training and support structures, necessary to promote professional confidence and skills. The staff needed motivation to deal with the increased workload and the improvement of PMTCT services.

2.3. PMTCT Coverage

A study was conducted, in KwaZulu Natal, by Horwood, Haskins, Vermaak, Phakathi, Subbaye & Doherty (2010) to evaluate PMTCT implementation and the integration of PMTCT with routine maternal and child health services. The study identified a high coverage of PMTCT interventions during pregnancy and delivery. However, the postnatal follow-up of HIV-positive mothers and their infants was found to be poor. It was, therefore, suggested that the link between the care of HIV-positive mothers during pregnancy and delivery, and the follow-up care for babies and mothers needed to be strengthened, to avoid the drop off in PMTCT services provision. Furthermore, Elaine, Abrams, Myer, Rosenfield, Wafaa & El-Sadr (2007) in America also suggested that close ties are feasible between PMTCT services, HIV care, treatment programmes and postnatal follow-up. This could lead to significant advances in reducing the vertical transmission of HIV, thus promoting the health of HIV-infected women, children and families. Similarly, Sherman, Jones, Coovadia, Urban &

Bolton (2009) conducted a study in Johannesburg to assess the efficacy of the PMTCT programme in a routine service setting, as opposed to a research environment. It was understood that a low HIV transmission rate confirmed the efficacy of this routine service PMTCT programme. The study found out that, routine service PMTCT programme was highly effective in reducing the MTCT rate of HIV, but failed in the follow-up of children. It further stated that this failure could be attributed, predominantly, to the hospital's lack of capacity to implement the national programme guidelines for the follow-up of perinatal exposed children. It was concluded that HIV-infected children were not being identified for medical management, as part of the PMTCT follow-up, highlighting the importance of improving record keeping, which would facilitate on-going monitoring.

During the postnatal period, HIV transmission from mother to child occurs mostly during mix feeding by HIV-positive mothers. Breastfed children born to HIV-positive mothers are at substantial risk of late postnatal HIV transmission. Early cessation of breastfeeding at six months of age should be monitored to reduce postnatal transmission of HIV (Western Cape Government, 2014). However, Evaluation reports done by Goga, Dinh & Jackson (2012a) in South Africa, showed that only 20% of HIV-positive mothers were exclusively breastfeeding, 62% were formula feeding, while the remaining 18% practiced mix feeding. Similarly, in a study conducted, in South Africa, by Goga, Doherty, Jackson, Sanders, Colvin, Chopra & Kuhn (2012b) to investigate infant feeding practices among HIV-positive and -negative mothers, from zero to nine months postpartum. The study findings showed poor feeding practices among HIV-positive and -negative mothers. However, HIV-positive mothers undertook safer infant-feeding practices, most probably due to the counselling provided through the routine PMTCT programme. The findings suggested that infant messages needed to be clear and should be integrated within all routine child services, where HIV-positive women needed to be seen as a group with special needs. It further stated that infant-feeding interventions should include negative mothers, who constitute the majority of the world's mothers and who would have been neglected, if efforts excessively prioritized HIV-positive women.

2.4 Challenges for Implementing PMTCT

According to the National Department of Health, Medical Research Council (MRC), University of the Western Cape (UWC), UNICEF and United States Agency for International Development (USAID) Report (2009) on the best practices in the PMTCT of HIV

programmes in South Africa, since the national PMTCT programme was initiated, it had not been delivered according to expectations and should, therefore, be intensified. The report suggested a need for increased attention on the follow-up of HIV-positive mothers and their infants during the postnatal phase. A comprehensive PMTCT intervention had the capacity to reduce the neonatal infections to less than 5%, thus saving the lives of babies on an annual basis.

According to Moses, Zimba, Kamanga, Nkhoma, Maida, Martison, Mofolo, Joaki, Muita, Spenseley, Hoffman, & Van de Horst (2008), the implementation of any program requires effective monitoring and evaluation to guide the services provided. Continuously monitoring the various steps of the process from community education, client's education, informed consent, HIV testing, adherence to the regime, delivery at a health centres and early diagnoses of infected infants allowed early realization and correction of program weakness. Accessible care during labour and delivery can facilitate successful PMTCT programing In the studies conducted in Malawi and Zimbabwe by Kalembo & Zgambo (2012) showed that many existing programs suffered from high attrition rates and incomplete follow-up due to the fact that many women, especially in rural areas delivered at home rather than at a health facility. Similarly, a study conducted in Ethiopia by Merdekios & Adedimeji (2011) revealed that only 16% of births were attended by skilled personnel while 95% of HIV positive women did to return for institutional delivery. The challenge is to retain women on ART and achieve sustained virological suppression (Stinson, 2014).

Furthermore, Merdekios & Adedimeji (2011) also stated that cultural influences and poor socioeconomic status are factors that influence the choice of delivery location. Understanding the socioeconomic factors that affect the ability of communities to comply with PMTCT program will assist resource poor countries in devising strategies to achieve follow up of HIV exposed infants. In the study conducted by Chetty, Butler, Giddy, Crankshaw, Knight & Newell in South Africa (2011) also added that socioeconomic factors such as poverty, geographical relocation and lack of paternal support may affect the capacity of families to comply with follow up program. The early loss to follow up may be related to the hospital's user fees or availability of free maternal and child services in the public sector in South Africa. Similarly, the study conducted in Rwanda by Lim, Kim & Rich (2010) also agreed to the fact that the largest obstacle to PMTCT program was traveling distances to health centers.

Furthermore, study conducted by Kasenga, Hurtig & Emmelin (2008) who investigated an HIV-positive women's experiences of a PMTCT program in rural Malawi state that although the women wished for hospital birth to a high degree, it was a desire challenged by circumstances, chance and tradition. Study showed that sickness, distance, fear of expenses, lack of support and tradition prevented women from returning to the hospital to give birth.

In the study conducted by Nguyen, Oosterhoff, Pham, Hardon & Wright (2009), who reported on health workers' perceptions of factors that caused their failure to provide good quality PMTCT services, and found that the antenatal care caseload of national and provincial hospitals was very high. Shortage of PMTCT staff reported as one of the challenges that caused a negative impact on implementation and one of the reasons for the loss of clients in the PMTCT programme. Similarly, study conducted by Toure, Audibert & Dabis (2010) who investigated the performance based scheme help increasing the effectiveness of PMTCT programs in resource limited settings of Sub-Sahara African countries and found that shortage of staff are a major obstacle to the scale-up of HIV care and treatment including PMTCT. Authors also state that shortage of trained health care providers has existed for decades, but in recent years the number of worker has been inadequate at almost all levels of the health system and the workload brought on by the HIV epidemic has increase the strain on fragile health systems and already over-stretched health workers. In addition, study done by Moses, Zimba, Kamanga, Nkhoma, Maida, Martison, Mofolo, Joaki, Muita, Spenseley, Hoffman & Van der Horst (2008), who evaluated the uptake of HIV testing in the PMTCT programme in Malawi, and found that one of the constant challenges in maternity wards was chronic understaffing, and the poor nurse-client ratio made delivering a baby at a health care facility less attractive. This constraint led to the patients leaving without their results or treatment.

Similarly, the study done by Stinson (2014) at Khayelitsha, there were a number of challenges associated with the provision of ART in the MOU, including staff shortage and turnover that required human resource planning and training. The study further indicated that Khayelitsha was a severely disadvantaged and resource-limited area, but the PMTCT programme had remained at the forefront of innovation, and had evolved in line with the advantaged global best practice in ART care. However, Tom (2013) states that postnatal transmission is an important area of concern and it was very clear that South Africa did not

know what the health outcomes for infants after six weeks were. Lack of mother and infant follow-up was a massive weakness in South Africa's PMTCT programme (Tom, 2013).

A study conducted by Kalembo & Zgambo (2012), who investigated how the loss of patients due to the lack of follow-up visits had affected the successful implementation of PMTCT programmes in Sub-Saharan Africa. The study revealed that the non-disclosure of the HIV status is the main reason for the lack of follow-up visits and patient loss in the PMTCT programme. Similarly, study by Simbayi, Kalichman, Strebel, Cloete, Henda & Mqeketo (2007), who investigated the disclosure of the HIV status to sexual risk behaviour among HIV-positive men and women in South Africa. In the study participants in that study reported efforts to conceal their HIV status from others as they feared that potential adverse reactions were significantly related to disclosing their HIV status to their partners. In the same study also revealed that those, who had disclosed their HIV status, were more likely to experience discrimination, related to their status, and lose their jobs or place to live because they are HIV-positive. Furthermore, Painter, Diaby, Matia, Lin, Sibailly, Kouassi, Ekpini, Roels & Wikton (2006) investigated the women's reasons for not participating in the follow-up visits, before starting the short course antiretroviral prophylaxis for PMTCT and found out that women are willing to turn up for follow-up visits, as long as they remained anonymous and has a fears the reaction of their families or husbands. At the same time they feared losing their husbands. Simbayi et al., (2007) suggested a need for interventions to: (i) reduce the AIDS stigma and discrimination in South Africa and, (ii) assist people with HIV to make effective decisions on disclosure. In a study conducted by Linguissi, Bisseye, Poulain, Ntoumi & Simpore (2015) in investigating the challenges to implementation the PMTCT in Congo found out that, although the women regarded the support from the surrounding family as essential, they faced a dilemma between silence and openness about disclosing their HIV status or not, especially to their partner. Stigma and discrimination against people living with HIV is also a major barrier to access to PMTCT services. The elimination of pediatric infection and improved monitoring of children infected with HIV remain major challenges for the Congolese health system. Furthermore, in a study was conducted by Nam, Fielding, Avalos, Dickinson, Gaolathe & Geissler (2008), who investigated the relationship of acceptance or denial of HIV status to antiretroviral adherence among adult HIV patients in Botswana. The participants in that study expressed some degree of denial about their HIV status, tended to express emotions associated with depression and internalised stigma that inhibited the development of a relationship with their confidante. The findings concluded that it was important to identify: (i) HIV-positive individuals who were still in some degree of denial about their status and, (ii) depression among patients on antiretroviral medication, in order to enable more targeted individualised support in the management of HIV.

2.5. Conclusion

The literature review revealed many studies done on the PMTCT, in general. However, there were very few studies published on the PMTCT challenges. This chapter presented a literature review on the different topics that have been published on the PMTCT, including knowledge, staff attitude, PMTCT coverage and challenges for implementing PMTCT.



CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter discusses the methodology that was used to conduct this study. It includes the research design, setting, population, sample, data collection tool, data analysis, trustworthiness and ethics considerations.

3.2. Research Design

A research design is a blue print to maximize control over factors that could interfere with a study's desired outcome (Burns, Grove & Gray, 2013). It directs the selection of the population, sampling process, methods of measurement and a plan for data collection and analysis. It guides the researcher in the planning and implementing of the study, in order to achieve accurate results (Burns, et al. 2013). It helps to connect the empirical data to the study's initial research questions and ultimately to its conclusion (Creswell, 2007). It also indicates how often data will be collected, what type of comparisons will be made and where the study will take place. It outlines a set of strategies that the researcher utilizes in order to produce accurate and interpretable evidence (Polit & Beck, 2012). This study used an exploratory, qualitative research design to explore the challenges faced by midwives, rendering postnatal services to mothers enrolled in the PMTCT programme at the Khayelitsha Community Health Clinic, Western Province. This design guided the researcher to plan and implement the study in a way that would mostly likely achieve the intended objective and provide an answer to the research question.

3.2.1 Exploratory Design

According to Polit & Beck (2012), exploratory, qualitative research is designed to shed light on the various ways in which a phenomenon is manifested and on the underlying process. The goals of the exploratory research are, to understand the underpinning of natural phenomenon, and to explain the systematic relationships between them. It provides promising insights, and attempts to offer an understanding of the underlying causes of the full nature of the phenomenon. It begins with the phenomenon of interest, investigates the full nature of the

phenomenon and investigates the related factors and manifestation of the phenomenon, instead of simply observing and describing the phenomenon (Polit & Beck, 2012). Exploratory design was used in this study. The aim of this study was to explore the challenges faced by midwives, who render postnatal services to mothers, enrolled in the PMTCT programme at the Khayelitsha Community Health Clinic. Through the exploratory paradigm, the researcher listened to the midwives, who render the PMTCT services, in order to identify and understand the challenges that they faced. The researcher, specifically, chose exploratory research design to gain detailed information on the challenges faced by midwives, in implementing the PMTCT programme, during the postnatal period.

3.3. Qualitative Research Approach

According to Burns, et al. (2013), qualitative research is a systematic, interactive, subjective approach used to describe and give meaning to life experiences. It is a way of gaining insight, by discovering meaning, and improving the comprehension, of an entire phenomenon within a holistic framework (Burns, Grove & Gray, 2013). It is used to research a person's life; behaviour, feelings, emotions, organizational functioning, social movement and cultural phenomena. In qualitative research, the researcher searches for explanations about how and why the phenomenon exists. It is useful for exploring the full nature of insufficiently understood phenomena (Polit & Beck, 2012). In this study, the researcher used qualitative research to understand the challenges faced by midwives, in implementing the PMTCT services to HIV-positive women and their infants, during the postnatal period. The researcher utilized herself as a research instrument to gain insight into the phenomenon to be researched. The researcher was focused on the participants' perspective that could, ultimately, lead to the understanding of the phenomenon.

3.4. Research Setting

A setting is a specific location where data collection occurs (Polit & Beck, 2004). This current study took place at one of the MOUs of a Community Health Clinic in the Western Cape. The clinic operates in the Khayelitsha Health District of the metro region and is a Primary Health Care (PHC) level unit that is operational 24 hours per day. This Community Health Clinic was chosen as the study setting because it was the first pilot site for the PMTCT programme in South Africa (Stinson, 2014). It offers voluntary counselling, HIV testing, PMTCT services, antiretroviral drugs, antenatal, intrapartum and postnatal care to

HIV-positive mothers and their infants. All HIV-positive pregnant women are initiated on ARV's by the midwives at this clinic. The midwives also provide postnatal follow-up care, for both the mother and baby, for up to six weeks post-delivery, at which time the babies are screened for HIV infection.

3.5. Population

The research population is the entire group of persons, of interest to the researcher, and possessing specific characteristics that match the research topic (Brink, Van der Walt & Van Rensburg, 2012). The research population is further defined as the accessible and target population. Accessible population is the aggregated number of cases that conform to the designated criteria and are accessible for the study (Polit & Beck, 2012). The target population consists of the total group of people or objects that meets the designated set of criteria, of interest to the researcher (Dempsey & Dempsey, 2000). The target population for this study was all midwives rendering PMTCT services to HIV-positive mothers and their infants at the Khayelitsha Community Health Clinic. In this study, the accessible population was sixteen midwives.

3.6. Sampling and Sampling size

Sampling refers to the research process of selecting a sample from a population, in order to gather information regarding a phenomenon, in a way that represents the population of interest (Brink et al., 2012). In this current study, purposive sampling was used to select participants from the accessible population at the Khayelitsha Community Health Clinic. According to Burns, Grove & Grey (2013), purposive sampling is a type of non-probability sampling method, in which the researcher selects participants for the study on the basis of personal judgment; deciding who would be most preventative or productive. In this study, purposive sampling was achieved by setting the criteria that allowed all participants to participate, or not, in the study. Thereafter, the researcher chose the participants on the basis of them meeting the criteria. The researcher's expectation was for the chosen participants to provide a detailed impression of the challenges they faced, when implementing the PMTCT programme, during the postnatal follow-up of HIV-positive mothers and their babies. In this study, the sample size was six midwives, who were NIMART-trained and rendering PMTCT services to HIV-positive mothers and their babies, during the postnatal period.

3.6.1. Inclusion criteria

Participants were included if:

- 1. They were permanently employed, registered midwives at the Khayelitsha Community Health Clinic.
- 2. They were rendering PMTCT services to HIV-positive mothers and their children, during the postnatal period.
- 3. They had a minimum of two years working experience.
- 4. They were PMTCT/NIMART-trained.

3.6.2. Exclusion Criteria

- Participants were excluded from the study, if they were midwives who were not PMTCT-trained, as they were perceived as not being directly involved in rendering PMTCT services to HIV-positive mothers.
- 2. Midwives were also excluded if they were doing their community service year, as they were not permanently employed, did not have two years working experience and were not PMTCT/NIMART-trained.

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3.7 Data Collection Methods

3.7.1 Recruitment of the Participants

After permission, from the different authorities, was granted to conduct the study, the researcher approached the unit manager of the MOU at the Khayelitsha Community Health Clinic for permission to access midwives as participants for the study. When permission was granted, the researcher approached the prospective participants individually. The prospective participants were contacted telephonically and the rationale of the study was explained, verbally. A meeting was arranged with each prospective participant, to fully explain the nature and purpose of the study. Before the meeting, each prospective participant was given an information sheet, and those who agreed to take part in the study, were asked to sign a consent form. The information sheet contained the aim, objectives and the questions to be asked during the data collection interviews. It also contained the risks and benefits involved in the study, as well as, the appropriate measures to be taken in the case of traumatized

participants. The information sheet also clarified that participation in the study was completely voluntary and that the participants were allowed to withdraw from the study at any time, should they wish to do so. It further highlighted that withdrawal from the study would in no way affect the midwives' relationship with their employer. The participants were also informed that a voice recorder would be used, and field notes would be taken by the researcher, during the interviews. Convenient interview times were arranged with the participants and the interviews were to be conducted at venues that suited the individual participants. The most convenient venue decided upon was the ultrasound and counselling room on the premises of the clinic, as it was familiar to the participants. The researcher put a sign that read, "Please do not disturb, interview in progress", on the outside of the door before beginning the interviews, to ensure that they were free from disturbances and that a calming atmosphere prevailed. The unit manager granted permission for this sign to be put up on the door, as that room was accustomed to many disturbances.

3.7.2. Data Collection Process

Data collection commenced at the beginning of January 2015 and was completed towards the end of February 2015. In this study, six participants were interviewed using in-depth unstructured interviews. Three participants preferred that their interviews be conducted on a Friday, during their resting period, since Friday was not usually a busy day at the clinic. Two participants preferred that their interviews be conducted after eight o'clock in the evening, since they were on night duty and unable to be at the clinic during the day. One participant preferred that her interview be conducted in her office, where she felt more comfortable to express her views. During each interview, the researcher created a relaxed atmosphere, by ensuring that the participants were comfortable, and used uncomplicated words when posing the questions, so that they would understand the significance of the questions. Five interviews were conducted in English and one in isiXhosa (later transcribed and translated into English), as one participant asked to be interviewed in the language that she was comfortable to express the challenges. Since the researcher is a Xhosa-speaking person, it was easy to translate the interview from isiXhosa to English. Each interview took 45 minutes to conduct. All interviews were recorded by the audio recording device. During interview, none of the participants required counselling.

3.7.3. Data Collection Instrument

In this study in-depth, one-on-one, unstructured interviews were used to explore and understand the challenges faced by midwives, who render postnatal services to HIV-positive mothers, enrolled in the PMTCT programme at the Khayelitsha Community Health Clinic. The purpose of unstructured interviews is to collect data that enables the researcher to understand the experience, interpret the everyday world of the respondent and to communicate the respondents' experience, in all its rich detail, to others (Tappen, 2011). This author also asserts that unstructured interviews are not formless or chaotic, as the term unstructured might suggest. Instead, they are shaped by the interaction between the interviewer and interviewee. A researcher, using a completely unstructured approach, may informally ask broad questions related to the topic under investigation (Polit & Hungler, 1987). In the current study, each participant was asked one core question, as follows; "What are the challenges that you face in implementing the PTMCT programme, during the postnatal period, at the Khayelitsha Community Health Clinic". Thereafter, probing questions followed, based on the responses of the participants. While conducting the interviews, the researcher allowed the participants to relate their stories without much interruption.

3.7.4. Data Saturation

Data saturation is a point reached, when new data no longer emerge, during the data collection process. In qualitative research, the sample size is determined by data saturation (Brink, Van der Walt & Van Rensburg, 2012). As per the principle of qualitative research, at the start of the study, the researcher had no idea how many midwives were going to be interviewed. Being guided by the principles of data saturation, the researcher reached data saturation at the sixth interview. Thereafter, no more interviews were conducted.

3.8 Data Analysis

According to Brink et al. (2012), data analysis, in qualitative research, is not a distinct step, but is done concurrently with data collection. The researcher adopted Colaizzi's methods of phenomenological data analysis, which include the following steps, as set out by Streubert-Speziale & Carpenter (2007):

1. Each transcript should be read and re-read in order to obtain a general sense about the whole content;

- 2. For each transcript, significant statements that pertain to the phenomenon under study should be extracted. These statements must be recorded on a separate sheet, noting their page and line numbers;
- 3. Meanings should be formulated from these significant statements;
- 4. The formulated meanings should be sorted into categories, clusters of themes and themes;
- 5. The findings of the study should be integrated into an exhaustive description of the phenomenon under study;
- 6. The fundamental structure of the phenomenon should be described; and
- **7.** Validation of the findings should be sought from the research participants to compare the researcher's descriptive results with their experiences.

In this study, the researcher started by listening to the six audio-tape-recorded interviews and transcribed them, verbatim. Thereafter, the researcher read all six interview transcripts, several times, to become *au fait* with the data.

The researcher extracted significant statements that described the challenges faced by the midwives, in implementing the PMTCT programme, during the postnatal period. At this stage, the researcher made use of the Atlas-TI software to organize the data and complete the process of coding. Line-by-line coding was done on each interview transcript, after it had been read three or four times more. The interview transcripts were also passed on to an independent coder, who was an expert in qualitative research.

The researcher merged all the codes that emerged from each transcript and grouped them into a cluster of categories. Thereafter, all the categories were scrutinized, organized and allocated themes. The researcher then compares her coding with that of the independent coder by looking at the differences and similarities. The researcher then wrote an exhaustive description of the challenges faced by midwives, in implementing the PMTCT programme, during the postnatal period, based on their own descriptions. The validation of the exhaustive description was confirmed with the researcher's supervisor. Lastly, the final report was presented to the participants, and the results discussed with them, in order to determine whether they agreed that it represented their overall challenges, as reported by them, during the data collection interviews.

3.9 Trustworthiness

Trustworthiness is a way of ensuring data quality, or rigor, in qualitative research (Brink et al., 2012). It is of particular concern to the consumer of the research: the person who reads the research report and considers whether or not to use the results (Tappen, 2011). In this current study, Guba's model, consisting of credibility, dependability, conformability and transferability, was applied to assess the trustworthiness of the qualitative data (Guba, 1985).

3.9.1. Credibility

Credibility is the equivalent of internal validity, which seeks to demonstrate that the way an inquiry is conducted, ensures that the topic is accurately described (Tappen, 2011). It is achieved to the extent that the researcher's methods engender confidence in the truth of the data, and in the researcher's interpretation (Polit & Beck, 2012). During the interviews, credibility was assured by the reframing, repetition and expansion of the interview questions, to ensure that the participant understood the question. The researcher only collected data from the participants, and nobody else, to ensure consistency in the interviewing process. The researcher also achieved credibility by transcribing and repeatedly listening and reading the interview transcripts. The data was sent to an independent, professional coder, who developed themes, and categories, which were compared with the themes and categories coded by the researcher, in order to check for consistency.

3.9.2. Dependability

Dependability refers to the evidence that the data is believable, consistent and stable over time (Polit & Beck, 2012). In this study, dependability was assured by peer examination and discussing the research process with experienced experts in qualitative research. Dependability was also assured by sending data to an independent coder, who assisted with data analysis, followed by a consensus meeting with the researcher. Dependability is equivalent to reliability in quantitative research, which requires the researcher to attempt accounting for changing conditions in the phenomenon chosen for study, as well as, changes in the design, created by an increasingly defined understanding of the setting (Tappen, 2011).

3.9.3. Conformability

Conformability is defined as the degree to which the study results are derived from the characteristics, as well as, information of the participants and the research process, and not

from the researcher's biases (Polit & Beck, 2012). The researcher is a midwife, practicing in one of the maternity hospitals in the Western Cape. The researcher is not PMTCT-trained and is not rendering postnatal PMTCT services to HIV-positive mothers. Therefore, the researcher's biases regarding the findings were neutral. During the data analysis phase, the researcher and the independent coder met to discuss the findings. Conformability was also ensured by keeping field notes, using multiple data sources and applying reflexive analysis.

3.9.4. Transferability

Transferability refers to the applicability of the findings to other situations and other participants, and is equivalent to external validity. Qualitative research is not designed for the purpose of generalizing; instead, it is meant to describe a phenomenon within a certain context (Tappen, 2011). However, the researcher made connections between the findings of this study and those of other studies. Transferability was assured by providing a description of the research setting and study participants, as well as, a thick description of the data. It was also ensured by applying the data, to improve the follow-up of HIV-positive mothers and their babies, during the postnatal period. The findings of the study are not linked to all Midwifery Obstetric Units in the Western Cape, since it remains limited to the context of the study.

3.9.5. Reflexivity

Reflexivity is a process of reflecting critically on the self, as well as, analyzing and identifying personal values that could affect data collection and interpretation (Polit & Beck, 2012). In this study, the researcher ensured that her preconceived ideas about the challenges that midwives faced, in implementing the PMTCT programme, during the postnatal period, did not interfere with the data collected. The researcher remained objective throughout the data collection process and did some introspection before each interview.

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3.10. Ethics Considerations

The following measures were employed to protect the rights of the participants:

• **Right to self-determination:** This is based on the ethical principle of respect for persons. The principle presupposes that human beings are capable of self-determination and should, therefore, be treated as autonomous agents, who have the freedom to conduct their lives as they choose to, without external controls (Burns,

Grove & Gray, 2013). This confirms that all the participants had the right to voluntarily decide whether to participate in the study or not (Brink, Van der Walt & Van Rensburg, 2012). The researcher treated the participants as autonomous agents by informing them of the proposed study and allowing them to choose whether they wished to participate, or not. The researcher also informed the participants of their right to withdraw from the study, at any time, without prejudice. Participation in the study was free of any coercion.

- **Right to privacy:** Privacy is an individual's right has to determine the time, extent and general circumstances, under which personal information, such as beliefs, behaviour, opinions and records, is shared with, or withheld from, other people. (Burns, Grove & Gray, 2013). During this study, the researcher conducted the interviews with the participants in one of the private rooms at the facility. The researcher also ensured that the names of the participants,, involved in the study, were not linked to the original interviews.
- Right to autonomy and confidentiality: Based on the right to privacy, the participant has a right to anonymity and the assumption that the data collected would be kept confidential (Burns, Grove & Gray, 2013). During the study, the researcher did not share the participant's private information without the authorization of the participant. The interview notes were locked away where only the researcher and the supervisors could access them. The data were to be kept for a specified period of time and later destroyed, as recommended by the rules of the University of the Western Cape (UWC). The participants were guaranteed confidentiality regarding their private and personal information. Confidentiality was further assured by using pseudonyms to protect the participant's identities throughout the study. Audio tapes and field notes were allocated numbers, instead of participants' names, to ensure the anonymity of the data.
- **Right to fair treatment:** The right to fair treatment is based on the ethical principle of justice. This principle suggests that each person should be treated fairly and should receive what s/he is due or owed (Burns, Grove & Gray, 2013). During this study, the researcher ensured that the selection of participants was fair, as all participants, who met the criteria for the study, were given an equal opportunity to decide on participation in the study.

- **Right to protection from discomfort and harm:** This is based on the principle of beneficence: One should do well and, above all, do no harm (Burns, Grove & Gray, 2013). The researcher put measures in place so that, in the event of the participants being stressed out by their disclosure of certain information, they could be referred to counsellors for debriefing.
- Obtaining informed consent: Obtaining informed consent from human subjects is essential for conducting ethical research (Burns, Grove & Gray, 2013). The researcher, as a student of the university, ensured that the Higher Degrees and Ethics Committee of the Faculty of Community and Health Sciences at UWC granted their permission to conduct the study. The researcher also sought permission from the Department of Health and the Khayelitsha Community Health Clinic. In addition, the researcher sought permission from each participant for their consent to be interviewed, after the purpose of the study was fully explained to them. Subsequently, each participant completed a consent letter.

3.11. Conclusion

In this chapter, the researcher provided a description of how the study was conducted. The theory of Qualitative Methodology was followed while conducting this study and the reasons for this choice were disclosed. Trustworthiness and the measures for Ethics Considerations were also discussed in detail. Chapter four will discuss the findings of this research.

CHAPTER FOUR

FINDINGS

4.1. Introduction

This chapter presents the findings of the study. The researcher first presents the demographic profile of the six midwives, who were the participants in the study, as an overview, and includes their ages and years of working experience. The data gathered was analyzed using Collaizi's (1978) seven steps method of data analysis (Streubert-Speziale & Carpenter (2007). After the data analysis, six themes emerged, namely:

- Challenges related to the ratio of Patients to NIMART-trained midwives;
- Challenges related to the non-adherence to treatment and follow up postnatal visits;
- Challenges related to tracing patients who do not return for follow up visits;
- Educational challenges;
- The effects of personal challenges on NIMART-trained midwives in PMTCT; and
- Participants' perceptions on ways to address the challenges.

These six themes had sixteen sub-themes, which are all discussed in this chapter.

4.2. Demographic Profile of Participants

In this study, the participants were six midwives, rendering the PMTCT programme to HIV-positive mothers and their infants, during the postnatal period. They had all undergone the NIMART training and their ages ranged from 35 to 55 years. All the participants were female with working experience ranging from 5 to 25 years at the study setting (See Table 4.1).

Table 4.1: Participants profile

Individual interviewees	Age (in years)	Experience (in years)	Gender
Participant one	35	6	Female
Participant two	47	5	Female
Participant three	55	22	Female
Participant four	48	25	Female
Participant five	35	9	Female
Participant six	35	10	Female

4.3. Results and Discussions

The six themes that emerged during data analysis constitute the findings of the study. It is important to note that the themes are interlinked. The first five themes represent the overall challenges that were faced by the midwives in implementing the PMTCT programme, at the Khayelitsha Community Health Clinic, during the postnatal period, and the last theme represents the midwives' perceptions on ways to address these challenges. Table 4.2 below summarizes the themes and sub-themes that emerged.

Table 4.2: Themes and Sub-themes

Themes	Sub-themes	
Challenges related to the ratio of Patients to NIMART-trained midwives.	1.1. Too many patients for the available qualified staff.1.2. Overcrowded clinic means long waiting times for mothers with babies.1.3. Only NIMART-trained midwives are allowed to initiate treatment.	
Challenges related to the non-adherence to treatment and follow up postnatal visits.	2.1. Non-disclosure of HIV status to partner and family2.2. Denial and, therefore, a lack of follow up visits after birth.2.3. The influence of the lack of means and resources to access services.2.4. The effects of the treatment side effects on adherence.	
Challenges related to tracing patients who do not return for follow up visits.	 3.1. Lack of manpower for information recording, tracing and follow up. 3.2. Change of address and/or moving to other provinces complicates follow up by health practitioners. 3.3. Data-bases of facilities not synchronised or data-bases do not exist. 	
4. Educational challenges.	4.1. Not accepting or comprehending the educational advice.4.2. The influence of conflicting/confusing messages regarding breastfeeding /formula feeding and medication prescriptions on compliance.	
5. The effects of personal challenges on NIMART-trained midwives in PMTCT.	5.1. Physically drained, stressed, with little acknowledgement. 5.2. Attitude of "just doing what I canmothers' responsibility"	
Midwives' perceptions on ways to address the challenges	6.1. All midwives must be NIMART-trained 6.2. Mothers must take responsibility for their babies' health, regardless of	

4.3.1. Theme One: Challenges related to the ratio of Patients to NIMART-trained midwives.

This was the first theme that emerged during the data analysis phase. The participants defined this theme in the context of, the shortage of staff, in relation to the number of patients attended to on a daily basis. The midwives reported the shortage of staff as one of the main

challenges that they faced, which was also the main reason for the poor follow-up of HIV-positive mothers and their babies during the postnatal period. This theme was presented under the following three sub-themes namely: Too many patients for the available qualified staff; Overcrowded clinic means long waiting times for mothers with babies; and only NIMART-trained midwives are allowed to initiate treatment.

4.3.1.1. Too many patients for the available qualified staff

The excessive number of patients was most frequently reported as a challenge by the participants in the study, during data collection. They also added that postnatal patients were mixed with antenatal patients, which resulted in an increased number of patients to be attended to by a few midwives every day. Participant one stated the following:

"If you are working antenatal, we see more than 100 patients per day and then we try to manage those patients...other sisters who are working there at postnatal they are not NIMART-trained". [P: 1]

The participants in the study also reported that their clinic accommodated patients from other areas, which added to number of patients. Participants three and five were quoted as follows:

"We are accommodating patients who are from clinic X.... Who were supposed to book at clinic X and attended at clinic X... we are attended.... Accommodating patients from Z area and they are near to clinic Y and but because they, you know they had their babies here previous years. So they prefer to come here. So we get even more patients from other areas not really Site B only as it is supposed to be." [P: 3]

"It's a lot of clients. You not only see the ones that are taking treatment here. We have now to take the ones that are from other clinics like from the N clinic or from K if they come to you."

[P: 5]

The participants reported that the staffing was not adequate enough to cater for all these patients, without even taking into consideration the postnatal follow-up of HIV-positive mothers after delivery. The PMTCT programme, also, could only be administered by the NIMART-trained midwives, whose limited number made it difficult to do postnatal follow-up of HIV-positive mothers and their babies. This impeded the initiation of treatment for HIV-positive patients. Participants two and four were quoted follows:

"Here at antenatal we are only two now, and then at postnatal they are... two or three but different shifts but the other shift they don't have any NIMART sister. First we have to take

antenatal and then we come to postnatal to do their visits, but the thing is now they just want to be attended at the same time. The sister that is supposed to do NIMART training now the two of them resigned.... the patient comes to labour ward and then they find out these one the patient must come again on Monday to start the treatment. But if we all of us are trained as NIMART sisters there will be no delay in starting the patient on treatment." [P: 2]

"Now we shortage of staff here. Now is ... there is a shortage of staff too much now... because normally it's supposed to be three midwives in each shift in labour ward. But because of shortage we can't say... there must be like we cannot like because we can see there is a shortage..." [P: 4]

Furthermore, the participants stated that presently there were no midwives allocated for postnatal patients. Instead, the midwives who were allocated to work at the antenatal clinic also had to attend to postnatal patients. Participants three and five were quoted as follows:

"We don't have any sister working at the postnatal now. We use to have but because people have left. We had three sisters who left the facility from October and then now we short of staff..." [P: 3]

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"Two NIMART trained. So.....both resigned" [P: 5]

4.3.1.2. Overcrowded clinic means long waiting times for mothers with babies

Long waiting periods for patients because of overcrowding was reported several times during data collection. One participant, working in the antenatal clinic, reported that patients had to wait a long time to be attended to, resulting in some of them leaving the hospital without treatment. Participant two was quoted as follows:

"So the waiting period for them, so the babies are crying and all of that and now they become a problem you see because now some of them they just leave without treatment." [P: 2]

4.3.1.3. Only NIMART-trained midwives are allowed to initiate treatment

During the data collection phase, the participants reported that only the NIMART-trained midwives could initiate patients on the ARV's, and those that were not NIMART-trained, could not. This resulted in patients not being started on treatment soon enough after delivery as some of the midwives were not NIMART-trained. Participant two was quoted as follows:

"That person (referring to a qualified midwife without NIMART-training) now cannot initiate ARV's to that patient sooner after she delivers. Then the patient now has to go now to another sister and if it's during the weekend that patient have to come back on Monday, to come to be initiated on ARV's..."[P:2]

Participant one said:

".....So the other sisters who are working there at postnatal they are not NIMART-trained... I think is one of the challenges because some of the sisters they are not all trained to NIMART... So they don't understand about the NIMART ne...." [P: 1]

The participants also reported that the midwives had to be permanently employed at the facility for a period of two years before they could be trained in NIMART. The rationale for this was unknown and the participants believed that it needed to be questioned. They were also of the opinion that, if the facility had more trained midwives, the quality of PMTCT would be greatly improved. Participant three was quoted as follows:

"The thing that I can only add, if our facility can train more NIMART sisters it could help a lot.... a new sisters that were employed last year... you know... improving the quality of PMTCT we now have to start afresh to...train people you know that a challenge.... NIMART training because now she still has to work here for two years... I don't know the reason why behind that. I still have to contest that one. Because the sister was a com serve here for a year. She is not a brand new person... you know... it exactly what is happening. And the even if you working at the labor ward you should know what the PMTCT is about because if the patient is tested positive in labor ward you should know what is happening should know what to do to the patient to prevent the child but thee... what to give the baby, you understand? Even if you not NIMART trained, all the sister will know about that and how to initiate." [P: 3]

The shortage of staff and the high number of patients were perceived by all the midwives to be challenges that added to the poor postnatal follow-up of HIV-positive mothers and their infants. All the midwives, who were interviewed, reported a busy working environment due to the high work load with an inadequate number of NIMART-trained staff to render postnatal services to HIV-positive mothers. This resulted in patients having to wait for long periods to be attended to with some of them having to leave the hospital without treatment. This was reported to have an impact on treatment adherence, as well as, follow-up after delivery.

4.3.2. Theme Two: Challenges related to the non-adherence to treatment and follow-up postnatal visits.

This was the second theme that emerged during data analysis and deals with the challenge of mothers who stop their treatment and do not to return to the clinic for follow-up visits after delivery. This theme was presented under the following four sub-themes namely: Non-disclosure of HIV status to partner and family; Denial and, therefore, a lack of follow-up visits after birth; The influence of the lack of means and resources to access services; and, The effects of treatment on adherence.

4.3.2.1. Non-disclosure of HIV status to partner and family

The midwives reported the lack of disclosure of the patient's HIV status as one of the leading challenges they faced while implementing the PMTCT services during the postnatal period. Their assumption was that the mothers did not disclose their HIV status to their partners and families because they feared being blamed for bringing the HIV into the family. The non-disclosure also meant that mothers were not receiving the necessary support from family members. Participants one and two were quoted as follows:

"The patients they don't disclose to their families, to the boyfriends." [P: 1]

"They don't want to disclose that's the problem.... they don't want, because some of them...eee...one of the lady she says...eee...the husband went to test and the results were negative and then she was blaming herself that she is the one who brought that...aaa...HIV thing, so now she was...ee...she thought it's her fault you see because the husband is always negative negative..." [P: 2]

In addition, the mothers did not want their HIV status to be documented on the child's road to health card, as they, firstly, did not disclose their status to anybody and, secondly, feared that others might find out. Participant five was quoted as follows:

"By the time they postnatal they will tell you please don't fill that...maybe even in the house or even the boyfriend.....it's only her that know she is positive or maybe in the family they know but friends or the person that is going to look after the baby doesn't know that and we have to explain to them when you leave the baby...." [P: 5]

The participants stated that the lack of disclosure resulted in patients taking the treatment during pregnancy, but stopping after delivery, because they feared that their partners or families would inquire about the tablets. Most patients put the tablets in other containers, in order to hide the description. Participant three was quoted as follows:

"They haven't disclosed to their partners so to the family about the ARV's tablets, and then when you find out they will take out the tablets out of the container and put it in the pack written iron tablets, so that it can disguise." [P: 3]

"now when they have given birth and how are they going to take now the tablets, because now the iron tablets where taken at that time and they believe that now...now what are they going to say." [P: 3]

The participants maintained that the patients were fully aware of the follow-up after delivery, but they don't come back after delivery because they were only taking the treatment to protect the baby. Participant one said:

"She knows she supposed to come but at the back of her mind she thought that she win a jackpot if the baby is HIV negative and then they don't come to a follow-up." [P: 1]

All the participants perceived non-disclosure as a challenge that resulted in poor adherence to postnatal follow-up by mothers, after delivery, due to anxiety about the stigma attached to an HIV-positive status. The mothers were reported as being reluctant that their HIV status to be disclosed to people they knew.

4.3.2.2. Denial and, therefore, a lack of follow-up visits after birth

The midwives, participating in this study, reported denial as a challenge; when patients find it difficult to accept their new HIV status. This resulted in the midwives being unable to treat these patients, who were in denial. Often the patients pretended to accept their status, but in their minds, they were still in denial. This impacted on the continuation of the HIV treatment, as well as, the PMTCT programme, as the patients tended to stop their treatment after delivery. Participants one and two were quoted as follows:

"They have denial so they look as if they accept everything in the face, you can't see that she is on denial but at the end she is on denial... after delivery she does not come back." [P: 1]

"Some of them they are on denial my dear they are on denial ... so they don't want to accept ... that that they are positive and they don't want to take their treatment." [P: 2]

"Patients they are in denial during their antenatal time period, so they don't want to take treatment." [P: 2]

The participants reported that most of the mothers only accepted the treatment to protect their babies, but refused it after delivery, as they were still in denial and did not believe that they were HIV-positive. Some of the patients, who were in denial, convinced themselves that the

results were false and had high hopes that the results would be different in a test after delivery. Participants two and five were quoted as follows:

"They are people just see this one doesn't want she just took the treatment because she just want baby to be prevented, after that six months she just stop that treatment....." [P: 2]

"Sometimes they are still in denial. I'm not positive and all of that, then they won't come or they won't adhere on the treatment very well because they still thinking maybe we made a mistake to say they are positive while they are not positive." [P: 5]

4.3.2.3. The influence of the lack of means and resources to access services

The participants stated that some patients had to travel a distance to get to the clinic. One of the reasons for them not keeping appointments was the lack of money for transport. Participant five was quoted as follows:

"They have to travel to come to us...so maybe they really did not have money to come to the clinic so you have say ok, you didn't have money can you come next time to the nearest clinic maybe ask if they can give you until you come to the clinic because it is not ok for you to stay without travel, sorry I mean treatment, without taking the tablets. So maybe it's also finances..." [P: 5]

Most participants reported that some of the mothers really wanted to turn up for the postnatal follow-up, but did not have enough money to pay for transport to the facility. The midwives reported this was a challenge because it led to the mothers not keeping their appointment dates and staying home without treatment.

4.3.2.4. The effects of treatment side effects on adherence

Despite the challenges of the mothers being in denial and not disclosing their HIV status, it appeared as if they were willing to accept the treatment only while they were pregnant, with protecting their babies uppermost in their minds. However, the participants also reported poor treatment adherence due to the side effects of the ARV's. Patients stopped their treatment when it made them ill. Participants four and five were quoted as follows:

"This treatment makes them sick so that's why ... some of them they said no after I am taking this treatment it makes me dizzy. Some of them they stop the treatment because of that..." [P: 5]

"When I ask her sister she said the tablets make her nauseous. So she decided to stop.... She is not taking tablets without reporting to any one of us..." [P: 4]

Most of the midwives, participating in the study, viewed non-disclosure and denial as the leading challenges that resulted in poor postnatal care of HIV-positive mothers and their babies. The participants reported that mothers did not continue their treatment after delivery due to the lack of disclosure to their partners and families. Some mothers were reported as being in denial throughout the pregnancy and the midwives, therefore, found it difficult to treat them. The lack of funds and the side effects of the ARV's were also reported as being other causes that resulted in mothers stopping treatment, especially after delivery. The patients simply stopped their medication without consulting the midwives or health workers. Thereafter, the mothers were scared to return for postnatal follow-up, for fear of admonishment.

4.3.3. Theme Three: Challenges related to tracing patients who do not return for follow-up visits.

This is the third theme that emerged during the data analysis and deals with the challenges faced by midwives in relation to tracing the mothers, who do not return for follow-up after delivery. This theme was presented under the following three sub-themes: Lack of manpower for information-recording, tracing and follow-up; Change of address and/or moving to other provinces complicates follow-up by health practitioners; and, Data-bases of facilities and provinces not synchronised or data-bases do not exist.

4.3.3.1. Lack of manpower for information-recording, tracing and follow-up

Tracing the patients was reported as one of the challenges to following-up those patients, who do not return after delivery. The participants reported that the facility did not have the available staff to trace the patients at home, when they do not return for follow-up visits. The facility was, therefore, unaware of what happened to patients and their babies, after discharge, or whether they were attending the other clinics, when they had been transferred. Participants five and six were quoted as follows:

"We don't have people that can follow them. Because now we just transfer them to Ubuntu or else to clinic M or C ... so they go there so we don't know what is going on after the two months after they have been discharged..." [P:6]

"So we don't have like home based care here who can follow patients ... because we are few here ...on the day hospital then we make use of them to follow the patient. Then we give them the address of the patient to follow the patient and bring the patient in ...and then a peer counsellor and she is also doing ... she is not doing home visits but she liaises with the counsellors from NGO's." [P: 5]

One midwife, working at the antenatal clinic, stated that the midwives were unable contact the mothers, after delivery, to establish their reasons for not keeping their appointments, as often the patients provide wrong personal details. Participant five was quoted as follows:

"As a midwife you don't have much to do other than calling the mother ...sometimes they give their wrong address, wrong phone numbers that they gave we can't contact them... and then they leave without saying that they leaving... they leaving to eastern cape without saying they are going to eastern cape..." [P:5]

Another participant also stated that the facility did not have records of how many or which patients were expected to attend on any given day. Patients were just given appointment dates, as required, and were attended to as they arrive. Participant six was quoted as follows:

"You give appointments...not that we record that this somewhere that this patient has ...you only it like antenatal, you don't record anywhere that this patient has to come during antenatal for antenatal visits. You only give dates as ...per as per what ... as if is required."

[P: 6]

4.3.3.2. Change of address and/or moving to other provinces complicates follow-up by health practitioners.

Besides the wrong personal information provided by patients at the facility, the participants reported that some mothers moved to the Eastern Cape without notification. This was one of the main challenges faced by midwives, during the postnatal period, which made it difficult for them to trace the patients, who were then lost to the follow-up phase of treatment. Participants two, three and four were quoted as follow:

"They go back to Eastern Cape and then when they go there they don't even come to us and say I am going to Eastern Cape." [P: 2]

"Some patients you find out that when you call you notice that are not the right Is not the correct eee number and then if the home base cares do go to their place is not thee They don't stay there because the Imbacu section it doesn't have the proper address. So they usually put the address that is nearer to them the former houses or whatever. So we do have a challenge in that even to get hold of the person and to bring her in." [P: 3]

"They are lost to follow up because of their wrong address because of wrong phone numbers that they gave we can't contact them..." [P: 4]

In addition, the facility also accommodated patients from others areas, who might have decided to deliver their babies at the facility of this study. After delivery, those patients could have decided to attend a clinic closer to home for postnatal follows-up, which would have been the reason why midwives were unable to trace them for follow-up visits. Participant said:

"We get even more patients from other areas not really Site B only as it is supposed to be. So we book everybody who comes to us... you know so sometimes it could be the reason for us not to be able to track those patients in again and if they go out and then they decide to go to the nearest clinic now where they deliver then we won't be able to know... you know." [P: 3]

4.3.3.3. Data-bases of facilities and provinces not synchronised or databases do not exist.

The participants reported that other facilities and provinces utilized different data bases, which made it difficult for the midwives to trace whether patients attended other clinics or not. Participants three and five were quoted as follows:

"Maybe we are using at IKAPA on the system but some of the clinics don't use IKAPA they use Teldotnet and in that way we won't be able whether the patient is now using the clinic nearer to her...."[P:3]

"if you transfer them or you are transferring them out of the system and you make sure that...... because at present we don't have a system whereby ok the mother say to me I am going to clinic N.......so I cannot track if she goes straight to clinic N, because I don't know....I just gave her the letter to go to clinic N....... Then I don't know if she go to clinic N or not." [P: 5]

During the interviews, all the midwives, who participated in the study, reported not being able to trace mothers, who did not come for follow-up visits after delivery, due to the staff shortage at this facility. The participants also reported that their facility had no data-capturers and, therefore, no patients' appointment records, which meant that they never knew who, or how many patients, were expected to attend clinic on any given day. The midwives also discovered that patients, while they were pregnant, did not provide the correct personal information, when they tried to contact the mothers telephonically, or sent home base care to the addresses provided, without success. As a result, midwives were unable to trace the

patients, who did not return for follow-up visits. All the midwives in the study agreed that these were challenges they faced when rendering the PMTCT services, especially during the postnatal period.

4.3.4. Theme Four: Education Challenges.

This theme was defined in the context of non-compliance with health education provided by health workers. It was presented under the following two sub-themes: Not accepting or comprehending the educational advice; and, The influence of conflicting/confusing messages of compliance, regarding breastfeeding/formula feeding and medication prescriptions.

4.3.4.1. Not accepting or comprehending the educational advice

The participants stated that they constantly offered health education to patients so that they could understand what was expected of them. However, the patients were still reluctant to show up for follows-up visits after delivery. Often they would not even ask for the medication, as they had still not accepted their HIV status. Participant one was quoted as follows:

"We gave education according to their language so they understand and we allow them to ask questions if they have. Some of them they do ask questions. And then we try by all means to answer their questions and we try by all means to be friendly to them." [P: 1]

"We also teach them everything... we tell them that after delivery you will get neverapine,...

You will get this and this... You will continue with your treatment as long as you are breastfeeding.... Treatment is a life... You will get the treatment for the rest of your life, but the patients they don't do the follow-ups...They don't ask about nevarapine. I think is because of the denial and also environment..." [P: 1]

Some patients were on PMTCT treatment during their previous pregnancies and still had the information of the previous PMTCT guidelines. Patients often took ARV's during pregnancy to protect their babies but, after delivery, they stopped the treatment. It appeared as if the patients were reluctant to believe the new PMTCT guidelines education that the midwives provided. Participants one and three were quoted as follows:

"Those who were on AZT before they thought that the AZT they taking while they were pregnant, so they also think that it's ok so I am done with the pregnancy so my child is safe then they stop the treatment." [P: 1]

"Patients take the ARV's with the mind that they are protecting the child while they were pregnant and you find out after they gave birth to the child they don't see any necessity for them to come." [P: 3]

4.3.4.2. The influence of Conflicting/confusing messages of compliance about breast feeding/formula feeding and medication prescriptions

Mix feeding was another challenge that emerged frequently during the data collection. The participants reported that patients received good health education on how to prevent mother to child transmission after delivery, by practicing exclusive breastfeeding, but, when they returned home, they switched to mix feeding. It appeared as if the new PMTCT guidelines conveyed confusing messages about the feeding options and treatment compliance. The patients did not understand why they had to breastfeed and were not provided formula as before. On the other hand, they chose to breastfeed while in the hospital, but when they returned home, they changed, due to the denial or non-disclosed HIV status. Participants two and three were quoted as follows:

"you see their mothers there at home they always said noo this child is not getting enough milk so now what they will just do they just mix feed there... we've got the ladies eee ... breast feeding teaching here, so she is very good....teaching them how to get milk and you cannot mix feed... So they get confused when they get home." [P: 2]

"To what was happening before...every patient was given a formula if a patient is tested positive ... you know... and the patient was not supposed to breastfeed and now talking about now breastfeedingit doesn't really make sense to patients who previously were told not to breastfeed." [P: 3]

The participants explained the deference between the new and old PMTCT guidelines. Participant three was quoted as follows:

"You know now she is think she will go back to work. [Also meaning back to what was happening before] Every patient was given a formula if a patient previous guidelines PMTCT guidelines. Patients who were on AZT and then after birth they will stop taking the AZT the mother won't take anything...... so now with the new guidelines, patients will be started on ARV's and then they will continue with the ARV's lifelong So now the patient will take ARV's because she is protecting the child In her mind she just protects the child. Then, there after she will want to stop the ARV's because previously those were the patients who will be started on ARV's according to the CD4 count. [P: 3]

"She thinks I have been on AZT she stops the AZT, so why no why continue with the ARV's now?" [P: 3]

"Option B it was said the patient can stop the ARV's you know after delivery, if the CD4 count is high more than 350. And then the option B plus said patient must continue lifelong regardless of the CD4 count...when the new guidelines started. It was really a challenge..."
[P: 3]

The participants also highlighted that all provinces did not practice the same PMTCT guidelines. This influenced the health education that the midwives provided to patients, causing confusion about what to believe, resulting in them stopping their treatment. Participant three was quoted as follows:

"The patients deliver then go to Eastern Cape, you see!! It's no continuing taking the tablets you know, so that is now ...you know, having guidelines which doesn't talk the same. "[P: 3] she continued, "Really when the new guidelines started it was really a challenge." [P: 3]

Most midwives, who participated in this study, reported during interviews that good health education was provided to the patients by the health workers at this facility. They believed that the mothers understood the education because it is provided in their own mother tongue. However, mothers became confused when they returned home because of the different information they received from their family members and the different PMTCT guidelines that were practiced in other provinces. This was viewed as an enormous challenge, as it influenced mothers to change their feeding method when they were discharged, which also increased the chances of MTCT after delivery.

4.3.5. Theme Five: The personal effects of challenges on NIMART-trained midwives in PMTCT

In this theme the midwives described how the challenges affected them personally as well as, their daily work. This theme was presented under the following two sub-themes: Physically drained, stressed, with little acknowledgement; and, An attitude of "...just doing what I can...it's the mothers' responsibility..."

4.3.5.1. Physically drained, stressed, with little acknowledgement

One of the major concerns raised by the midwives during the interviews was that they were overworked and frequently suffered from burn out, while attending to scores of patients with very little staff. This was a frequent sub-theme that dominated the interviews. In addition, the

midwives also felt unappreciated by management, as, after they had done all the hard work and extra hours, there was no commendation or acknowledgement. Participants three and five were quoted as follows:

"You feel tired, you feel exhausted, you feel unappreciated sometimes because even if you work until late you sacrifice maybe your lunch, and you sacrifice to take your tea time because you want to work through. You feel like nobody come and sound I've notice that you doing..... thank you very much." [P: 5]

"I am BUSH!!! I am really BUSH!!! I am tired..." voice raised"... but what can else can one do? I am just hoping that those people that have been interviewed in early December can start next month..."[P:3]

The midwives stated that they were not only tired or suffering burnout, but they were stressed, due to the volume of work that they were expected to finish with inadequate staffing. Participants four and five were quoted as follows:

"Stressing because there is lot of patient but there is few of you" [P: 5]

"There are days when it is hectic.... Then you feel that... I mean it's too much. You can't take it anymore" [P: 4]

4.3.5.2. An attitude of ".. just doing what I can.. it's the mother's responsibility.."

The participants reported an attitude of 'just doing what they could' for patients. They believed that it was not their fault, but the mothers', when the mothers decided not to come back to the clinic for follow-up visits; it was their own fault that they did not receive treatment. The midwives supposed that all they could do was to wait for the patients to turn up for treatment, since they did not have the staff complement to try and locate them outside the facility. Participants three, four and five were quoted as follows:

"I feel like ok, I've done something even if it's like one or two people because I cannot I know I'm one person but I cannot make a difference to all the people." [P: 5]

"It's her fault, it's not our fault... wait for her to come back... whenever she comes ... (laughing), you will wait because you will not go outside and look for her". [P: 4]

"It depends on the mother at this stage because you as a midwife or health worker you can do your best but if the mother does not want, there is nothing you can do...you. "[P: 3]

As highlighted above, the shortage of staff was one of the main challenges that midwives faced in this facility. Participants reported a feeling of being overworked, which was attributed to the fact that there were only a few NIMART-trained midwives, who rendered the PMTCT services in both the antenatal and postnatal phases. Very often these midwives worked long hours without appreciation by the management, which resulted in the attitude of 'just doing what they could' for patients.

4.3.6. Theme Six: Midwives' perceptions of ways to address the Challenges.

This theme examines the midwives' perceptions of ways to address the aforementioned challenges. They firmly believed that if all midwives were NIMART-trained, the quality of the PMTCT programme would be greatly improved, especially in post-delivery. They also believed that the PMTCT programme could be more effective, if the mothers took full responsibility for their own health, as well as, their babies'. This theme was presented under the following two sub-themes: All midwives must be NIMART-trained; and, Mothers must take responsibility for their babies' health, regardless of.....

4.3.6.1. All midwives must be NIMART-trained

The participants reported the conviction that service delivery would improve if all midwives in their facility were NIMART-trained. This increase in the number of NIMART-trained midwives would enable all midwives to promptly initiate ART's to patients without any delays. This would improve the quality of the PMTCT programme. Participants three and five were quoted as follows:

".... And the even if you working at the labour ward you should know what the PMTCT is about because if the patient is tested positive in labour ward you should know what is happening should know what to do to the patient to prevent the child but thee... what to give the baby, you understand? Even if you not NIMART-trained, all the sister will know about that and how to initiate ... that person now cannot initiate ARV's to that patient sooner after she deliver."[P: 5]

"....a main challenge of having few NIMART-trained...if everybody can be trained... that is the goal of training you know the people. If everybody could be trained on NIMART." [P: 3]

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4.3.6.2. Mothers must take responsibility for babies' health, regardless of...

The participants also reported that the quality of the PMTCT programme could also improve if the patients took responsibility about their own health, as well as, that of their babies, by keeping their appointments on a regular basis and continuing the treatment, especially after delivery. Participants one and three were quoted as follows:

"It's her fault, it's not our fault... wait for her to come back... whenever she comes ... (laughing)... you will wait because you will not go outside and look for her." [P: 3]

"The patients they are not responsible... like sometimes, when you ask about did you get the nevirapine after delivery they say no I didn't." [P: 1]

4.4. Conclusion

This chapter presented the findings of this research study as challenges that midwives faced when implementing the PMTCT programme, during the postnatal period, at the Khayelitsha Community Health Clinic, as discussed with the participants during their interviews with the researcher. The findings were presented as a cluster of six themes with a total of sixteen subthemes. Chapter Five will further discuss the Findings.

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CHAPTER FIVE

DISCUSSION OF THE KEY RESEARCH FINDINGS, RECOMMENDATION, LIMITATIONS AND CONCLUSION

5.1. Introduction

This chapter discusses the findings of the study, in relation to literature, on the PMTCT challenges faced by midwives in the clinical setting. Each theme that emerged during data analysis is discussed individually under the various sub-themes. This also concludes the study and provides recommendations, based on the findings that were discussed in the previous chapter. The focus of the study was the challenges faced by midwives in implementing the PMTCT programme, during the postnatal period, at the Khayelitsha Community Health Clinic, Western Cape Province. The overall aim of the study was to explore the challenges faced by the midwives, who render postnatal services to HIV-positive mothers, enrolled in the PMTCT programme. The objectives of the study were to identify and discuss these challenges faced by the midwives. To achieve the study objectives, the researcher adopted an exploratory, qualitative research design. This design allowed the researcher to use in-depth, one-on-one interviews to obtain rich data from the midwives, about the challenges they faced when implementing the PMTCT programme during the postnatal period.

5.2. Discussion

5.2.1. Theme One: Challenges related to the ratio of patients to NIMART-trained midwives.

This theme emanated from the shortage of staff in relation to the number of patients attended to by the midwives each day. Three key sub-themes emerged as challenges in rendering the PMTCT services, especially during the postnatal period: Too many patients for the available qualified midwives; Overcrowded clinic means long waiting times for mothers with babies; and, Only NIMART-trained midwives that can initiate treatment. These sub-themes are discussed below.

5.2.1.1. Too many patients for the available qualified staff

The midwives, who participated in the study, reported that the high number of patients for the available qualified midwives was viewed as a challenge when rendering the PMTCT programme to HIV-positive patients. One participant reported that the midwives attended to more than one hundred patients per day, which included both antenatal and postnatal. This finding concurs with those of Nguyen, Oosterhoff, Pham, Hardon & Wright (2009), who reported on health workers' perceptions of factors that caused their failure to provide good quality PMTCT services, and found that the antenatal care caseload of national and provincial hospitals was very high. The main obstetrics hospitals provided antenatal care to between 200 and 400 pregnant women daily. Most of the participants of this current study reported that their facility accommodated patients from other areas as well, and not only patients from the Site B area. These patients, from other areas, were closer to alternative facilities that they could have attended, but chose to attend the clinic at Site B as they might have delivered a baby there previously. This resulted in the high number of patients at this facility, with the challenge of too few NIMART-trained midwives. One participant reported that the facility had no midwife allocated to postnatal patients, who then had to be attended to by NIMARTtrained midwives allocated to the antenatal clinic. Some shifts did not have any NIMARTtrained midwives on duty, which resulted in unnecessary delays in getting patients started on WESTERN CAPE treatment.

This finding is consistent with the findings of Nuwagaba-Biribonwoha, et al. (2007), who investigated the challenges faced by health workers in the implementation of the PMTCT programme in Uganda, and found that the shortage of PMTCT staff was reported as one of the challenges that caused a negative impact on implementation. The study also revealed that the shortage of staff was one of the reasons for the loss of clients in the PMTCT programme. This finding also concurs with the finding of the study by Toure, et al. (2010) who investigated the performance based scheme help increasing the effectiveness of PMTCT programs in resource limited settings and found that shortage of staff in resource limited settings are a major obstacle to the scale-up of HIV care and treatment including PMTCT. Authors also state that shortage of trained health care providers has existed for decades, but in recent years the number of worker has been inadequate at almost all levels of the health system and the workload brought on by the HIV epidemic has increase the strain on fragile health systems and already over-stretched health workers. Similar findings also emerged in a study done by Moses, et al. (2008), who evaluated the uptake of HIV testing in the PMTCT

programme in Malawi, and found that one of the constant challenges in maternity wards was chronic understaffing, and the poor nurse-client ratio made delivering a baby at a health care facility less attractive. This constraint led to the patients leaving without their results or treatment.

5.2.1.2. Overcrowded clinic means long waiting times for mothers with babies

This study discovered that postnatal patients were mixed with antenatal patients which resulted in an overcrowded clinic. The participants reported that all these patients were attended to by only two NIMART-trained midwives allocated to the antenatal clinic. They also stated that postnatal patients experienced long waiting times, resulting in some leaving without treatment.

This finding is consistent with the findings of a study by Nuwagaba-Biribonwoha, et al. (2007) in Uganda. In that study, health workers reported the shortage of staff as a constraint that led to long waiting times for patients, with many leaving without receiving their results or treatment.

5.2.1.3. Only NIMART-trained midwives are allowed to initiate treatment

This current study found that the facility had a total of sixteen qualified midwives, out of which, only six had undergone NIMART-training. The participants reported that only NIMART-trained midwives were allowed to initiate PMTCT treatment and the untrained midwives were not. The participants continued and said that on weekends, if no NIMARTtrained midwife was on duty; the patients would have to come back on the Monday, to be attended to. This was because the untrained midwives did not understand NIMART. The participants believed that if the facility trained more midwives in NIMART, the quality of the PMTCT programme, as well as, the service delivery, would be greatly improved. One participant also stated that the facility had a policy that only midwives with 2 years' employment service were eligible for NIMART-training. The reason for this policy was unknown and they believed that it needed to be contested. This finding concurs with those of Delva, Draper & Temmerman (2006), who investigated the implementation of single dose nevirapine for the PMTCT in Cape Town. Their findings showed that the PMTCT programme increased the workload for nurses and midwives, which made it more difficult to send staff members for training courses, since this meant a heavier workload for those remaining in service. This finding also similar to that of study by Stinson (2014)who reveal

that staff saw the provision of ART at the ANC consultation as an extra task to perform in an already busy service.

5.2.2. Theme Two: Challenges related to the non-adherence to treatment and follow-up postnatal visits.

The participants expressed the challenges of mothers not returning to the facility for postnatal follow up visits as follows: Non-disclosure of HIV status to partner and family; Denial and, therefore, a lack of follow up visits after birth; The influence of the lack of means and resources to access services; and, The effects of the treatment on adherence. This theme describes how these challenges affect the care of mothers and their infants, as well as, the work of the midwives or the PMTCT programme at large.

5.2.2.1. Non-disclosure of HIV status to partner and family

The influence of stigmatization was not mentioned by the participants, but previous researches clearly indicate the relationship between the challenges of non-disclosure with denial and stigmatization (Ganyaza-Twalo, 2010). The current study's findings showed that HIV-positive mothers some did not disclose their HIV status to their partners or families. Some participants speculated that the reason for the non-disclosure was probably due the fear of being blamed for bringing the HIV into the family. Others reported that the mothers did not want their HIV status to appear on their child's road to health card for two reasons; (i) they had not disclosed their status to anybody, and (ii) they feared that someone would read the card and discover their status. One participant added that mothers hid their HIV medication in different containers in order to disguise the contents. The lack of disclosure was viewed as one of the leading challenges the midwives faced during the postnatal period. These findings are consistent with those of Painter, et al (2006), who investigated the women's reasons for not participating in the follow-up visits, before starting the short course antiretroviral prophylaxis for PMTCT. The participants of that study reported that they were willing to turn up for follow-up visits, as long as they remained anonymous. Furthermore, they reported that they feared their husbands seeing them with the medication, enquiring about it and, in that way, discovering their HIV-positive status. The participants also reported that the mothers were fully aware of the postnatal follow-up visits, yet did not turn up, as some of them were still following previous PMTCT guidelines, which advised terminating the treatment after delivery. These findings are also consistent with the findings of a study conducted by Kalembo & Zgambo (2012), who investigated how the loss of patients due to the lack of follow-up visits had affected the successful implementation of PMTCT programmes in Sub-Saharan Africa. The study revealed that the non-disclosure of the HIV status was the main reason for the lack of follow-up visits and patient loss in the PMTCT programme. It was also stated that mothers feared the reaction of their families or husbands. They feared losing their husbands and believed that a woman's infection and pregnancy would spark off a chain reaction of death after delivery. They also feared being ignored, isolated, openly disgraced and blamed by their families.

Similar findings were found in a study by Simbayi, et al. (2007), who investigated the disclosure of the HIV status to sexual risk behaviour among HIV-positive men and women in South Africa. The participants in that study reported efforts to conceal their HIV status from others as they feared that potential adverse reactions were significantly related to disclosing their HIV status to their partners. Additionally, in the same study, it was also revealed that those, who had disclosed their HIV status, were more likely to experience discrimination, related to their status, and lose their jobs or place to live because they are HIV-positive. It was stated that interventions were needed to: (i) reduce the AIDS stigma and discrimination in South Africa and, (ii) assist people with HIV to make effective decisions on disclosure.

5.2.2.2. Denial and, therefore, a lack of follow up visits after birth

This current study found that one of the challenges the midwives faced was denial, which resulted in the lack of follow-up visits, after delivery. The midwives, who participated in the study, reported that it was difficult for mothers to accept their new HIV status. One participant reported that during the antenatal phase, some mothers appeared to have accepted their status; however, the midwives were unable to verify whether these mothers had accepted or were still in denial. When they did not return for follow-up visits it became clear that they had actually not accepted their HIV status.

This finding is consistent with the findings of Nam, et al. (2008), who investigated the relationship of acceptance or denial of HIV status to antiretroviral adherence among adult HIV patients in Botswana. The participants in that study expressed some degree of denial about their HIV status, tended to express emotions associated with depression and internalised stigma that inhibited the development of a relationship with their confidante. The findings concluded that it was important to identify: (i) HIV-positive individuals who were

still in some degree of denial about their status and, (ii) depression among patients on antiretroviral medication, in order to enable more targeted individualised support in the management of HIV.

In this current study, another participant reported that some mothers accepted the treatment to protect their babies while they were pregnant, while others were in denial and had convinced themselves that the results were false. They had high hopes that the HIV results would be reversed with the next test, after delivery. These findings were consistent with those of Painter et al. (2006), who found that women did not believe their HIV status since they had been negative on the first test and had not changed their behaviour or partners. The findings also established that all those participants, who discontinued the follow-up visits for this reason, had no intentions of returning to the facility again.

5.2.2.3. The influence of the lack of means and resources to access services

The participants in this study viewed the lack of means and resources as one of the reasons why mothers did not return for follow-up visits after delivery. One participant stated that mothers had to use public transport to reach the facility and sometimes they just did not have the funds or means.

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This finding is consistent with the findings of a study conducted by Kalembo & Zgambo (2012), who indicated that the largest obstacle to the PMTCT programme was the travelling of long distances to health centres. They further stated that the early loss of patients from the follow-up phase was related to socioeconomic factors, such as poverty, geographical relocation and a lack of paternal support, which could affect the capacity of families to comply with the PMTCT follow-up. The facts that mothers did not have funds to pay for their transport fees or that they were not able to receive free maternal and child services at certain facilities close to their residences, were credible reasons for patients neglecting their postnatal appointments. Similar findings were found in a study by Painter et al. (2006), in which the participants of that study reported that they lived far from the facility and often did not have the available funds to visit the clinic.

5.2.2.4. The effects of treatment side effects on adherence

In this current study, the midwives who participated reported that the treatment side-effects had a negative impact on treatment adherence. The mothers stopped the treatment when they got ill, as a result of the side-effects of the medication. They also failed to report their condition to anyone at the clinic.

This finding was consistent with the findings of a study by Mellins, et al. (2008), who investigated the adherence to antiretroviral treatment among pregnant and postpartum HIV-infected women, and found that medication adherence is more likely during pregnancy than postpartum in HIV-positive women, perhaps provoked by motivation to reduce vertical transmission during the antenatal period. The findings also highlighted factors associated with non-adherence during the postpartum period, which were, ethnicity and more health related symptoms. Authors also state that further investigation was needed to clarify the factors implicated in women's decision-making processes regarding ART medication adherence.

5.2.3. Theme Three: Challenges related to tracing patients who do not return for follow-up.

As highlighted above, the challenge of staff shortages was continuously reported in this study and in this theme it impacted on the tracing of mothers who did not return for postnatal follow-up visits. Regardless of the lack of a tracking system for patients, the participants reported that patients also provided the wrong personal information during pregnancies, resulting in midwives not being able to trace them after delivery.

5.2.3.1. Lack of manpower for information-recording, tracing and follow-up

The participants reported that the lack of man power for information recording and tracing was another challenge that led to poor postnatal follow-up. One participant stated that the midwives could not do much more to track the mothers than call them on the telephone. However, this often proved to be difficult, as some mothers supplied wrong addresses and telephone numbers. Another participant reported that even though patients were given appointment dates, the facility did not any record of how many patients were expected on any given day. The patients were just attended to, according to the order in which they arrived.

One participant added that some patients often attended other clinics after delivery, which resulted in the midwives at the Site B clinic losing contact with them.

These findings are consistent with the findings of a study conducted by Sherman, Jones, Coovadia, Urban & Bolton (2009), who investigated the efficacy of a PMTCT programme in a routine service setting as opposed to a research environment. The study showed that data extraction from current PMTCT records proved laborious as they were not stringently kept and were in a fragmented format, with no central co-ordination. It also found that record keeping systems, documenting all facets of the PMTCT service, needed to be designed to facilitate regular auditing and interventions.

5.2.3.2. Change of address and/or moving to other provinces complicates follow-up by health practitioners.

The participants in the study reported that some of the mothers moved to the Eastern Cape or sent their babies to other provinces, for various reasons, after delivery. One participant reported that the mothers often did not inform the midwives at the facility when they moved to other provinces. This finding is consistent with that of Nuwagaba-Biribonwoha et al. (2007), who found that women who had had normal vaginal deliveries often did not see the need to return to the PMTCT hospitals after delivery. Another participant in the current study reported that often the mothers gave wrong address details, therefore, when home base carers were sent to the given address, they would discover that the patient did not reside there. Those mothers were then lost to follow-up, because of the wrong address. Furthermore, the participants reported that some patients lived in the other areas, not in Site B, and would decide to attend clinics that were nearer to their homes after delivery, which again resulted in the midwives of the facility in this current study not being able track them for postnatal follow-up visits. This finding concurs with those of Moses et al. (2008), who evaluated the uptake of HIV testing in a PMTCT programme in Malawi, and found that the major weakness in the PMTCT programme was: 45% of the women were still not delivering at the same booked maternity facilities and their infants were missing their Nevirapine dose. Some women attended the antenatal clinic once and then just vanished without a trace. They also stated that other women did not deliver in the PMTCT hospitals and, therefore, missed the antiviral prophylaxis and the modified intrapartum with postnatal care.

5.2.3.3. Data-bases of facilities and provinces not synchronised or databases do not exist.

The participants in the current study reported that data-bases used by other MOU's and provinces were not synchronised with the data-base used at Site B MOU. One participant reported that Site B MOU used the IKAPA data-base and they had discovered that other MOU's used the Teldotnet data-base. This was viewed as a challenge, as the midwives had no way of tracing whether patients had indeed attended other clinics after delivery or after a transfer to another clinic.

This finding is consistent with the findings of a study conducted by Nguyen et al. (2009), who researched the health workers' perceptions of factors that led to their failure to provide good quality PMTCT services. In that study, the health workers reported that there were no inter- or intra-hospital linkages to make the PMTCT comprehensive. Family Planning services at National Obstetric Hospitals were not linked to other departments, including the Infectious Disease Department that provided antenatal care and delivery services to HIV-infected women. Women were seldom referred to ARV-sites for clinical staging or immunological assessment, and, referrals to postnatal care and social support for both mothers and children were not available at the hospital exit points. Furthermore, the health workers in that study also reported that it was very difficult for them to know which HIV-positive patient or children had been referred to which hospital, for follow-up by that hospital.

5.2.4. Theme Four: Education Challenges.

The participants reported that they imparted enough health education to mothers during the antenatal period to ensure that they understood what would be expected of them, after delivery, in order to prevent MTCT. It was later discovered that the mothers did not comply with the education, due to the influence of family members, and also because they had not disclosed their HIV status to anyone. The two sub-themes that emerged: Not accepting or comprehending the educational advice; and, The influence of conflicting/confusing messages on compliance regarding breast feeding/formula feeding and medication prescriptions; are discussed below.

5.2.4.1. Not accepting or comprehending the educational advice

The midwives, who participated in the study, reported that good health education was provided to patients every day as they came in for their appointments. One participant stated that the education was given in a language that the patients understood and were fluent in. However, some patients still did not return after delivery because they did not accept their HIV status. Another participant reported that some mothers were following previous PMTCT guidelines, which required the mother to take the ARV's during pregnancy only and to terminate treatment after delivery, if their CD4 count was still high. The midwives viewed this as a challenge to postnatal follow-up, as the mothers seemed to take the ARV's only to protect their babies while they were pregnant, and did not see the necessity to return, after delivery, for postnatal follow-up or continued treatment. These findings concur with those of Ahoua et al. (2010), who evaluated a five year PMTCT of HIV infections programme in Northern Uganda, and found that the mothers were fully aware of the postnatal follow-up appointments, but with the absence of infant illnesses, they did not perceive the need to seek medical care. The findings of the research by Ahoua et al. (2010) also highlighted the necessity of improving the quality and clarity of the information provided to the mothers.

5.2.4.2. The influence of conflicting/confusing messages on compliance regarding breast feeding/formula feeding and medication prescriptions

The participants in this current study reported great concerns about infant feeding after delivery. The mothers apparently received good health education on the different feeding options in order to prevent MTCT after delivery. One midwife reported that the mothers practised exclusive breast feeding as their feeding option while they are in hospital, but, when they returned home, they would change to the mixed feeding option because of the influence of their family members.

These findings are consistent with those of Nuwagaba-Biribonwoha et al. (2007), and public health messages in Uganda continue to advocate breast feeding as the feeding option of choice, while replacement feeding is not normal practice. The participants of that study also highlighted that infant feeding was not a matter for the mother alone in Uganda, as other family members had a say in how infants were to be fed. Furthermore, they state that because of the poor disclosure of their HIV status, women also tended to breast feed for longer periods thereby increasing the risk of mixed feeding.

In this current study, another midwife reported that the patients were provided with formula milk previously, when they chose not to breast feed their babies. However, with the new PMTCT guidelines, all mothers were encouraged to practice exclusive breast feeding, and formula milk was only provided to high risk patients. The midwives viewed this as a challenge as it did not make sense to some patients, who had previously been told not to breastfeed their infants. The participants also reported that all the provinces in South Africa did not follow the same PMTCT guidelines. When mothers relocated to the Eastern Cape, they received different information, as opposed to the Site B MOU, in the Western Cape. The patients were, therefore, confused with the different guidelines and inconsistent information. This finding was consistent with those of a study conducted by Nguyen et al. (2009), who discovered that there were no guidelines on counselling and testing. Their observation showed that facilities at provincial and national levels had counselling and PMTCT protocols developed by the projects that supported those facilities, but most facilities at district or lower level, did not have guidelines or even access to them.

5.2.5. Theme Five: The effects of personal challenges on NIMART-trained midwives in PMTCT

In this theme the participants expressed how these PMTCT challenges were affecting them personally, as well as, their work. The mothers were seen to be irresponsible about their health and the health of the babies. The participants reported that the midwives were experiencing burnout, as a direct result of the high workload, and also expressed feelings of not being appreciated by management.

5.2.5.1. Physically drained, stressed, with little acknowledgement

As a result of the increased workload, along with the staff shortages, the participants in this current study reported experiencing feelings of burnout. One participant stated that she was tired, exhausted and felt unappreciated by management as, whenever they worked extra hours or sacrificed their lunch break to finish some work, nobody acknowledged their effort or thanked them afterwards. The participants also reported being stressed about the large number of patients that they had to attend to, with only a few NIMART-trained midwives on duty.

These findings concur with those of a research study conducted by Turan, Bukusi, Cohen, Sande & Miller (2008), who investigated the effects of HIV/AIDs on maternity care

providers in Kenya, and found that the combination of the extra workload and the reduced number of maternal-care-providers, led to burnout among those on duty. A nurse in that study reported experiencing burnout, due to the high number of patients, causing her to lose her temper over something insignificant. It might have been a comment from a patient, or not wanting to be asked too many clarifying questions, that triggered the outburst. She just wanted to attend to the patients as quickly as possible, so that she could move on to the next one. Often nurses or those in attending, develop a negative attitude toward patients, as a result of burnout, which could lead to poor service delivery. Other participants in that study explained that providing services to so many HIV-positive women was depressing and demoralizing, and caused irritation and a lack of patience.

5.2.5.2. Attitude of "just doing what I can.. it's the mother's responsibility.."

The participants in the current study displayed an attitude of 'just doing what they could' for the mothers and their babies during the postnatal period. They believed that it was not their fault that postnatal follow-up was poor; instead they believed that the mother should take the responsibility of turning up for postnatal follow-up visits. One participant said that they simply waited for patients to turn up, as they did not have the time to go out and search for them. Another participant stated that if the mother did not turn up for follow-up treatment, there was nothing else the midwives could do.

The findings of a study by Nguyen et al, (2009) showed that health workers generally wanted to do a good job of rendering good care to patients. However, they were hampered in performing their duty, particularly in facilities where there was an overload of patients, and when mothers neglected to turn up for follow-up treatment, after delivery. Ultimately, health workers did what they could for the patients who did attend, since there was not enough staff to follow-up on the negligent mothers at their homes.

5.2.6. Theme Six: Midwives' perceptions on ways to address the challenges

The participants' perceptions on ways to address these challenges emerged as two subthemes: All midwives must be NIMART- trained; and Mothers must take responsibility about their babies' health regardless of whatever, by keeping their appointments and continuing the treatment after delivery.

5.2.6.1. All midwives must be NIMART-trained

The participants in the current study believed that one way to address these challenges was for all permanently employed midwives to be NIMART-trained. The result would be that all midwives in the facility would understand NIMART and be able to initiate patients for treatment very soon after their HIV diagnoses. One participant reported that the small number of NIMART-trained midwives was the main challenge to improving the PMTCT services, especially postnatal.

This finding is consistent with the finding of a study conducted by Leshabari, Blystad, de Paoli & Moland (2007) on the challenges faced by nurse-counsellors in northern Tanzania. The authors explored the experiences and situated concerns of nurses working as infant-feeding-counsellors to HIV-positive mothers, enrolled in the PMTCT programme. The findings illuminated the immense burden placed on these nurses, in their role as infant-feeding-counsellors, in the PMTCT programmes, and the urgent need of providing training and the necessary support structure to promote professional confidence and skills. The staff needed motivation to deal with the increased workload and improve the PMTCT services. Nguyen et al. (2009) also state that the possible intervention to improve the quality of care was to train and update information for health workers. Midwives and nurses in the same study needed to improve their basic knowledge on the PMTCT because they had not received enough training.

The midwives in this current study viewed training as a way to improve the care of HIV-positive mothers and their infants, as the result would be an increased number of midwives attending to the PMTCT patients.

5.2.6.2. Mothers must take responsibility for their babies' health, regardless of...

The midwives, who participated in the study, believed that the quality of the PMTCT programme could improve if mothers took responsibility of their health and that of their babies. One participant reported that mothers did not take responsibility for their health and that of their infants, as they would often leave the clinic without medication because they were reluctant to ask for it.

This finding concurs with those of a study conducted by Painter et al. (2006), who found that women did not take the treatment because they believed that the prophylaxis was not effective. The participants in that study reported being told by the midwives that the virus was transferred in the blood and their infants shared their blood. They believed that the transference between them and their infants had already happened and did not see any reason to continue the treatment. According to the National Department of Health and South African National AIDS Council (2010), in order for the PMTCT programme to be carried out effectively, programme policy guidelines recommended that the prevention of HIV between pregnant women and their infants should be initiated during the antenatal period, and should continue until six weeks postnatal. Mothers were, therefore, expected, or responsible, to bring their infants for follow-up visits to the nearest baby clinics for postnatal care in the six weeks after delivery.

5.3. Recommendations

NIMART-training should be provided to all midwives in the MOU's as a matter of urgency. NIMART-training should also be standardize and ensure that it is part of the curriculum that that is taught in all the tertiary institutions and be updated regularly on a yearly basis as part of the in-service training and/or education for all the practicing midwives. This will enable all midwives to have knowledge and skills of NIMART before they join the workforce. This would also reduce the waiting times of the patients as they would be attended to sooner, because the available, qualified staff would have increased.

The South African government should introduce home visits into the PMTCT programme, in order to improve the retention of vulnerable mothers and their infants. This could be done by MOU's employing home base carers, who would visit these mothers at their homes. The government should also ensure that all facilities that render PMTCT services, in all nine Provinces, have the same data-base systems, in order to follow-up on mothers, who claim to attend other clinics after delivery. Another recommendation would, surely, be that all nine Provinces in South Africa follow the same PMTCT programme guidelines to prevent confusing patients, who might move between provinces.

Further research should be done on the same topic at other clinics or hospitals that render PMTCT services in the Western Cape. This would allow the findings to be generalized and would also help to improve the quality of the PMTCT programme, especially during the postnatal period.

5.4. Limitations

This study was only localized in one of the MOU's in the Khayelitsha Community. The findings can, therefore, not be generalized to include other MOU's in the Western Cape Province. This study did not include all other hospitals or clinics that render PMTCT services to HIV-positive mothers and their babies.

5.5. Conclusion

This chapter discussed the findings of the study on the challenges faced by midwives in implementing the PMTCT programme, during the postnatal period, at the Khayelitsha Community Health Clinic. The findings were presented in terms of six themes and sixteen sub-themes that emerged during data analysis. The findings have indicated that midwives are faced with a number of the challenges that have a negative impact on the follow-up of HIV-positive mothers and their babies, after delivery. The PMTCT programme is not rendered appropriately during the postnatal period because there are too few NIMART-trained midwives rendering PMTCT services to postnatal mothers and their babies. The same midwives are expected to render antenatal services to the large number of pregnant women, as well. This results in midwives feeling overworked and stressed, which hampers their ability to attend to all patients.

REFERENCES

Ahoua, L., Ayikoru, H., Gnauck, K., Odaru, G., Odar, E., Ondoa-Onama, C., Pinoges, L., Balkan, S., Olson, D. & Pujades-Rodriguez, M. (2010). Evaluation of a 5-year Programme to Prevent Mother-to-Child Transmission of HIV infection in Northern Uganda. *Journal of Tropical Pediatrics*, 56(1):43-50.

ATLAS.ti Scientific Software Development GmbH (2014). *Using ATLAS.ti for Qualitative Analysis*. Stanford University. Available at: http://www.stanford.edu/services/sunetrd. [2015, March15].

Brink H., Van der Walt C. & Van Rensburg, G. (2012). Fundamentals of Research Methodology for Health Professionals. Cape Town: Juta.

Burns N., Grove S.K. & Gray J.R. (2013). *The practice of Nursing Research: Appraisal, Synthesis and Generations of Evidence*. 7th ed. South Africa: Saunders.

Chetty, T., Butler, L., Giddy, J., Crankshaw, T. Knight, S.and Newell, M. L. (2011). "HIV-1—transmission, mortality and loss to follow-up of HIV-1—exposed infants enrolled in a programme providing integrated PMTCT and child health services in an urban hospital in KwaZulu Natal," Available at: http://www.africa

Creswell, J.W. (2007). *Qualitative inquiry and researches design*: Choosing among five approaches. Califonia: Sage.

Delva, W., Draper, B. & Temmerman, M. (2006). Implementation of Single-dose Nevirapine for prevention of MTCT of HIV-lessons from Cape Town. *South African Medical Journal*, 96(8): 706-709.

Dempsey, P.J. & Dempsey, A.D. (2000). *Using Nursing Research: Process, Critical Evaluation and Utilization*. 5th Ed. Washington: Lippincott Williams & Wilkins.

Eamer1, G.G. & Randall, G.E. (2013). Barriers to implementing WHO's exclusive breastfeeding policy for women living with HIV in sub-Saharan Africa: an exploration of ideas, interests and Institutions. *The International Journal of Health Planning And Management* 28: 257–268.

Elaine, J., Abrams, M.D., Myer, L., Rosenfield, A., Wafaa, M. & El-Sadr, M.D. (2007). Preventions of mothers-to-child transmission services as a gateway to family-based human immunodeficiency virus care and treatment in resource-limited setting: rationale and international experiences. *American Journal of Obstetrics & Gynecology*, 31: 101-106.

Ganyaza-Twalo, T. (2010). Guidelines for the development of an HIV/AIDS workshops support programme for Teachers. Cape Town: University of the Western Cape.

Goga, A.E., Dinh T.H. & Jackson, D.J. (2012a). Evaluation of the Effectiveness of the National Prevention of Mother-to-Child Transmission (PMTCT) Program Measured at Six Weeks Postpartum. South Africa.

Goga, A.E., Doherty, T., Jackson, D.J., Sanders, D., Colvin, M., Chopra, M. & Kuhn, L. (2012). Infant feeding practices at routine PMTCT sites, South Africa: results of a prospective observational study among HIV exposed and unexpected infants- birth to 9 months. *International Breastfeeding Journal*, 7(4): 1-11.

Guba, E.G. (1985). Criteria for assessing trustworthiness of naturalistic inquiries. *Introductional Communication and Technological Journal*, 29: 75-92.

Horwood C., Haskins L., Vermaak K., Phakathi S., Subbaye R. & Doherty, T. (2010). Prevention of mother to child transmission of HIV (PMTCT) programme in KwaZulu-Natal, South Africa: An evaluation of PMTCT implementation and integration into routine maternal, child and women's health services. *Tropical Medicine and International Health*, 15(9): 992-999.

Kalembo, F.W. & Zgambo, M. (2012). Loss of follow-up: A Major Challenge to Successful Implementation of Prevention of Mother-to-Child Transmission of HIV-1 programs in Sub-Saharan Africa. *International Scholarly Research Network AIDs*, 12: 1-10.

Kasenga, F Hurtig, MD, Emmelin, M. (2010). HIV-positive women's experiences of a PMTCT programme in rural Malawi. *Midwifery* 26: 27–37

Leshabari, S.C., Blystad, A., de Paoli, M. & Moland, K.M. (2007). HIV and infant feeding counselors: Challenges faced by nurse counselors in Northern Tanzania. *Human Resource for Health*, 5: 18.

Lim, Y. Kim, J. Y. & Rich, M. (2010) Improving prevention of mother-to-child transmission of HIV care and related services in Eastern Rwanda, *PLoS Medicine*, 7(7):178-189

Linguissi L.S.G., Bisseye, C., Poulain, P., Ntoumi, F., Simpore, J. (2015). Prevention of Mother-to-Child HIV Transmission (PMTCT) in the Republic of Congo: Challenges to Implementation. *Journal of AIDS Clinical Research* 6: 503.

Mellins, C.A., Chu, C., Malee, K., Allison, S., Smith, R., Harris, L., Higgins, A., Zorrilla, C., Landesman, S., Serchuck, L. & Larussa, P. (2008). Adherence to antiretroviral treatment among pregnant and postpartum HIV –infected women. *Taylor & Francis*, 20: 958-968.

Merdekios, B. & Adedimeji A, (2011). Effectiveness of interventions to prevent mother-to-child transmission of HIV-1 in Southern Ethiopia, *International Journal of Women's Health*, 3: 359–366,

Miller, K. (2003). *Encyclopedia and Direction of Medicine, Nursing and Allied Health*.7th ed. Saunders: Elsevier.

Moses, A., Zimba, C., Kamanga, E., Nkhoma, J., Maida, A., Martison, F., Mofolo, I., Joaki, G., Muita, J., Spenseley, A., Hoffman, I. & Van de Horst, C.M. (2008). Prevention of mother-to-child transmission: Program changes and the effect on uptake of the HIVNET 012 regimes in Malawi. *AIDs*, 22(1): 83-87.

Nam, S.L., Fielding, K., Avalos, A., Dickinson, D., Gaolathe, T. & Geissler, P. M. (2008). The relationship of acceptance or denial of HIV-status to antiretroviral adherence among adult HIV patients in urban Botswana. *Social Science & Medicine Journal*, 67: 301-310.

National Department of Health and South African National AIDS Council. (2010). *Clinical Guidelines: PMTCT (Prevention of Mother-to-Child Transmission)*. South Africa.

National Department of Health, Medical Research Council (MRC), University of the Western Cape (UWC), UNICEF and USAID. (2009). The National Integrated Prevention of mother to child transmission (PMTCT) of HIV accelerated plan at a Glance: Best practices in prevention of mother to child transmission of HIV programs in South Africa.

Nguyen, T. A., Oosterhoff, P., Pham, Y.N., Hardon, A. & Wright, P. (2009). Health workers views on quality of prevention of mother to child transmission and postnatal care for HIV-infected women and their children. *Human Resources for Health*, 7(39): 4-11.

Nursing Act 5 of 2001. Pretoria: Government printers. South Africa. (2001).

Nuwagaba-Biribonwoha, R.T., Mayon-White, P., Okong, L. & Carpenter, M. (2007). Challenges face by health workers in implementing the Prevention of Mother to Child Transmission (PMTCT) programme in Uganda. *Journal of Public Health*, 29(3): 269-274.

Oxford Dictionary. (2014). In: *Oxford Dictionary*. 8th Edition. [Online]

Available:http://www.oxforddictionaries.com/definition/english/stakeholder [2014, June17].

Painter, T.M., Diaby, K.L., Matia, D.M., Lin, L.S., Sibailly, T.S., Kouassi, M.K., Ekpini, E.R., Roels, T.H. & Wikton, S.Z. (2006). Women's reasons for not participating in follow-up visits before starting short course antiretroviral prophylaxis for prevention of mother to child transmission of HIV: Qualitative interview study. *Bio-Medical Journal*, 329: 2-3.

Polit, D.F. & Beck, C.T. (2004). *Nursing research: Principles and methods*. 7th edition. Philadelphia: Lippincott. Williams & Williams.

Polit, D.F. & Beck, C.T. (2012). *Nursing research: generating and assessing evidence for nursing practice*. 9th ed. Philadelphia: Lippincott.

Polit, D.F. & Hungler, B.P. (1987). *Nursing principles and methods*. Philadelphia: Lippincott Company.

Richard, N. (2014). *Grammar & Composition Expert: Interview*. Available at: http://grammar.about.com/od/il/g/Interview-term.htm.

Rispel L.C., Peltzer K., Phaswana-Mafuya N., Metcalf C.A. & Trege, L. (2009). Assessing missed opportunities for the prevention of mother-to-child HIV transmission in an Eastern Cape local service area. *South Africa Medical Journal*, 99: 174-179.

Sherman, G.G., Jones, S.A., Coovadia, A.H., Urban M.F. & Bolton, K.D. (2009). PMTCT from research to reality-results from a routine service. *South African Medical Journal*, 94: 289-292.

Simbayi, L.C., Kalichman, S.C., Strebel, A., Cloete, A., Henda, N. & Mqeketo, A. (2007). Disclosure of HIV status to sex partners and sexual risk behaviors among HIV-positive men and women, Cape Town, South Africa. *Sexual Transmission Infection Journal*, 89: 29-34.

Stinson, K. (2014). Reflections on a decade of delivering PMTCT in Khayelitsha, South Africa. *SAJHIVMED*, 15(1): 30-32.

Stinson, K., Myer, L. & Boulle, A. (2008). An evaluation of approaches to the initiation of antiretroviral therapy during pregnancy among HIV-infected women in Cape Town. Cape Town: University of Cape Town.

Streubert-Speziale, H.J. & Carpenter, D.R. (2007). *Qualitative Research in Nursing: Advancing the Humanistic Imperative*. 4th Ed. Philandelphia: Lippincott, Williams & Wilkins.

Tappen, R.M. (2011). *Advanced Nursing Research from theory to Practice*. Canada: Jones & Bartlett leanings.

Tom, A. (2013). *Health system failing to track babies after birth*. Available at: http://www.nspreview.org/2013/12/11/health-system-failing-to-track-babies-after-birth/.

Toure, H., Audibert, M. & Dabis, F. (2010). To what could performance-based schemes help increase the effectiveness of prevention of mother-to-child transmission of HIV (PMTCT) programs in resource-limited settings? A summary of the published evidence. Available at: http://www.biomedcentral.com/1471/10/702.

Turan, J.M., Bukusi, E. A., Cohen, C. R., Sande, J. & Miller, S. (2008). Effects of HIV /AIDs on Maternal Care Provider in Kenya. *Journal of Obstetric Gynecology Neonatal*, 37(5): 588-595.

USAID, PEPFAR & AIDSTAR-ONE. (2013). *Biomedical Interventions: Prevention of Mother-to-Child Transmission of HIV (PMTCT)* Available at: http://www.aidstar-one.com/focus_areas/prevention/pkb/biomedical_interventions/prevention_mother_to_child_transmission_hiv_pmtct.

Uys, L. R. & Klopper, H.C. (2013). What is the ideal ratio of categories of nurses for the South African public health system? *South African Journal of Science*, 109(5/6): 1-4.

Western Cape Government. (2014). *Prevention of Mother to Child Transmission* Available at: http://www.westerncape.gov.za/service/prevention-mother-child-transmission-pmtct.

World Health Organization. (2010). WHO technical Consultation on postpartum and postnatal care. Available at: http://www.who.int/maternal_child_adolescent/documents/WHO_MPS_10_03/en/.[2010,October].

World Health Organization. (2010). Breast is always best, even for HIV positive mothers. *Bull World Health Organ* 88: 9–10.

World Health Organization. (2011). *Mother to Child Transmission of HIV*. Available at: http://www.who.int/hiv/topics/mtct/en/.

APPENDICES

APPENDIX: A



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa Tel: +27 21-9599493, Fax: 27 21-9592679 E-mail: nkwaleyela@uwc.ac.za

INFORMATION SHEET

Project Title: Challenges faced by midwives in implementing the prevention of mother to child transmission programme during the post-natal period in Khayelitsha Community Health Clinic, Western Cape Province.

WESTERN CAPE

What is this study about?

This is a research project being conducted by Ms. Unathi Mecia Paul at the University of the Western Cape. We are inviting you to participate in this research project because you are one of the Midwives that can help me to understand the challenges that midwives face in implementing PMTCT services during postnatal period.

The purpose of this research project is to explore the challenges faced by midwives who render postnatal services to mothers enrolled to the PMTCT program at Khayelitsha Community Health Clinic.

What will I be asked to do if I agree to participate?

You will be asked to answer few questions about challenges faced by the midwives in implementing PMTCT program during postnatal period in Khayelitsha Community

Health Clinic, Western Cape Province. Individual interview will last for about 45 minutes and will be conducted in English.

Would my participation in this study be kept confidential?

Your personal information will be kept confidential. To help protect your confidentiality, your personal details will be kept confidential by the use of pseudonyms or fictitious names and avoid use of real names.

We will keep all information locked and stored for the duration of five years after the date of publication of the results and there will be no names attached to published results.

What are the risks of this research?

There are minimal risks associated with human research. Should you feel any psychological or emotional distress during the course of the interview, I will make sure that you are referred to an appropriate empathetic specialist for counselling.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the researcher to understand the challenges faced by midwives in implementing PTMCT program during postnatal period in Khayelitsha Community Health Centre, Western Cape Province

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

Is any assistance available if I am negatively affected by participating in this study?

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Should you be negatively affected by participating in the study, participants will be

referred for counselling at the Independent Counselling and Advisory Service (ICAS)

free service for government employees.

What if I have questions?

This research is being conducted by Ms U.M Paul and is supervised by Ms N. C

Kwaleyela from the School of Nursing at the University of the Western Cape. If you

have any questions about the research study itself, please contact Ms Unathi Mecia

Paul at: 0735107752; address: 19 Brazilia Street, Malibu Village, Blue downs, 7100

or email: 2412664@myuwc.ac.za.

Should you have any questions regarding this study and your rights as a research

participant or if you wish to report any problems you have experienced related to the

study, please contact:

Head of Department: Professor K. Jooste (021 9592274)

Dean of the Faculty of Community and Health Sciences: Professor J. Frantz

University of the Western Cape

Private Bag X17

Bellville 7535

UNIVERSITY of the WESTERN CAPE

Supervisor: Ms. N.C. Kwaleyela

This research has been approved by the University of the Western Cape's Senate

Research Committee and Ethics Committee.

APPENDIX: B



University of the Western Cape

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-9599493, Fax: 27 21-9592679

E-mail: nkwaleyela@uwc.ac.za

CONSENT FORM

Title of Research Project: Challenges faced by midwives in implementing the prevention of mother to child transmission programme during the post-natal period in Khayelitsha Community Health Clinic, Western Cape Province.

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name:	 	
Participant's signature:	 	
Date:		

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Study Coordinator's Name: Ms. N.C Kwaleyela

University of the Western Cape

Private Bag X17, Belville 7535

Telephone: (021)959-9493

Email: nkwaleyela@uwc.ac.za



APPENDIX: C

INTERVIEW SCHEDULE

RESEARCH QUESTION

"What are the challenges that you face in implementing PMTCT program during the postnatal period?"

Probing questions such as:

Could you please explain more about that?

What do you mean about that?

Any idea why that is happening?

Can you give an example?



The above probing questions will follow depending on each participant's response to the core question.

APPENDIX D



OFFICE OF THE DEAN DEPARTMENT OF RESEARCH DEVELOPMENT

4 November 2014

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by: Ms UM Paul (School of Nursing)

Research Project:

Challenges faced by midwives in implementing prevention of mother to child transmission program during postnatal period in Khayelistha Community Health Clinic.

Registration no: 14/9/35

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

WESTERN CAPE

The Committee must be informed of any serious adverse event and/or termination of the study.

poies

Ms Patricia Josias Research Ethics Committee Officer University of the Western Cape

Private Bag X17, Bellville 7535, South Africa T: +27 21 959 2988/2948 . F: +27 21 959 3170 E: pjosias@uwc.ac.za www.uwc.ac.za

A place of quality, a place to grow, from hope to action through knowledge **APPENDIX: E**

19 Brazilia Street

Malibu Village

Blue Downs

7100

18 September 2014

Department of Health Research Ethical Committee

PO BOX 2060

Cape Town

8000

Dear Sir/Madam

Request to conduct research at Department of health

I am Unathi Mecia Paul, a postgraduate student studying towards a Master's Degree in advanced Midwifery and Neonatology in the Department of nursing at the University of the Western Cape. I am interested in conducting a study entitled "Challenges faced by midwives in implementing the prevention of mother to child transmission programme during the post-natal period in Khayelitsha Community Health Clinic, Western Cape Province" as part of the degree program. The study has been approved by the Senate Ethic Committee at University of the Western Cape.

I hereby request your permission to conduct my research in midwifery obstetric unit at Khayelitsha (Site B) Community Health Clinic. I will appreciate if a permission to access the midwifery obstetric unit can be granted as it is very important so that I can be able to conduct the study. Individual interviews will be conducted with midwives in one of the private rooms at Khayelitsha (Site B) Community Health Clinic. Participants will be selected by means of purposive sampling and informed consent will be obtained from them prior participation in

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the interviews. Hereby attached is the copy of my research proposal with information sheet,

ethic clearance letter and the consent form that will be provided to participants. Participation

in the study is voluntarily and participants have a choice to withdraw from the study at any

given time. All information will be handled confidentially and will be transcribed personally.

The midwife's and your institution anonymity will be ensured throughout the study. This will

be done by using pseudonyms to protect the participants' identity.

Information acquired through this research project will be shared with all participants prior to

public dissemination. Results of the study will be published in an accredited journal and a

peer review journal.

Thank you.

Yours sincerely

Miss Unathi Mecia Paul

Cell no: 0735107752



APPENDIX F



STRATEGY & HEALTH SUPPORT

Health.Research@westerncape.gov.za tel: +27 21 483 6857; fax: +27 21 483 9895 5th Floor, Norton Rose House,, 8 Riebeek Street, Cape Town, 8001 www.capegateway.gov.za)

REFERENCE: WC_2014RP4_74 ENQUIRIES: Ms Charlene Roderick

University of the Western Cape Faculty of Community Health Sciences Robert Sobukwe Road Bellville 7535

For attention: Ms Unathi Moeketsi

Re: Challenges faced by midwives in implementing the prevention of mother to child transmission program during postnatal period in Khayelitsha Community Health Clinic, Western Cape Province.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

Khayelitsha (Site B) CHC

D Binza

Contact No. 021 360 5208

Kindly ensure that the following are adhered to:

- 1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
- 2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final report within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
- 3. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR J EVANS

ACTING DIRECTOR: HEALTH IMPACT ASSESSMENT

DATE:

CC

A HAWKRIDGE

DIRECTOR: KHAYELITSHA / EASTERN

APPENDIX G

01 July 2015

To whom it may concern

Dear Sir/Madam

RE: Editorial Certificate

This letter serves to prove that the thesis listed below was language edited for proper English, grammar, punctuation, spelling as well as overall layout and style by myself, publisher/proprietor of Aquarian Publications, a native English speaking editor.

Thesis title

CHALLENGES FACED BY MIDWIVES IN IMPLEMENTING THE PREVENTION OF MOTHER TO CHILD TRANSMISSION PROGRAMME DURING THE POST-NATAL PERIOD AT KHAYELITSHA COMMUNITY HEALTH CLINIC, WESTERN CAPE PROVINCE.

WESTERN CAPE

Author NIVERSITY of the Unathi Mecia Paul

The research content or the author's intentions were not altered in any way during the editing process, however, the author has the authority to accept or reject my suggestions and changes.

Should you have any questions or concerns about this edited document, I can be contacted at the listed telephone and fax number, e-mail address or website.

Yours truly

Htondt

Publisher/Proprietor



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