

**CHALLENGES FACED BY HEALTH PROFESSIONALS REGARDING THE
IMPLEMENTATION OF HIV/AIDS GUIDELINES AT PHC FACILITIES OF VHEMBE
DISTRICT, SOUTH AFRICA.**

By

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DECLARATION

I, Ndou Pfarelo Agreement, hereby declare that this mini-dissertation for the degree of Master in Public Health at the University of Venda titled “ **Challenges faced by health professionals regarding the implementation of HIV/AIDS guidelines at PHC facilities of Vhembe District, South Africa**”, hereby submitted by me, has not been previously submitted for a degree at this or any other university, that it is my own work in design and in execution, and that all reference material contained therein has been duly acknowledged.

Signature of student

Date

.....

.....

DEDICATION

This study is dedicated to my spiritual parents Prophet Alson and Ipfi Magoma. Furthermore, I dedicate this research project to my lovely mom, Tshepo Ndou; mom, you have taught me never to give up.

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LIST OF ACRONYMS

AIDS: Acquired immune deficiency syndrome

ANC: Antenatal care

ART: Antiretroviral therapy

ARV: Antiretroviral

BMI: Body mass index

HCT: HIV counselling and testing

HIV: Human immunodeficiency virus

NDOH: National Department of Health

NIMART: Nurse Initiated and Managed ART

NSP: National Strategic Plan on HIV, STIs and TB 2012-2016

PHC: Primary health care

PLWHA: Person living with HIV/AIDS

PMTCT: Prevention of mother-to-child transmission of HIV

SANAC: South African National AIDS Council

STI: Sexually-transmitted infections

TB: Tuberculosis

UNAIDS: United Nations Programme on HIV/AIDS

WHO: World Health Organization

ABSTRACT

HIV/AIDS is an overwhelming global pandemic that affects the country's health-care system. In order to reduce HIV/AIDS morbidity and mortality, the World Health Organization has called on countries to provide earlier access to antiretroviral therapy. In order to comply with the World Health Organization's call, South Africa has developed the National Consolidated Guidelines, which were aimed at increasing access to ART as well as reducing new infections through viral suppression. Although the new guidelines have been implemented, they have not been fully implemented, especially in rural-based Primary Health Care facilities. The researcher observed that women who were pregnant were not tested every three months, as prescribed by the HIV/AIDS guidelines. The aim of this study was to investigate Challenges faced by health professionals regarding the implementation of HIV/AIDS guidelines at PHC facilities of Vhembe District, South Africa. This study adopted a qualitative, explorative, descriptive and contextual approach targeting nurses working at rural-based primary health care facilities at Vhembe District. Face-to face in-depth, Semi-structured interviews were conducted, audiotaped and transcribed verbatim. The study used non-probability quota sampling method to identify participants until data saturation was reached with 12 participants. The results revealed that nurses faced some challenges when implementing HIV/AIDS guidelines, including shortages of resources, poor technical support, poor infrastructure, work overload, patients starting ART while there are not ready, shortage of ART, late booking of antenatal care, and mothers' denial of HIV positive status, HIV positive babies, and poor RPC after birth. Ethical considerations were observed throughout the study. The data collected was analyzed using interpretative phenomenological analysis and all measures to ensure trustworthiness of the study findings were ensured. Some recommendations were made based on the findings of the study.

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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

HIV/AIDS is an overwhelming global pandemic that affects country's health-care system. In order to prevent millions of HIV-related deaths and new infections, the World Health Organization has called upon countries to provide earlier access to antiretroviral therapy (World Health Organization [WHO], 2014). The WHO (2014) estimated that earlier treatment could prevent up to 3 million HIV-related deaths and 3.5 million new HIV infections between now and 2025. This was especially needed in countries where there is a high prevalence of HIV infection, such as in the Eastern and Southern Africa region. This chapter outlines the overview of the study, giving the background, problem statement, rationale, purpose, objectives and significance of the study. The definitions of concepts are also included in this chapter.

1.2 Background to the study

According to UNAIDS (2016) the Eastern and Southern Africa region is the region with the highest HIV/AIDS infection rates in the world, with statistics indicating that 19.0 million adults and children are living with HIV/AIDS. According to UNAIDS (2016), there are about 36.7 million people are living with HIV worldwide. The American Public Health Association (APHA) (2014) states that the new WHO guidelines; namely, the consolidated guidelines on HIV prevention, diagnosis, treatment and care, was based on evidence that earlier treatment of HIV can lower the virus in a person's blood and the risk of transmission. The consolidated guidelines on HIV prevention, diagnosis, treatment and care encourage countries to begin antiretroviral therapy when a person's immune system is still strong (WHO, 2014). In June 2016, approximately 18.2 million people globally were on antiretroviral therapy (UNAIDS, 2016).

The new WHO Consolidated guidelines on HIV prevention, diagnosis and care broaden the scope of people who are eligible for antiretroviral therapy (APHA, 2014). UNAIDS (2014) circulated the "90,90,90" targets, which targets that by 2020, 90% of HIV-infected individuals ought to know their HIV status, 90% of those diagnosed with HIV must be receiving ART, and 90% of persons on ART should achieve viral suppression. These targets have been integrated into the South African National Consolidated Guidelines.

According to UNAIDS (2016), in 2015, seven sub-Saharan Africa countries; namely, Botswana, Mozambique, Namibia, Rwanda, South Africa, Swaziland and Uganda, had Prevention of Mother to Child Transmission coverage of 90% or above. UNAIDS (2016) reported that in 2015, approximately 62% of people living with HIV in Eastern and Southern Africa knew their HIV status and 54% were on ART. Furthermore, South Africa has increased HIV testing, with home-based testing increasing HIV testing in rural settings, as well as encouraging couples to undergo HIV/AIDS counselling and testing (Department of Health, 2014). In 2012, UNAIDS (2013) reported that only 32% of all people who were supposed to be on ART were receiving treatment in sub-Saharan Africa. Nurse Initiated and Managed ART (NIMART), which is the shifted ART delivery approach to be nurse centered has been implemented in Rwanda, Zambia, Lesotho and South Africa in order to improve access to treatment and care for people living with HIV (Mophosho, 2015).

The South African government has been severely criticized for its inactive response to the country's HIV epidemic. In 1994, 'The National AIDS Plan for South Africa' was launched. This plan focused on prevention of HIV through health education and reducing transmission through appropriate care (NDOH, 2011). Thabo Mbeki, the former president of South Africa, openly asserted that HIV did not cause AIDS, and faced minimal opposition in his cabinet for his many public statements on the matter. In addition, the outgoing president made a statement alleging that showering after unprotected sexual intercourse can prevent HIV infection (Mbali, 2005).

In South Africa, most people with HIV have low rates of engagement with health care and viral suppression; that is, 88% of the women with HIV were estimated to be virally suppressed, compared with 19% of the men (Health System Trust, 2016). Limpopo Province has a high prevalence of new cases of HIV in South Africa. Nathea (2008) reported that the province has around 400 000 HIV positive people. Around 7% of the population in the province were reported to be HIV positive in 2008. The report further claims that an estimated 70 000 people in the province were in need of antiretroviral treatment in 2008.

In 2015, the South African government adopted the new consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and management of HIV in children, adolescents and adults, which aims at creating a well-functioning health system, capable of producing improved health outcomes (Department of Health 2015; WHO 2016). These new guidelines' aim was to increase access to ART as well as to reduce new infections through viral suppression (NDOH, 2015). According to the Department of Health (2015), these guidelines have brought the following changes:

- All HIV positive pregnant and breastfeeding women, regardless of CD4 count, are eligible for ART.
- HIV testing during and after the period of exposure is necessary to diagnose HIV infection early and initiate ART.
- Immediate initiation of infant ART with first positive HIV PCR whilst waiting for confirmatory test results.
- No longer use viral load as part of baseline assessment for ART initiation in children.
- Initiation of ART for all HIV/TB co-infected patients.
- Repeat HIV testing for HIV-negative women 3-monthly during pregnancy, at labour/delivery, at the 6 week Expanded Programme on Immunisation (EPI) visit and 3-monthly throughout breastfeeding.

1.3 Problem statement

As a social worker intern in one of the primary health care facility in Vhembe District, the researcher noted with concern that pregnant women were not tested every three months, as prescribed by the HIV/AIDS Guidelines. According to the Health Systems Trust (2015), only three quarters of HIV-positive pregnant women were put on ART in 2013 in the Vhembe District. The researcher also noted that there were shortages in the supply of antiretroviral drugs in the clinic. These shortages of essential medications prevented the initiation of new eligible HIV-infected patients and critically ill patients who are on ART and adversely affected. In a newspaper article in the *Limpopo Mirror* it was reported that 29% of the 266 responding facilities in Limpopo reported stock outs or shortages of antiretroviral drugs in 2014. The National Strategic Plan on HIV, STIs and TB 2012-2016 aimed to reach 80% of those who require treatment, care and support by 2016. The Health Systems Trust (2015) reveals that HIV testing coverage (clients 15-49 years) of the district in 2013 was only 26.8%, which is lower than the national target, although slightly above the provincial values. Since the causes of these concerns are not clear, the appropriate starting point in addressing this problem is by exploring the challenges of nurses in the implementation of the HIV/AIDS guidelines in rural-based primary health care facilities.

1.4 Significance of the study

The study findings are likely to provide valuable information on challenges faced by primary health care nurses in the implementation of the current National Consolidated Guidelines for caring for HIV/AIDS patients. The findings may also offer primary health care nurses an

opportunity to be heard and describe their experiences and challenges in the implementation of the HIV/AIDS guidelines in rural clinics. Challenges experienced by primary health care nurses may be addressed through the recommendations that this study will make.

This study is also significant due to its potential to help the government to find out whether primary health care nurses are capable of implementing HIV/AIDS guidelines in PHC facilities. The findings of the study may also identify gaps in knowledge and the skills of primary health care nurses in the implementation of HIV/AIDS guidelines. The Department of Health and Social Development may use this study to help hospital personnel, such as nurses, doctors and others working with HIV and AIDS infected people. The findings from the study will hopefully inform HIV/AIDS policy formulation and review and help patients in primary health care facilities to receive quality care services.

It is also hoped that the study findings will be an addition to the body of knowledge of the public health profession. Lecturers and health educators may include the findings of the study in the teaching and training of students. The findings of study are likely to be used as reference by scholars.

1.5 Purpose of the study

This study aimed to investigate the Challenges faced by health professionals regarding the implementation of HIV/AIDS guidelines at PHC facilities of Vhembe District, South Africa.

1.5.1 Objectives of the study

The following were objectives of the study:

- To explore the challenges of implementing HIV/AIDS guidelines regarding the provision of HCT services in primary health care.
- To explain the challenges of implementing HIV/AIDS guidelines regarding the provision of ART services in primary health care.
- To describe the challenges of implementing HIV/AIDS guidelines regarding the provision of PMTCT services in primary health care.

1.6. Research questions

The following were the research questions:

- What are the challenges of implementing HIV/AIDS guidelines regarding the provision of HCT services in primary health care?

- What are the challenges of implementing HIV/AIDS guidelines regarding the provision of ART services in primary health care?
- Describe the challenges of implementing HIV/AIDS guidelines regarding the provision of PMTCT services in primary health care?

1.8 Definition of terms

The concepts below are essential in this study and are therefore defined as follows:

Acquired Immunodeficiency Syndrome: AIDS is the stage of infection that occurs when one's immune system is badly damaged and one becomes vulnerable to *opportunistic infections*. When the number of a person's CD4 cells falls below 200 cells per cubic millimetre of blood (200 cells/mm³), a person is considered to have progressed to AIDS (UNAIDS, 2006). In this study, having AIDS is when a person who is infected by HIV is at critical stage and prone to acquire opportunistic infections.

Anti-retroviral therapy (ART): is treatment of people infected with the human immunodeficiency virus (HIV) using anti-HIV drugs. Antiretroviral therapy suppresses HIV replication. ART has a potential to reduce mortality and morbidity rates among HIV-infected people (WHO, 2016). In this study, it refers to all the drugs taken by HIV infected people to suppress the viral load.

Primary health care centre: this is a facility that provides at least an ambulatory, preventative and curative health service and has less than four consulting rooms. The service should be available for at least eight hours a day, five days per week, while some clinics function 12 hours daily and are open on weekends, depending on the location area (Health Systems Trust, 2015). In this study, primary health care centre facilities refers to clinics.

HIV Counselling and testing (HCT): is an umbrella term that describes services that combine both HIV counselling and testing. The policy distinguishes between two types of counselling and testing services – those that are client initiated and those that are provider-initiated (DOH, 2010). In this study, HCT refers to everything that takes place during HIV testing.

Human Immunodeficiency Virus: This is the micro-organism which damages a human being's immune system. If left untreated, HIV can lead to the disease AIDS (acquired immunodeficiency syndrome). HIV attacks the body's immune system, specifically the CD4

cells (T cells), which help the immune system fight off infections (UNAIDS, 2006). In this study, HIV refers to a virus that weakens the immune system.

Prevention of Mother to Child Transmission (PMTCT): is a programme that reaches out to all women before, during pregnancy, through labour and until the post-natal period up to a period of 18 months. The programme aims to result in healthy mothers and HIV-uninfected infants (Health System Trust, 2015). In this study, PMTCT refers to the clinical care that women receive in order to protect the child from transmission of diseases from the mother.

Primary health care nurse: are enrolled nurses, and registered nurses who are registered with the South African Nursing Council (SANC) and are working in a primary health care setting (DoH, 2010). In this study, primary health care nurses work at the clinic setting.

Challenges: A challenge is something new and difficult which requires great effort and determination (Collins, 2003). In this study, challenges refer to the difficulties that nurse's experience when implementing the National Consolidated Guidelines.

1.8. Summary

This section presented an overview of the study, including the background, problem statement, purpose of the study, objectives of the study and question, significance of the study and theoretical foundation of the study. The next chapter deals with the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This section discusses the literature relevant to the research topic; namely, challenges faced by nurses regarding the implementation of HIV/AIDS guidelines in Vhembe district, Limpopo province, South Africa. Numerous scholars have conducted studies on the challenges faced by nurses in the implementation of HIV/AIDS guidelines. Their findings are also discussed in this chapter. Sources that will be used include scholarly literature in journals, electronic literature, books and book chapters. This literature review will discuss the conceptual framework behind the study and the study objectives.

2.2. Challenges of implementing HIV/AIDS guidelines regarding the provision of HCT services in primary health care

2.2.1. Inadequate training of lay counsellors

In an effort to ease the burden of diagnosing and providing treatment placed on professional health care workers, the South African government has employed lay counsellors to assist with voluntary HIV testing and counselling. Yet, those lay counsellors who have been employed by the Department of Health do not receive adequate training due to lack of resources, lack of on-going supervision and lack of support from their supervisors. Due to lack of sufficient training of lay counsellor personnel, the HCT is now reduced to giving out HIV information, rather than processing patients' emotions and cognitions, to lessen distress and changing behaviour patterns such as non-adherence (Koto & Maharaj 2016).

2.2.2. Lack of proper infrastructure

What happens in most primary health care centres is that the existing infrastructure does not allow the healthcare workers to carry out their jobs properly, particularly when it comes to counselling and consultation, especially in rural areas, where there are no proper clinics (Jones 2014; Shishana et al. 2014). In some clinics, some consultation rooms are divided by curtains or boards that are not sound proof. This compromises confidentiality, as it is likely that other people might overhear what is being discussed with the patient in the clinic (Cohen et al. 2009). In Mophosho's (2015) study, participants pointed out that primary health care facilities did not offer sufficient privacy.

2.2.3. Lack of resources and social support

Jones (2014) argues that nurses in Vhembe primary health care clinics experience increased workloads in the workplace, where there is insufficient material and emotional support. Jones also states that clinics in Vhembe District lack essential tools for HIV counselling and testing on a regular basis due to an improper supply chain.

2.2.4. Risk of infection

Campbell et al (2010) observes that the chance of health care workers such as nurses contracting HIV in the place of work, has increased with the increase in the number of HIV positive persons in South Africa. Since HIV is not a notifiable disease, HIV patients can seek treatment without disclosure of their statuses. Some nurses may fear to work with HIV patients, especially when there is shortage of protective resources such as protective gloves, masks, goggles and aprons (Jones 2014).

2.3. Challenges of implementing HIV/AIDS guidelines regarding the provision of ART services in primary health care

2.3.1. Poverty

With or without HIV and AIDS, most people in South Africa are living in poverty. Money for fees, transport to primary health care clinics, which may be far especially in rural areas, were reported as a concern that may influence adherence to antiretroviral therapy (Campbell et al 2010). Most patients on antiretroviral therapy complain about money for transport and other medication. As a result, some patients fail to achieve the best possible adherence to treatment of HIV and AIDS (Jones 2014; Campbell et al 2010; Koto & Maharaj 2016).

2.3.2. Stigma and discrimination

Koto and Maharaj (2016) point out that many HIV and AIDS patients report that they are afraid of taking antiretroviral medication because of fear of being stigmatized by people around them such as relatives and friends. This may affect their optimal adherence to antiretroviral treatment. Some HIV patients on antiretroviral treatment even experience stigma even within their immediate families. Some get divorced by their spouses because their partner discovered that they are on antiretroviral therapy. As a result of fear of

discrimination by community members, some patients take their medication in private (Jones 2014; Campbell et al 2010; Koto & Maharaj 2016).

2.3.3. Lack of support from society and children

Michel and Matlakala (2013) observed that society and children can provide the required support to patients who are on antiretroviral therapy. However, lack of support can have a very negative impact on medication adherence. Some patients recognised the support they received from their immediate families (Jones 2014; Campbell et al 2010).

2.3.4. Antiretroviral therapy schedule and side-effects

Vawda and Variawa (2012) note that some patients taking ARTs experience some side effects, such as dizziness, and skin problems such as rash. Others experience a problem with taking the drug at the scheduled time. These factors affect their adherence and motivation for taking more antiretroviral therapy. Yet others delay taking ART even when they have the opportunity to do so.

2.3.5. Traditional medicine

Michel and Matlakala (2013) argue that many Africans believe in traditional healers and spiritualists and for many of them, this may be the only “health care provider” that they have ever used. The World Health Organization (2010) reported that about 80% of Africa’s population uses traditional medicine for primary health care facilities. In South Africa, 75% of HIV-infected patients use herbs “muti” distributed by traditional healers and spiritualists. These herbs are used as complementary and/or as replacements for antiretroviral treatment.

2.4. Challenges of implementing HIV guidelines regarding PMTCT services in primary health care

2.4.1 Challenges facing the PMTCT programme patients

Ndlovu (2009) notes that some nurses reported that they had challenges with some of the pregnant women who chose not to have an HIV test. Mophosho (2015) reports that in the Vhembe District, there is lack of VCT services in peripheral clinics, which means that only a small number of pregnant women knew their HIV status. This is a challenge because the Current South African National Consolidated Guidelines for the prevention of mother-to-child

transmission of HIV recommends that women should be screened for HIV infection when first presenting themselves to antenatal care, with retesting at week 32 of pregnancy and during child birth (Carter, 2015).

Ndlovu (2009) reported that some pregnant women who had tested positive for HIV refused to start antiretroviral therapy. This can be a problem, especially if the pregnant woman is still in the denial stage of their HIV status. This usually happens when women are tested late in the pregnancy and do not have the time to accept their HIV status (Carter, 2015).

Mophosho (2015) identified the follow-up of pregnant HIV-positive women as one of the major challenges that nurses face in primary health care facilities. This challenge is mostly common in rural areas, where pregnant women depend on their partners for transport to clinics. HIV positive women who have delivered through vaginal birth are even harder to follow up, as most of them do not even realise the need for postnatal services (Carter, 2015; Mophosho, 2015).

2.4.2. Challenges with regard to staff

Mophosho (2015) states that in most clinics in rural areas there is a shortage of PMTCT staff such as counsellors, midwives and professional nurses, who are needed to deal with the increased workload. In addition, interrupted supplies of materials were reported to have occurred, while some nurses complained about lack of space for counselling, privacy and confidentiality (Jones 2014; Shishana et al. 2014).

Ndlovu (2009) pointed out that because HIV positive mothers have to wait for up to 18 months before their babies' HIV status is determined. As a result, mothers are lost to follow-up by 18 months, reducing the effectiveness of the Prevention of Mother to Child Transmission. Furthermore, Mophosho (2015) argues that inadequate supervision by facility managers compromises PMTCT and facility managers were practically assisting professional nurses with initiating and managing patients on ART, rather than playing a supervisory role.

2.5 Conceptual framework for the study

Conceptual framework is defined by Polit and Beck (2012) as a less formal means of organizing phenomena than theories. It also deals with concepts, assumptions and beliefs that are assembled by virtue of being relevant to a common theme. LoBiondo-Wood and Haber (2014) state a conceptual framework refers to published materials dealing with the

model that supports the research topic and is the focus of the study. The conceptual framework also indicates the importance of what is being studied.

2.5.1 National consolidated guidelines for PMTCT and the management of HIV in children, adolescents and adults

The National Consolidated Guidelines for the Prevention of Mother-To-Child Transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults will be used as a conceptual framework in this study. These guidelines are globally recognized as an effective strategy to control HIV (NDOH, 2015).

The Department of Health (2015) published the National Consolidated Guidelines for the Prevention of Mother-To-Child Transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults. These guidelines were a commitment by the government to ensure increase in access to Anti-Retroviral Therapy (ART) in order to improve the quality of lives in the country, by increasing eligibility to ART initiation. The following concepts are key in implementing National Consolidated Guidelines for the Prevention of Mother-To-Child Transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults:

1. HIV Counselling and Testing

According to the National Consolidated Guidelines HIV counselling and testing (HCT) is important for identifying HIV-positive persons and providing an entry point to comprehensive HIV prevention, treatment and care. HCT also encourages individuals, couples and communities to know their status. HCT provides an important opportunity for patient education on HIV disease and adherence, and is an essential step towards successful referral pathways that link patients to HIV care (Department of Health, 2015). HIV counselling and testing (HCT) is now referred to as HIV testing services (HTS), to embrace the full range of services that should be provided together with HIV testing (Department of Health, 2016). The guidelines also state that all women who test negative should be offered repeat HIV testing every 3 months throughout pregnancy, at labour/delivery, at the 6-week EPI visit and 3 monthly throughout breastfeeding (Department of Health, 2015). The Department of Health (2015) also stipulates that HIV testing should be done to all HIV-exposed neonates immediately after birth and all adults should be offered HCT whenever an opportunity arises.

Furthermore, it is important to ensure that there are links between HIV counselling and testing, with HIV prevention, treatment and care services for those who test positive and prevention services for those who test negative (Department of Health 2015; WHO 2016). This component of conceptual framework were used in the development of data collection instrument and presentation of information that focus on the challenges of HIV testing services implementation.

2. Anti-Retroviral Therapy

National Consolidated Guidelines state that ART should be initiated in all individuals regardless of the CD4 count. The guidelines stipulate that patients who are diagnosed with HIV must be given treatment the same day and that ART should be initiated in all pregnant women with HIV, regardless of their CD4 count. Furthermore, individuals who are co-infected with both HIV and TB should also receive therapy (Department of Health 2015; WHO 2016). The guidelines also outline that children and infants and early adolescents who are on ART should initially be seen monthly for regular follow ups and monitoring (Department of Health 2015). Since implementation of the National Consolidated guidelines includes this area, the current study will also focus on the challenges experienced in the provision of ART.

3. Prevention of mother to child transmission

The National Consolidated Guidelines state that HIV-positive women need management and care during the antenatal, labour, delivery and postnatal phases. This care includes provision of ARVs, the diagnosis, prevention and management of opportunistic infections, including TB screening, testing, treatment and prevention (Department of Health, 2015).

The guidelines also recommend that HIV-exposed infants not on ART should have a rapid test at 18 months of age, to confirm the HIV status at birth, or the 18-week HIV PCR performed. Similarly, mothers of unknown HIV status or who are HIV-negative should be tested every third month, throughout the pregnancy, during the labour/delivery, at the 6-week EPI visit and every third month throughout breastfeeding (Department of Health 2015; WHO 2016).

The current researcher used the guidelines to understand the challenges of primary health care nurses working in rural primary health care facilities. These guidelines were used as a benchmark, to develop the objectives of the study, research questions; and to organize data presentation. The guidelines also helped in determining variables that need to be measured.

2.6. Summary

The literature review section discussed the challenges faced by nurses with regard to HIV Counselling and Testing in primary health care facilities. It also discussed the challenges associated with antiretroviral therapy (ART) and the prevention of mother to child transmission. The review also discussed the conceptual framework behind the study. The next section presents the study's proposed research methodology.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This section presents the research design, study setting, population, sampling method and data collection method and process. The research instrument, data analysis, pilot study, trustworthiness of the study, and ethical considerations are also discussed.

3.2 Research Approach

Groves, Gray and Burns (2015) state that research approach is a blueprint or plan for conducting a study. LoBiondo-Wood and Haber (2014) stress that in qualitative approach, research design is about how the qualitative researcher plans to go about answering research questions. A qualitative approach, explorative, descriptive and contextual approach was used in the current study. The qualitative approach allowed primary health care nurses to express their feelings, emotions and experiences on how they experience the implementation of the National consolidated guidelines.

3.2.1 Explorative Design

The researcher selected the exploratory method because it allowed for a detailed exploration in the gaining of new insights, the discovery of new ideas and/or increase knowledge of the challenges faced by PHC nurses with regard to implementation of HIV/AIDS Guidelines (Polit & Beck, 2012).

3.2.2 Descriptive Design

The descriptive design has to do with accurately portraying phenomenon in real-life situations (Groves, Gray & Burns, 2015). The current study describes challenges faced by nurses in implementing HIV/AIDS Guidelines in PHC. The descriptive design enabled the researcher to gain information about the field of study with the purpose of providing a picture of the situation as it occurred (Polit & Beck, 2012).

3.2.3 Contextual Design

A contextual design is defined by Groves, Gray and Burns (2015) as research findings which are valid within the time and value context in which the study is being conducted. The study was contextual in nature. It was used to investigate the challenges faced by nurses when implementing HIV/AIDS guidelines as they occur in their primary health care facilities where the HIV/AIDS guidelines are implemented and by using the national consolidated guidelines as the conceptual framework.

3.3 Research setting

Research setting is a specific location used to conduct a study. There are three common settings in health research. These are natural, partially controlled and highly controlled settings. The current study was conducted in a natural setting, which is defined as an uncontrolled real-life environment (Grove, Gray, & Burns, 2015) in selected primary health care facilities of rural Vhembe District, Limpopo Province. The Vhembe District occupies 25 597 km² on the northern border of Limpopo Province and South Africa itself. The district has an estimated population of 1.3 million people, according to the 2011 Census. It comprises of four local municipalities; namely, Musina, Thulamela, Makhado and Collins Chabane. Vhembe District covers a geographical area that is mainly rural, with a district population density of 54.5 people per km² across its four local municipalities. More than half of the population (55.1%) is 24 years and younger. More than half of the households in Vhembe District are female-headed. Furthermore, most people who reside in Vhembe District are black Africans (StatsSA, 2012). Finally, Vhembe District has 123 PHC facilities and 8 are community health centres. The PHC facilities in Vhembe District render health care services including HIV and AIDS diagnosis, prevention, treatment and care services.

3.4 Study population

A population in general is a large collection of individuals or objects that is the main focus of a scientific query (Robinson, 2014). The target population of this study were primary health care nurses working in rural based primary health care facilities in Vhembe District. Limited resources made it difficult for the researcher to conduct the study using the target population. Thus the researcher used the accessible population that met the criteria for target population and was available during data collection (Grove, Gray & Burns, 2015). In the current study the accessible population were 12 PHC nurses who work during day time and who were available during data collection.

3.5 Sampling method

According to LoBiondo-Wood and Haber (2014) sampling is the process of selecting representative units of the population in the study. The sampling method that was used in this study is non-probability quota sampling method in which the researcher made sure that all four local municipalities within Vhembe District are represented. Robinson (2014) says quota sampling is a more flexible strategy than stratified sampling. Instead of requiring fixed numbers of cases in particular categories, quota sampling sets out a minimum number of cases/participants required for each quota. The researcher divided Vhembe District into four local municipalities and then selected at least two PHC facilities within each local municipality conveniently.

3.5.1 Sampling of primary health care facilities

The quotas may be either proportional or non-proportional. Primary health care facilities from Vhembe District were selected using non-proportional quota sampling, making sure that every local municipality within Vhembe district is represented by a minimum number of two rural PHC facilities with high rate of HIV/AIDS patients. Quota sampling was used to ensure that all sub-groups within the population are represented. Information about Primary Health Care facilities with a high rate of HIV/AIDS was obtained from the district Manager.

3.5.2. Sampling of participants

Primary health care nurses were selected using non-probability-convenient sampling, based on their availability during data collection. Participants were interviewed until data saturation was reached or until there was no new information coming forth from participants. Although the interview continued until data saturation, the anticipated number of participants is 12 nurses, at least two from each municipality within Vhembe District.

3.5.2.1. Inclusion criteria

These are eligibility criteria that have the characteristics that the researcher wants the sample to possess (LoBiondo-Wood and Haber, 2014).

More than one year's working experience in a rural primary health care facility

- PHC nurses who are trained for NIMART and who are willing to participate.
- All participants must be nurses who are registered with the South African Nursing Council.

3.5.2.2. Exclusion criteria

These are the criteria that will lead the researcher to exclude certain individuals from the sample (LoBiondo-Wood and Haber, 2014).

- Nurses who do not have one year's experience
- Nurses who are not trained for NIMART and those who are not willing to participate.

3.6. Data collection tool

The researcher used semi-structured interviews and field notes as instruments for gathering data from the participants. The interview guide was used as a research instrument to draw verbal responses from participants by means of personal interviews. The interview guide was designed based on specific objectives of the study. The interview guide was developed in English and was have two sections comprising of demographic information and an interview schedule. The interview guide helped the researcher to remain focussed on the topic when interviewing PHC nurses. The guide consisted of a list of questions or themes that helped the researcher to explore the challenges faced by nurses in the implementation of HIV/AIDS guidelines in rural primary health care facilities.

The questions that were asked included the following:

- *What are your challenges when implementing HIV/AIDS guidelines with regard to HCT services in primary health care?*
- *What are your challenges when implementing HIV/AIDS guidelines regarding the provision of ART services in primary health care?*
- *What are your challenges when implementing HIV guidelines regarding PMTCT services in primary health care?*

3.7. Data collection method and process

Gray and Burns (2015) state that data collection is the precise, systematic gathering of information relevant to the research problems using methods such as interviews, observations, focus group discussions and case histories. The data collection method was guided by questions in the interview guide. Data collected in most qualitative research are participants' thoughts, ideas and perception (Polit and Beck, 2012). The researcher collected data from primary health care nurses on the challenges they faced when implementing HIV/AIDS guidelines in Vhembe District.

The responses of participants were recorded using a tape recorder and participants were notified of its use. Audio records helped the researcher when transcribing the verbatim

responses. This was done to ensure that the information collected was correct as reported by the participants. All questions were asked in English because all participants are literate. Data was gathered in a quiet environment, free from disturbances, and where participants felt safe and free to share their challenges. The researcher also used communication techniques such as probing, paraphrasing and summarizing, to gain in-depth information.

Data was collected at selected primary health care facilities in Vhembe District. The researcher requested for a specific room within the PHC where semi-structured interviews were held. Each interview lasted for 30 to 40 minutes and was conducted during lunch time. The researcher used semi-structured interviews because they are more personal and allowed for a free generation of new knowledge. Semi-structured interviews also gave participants greater freedom to express their unique individual challenges. The researcher collected data immediately after all the required presentations and after receiving the ethical clearance certificate from the University of Venda's Research Ethics Committee.

3.8. Data analysis

Grove, Gray and Burns (2015) state that data analysis is a process of reducing, organizing and giving meaning to data. The researcher used qualitative data analysis which is a non-numerical examination and interpretation of observations for the purpose of discovering underlying meanings and patterns of relationships (Babbie, 2007). The qualitative interpretive phenomenological data analysis method was used in this study. Interpretive phenomenological analysis is concerned with describing people's experiences of a specific phenomenon and explains how they make sense of those experiences. The following steps, suggested by Terre Blanche and Durrhoim (2005), were followed:

Step 1 = Familiarization and immersion

It involves becoming immersed in participant's narratives in order to understand them fully. The researcher immersed himself in the world of participants through face-to-face conversations.

Step 2 = Inducting themes

Induction means concluding general rules or classes from specific instances. The researcher drew out underlying important themes from interviews and then clustered them either as main themes or as subthemes.

Step 3 = Coding

During the activity of developing themes, the researcher was engaged in data coding. This has to do with marking different sections of data as examples or relevant to one or more themes. The researcher can code his data as a phrase, a line, a sentence or paragraph; for example, marking challenges with regard to ART in primary health care with a blue colour.

Step 4 = Elaboration

The researcher corrected any mistakes made during the coding process. This allowed the researcher to compare sections of text that appeared to belong together.

Step 5 = Interpretation and checking

The final step is for the researcher to put together his interpretation. This is a written account of the phenomenon which would have been studied. The researcher fixed all weak points from the written account after checking.

3.9. Pilot study

In order to determine the feasibility of the methods of the larger scale study, and test the appropriateness of the semi-structured interview guide, a small study was conducted with three PHC nurses who were not form part of the main study (LoBiondo-Wood and Haber, 2014). This helped the researcher to test and refine one or more aspects of the final research. Through the pilot study, the researcher began to understand the changes that needed to be made on the interview guide and methodology. After the pilot study, research questions were improved and modified, so that they were clear to the participants.

3.10. Trustworthiness of the study findings

Trustworthiness refers to the establishment of reliability and validity in qualitative research (Streubert & Carpenter, 2011). In the current study, trustworthiness was based on the model proposed by Lincoln and Guba (1985), as cited in Polit and Beck (2014). There are four criteria to be considered by qualitative researchers when establishing the trustworthiness of study findings (Sheton, 2004). To guarantee the trustworthiness of the current study, the researcher ensured that the principles of confirmability, dependability, credibility, and transferability were considered.

3.10.1. Confirmability

This is the degree to which the results obtained through qualitative study could be confirmed or corroborated by other researchers (Kumar, 2011). The researcher ensured confirmability through the use of a reflexive journal. Anney (2014) states that a reflexive journal is when the researcher keeps all documents in order to reflect on, cautiously interpret and plan data collection. The researcher kept a reflective journal that recorded all events that happened in the field and during the entire research process.

3.10.2. Dependability

Pilot and Beck (2014) defined dependability as the stability of data findings over time and conditions. This implies that if the same study was to be conducted with the same participants using the same method, similar results should be obtained. The researcher ensured dependability by allowing the participants to evaluate the findings and recommendations, to make sure that they are all supported by the data received from the participants, rather than the researcher's own ideas, preferences and assumptions (Anney, 2014).

In addition, the researcher used the Code-Recode Strategy, which involves the researcher coding the same data twice, by giving a two-week period between each coding. The results from the two codings were compared to check if the results were similar (Anney, 2014).

3.10.3. Credibility

Pilot and Beck (2014) state that credibility refers to confidence in the truth value of the data and its interpretation. Credibility is about how congruent the findings are with reality. The researcher ensured credibility of the findings by tape recording participants and note taking at the same time. The notes which were taken are reflective of the content of the interviews, as well as the non-verbal behaviors of the participants.

Member check were adopted, to ensure credibility of the findings of the study. Anney (2014) says that member check is a strategy for improving the quality of qualitative data, by making sure that data and interpretations are continuously tested as they are derived from participants. Member check is crucial in qualitative research because it eliminates researcher bias when analyzing and interpreting the results. To ensure member checks, the researcher ensured that participants read the transcripts of their interviews to check that the information on the transcripts matched what they would have said.

3.10.4. Transferability

Pilot and Beck (2014) define transferability as the extent to which study findings can be applicable to other contexts or settings. In order to ensure the transferability of this study, the researcher documented a thick description in clear simple language regarding methodology and context, how themes and subthemes were inducted to give readers a chance to decide for themselves if the results are transferable to their own contexts or situations. The researcher explained the entire research processes, from methodology, data collection process and analysis, to production of the final report.

3.11. Ethical considerations

Ethical considerations were important aspects due to the sensitivity of the current study. Possible risks were continuously examined throughout the study. The ethical principles and guidelines that were considered, to minimize the possibility of exploitation. These are, seeking permission, informed consent, confidentiality and anonymity, avoidance of deception of participants and the right to withdraw from the study.

3.11.1. Permission to conduct the research

Before data collection, the proposal was submitted to the Ethics Committee of the University of Venda for ethical clearance. Approval to conduct the study was obtained from the University Higher Degrees Committee (UHDC). Permission was obtained from the Department of Health and Social Development Limpopo Province. The ethical clearance certificate, UHDC approval and permission letter from the province were used to gain entry into the PHC facilities through the Vhembe District regional Department of Health.

3.11.2. Informed consent

Pilot and Beck (2014) state that informed consent means that participants have adequate information, enabling them to voluntarily consent to or decline participation. The researcher gave adequate information about the study to the participants to allow them to make informed choices about whether to participate or not (Appendix A). Those who agreed to participate were given consent forms to sign (Appendix B). The consent form contained information about the purpose of the study, expectations regarding participation, the voluntary nature of participation and the potential benefits.

3.11.3. Confidentiality

Confidentiality means that individual identities of participants will not be linked to the information they provide and their identities will not be divulged (LoBiondo-Wood and Harber 2014). The researcher ensured that participant's information was protected against unauthorised access. This ensured their right to privacy. Names and numbers of participants were not revealed to unauthorized people and were kept in a safe locked storage. Only the researcher had access to the key to the storage.

3.11.4. Anonymity

LoBiondo-Wood and Harber (2014) define anonymity as the step that researchers take to make sure that no one can link the information that participants provide. The researcher identified participants using numbers such as participant 1, participant 2, until saturation is reached.

3.11.5. Avoidance of deception to participants

The researcher did not deceive the participants. The researcher did not withhold particular information from participants, or offer the participants with incorrect information. The researcher also did not give false information to the participants, in order to make them agree to be part of the study. Lastly, participants were not misled by the researcher.

3.11.6. The right to withdraw from the study

The participants were informed that they could withdraw from the study at any time if they wish to (Appendix A). This right was explained to them before the start of the interviews. This information was included as part of informed consent.

3.12. Plan for dissemination of results

Dissemination of results is about the communication of the research findings (LoBiondo-Wood and Harber, 2014). The results of the current study were disseminated in the form of a research report. The participants were informed that a copy of the findings would be handed to the university library as well as to the Vhembe district Department of Health. The findings from this study will also be published in peer-reviewed relevant journals and presented in national and international conferences.

3.13. Summary

This section discussed how data was collected and analysed. The section also presented the research methodology and explained the characteristics of the research approach,

ethical considerations and trustworthiness of the study. The population of the study and the data collection method and procedure, instrument to be used as well as the data analysis procedure were also discussed.

CHAPTER 4

PRESENTATION AND DISCUSSION OF RESULTS

4.1. Introduction

The previous chapter presented the research methodology and design that was used to collect data in the current study. In this chapter the researcher presents the findings and discusses them. Three main themes emerged from the interviews on Challenges of implementing HIV/AIDS guidelines at Primary health care facilities in Vhembe District. Themes originated from the following study objectives:

- Challenges faced by nurses when implementing HIV/AIDS guidelines regarding HCT in primary health care;
- Challenges faced by nurses when implementing HIV/AIDS guidelines regarding the provision of ART in primary health care; and
- Challenges faced by nurses when implementing HIV guidelines regarding PMTCT in primary health care.

4.2. Participants' demographic information

This section provides participants' demographic information which they were requested to provide during the interview. The Table below depicts the demographic information of Primary Health Care nurses who were participants in the study.

Table 1 Demographic information of participants

Participant	Age	Sex	Qualification	Experience in Years	Clinic	Municipality
1	33	Male	B.Cur, PHC	5	A	Collins Chabane Municipality
2	40	Female	Diploma in Nursing	15	B	Musina Municipality
3	50	Female	Diploma in Nursing	20	A	Collins Chabane Municipality
4	61	Female	Diploma in Nursing	29	B	Musina Municipality
5	56	Female	Diploma in	27	A	Collins Chabane

			Nursing			Municipality
6	39	Female	B.Cur, PHC	11	A	Collins Chabane Municipality
7	59	Female	B.Cur	37	A	Collins Chabane Municipality
8	31	Female	Diploma in Nursing	8	C	Makhado Municipality
9	40	Female	B.Cur, M.Cur	11	C	Makhado Municipality
10	26	Female	B.Cur	3	D	Thulamela Municipality
11	24	Female	B.Cur	2	D	Thulamela Municipality
12	24	Male	B.Cur	2	D	Thulamela Municipality

Table 4.1 shows that 12 participants were interviewed. In addition, it indicates that only two participants were males (n=2). Data saturation was reached as indicated in chapter 3 at 12 participants. Participants were highly qualified and experienced professionals. One of the participants had a Master's degree, four had Bachelor's degrees, two were specialists in Primary Health Care and five had a Diploma in Nursing. Only three participants had less than 5 years' work experience, and the remainder had up to 37 years' experience. All four local municipalities within Vhembe District were represented; namely, Makhado, Collins Chabane, Musina and Thulamela Local Municipality.

The findings further showed that the majority of PHC Nurses are females. These findings are in line with the predominance of female nurses in Limpopo Province, which indicate a larger percentage of female registered nurses (87%) compared to 13% for male registered nurses (South African Nursing Council, 2017). This significant difference in gender could be due to the fact that nursing is seen by the society as a female profession. It is uncommon to find a male nurse especially in a rural community like Vhembe District. The findings also show that majority of the participants were over 30 years of age and some were nearing their pension age. This is in line with the national statistics, which indicate that less than 5% of nurses in South Africa were younger than 30 years (South African Nursing Council, 2017). The findings also indicated that the nurses in primary health care facilities are highly qualified and

experienced. Lastly, the findings showed that some nurses were specialists in primary health care services.

4.2. Presentation of findings in the form of themes and sub-themes

The findings of this study are presented with direct quotations from participants alongside the themes and subthemes derived from the data.

Table 2: Challenges faced by nurses regarding the implementation of HIV/AIDS guidelines at primary health care facilities.

Theme 1: Challenges regarding the provision of HCT services in primary health care facilities.	
Sub theme	Category
shortages of resources	<ul style="list-style-type: none"> - Poor technical support - Shortages of consent form - Shortages of testing kit
Poor infrastructure	<ul style="list-style-type: none"> - No confidentiality - Shared consultation room
Poor counselling	<ul style="list-style-type: none"> - Many patients on denial -Stigma
Work overload	<ul style="list-style-type: none"> - No lay counsellors on weekends.
Theme 2: Challenges regarding the provision of ART services in primary health care.	
Sub theme	Category
Challenges from patients	<ul style="list-style-type: none"> - Starting while not ready - Defaulters - Lack of money for transport - Poor adherence
Shortage of ART	<ul style="list-style-type: none"> - Shortage of children ART - Shortage of single dose and triple therapy

Work Overload	- No support staff on weekends
Theme 3: Challenges of implementing HIV guidelines regarding PMTCT services in primary health care.	
Sub theme	Category
Challenges from patients	<ul style="list-style-type: none"> - Booking antenatal late - Case which are not booked - Denial of HIV positive status by mothers - HIV positive babies - Poor RPC after birth - Mobile mothers

4.2.1 Theme 1: Challenges regarding the provision of HCT services in primary health care.

The study revealed that there are some challenges in implementing HIV/AIDS guidelines with regard to HCT in primary health care facilities all across Vhembe District. The challenges which were identified included shortages of resources, poor infrastructure, constant changing of guidelines, poor counselling, and work overload.

4.2.1.1 Sub-theme 1: Shortages of resources

The first sub-theme that emerged in this study was the lack of resources, which was reported by most of the participants. In this sub-theme three categories were identified; namely, poor technical support, shortages of consent form and shortages of testing kits.

Poor technical support

The study participants revealed that they experienced challenges due to lack of technical support, when doing HIV Counselling and Testing. In addition, lack of resources such as printing machines and toners made it difficult for them to provide quality HIV/AIDS care because they need printed consent form. Participants described how they had to cope with lack of resources such a toners for the printer, and ended up contributing R40 for toners monthly.

“We don’t have a printing machine in our clinic” P8

“We also use our money to buy toners for the printer now; every nurse has to contribute forty rand per month for the toner, so that we can have consent forms. Technical support in government clinics is very poor” P10

The results showed that nurses experience some challenges regarding the lack of technical support staff to assist during HCT. The findings correlate with previous investigations by Delobelle (2013), which indicated that although nurses are the main users of health care equipment, there is no formal training that they undergo, in order to operate the equipment. The study also revealed that nurses also use their own money to buy paper and toners, to make copies of consent forms. A study on health care equipment revealed that South Africa imports health diagnostic, monitoring, and therapeutic equipment which are expensive to maintain (Grut, 2012).

Shortages of consent forms

Some concerns were raised by the participants regarding shortage of consent forms. They indicated that these shortages could last up to three weeks. As a result, participants had to use their own money to print out consent forms, as the following quotes show:

“You find that as a nurse I have to use my own money to makes copies of the consent form in order to help the community and the clinic.” P2

“Sometimes we have shortages of consent forms” P10

“We sometimes run out of those consent forms for three weeks.”P8

The findings correlate with those by Mkhabele and Peu (2016), who found that in primary health care facilities, shortages of resources is a barrier in the diagnosis and management of HIV/AIDS. The findings also indicated that Primary Health care facilities experience recurrent shortages of resources which are necessary for HIV Counselling and Testing, such as shortages of consent form and shortages of testing kit. Gils, Bossard, and Verdonck (2018) concurred and added that shortages of stock for different HIV commodities are frequent in primary health care, and these shortages can last for days to weeks. Mokoena (2017) also reported that there are continuous shortages of HIV/AIDS resources, which makes it difficult for nurses to meet the medical needs of patients.

Shortages of testing kits

The following quotations show that nurses who work in primary health care facilities in Vhembe district experiences shortages of HIV testing kit. One of the participants described how they experience those shortages occur; that they borrow the kits from other clinics and return them when they got their stock. Participants explained that sometimes they are unable to test patients because of these shortages.

“Sometimes we run out of stock of HIV testing kit for a week, so during that time people who are supposed to be tested you find that they go home without getting the HIV test” P5

“We sometimes have shortages of testing kits but still we are allowed to go and borrow from other clinics and return when we receive our stock”. P6

“Sometimes we are unable to do HIV Counselling and testing because there are no test kits, in worse cases, we even have shortages of HIV test kits for up to four months.” P10

“Sometimes we have shortages of test kits for a period of 2 weeks.” P11

“We also experience challenges when it comes to testing kit shortages.” P12

A study by Mkhabele and Peu (2016) revealed that in primary health care facilities there is a shortage of testing kits, and this shortage upsets the management, and compromises the care of HIV and AIDS. The study findings also showed that that nurses who work in primary health care facilities in Vhembe District are experiencing shortages of HIV testing kits. As a result, patients who were supposed to be tested returned home untested. Health-E News (2017) concurred by revealing that Vhembe and Mopani District had continuous challenges of HIV test kit shortages, and pregnant mothers were going for months without being tested, thus risking the lives of their unborn babies. In the survey conducted in KwaZulu-Natal rural Primary health care facilities it was found that some clinics experienced shortages of rapid HIV test kit which are necessary for HIV diagnosis and treatment. It was also reported that when these shortages occur patients were informed about the shortage and asked to return to the clinic on another date (Jaya, Drain & Mashamba-Thompson, 2017). The study done on the challenges faced by Lay counsellors in South Africa showed that lay counsellors experienced frequent “stock-outs” of HIV tests kits. This adversely affected patients’ participation in HCT (Mvisongo, Mohlabane, Peltzer, Mthembu & Van Rooyen, 2015).

4.2.1.2 Sub-theme 2: Poor infrastructure

Infrastructure is very important in HIV counselling and testing, the consultation room where HCT is performed must be confidential and privacy must be maintained. In the current study

participants highlighted the challenges that they faced with regard to HCT in primary health care, such as lack of confidentiality and sharing of consultation rooms. Infrastructure is very important in HIV counselling and testing; the consultation rooms where HCT is performed must be confidential and privacy must be maintained (DoH, 2016).

Lack of confidentiality

Confidentiality is very important, especially with regards to where HIV counselling and testing is conducted. In the current study the area where HCT was conducted was perceived as lacking confidentiality and undermining the privacy and anonymity of the patients. The study participants raised a concern that patients tend to feel uncomfortable in those consultation rooms.

“When it comes to HIV Counselling and Testing the structure itself is not conducive, because people who voluntarily come to do the tests, when you show that person where you are supposed to do the testing, they tend to be uncomfortable because the consultation rooms are shared by nurses” P3

“The rooms where we do the tests are not conducive because it is a labour ward and it is sub-divided by a curtain” P11

“The area where those patients are tested there is no privacy there is no door.” P12

The study also revealed that there is a challenge of infrastructure in primary health care and nurses share consultation rooms. These findings are in line with those made by Mkhabele and Peu (2016) who found that lack of private space for HCT is a vital challenge for the implementation of HIV/AIDS guidelines. This is because patients ought to experience privacy and confidentiality. Jaya, Drain and Mashamba-Thompson (2017), reported that some rural Primary Health Care facilities in Kwazulu-Natal did not have designated area for HCT and locked cupboards to keep patients files.

Confidentiality is very important, especially with regard to where HIV counselling and testing is being conducted. The findings further revealed that consultation rooms where HCT was conducted were perceived to be lacking confidentiality and undermining the privacy and anonymity of the patients. In the study in Ghana Dapaah and Senah (2016) concurred that most patients seeking HIV/AIDS services have some concerns regarding facilities which lack confidentiality while they are accessing care and treatment. Mophosho (2015) concurred with the findings by stating that HIV/AIDS patients feel that primary health care facilities do not offer sufficient confidentiality. Lack of confidentiality from nurses may lead to serious

doubts regarding confidentiality from patients (Strauss, Rhodes & George, 2015). In contrast, the study by Jaya, Drain and Mashamba-Thompson (2017), reported that rural PHC clinics in KwaZulu–Natal were maintaining confidentiality with regard to World Health Organization standards of HIV Testing and Counselling.

Shared consultation rooms

Nurses from rural primary health care reported that consultation rooms which they used for HCT were shared and there were no specific rooms which were specific for HIV counselling and testing.

“The facility that we are using for HIV counselling and testing is also problematic because in our clinic there is no specific room which has been set aside for HIV counselling and testing”
P7

“Sometimes lay counsellors do HIV Counselling and testing in the maternity ward.” P7

“Our facility I think is not conducive for testing because we do not have a consultation room specifically for HIV counselling and testing.” P8

According to the findings in rural primary health care, nurses share consultation rooms and there were no specific rooms which were specifically for HIV counselling and testing. Meehan, Leon, Naidoo, Jennings, burger, and Beyers (2015), confirmed that in primary health care facilities when nurses were offering HCT services to clients, other staff or patients would be entering and exiting the consultation room. Similar findings were also reported by Nevhutalu (2016). He found that in most rural primary health care facilities in South Africa we still have shortages of consultation rooms and one finds some consultation rooms sub-divided by curtains. This results in patients’ lacking the freedom to really disclose all their health concerns. In another study on experiences of patients who attended mobile clinics patients, participants also disclosed challenges with regard to having to share tents or having tents next to each other, in such a way that confidentiality was compromised (Zama, 2013). In addition, empirical evidence from a study by Mvisongo et al., (2015) concurred that in most health facilities in South Africa there is a shortage of designated space for counselling. This compromised the privacy and confidentiality of the HIV testing procedures. Due to these shortages, offices are being used for HCT and in some instances counsellors share consultation room with nurses.

4.2.1.3 Sub-theme 3: Poor counselling

Participants in the current study explained that Pre- and Post-HIV counselling is not enough, as most patients leave the primary health care facilities still in denial and also expected to start with treatment. Participants also highlighted that some patients come in a hurry and ask to be tested without counselling. Participants further suggested continuous counselling to be implemented in Primary Health Care facilities.

“The way they do it these days I think the counselling is not enough, because most patient leave the clinic while still on denial.” P4

“A lot of people come when they are in a hurry, they ask us as nurses to just test them without any counselling.” P7

The results revealed that Pre- and Post-HIV counselling is not enough, as most of the patients leave primary health care facilities still in denial and also expected to start with treatment afterwards. The study also showed that some patients come in a hurry and ask to be tested without counselling. In the study by the Gauteng Department of Health on Assessing Compliance with Guidelines for Switching ART Patients to Second Line Regimen Berrada, et al. (2013), the findings revealed that not all patients received adherence counselling before their initiation of ART. When there is no lay counsellors, nurses have a lot of work to do and you find that they do HCT pre- and post-test counselling, especially during labour. This is a challenge because it contradicts the national guidelines (Meehan et al., 2015). Mvisongo et al., (2015) concurred with the findings, stating that because of the lack of resources such as stop watches, lay counsellors do not follow all the steps, such as providing condoms to all tested patients, ensuring tests results are kept safe and ensuring that psycho-social support is provided to positive patients.

Many patients are in denial

The quotes below show that most patients who come to the primary health care facilities for HCT are not capable of managing the receiving positive results. This is because most HIV positive results lead to conflicts, denial of the results and quarrels among couples.

“Sometimes when we are doing couple testing we find that they get different results, and then they start fighting.” P9

“Some patients even go to the extent of denying the results after being tested.” P10

“On couple testing also we have couples who have different results and that causes conflicts.”P10

The study revealed that patients who come to rural primary health care facilities for HCT are not capable of managing HIV positive results. The study also showed that most HIV positive results led to conflicts, denial of the results and quarrels among couples. Strauss et al. (2015) concurred with the findings by stating that because of the stigma and misconception about HIV, individuals are unable to manage the consequences after getting an HIV positive result. Meehan et al., (2015) supported the findings by stating that it is common for nurses to find denial of one's own HIV status or that of one's child after HCT services have been rendered. Similar challenges were reported by Nevhutalu (2016), who revealed that many patients seek ART treatment at the last stage of HIV because of denial of their status.

Stigma

Participants commented on the stigma of being from the rural communities that they are serving. They reported that there are few voluntary patients who come for HIV counselling and testing. In addition, those who are referred there do the test reluctantly.

“What I am trying to say is that you can give them all the information but because it is HIV they still have that stigma that it is common for us to have at least five patients tested per day, but if it is other diseases like TB and diabetes, people are free to test.” P1

“Some patients... when you refer them to HCT... they think that you suspect that they are HIV positive. They tend to just leave and say that they will come back another time.” P3

The findings show that there is severe HIV stigma in rural communities. The nurses reported that because of this stigma, there were few voluntary patients who come for HIV counselling and testing. Furthermore, those who are referred do the test reluctantly. Meehan et al., (2015) confirmed that social HIV/AIDS stigma is a perceived barrier to HIV Counselling and Testing. Vieira, Rasmussen, Oliveira, Gomes, Aaby, Wejse, Sodemann, Reynolds and Unger (2017), concurred with the findings by stating that HIV/AIDS related stigma is a challenge that badly affect the uptake of HIV counselling and testing, as well as other healthcare-seeking behaviours. Halkitis et al., (2016) also supported the findings by stating that many patients still do not seek HIV/AIDS services in public health care facilities because of fear of potential stigmatization.

4.2.1.4 Sub-theme 4: Work overload

The participants raised a concern about having too much work to do, especially on weekends, when there was no support staff.

Absence of lay counsellors on weekends.

The study participants also raised a concern regarding having a lot of work to do on weekends, when there was no support staff, such as lay counsellors. Nurses were said to appreciate the supportive work done by lay counsellors during HCT.

“Patients like coming to the clinic on weekends, when there are no lay counsellors and you find that there is a huge burden on us nurses.” P9

“During weekends we as nurses, we suffer a lot since there are no lay counsellors and we have to do everything.” P11

The results revealed that nurses experience the challenge of work overload on weekends, when there is no support staff, such as lay counsellors and data capturers. Nurses were said to appreciate the supportive work done by lay counsellors during HCT. In the study on shortages of resources in Limpopo PHC facilities Mokoena (2017) found that because of poor administrative support nurses do everything, including filing, photocopying and data capturing. In the survey done in Kwa-Zulu-Natal, most rural Primary health care facilities faced the challenge of understaffing (Jaya, Drain & Mashamba-Thompson, 2017). Shihundla, Lebeso and Maputle (2016) concurred by stating that due to increased workload on nurses, especially with regard to documentation with regard to HCT, and PMTCT, incomplete patients' information was documented.

4.2.2 Theme 2: Challenges regarding the provision of ART services in primary health care.

The study revealed that challenges of implementing HIV/AIDS guidelines with regarding provision of ART in primary health care facilities all across Vhembe District. The challenges which were identified included the following: challenges faced by patients and shortages of ART.

4.2.2.1 Sub-theme: 1 Challenges for patients

Some challenges which were raised by participants were those which were caused by patients. These included starting ART while not being ready, defaulters, lack of transport money and poor adherence.

Starting ART while not being ready

Some participants mentioned that some patients initiated the ART while not ready to do so. Being mentally unready was seen as a reason for many defaulters. Nurses indicated that many patients did not understand the process of ART initiation but required to start with the treatment.

“Patients needs continuous counselling because some of them you find they are told to take medication but mentally they are not ready.”P4

“We meet patients who say that they are not yet ready to start the treatment since they were have just been tested now and then expected to take the medication.”P10

According to the findings, participants indicated that patients are initiating the treatment before they are ready. Being mentally unready was seen as a reason for defaulting. Nurses indicated that many patients did not understand the process of ART initiation but needed to start with the treatment as soon as possible. Furthermore, ART patients were not informed about the relationship between non-adherence, drug resistance and drug failure (Van Dyk, 2013; Jones 2014; Shishana et al. 2014). In the study done in Cape Town inadequate follow-ups were identified as a major challenge which had the potential to interrupt patients' ability to access treatment in the future (Azia, 2016). Nah, Nishiura, Tsuchiya, Sun, Asai, and Imamura (2017), concurred with the findings and added that the test and treat approach to combat HIV/AIDS has some pitfalls, such as the long-term cost, and many patients experienced the fatigue of taking medication without enough adherence counselling. In support of the findings, after testing positive, patients were still in denial. As a result, many of them just took the ART for a few days and then defaulted on the treatment (Hayes, Sabapahy & Filder, 2011). In contrast, the test and treat approach was found to be a very effective HIV/AIDS prevention method though a costly one (Vieira et al., 2017).

Defaulters

More than half of the participants reported that in their primary health care facilities they experienced the challenge of defaulting. The reason for defaulting was because most people are just part-time residents in the area where the clinic is located. For example, a clinic located near a college explained the concern that students will default when they leave. The

same applies to farm workers who are mostly part-time. One participant also raised a concern with spiritual leaders who inform participant that their HIV is cured.

“We have a lot of defaulters because of having to give them the ARVs quickly without having enough time to explain the side effects.” P4

“Many farm workers default; some of them because they are just part-time workers and they leave without notifying us”P8

“Some take herbs and visit spiritualists who tell them their HIV is cured and when they come back they come in a worse condition.”P9

“We have a lot of defaulters, especially from students, who only come this side to study” P11

“Here in our clinic we have a lot of defaulters because of students; they do not stay in one place.”P12

According to the findings in primary health care facilities in Vhembe they have the challenge of defaulters. The study findings also showed that the reason for those defaulters was that most people are just part-time residents at the clinic where they were taking their medication. This concurs with studies done to evaluate ART in KwaZulu-Natal. Jaya, Drain and Mashamba-Thompson (2017) confirmed that defaulting of newly-diagnosed HIV patients was a problem to staff. A clinic located near a college explained the concern why students mostly become defaulters. This was also the case among farm workers, most of whom were just part-time. Mokwele and Strydom (2017) concurred by stating that ART has many defaulters because of the knowledge that they have regarding its side effects. According to Vieira et al., (2017) many HIV patients on ART often default because of the false belief that they are healed despite, knowing that the disease is incurable; this is when their viral load is undetectable. Rasalanavho (2015) also indicated that in rural primary health care facilities defaulters were many because of high illiteracy rates, spiritual healers and remoteness of PHC facilities.

Lack of money for transport

One nurse stated that another challenge that ART patients experienced was lack of money for transport when ART is not available at the nearby primary health care facility. This is because patients have to travel to the hospital which they are referred to. A NIMART nurse explained this as follows:

“When we don’t have ART we refer them to the hospital but most of our patients complain about transport money because this is a rural clinic and most people are not working.” P5

The findings show that one challenge that nurses in primary health care facilities experience is lack of money for transport when ART is not available, and patients have to travel to the hospital which they are referred to. Campbell et al. (2010) supported the findings of the study by stating that money for transport to primary health care clinics, which may be far, especially in rural areas, were reported as concern that may influence adherence to antiretroviral therapy. Furthermore, patients needed money for other opportunistic infections. In the study done in Western Cape, it was reported that one of the barriers to optimally take ART treatment was financial constraints (Azia, 2016). Zulu (2009) concurred by stating that transport cost is one of the factors that is a challenge to patients who are on ART treatment; many complained that they miss ART clinic visits because of lack of money for transport.

Poor adherence

Poor adherence to ART was one of the challenges that participants raised. They raised concerns about patients who skipped days without taking the medication and those who went “missing” for months without collecting their medication and coming back again. One participant stated the following:

“Our biggest challenge is those who skip tablets for days; we are able to notice because they don’t come on appointment dates because they say they still have medication.” P6

And another stated the following:

“Some roam around the clinics; sometimes we will not see them for two months and they come on the third month.”P9

The results revealed that poor adherence to ART was one of the challenges that the participants noticed. The study also showed that NIMART nurses were concerned about patients who went for days without taking the medication and those who went “missing” for months, without collecting their medication and coming back again. Adherence to ART medication is challenging for most HIV-positive patients who go for days without taking their medication and sometimes not taking their medication at regular times (Williams, Van Rooyen, & Ricks, 2018). Azia (2016), concurred that some patients do not adhere to ART treatment because of its side effects This happens mostly to new patents when their bodies are still adjusting to the treatment. Van Dyk, (2013) also concurred that many patients on ART stop taking their medication when they begin to feel better.

4.2.2.2 Sub-theme: 2 Shortage of ART

The participants explained that there are constant shortages of ART for infants and adults. In addition, adults from both regiments experience shortages.

Shortage of children's ART

The nurses stated that infants who are on ART experience constant shortages of their antiretroviral drugs in primary health care facilities. The shortage of this important treatment for infants can last up to a period of three months. A NIMART nurse reported the following:

“Even for children, you find that their ART syrup is not available.”P3

And another stated the following:

“We also experience shortage of ART for children for a period of up to two months.” P10

“We experience shortages of ART for children for a period of up to three months.”P11

“We constantly experience shortages of ART for children for a period of two weeks.”

The findings showed that nurses were challenged by the constant shortages of ART for infants and adults. Adults from both regiments experience ART shortages. Van Dyk, (2013) confirmed the findings that there are patients who are on ART, and who go to the clinic and encounter a “stock-out” of medication. Azia (2016), concurred by stating that ART medical supply would run out and patients go for about five days without their medication because of negligence from the clinic. In the study done on children who are on ART Williams, Van Rooyen, and Ricks (2018) reported that there were shortages of ART syrup at the clinics and that nurses lacked the knowledge and confidence of managing HIV/AIDS on children.

Shortage of single dose and triple therapy

NIMART nurses reported constant shortages of treatments for both regiments: those on the single dose and those taking three pills. The nurses explained their frustration when there was one type of treatment and a shortage of the other. Participants also reported that they even divide the medication in containers among more than one patient when there is a shortage:

“Sometimes there are shortages of treatment, though it is not common. But when that happens, we tend to divide the medication among two or three patients and tell them to come back when the treatment is delivered.” P2

“When it comes to ART those who are still on triple therapy sometimes go for months without getting treatment, even when we refer them to the hospital. They go there and find that there is no treatment.” P3

It is so frustrating to find that patients on triple therapy do not have medication and only those on the single dose do.”P2

The findings further revealed that NIMART nurses experience challenges when they order ART treatment. This is because the government does not supply ART medication as requested by the clinic. In a study conducted in the Democratic Republic of Congo the findings revealed that ART medication do not reach patients often due to problems in supply chain (Gils, Bossard, &Verdonck, 2018). Although South Africa is the biggest ART supplier globally, our major threat in health system is the uneven medication supply to patients, especially in rural provinces (Mokoena, 2017). Similar findings were reported by Azia (2016), in the study done in Western Cape. They found that the supply of medication could run out and patients go for days without medication.

4.2.2.3 Sub-theme: 2 Work Overload

Support staff is very crucial in data management of patients during ART, Nurses voiced out their concern about having a heavy workload on weekends.

No support staff on weekends

Experiencing lack of staff on weekends emerged as a challenge to nurses who were supposed to do HIV counselling and testing, as well as initiating treatment in primary health care. Nurses further mentioned that they tend to lose contacts with patients who make consultation during weekends, when there is no support staff to assist them. The following was mentioned:

“Many of ours patients come during weekends where there are no supportive staff, such as lay counsellors and data capturers; so we lose their contacts.” P8

Support staff is very crucial in the data management of patients during ART. The nurses voiced out their concern about having too much workload on weekends. In the study done in Vhembe on the effects of increased workload on the nurses, it was reported that there were missing documents and incorrect information on the patients’ files during HCT, PMTCT and ART management (Shihundla, Lebesse & Maputle, 2016). In the study done in Swaziland it

was also found that the NIMART programme increased the workload of nurses in primary health care facilities (Ngwarati, 2015). Rasalanavho (2015) concurred with the findings that there are few NIMART-trained nurses and this programme had resulted in work overload in primary health care facilities.

4.2.3.Theme 3: Challenges of implementing HIV guidelines regarding PMTCT in primary health care.

The study revealed that the challenges of implementing HIV/AIDS guidelines regarding PMTCT in primary health care facilities all across Vhembe District included the following: late booking for antenatal care, cases which were not booked, denial about an HIV positive status among mothers, poor PCR follow up attendance and mobile mothers.

4.2.3.1 Sub-theme: 1 Challenges for patients

Most participants explained that the challenges that they faced with regard to PMTCT were all from patients.

Booking antenatal care late

Participants complained that late booking of antenatal care was a challenge in their Primary Health Care facilities. They further stated that this is common, especially among mothers who were giving birth for the second or third time. One nurse stated the following:

“When it comes to PMTCT, those who are giving birth for the second or the third time tend to book for antenatal care late, very late, some even come just before birth and you find that they are positive and the viral load is very high.”P1

And another stated the following:

“When it comes to PMTCT, late booking for antenatal care is a challenge because most of the mothers initiate treatment very late” P11

The findings showed that there is a challenge of late booking for antenatal clinic by pregnant women in Vhembe District Primary Health Care facilities. They further stated that this is common among mothers who are giving birth for the second or third time. Barron, Doherty, Sherman, Jackson, Bhardwaj, Robinson, and Goga (2013), concurred with the findings by stating that less than 40% of expectant mothers in South Africa often initiate antenatal care at an advanced stage of pregnancy, putting the unborn baby at an increased risk of getting HIV. In a study done in Mpumalanga Mkhari (2016) also supported the findings by stating that women tend to book late for antenatal care, and this results in suppressed immune system and maternal complications. De Vaal (2011) concurred with the findings that there is

late antenatal care booking because of these women's ignorance of the purpose of antenatal classes, ideal time for booking and late recognition of unplanned pregnancy. Ebonwu, Mumbauer, Uys, Weinberg and Marino (2018) found that women in both rural and peri-urban areas had high rates of visiting antenatal clinics very late in their pregnancy.

Cases which were not booked

Participants indicated that they experience challenges of unbooked cases, where the mother did not attend antenatal care but only come to Primary health care facilities to give birth, they also raised concerns about positive mothers who go to private hospital to give birth, since they are not sure that the baby will be tested or not. One participants stated the following:

"We have cases which are not booked, where in the mother will just come to give birth without attending any antenatal care session." P5

And another:

"Some positive mothers attend only the antenatal clinic and go to private hospitals to give birth." P9

The results revealed that nurses in Vhembe experience a challenged due to unbooked cases, where the mother did not attend antenatal care but only came to Primary health care facilities just to give birth. Barron et al. (2013) concurred with the findings and added that there are pregnant women who go to labour without having gone to antenatal care once. In the study done in Cape Town Nuttall (2014) made similar findings, where he discovered that there were unbooked pregnancies, where expectant mothers come to give birth with no antenatal care which includes several HIV testing and ART, if the mother is found to be positive. Ebonwu et al., (2018) also supported the findings that there were still cases of unbooked cases of pregnancy in rural areas and among adolescents. In the study done in the Western Cape on Smeda (2017), reported that most of the cases which were unbooked for antenatal care were unplanned pregnancies and the mothers had contemplated abortion.

Denial mothers

NIMART nurses complained that there are still mothers who were in denial about their HIV status and those mothers continue having unprotected sex and were not taking medication to protect themselves and the baby.

“Pregnant women who test positive mostly use condom because they say because they are already pregnant.” P3

“Some mothers test positive and are still in denial, they just collect the medication from the clinic but do not use it when they reach their homes” P

According to the findings NIMART nurses reported that there were still mothers who were in denial about their HIV status and those mothers continue having unprotected sex and failed to take medication to protect themselves and the baby. Smeda (2017), concurred and added that there are some mothers who pretend as though they have accepted their statuses, while they were still in denial. This affects their adherence to ART medication. In the study done in Western Cape on challenges of implementing PMTCT programme, Pail (2015) indicated that some mothers only take their ART treatment during pregnancy and stop after delivery because they are still in denial of their status. Ebonwu et al., (2018) also reinforced the findings of the study by stating that denial is the leading factor for poor antenatal care of HIV positive mothers.

HIV positive babies

Many participants reported that there were still having mothers who give birth to HIV positive children in their Primary Health care facilities. One nurse reported that in her clinic they have about four cases of children being born positive. The nurses stated that those cases were because of mothers who booked late for antenatal and those who did not take medication while pregnant.

“This year 2018 we had two patients who gave birth to children who are HIV positive.” P1

“In a year we might have 3 or 4 cases of children born positive.” P6

“We have children who are born positive in our clinic” P8

The results show that there were still mothers who were give birth to HIV positive children in their Primary Health care facilities. The study also reported that they had about four cases of children being born positive; most of the nurses stated that those cases were because of mothers who booked late for antenatal care and those who did not take their medication while pregnant. The study by Mkhari (2016) concurred and reported that even though PMTCT was a success from 30% in the early 2000s to 1.8% in 2015/2016, there were still thousands of unlucky babies who are still being born with the virus. Sherr, Croome, Castaneda, Bradshaw and Romero (2014) concurred with the findings and indicated that some babies are infected via breast-feeding and because their mothers visited antenatal

clinics late (after 20 weeks). Failure to adhere to HIV testing guidelines during pregnancy by primary health care facilities puts babies at risk because some mothers get infected during the course of their pregnancy (Ebonwu et al., 2018).

Poor PCR after birth

Testing the child after birth is very important in PMTCT. Most nurses stated that mothers who are HIV positive often do not bring their children for PCR after birth, at ten weeks and at eighteen months. One participant stated that in her PHC only three percent of the mothers brought their children at ten weeks for RPC.

“Most of the HIV positive women do not bring their children to be tested after birth at 10 weeks and 18 months.” P7

“We also have few mothers who bring their children at 10 weeks.” P8

“Most mothers do not do follow up for their babies at 10 weeks and 18 months.” P10

“Most of the women do not bring their children for PCR after birth at 10 weeks, I can say only 3% do so.” P11

“Not all women who are supposed to bring their children for PCR at a ratio of ten I can say 9 out of 10 come at 10 weeks and the number decrease at 18 months.” P12

According to HIV/AIDS guidelines testing the child who are at risk of HIV after birth is very important in PMTCT. The findings of the study revealed that mothers who are positive mostly do not bring their children for PCR after birth at weeks and eighteen months. A study investigating current challenges of PMTCT in Cape Town, South Africa supported the findings of the study by stating that there is a serious challenge of loss of follow-up in children who are at risk after birth (Nuttall, 2014). Williams, Van Rooyen, and Ricks (2018) confirmed the findings by stating that clinics in rural Eastern Cape are not testing children at the age of 6 weeks, as they should, according to the guidelines. According to WHO (2017) about 5 to 20 percent of infants of HIV positive mothers are infected through breastfeeding, because some mothers breastfeed for more than 6 months.

Mothers not being available for PCR

Nurses are unable to test the child without mothers consent and most of the participants stated that they fear for being sued and dismissed. Nurses reported that there are some mothers who send their children to be tested with caretakers and relatives. This is because

most mothers would have returned to work at ten weeks and eighteen months. One nurse stated the following:

“Some have already returned to work, so they send their nannies or caretakers, without disclosing their status. Therefore, it became impossible to test the children without the mothers’ consent.” P7

And another stated:

“Mothers send their children for PCR but you find that they send relatives and according to the guideline we need the mother to give consent.” P9

According to the HIV/AIDS guidelines nurses are unable to test the child without their mothers’ consent and most of the participants stated that they feared being sued and possible dismissal. The study showed that some mothers send their children to be tested with caretakers and relatives. This is because most mothers would have returned to work at ten weeks and eighteen months. In the study done in Cameroon it was found that about forty percent of HIV exposed infants do not bring their babies for PCR (Noubiap & Agokeng, 2013). In the study done in Uganda on barriers faced by HIV positive women to return their HIV-exposed infants for HIV/AIDS services, it was reported that after the first DNA PCR test, after the test had shown that the baby is HIV negative, some mothers failed to consider other PCR follow ups (Ssempebwa, 2016). Some of the mothers were not bringing their children for PCR because of fear of losing their jobs because of absenteeism and late reporting (Sherr, 2014).

Mobile mothers

Some participants complained that there are mobile mothers who change clinics because of their HIV status. They further stated that some just leave antenatal care without seeking transfer letters. One NIMART nurse stated the following:

“Pregnant woman who test positive some the change the clinic or no longer come for antenatal care at all.” P6

And another stated the following:

“We also have a problem because here we are on farms and a lot of mothers just come for antenatal care and give birth elsewhere, without seeking transfer letters.” P7

According to the findings nurses have a challenge of mothers who are mobile, who change clinics because of their HIV status. The study also showed that pregnant women just leave the clinic to another, without seeking transfer letters. Williams, Van Rooyen, and Ricks (2018) confirmed the findings by indicating that expecting mothers attend antenatal care near their workplace, then relocate to a place near their family at a later stage of their pregnancy. Most of the adolescents tend to change antenatal clinics because of fear of the stigma attached to their HIV status (Giddy, 2015). Netshimbupfe (2016) stated that some mothers change antenatal clinics because of patient –provider relationship; most pregnant women regard nurses as rude and/or empathetic.

4.3 Summary

This chapter presented the data collected from the participants through interviews. Demographic information was presented and themes and subthemes emerged on the challenges of implementing HIV/AIDS guidelines at primary health care facilities. These challenges are mainly from the community, though we have a few organisational challenges. The next chapter will focus on data analysis and literature control.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

In the previous chapters data collected from participants was presented and then discussed. This concluding chapter of the research focuses on highlighting the study limitations, recommendations of the study and the conclusion.

5.2 Summary of the Study

The aim of this study was to investigate challenges of implementing HIV/AIDS guidelines at primary health care facilities in Vhembe District, South Africa. The objectives of the study were to:

- Describe the challenges faced by nurses when implementing HIV/AIDS guidelines with regard to HCT services provision in primary health care.
- Explain the challenges faced by nurses when implementing HIV/AIDS guidelines regarding the provision of ART services in primary health care.
- Describe the challenges faced by nurses when implementing HIV guidelines regarding the provision of PMTCT services in primary health care.

A qualitative, descriptive, exploratory and contextual research approach was employed in this study. The target population were Primary Health Care nurses working in rural-based primary health care facilities in Vhembe District, Limpopo Province, South Africa. The researcher used non-probability quota sampling and data saturation was reached after twelve nurses had been interviewed. The data collection instrument was a semi-structured questionnaire and data analysis was done using phenomenological analysis approach. Emerging themes and sub-themes were discussed using literature control.

5.3. Study limitations

The following limitations were identified in the progression of the study:

- The study was conducted at selected primary health care facilities in Vhembe District; therefore the findings, cannot be generalised to other primary health care facilities in Limpopo Province.
- The participants were nurses with NIMART who had one or more years' experience. NIMART nurses with less than one year experience were not interviewed.

- This study was conducted at rural Primary Health Care facilities; therefore, the results cannot be generalised to urban areas Primary Health Care facilities.
- One NIMART nurse refused to be recorded because of fear of being reported to her seniors, even though the researcher explained that anonymity and confidentiality of the study would be ensured.
- NIMART nurses who were not on duty during data collection were not interviewed.

5.4. Study recommendations

The following recommendations can be made, based on the findings of the study. The recommendations are for the Department of Health, and future researchers.

5.4.1. Recommendations for the Department of Health

The findings highlighted that nurses in primary health care facilities have a challenge in PMTCT of women who start antenatal visit late. The researcher recommends that the Department of Health must have community liaison officers who will ensure that women attend antenatal clinic on time, preferably before 14 weeks' gestation. Furthermore, lay counsellors and other health care workers must work on weekends, too, to prevent work overload for the nurses who work on weekends, who do both administration work and their nursing duties. The Department of Health should place more emphasis on infant HIV counselling and testing, as many of them do not come for RPC at 6 weeks and 3 months. Furthermore, the supply chain of ART medication must be monitored more effectively because many PHC nurses reported shortages of ART medication for days and weeks. There must also be consistent supply of stationery at primary health care facilities because participants reported that they used their own money to make copies of consent forms for HCT. This research may increase the board of knowledge in nursing education. The South African national government should enforce adherence counselling because many patients who are initiated on ART end up defaulting. Participants also reported lack of facilities and a shortage of equipment such as printers. Thus, the researcher recommends that new staff must be employed and equipment which are broken must be repaired because it is essential in health care provision.

5.4.2. Recommendations for future researchers

Further research is needed on the following:

- Challenges of implementing HIV/AIDS Guidelines should be done.

- Effects of shortages of shortages of human resources on the provision of HIV/AIDS services in primary health care.
- Contributing factors to lack of follow up on RPC on exposed infants.
- After a period of two years, another study will be needed to determine whether the challenges in the present study are still prevalent in implementing HIV/AIDS guidelines in primary health care facilities.

5.5. Conclusion

Challenges of implementing HIV/AIDS guidelines in primary health care facilities are enormous. The challenges are in HCT, ART and PMTCT programmes. Both the study results and literature paint a picture of an alarming situation regarding the challenges faced by health care services with regard to provision of HCT, ART and PMTCT services. The challenges which were faced by nurses in implementing HIV/ADS guidelines included shortages of consent form, work overload on weekends, lack of infrastructure for HCT, late antenatal care initiation, and poor follow up on RPC, poor adherence and procurement of ART. These challenges need to be addressed immediately, to ensure proper implementation of the HIV/AIDS guidelines.

7. REFERENCES

Alemayehu, M., Yisehak., Y, Alaro, W., Alemayehu, B. (2017) *Opportunistic Infections among HIV/AIDS Patients taking Ante-Retroviral Therapy at Tertiary Care Hospital in Wolaita Zone, Southern Ethiopia*. J AIDS Clin Res 8: 665. doi: 10.4172/2155-6113.1000665.

Anney, V., (2014) *Ensuring the Quality of the Findings of Qualitative Research: Looking at Trustworthiness Criteria*. Journal of Emerging Trends in Educational Research and Policy Studies. 5(2): pp 272-281.

Azia .I.N., (2016). *Barriers to adherence to antiretroviral treatment in a regional hospital in Vredenburg, Western Cape, South Africa*. S.Africa Journal of HIV Med. 17(1), a476. Available at: <https://dx.doi.org/10.4102/sajhivmed.v17i1.476>

Barron, P., Y. Pillay, T. Doherty, G. Sherman, D. Jackson, S. Bhardwaj, P. Robinson, A.& Goga. (2013). *Eliminating Mother to Child HIV Transmission in South Africa*. Bulletin of the World Health Organization 91 (1): 70–74. doi: 10.2471/BLT.12.106807

Cohen, R., Lynch, S., Bygrave, H., Eggers, E., Vlahakis, N., Hilderbrand, K., et al. (2009). *Antiretroviral Treatment Outcomes from a Nurse-driven, Community-supported HIV/AIDS Treatment Programme in Rural Lesotho: Observational Cohort Assessment at Two Years*. Journal of the International AIDS Society, 12, 23. doi:10.1186/1758-2652-12-23.

Collins (2003). *Advanced Learning English Dictionary*.4th ed. Harper Collins Publisher.

Creswell, J.W. (2006). *Research design: Qualitative, Quantitative and mixed methods approaches*, (2nd ed.). San Francisco, LA: Sage Publications.

De Vos, A.S., Strydom, H., & Delpont, C.S.L. (2011). *Research at grass roots: for the social sciences and human service profession*. (4th ed.). Pretoria: Van Schaik.

Delobelle, P.,(2013). *The health system in South Africa. Historical perspective and current challenges*. Journal of Advanced Nursing.

Department of Health (2012), *Republic of South Africa. The 2011 national antenatal sentinel HIV & syphilis prevalence survey in South Africa*. Pretoria, South Africa: Department of

Health,. Available at: http://www.health-e.org.za/wp-content/uploads/2013/05/f0980fb5107a7ce543a8bd_5730e52333.pdf. Accessed 25 June 2017.

Department of Health (2015). *National consolidated guidelines: for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults*. Pretoria, South Africa.

Department of Health 2011(b). *National Core Standards for Health Establishments in South Africa*. Tshwane, South Africa.

Dijkstra, Kangawaza, Martens, Boer, Rasker (2007). *Knowledge about HIV/AIDS and policy knowledge in a South African state hospital*. Journal of Social Aspects of HIV/AIDS: VOL. 4 NO. 2.

Ebonwu, J., Mumbauer, A. Uys, M., Wainberg, M.L., Medina-Marino A (2018) *Determinants of late antenatal care presentation in rural and peri-urban communities in South Africa: A cross-sectional study*. PLoS ONE 13(3):e0191903. Available at <https://doi.org/10.1371/journal.pone.0191903>

Georgeu D, Colvin CJ, Lewin S, Fairall L, Bachmann MO, Uebel K, Zwarenstein M, Draper B, Bateman ED. (2012) *Implementing nurse-initiated and managed antiretroviral treatment (NIMART) in South Africa: a qualitative process evaluation of the STRETCH trial*. Implementation Science.

Giddy, J. (2015). *The implementation of an integrated prevention of mother-to-child transmission of HIV (PMTCT) programme at McCord hospital, South Africa, 2003-2013*. The University of Cape Town

Gils, T., Gils, Bossard, C., & Verdonck, K. (2018). *Stockouts of HIV commodities in public health facilities in kinshasa: Barriers to end HIV*. PLOS ONE 13(1):e0191294. Available at <https://doi.org/10.1371/journal.pone.0191294>

Groenewald, T. (2004). A phenomenological research design illustrated. International Journal of Qualitative Methods, 3(1). Article 4. Retrieved 10/06/2017 from http://www.ualberta.ca/~iigmb/backissues/3_1/pdf/groenewald.pdf

Grove, S.K., Burns, N., Gray, J.R. (2015) *The Practical of Nursing Research* (8th ed.). Missouri: Mosby Elsevier Inc.

Grut, T., (2012). Assessing community health services: *Challenges faced by poor people with disabilities in a rural community in South Africa*, African disability journal 1(1),Art#19,7 pages. Available at <https://dx.doi.org/10.4102ajod.v1i1.19>

Hall, E. (2010). *Nursing attrition and the work environment in South African health facilities*. Curationis, November.

Harrison, D. (2010). *An overview of health and health care in South Africa 1994–2010: priorities, progress and prospects for new gains: a discussion document commissioned by the Henry J. Kaiser Family Foundation*. <http://www.doh.gov.za/docs/index/html> Date of access: 26/05/2017.

Health System Trust (2015). *Disease profile for Vhembe Health District, Limpopo*.

Health Systems Trust (2012) *Republic of South Africa. South African health review 2011*. Available at: <http://www.hst.org.za/publications/southafrican-health-review-2011>. Accessed 10 February 2017.

Jaya, Z., Drain P.K., & Mashamba-Thompson, T.P., (2017). *Evaluating quality management systems for HIV rapid testing services in primary healthcare clinics in rural Kwazulu-Natal, South Africa*. PLoS ONE 12(8):e0183044. Available at:<https://doi.org/10.1371/journal.pone.0183044>

Kagee A., Remien R.H., Berkman A., Hoffman, S. Campos, L & Swartz, L. (2011) *Structural barriers to ART adherence in Southern Africa: challenges and potential ways forward*. Glob Public Health. 2011 January; 6(1): 83–97. doi:10.1080/17441691003796387.

Koto, M. V. & Maharaj, P. (2016) Difficulties facing healthcare workers in the era of AIDS treatment in Lesotho, SAHARA-J: Journal of Social Aspects of HIV/AIDS, 13:1, 53-59, DOI: 10.1080/17290376.2016.1179588.

Kumar, R. (2011). *Research Methodology: A step- by- step guide for beginners* (3rd ed.). London: SAGE.

LoBiondo-Wood G. & Harber, J. (2014). *Nursing Research: Method and Critical Appraisal For Evidence Based Nursing*. (8th ed.). Missouri: Mosby, an imprint of Elsevier Inc.

Michel, J & Matlakala, MC (2013). *The challenges experienced by nongovernmental organisations with regard to the roll-out of antiretroviral therapy in KwaZulu-Natal*, South African Family Practice, 55:3, 264-269, DOI: 10.1080/20786204.2013.10874348.

Mkhari, M.M., (2016). *Factors contributing to late antenatal care booking at Thulamahashe local area at Bushbuckridge sub-district in Mpumalanga province*. Available at: uir.unisa.ac.za/bitstream/handle/10500/22648/dissertation_mkhari_mm.pdf?sequence=1&is

Mokwele, R., & Stydom, H. (2017). *The challenges and perceptions of community caregivers with regard to antiretroviral treatment adherence of patients: a phenomenological study*. Available at <https://doi.org/10.15270/53-1-544>

Mophosho, Z. (2015). *The implementation of nurse initiated and managed antiretroviral therapy in the city of Johannesburg clinics*. University of Witwatersrand: Johannesburg.

National Department of Health (2015). Progress report on National strategic plan on HIV and TB <http://sanac.org.za/news/item/219-progress-report-national-strategic-plan-on-hiv-stis-and-tb-2012-2016> Mid-Year Population Estimates July 2015.

National Department of Health. National Strategic Plan on HIV, STIs and TB 2012-2016. Republic of South Africa: National Department of Health.

Ndlovu N (2009). *Review of South Africa's 2009 HIV and AIDS Budget: a quick update*. CEGA APolicyBrief.[http://www.cegaa.org/docs/CEGAA_Brief1_Review_of_SA_2009_MTEF_Budget_21dec09\(2\).pdf](http://www.cegaa.org/docs/CEGAA_Brief1_Review_of_SA_2009_MTEF_Budget_21dec09(2).pdf)

Ngwarati, I., (2015). *Exploring provider's perceptions on the facilitators and barriers to implementation of nurse initiated management antiretroviral therapy in manzini region, Swaziland*. Available at: wiredspace.wits.ac.za/bitstream/handle/10539/19473/Innocent%20Ngwarati%20Final%20Research%20Report_31%20July%202015.pdf?sequence=1

Noubiap, J.J.N., & Agokeng S.D. (2013). *Mother-to-child transmission of HIV: findings from an Early Infant Diagnosis program in Bertoua, Eastern Cameroon*. doi: 10.11604/pamj.2013.15.65.2551. Available at: <https://www.panafrican-med-journal.com/content/article/15/65/full/>

Nuwagaba-biribonwoha H, Richard T. Mayon-white R.T., Pius Okong P., Brocklehurst P., & Carpenter, L.M. (2011). *Challenges faced by health workers in implementing the prevention of mother-to-child HIV transmission (PMTCT) programme in Uganda*. Journal of Public Health, Volume 29, Issue 3, 1 September 2011.

Pilot D.F. & Beck C.T. (2014). *Essentials of Nursing Research: an appraising Evidence For nursing practice*. (8th ed.). Wolters Kluwer: Lippincott Williams & Wilkins.

Rasalanavho, R.N., (2015). *Challenges confronting professional nurses implementing the nurse-initiated and-managed antiretroviral treatment programme in Vhembe district, South Africa*. Available

at:<http://univendspace.univen.ac.za/bitstream/handle/11602/622/DissertationRasalanavho%20c%20r.%20n.-.pdf?sequence=1&isAllowed=n>

Report: South African Dept. of Health Annual Performance Plan 2014/15 – 2016/17 www.hst.org.za/publications/national-department-health-annual-performance-plan-201415-201617 Report: South African National AIDS Council (SANAC) Progress Report on the National Strategic Plan for HIV, TB and STIs (2013 – 2106).

Robinson, O.C., (2014). *Sampling in Interview-Based Qualitative Research: A Theoretical and Practical Guide*, *Qualitative Research in Psychology*, 11:1, 25-41, DOI: 10.1080/14780887.2013.801543

Sherr, L., Croome, N., Castaneda P, Bradshaw, k., Romero, K.H., (2014). *Developmental challenges in HIV infected children—An updated systematic review*, *Children and Youth Services Review*, Elsevier, vol. 45(C), pages 74-89. DOI: 10.1016/j.childyouth.2014.03.040

Shihundla, R.C., Lebeso, R.T. & Maputle, M.S., (2016), *Effects of increased nurses' workload on quality documentation of patient information at selected Primary Health Care facilities in Vhembe District, Limpopo Province*, *Curationis* 39(1), a1545. Available at <https://dx.doi.org/10.4102/curationis.v39i11545>

Shisana, O., Rehle, T., Simbayi, IC., Zuma, K., Jooste, S., Zungu, N., Labadarios, D., Onoya, D et al. (2014). *South African National Prevalence, Incidence and Behaviour Survey*, 2012. Cape Town, HSRC Press.

South African National AIDS Council. (2011). *Know Your HIV Response (KYR) Report: Review of HIV and AIDS Policies and HIV Programmes in South Africa*. Government of South Africa: Pretoria

South African Nursing Council (2017), *S.A Nursing Council statistics, provincial distribution of nursing manpower versus the population of South Africa* [pdf]. Available at: www.sanc.co.za [accessed 20.01.2019].

Statistics South Africa Statistical Release P0302 www.statssa.gov.za - See more at: <http://www.tbfacts.org/hiv-statistics-south-africa/#sthash.echZAiA4.dpuf>

Statistics South Africa, Republic of South Africa. (2011) census. Pretoria, South Africa: Statistics South Africa, 2012. Available at:<http://www.statssa.gov.za/Publications/P03014/P030142011.pdf>. Accessed 10 February 2017.

Strauss, M., Rhodes, B., & George, G. (2015). *A qualitative analysis of the Barriers and facilitators of HIV counselling and testing perceived by adolescents in South Africa*. BMC Health Science Research.

Streubert, H.J. & Carpenter, D.R. (2011) *Qualitative Research in Nursing: advancing the humanistic imperative* (5th ed.). New York: Lippincott. Williams & Wilkins publishers.

Swart, A., Chisholm, B., Cohen, K., Workman, L., Cameron, D., Blockman, M. (2013) *Analysis of queries from nurses to the South African National HIV & TB Health Care Worker Hotline S Afr J HIV Med*;14(4):179-182. DOI:10.7196/SAJHIVMED.948

Swartz, L., De La Rey., Duncan, N. & Townsend, L. (2011). *Psychology: An introduction*. Cape Town: Oxford University Press.

UNAIDS. (2007). *AIDS epidemic update*. Available from:http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf.

UNAIDS. (2013). Report on Global AIDS Epidemic. Geneva: UNAIDS.

UNAIDS. (2016). *Report on the global AIDS epidemic*. Available from: http://www.unaids.org/en/HIV_data/2006GlobalReport/default.asp.

Van Dyk, A. (2013). *HIV and AIDS. Education, care and counselling. A multidisciplinary approach*. (5th ed.). Cape Town: Pearson.

Vawda, Y.A., & Variawa, F. (2012). *Challenges confronting health care workers in government's ART rollout: rights and responsibilities*. North West University: Mafikeng.

Walker, L.J. (2004). *Components of the health belief model and HIV testing decisions* MA (Master of Art). Thesis. 1-93. University of North Carolina. Wilmington.

Welman, C., Kruger, F., & Mitchell, B. (2005). *Research Methodology* (3rd ed.). Cape Town: Oxford University Press.

Williams, M., Van Rooyen D.R.M., & Ricks E.J.,(2018) *Provision of antiretroviral therapy for children in Nelson Mandela Bay: Health care professionals' challenges*. Afr J Prm Health Care Fam Med. 2018;10(1), a1490. Available at: <https://doi.org/10.4102/phcfm.v10i1.490>

Word Reference.com English Dictionary. (2006). Available from: [http://www.wordreference.com/ definition/experience](http://www.wordreference.com/definition/experience). Accessed 26/05/2017.

APPENDIX A: CONSENT LETTER

RESEARCH ETHICS COMMITTEE

UNIVEN Informed Consent

Appendix A

LETTER OF INFORMATION

Title of the Research Study : Challenges faced by health professionals regarding the implementation of HIV/AIDS guidelines at PHC facilities of Vhembe District, South Africa.

Principal Investigator/s/ researcher : (Pfarello Agreement Ndou MPH Student)

Co-Investigator/s/supervisor/s : (Takalani Tshitangano, MBA, MPH and PhD)
: (Rose Tshililo B. Cur, M. Cur and PhD)

Brief Introduction and Purpose of the Study: This research study was conducted for the degree of Master in Public Health at selected Primary Health Care facilities of Vhembe District Limpopo. The purpose of the study was to explore challenges faced by nurses regarding implementation of HIV/AIDS guidelines at primary health care facilities in Vhembe district, South Africa.

Outline of the Procedures : in this study, you are kindly requested to participate by responding to a few questions that I would like to ask you. Probing and follow up questions will be asked to get In-depth information from participants. The interview will last around 30 – 50 minutes. The study is conducted for educational purposes. Please note that participation is voluntary and you are not compelled to take part in this study. However, I would really appreciate it if you would share your experiences and thoughts with me. For you to be included as a participant in this study you must be a registered nurse working in primary health care facility in Vhembe District for a minimum period of one year.

Risks or Discomforts to the Participant: there are no foreseeable risks and discomfort for participating in this study.

Benefits : There are no direct personal benefits for participating in the study. Your participation in this study may benefit other people in the nursing profession.

-

Remuneration : You will not receive any remuneration for participating in the study.

Costs of the Study : You will not be expected to spend money in the study for transport, as interviews will be conducted in your place of work.

Appendix B: INTERVIEW GUIDE

“Challenges faced by health professionals regarding the implementation of HIV/AIDS guidelines at PHC facilities of Vhembe District, South Africa.”

Section A: Participant’s Demographic Information

Age:

Gender:

Position:

Years of experience.....

Place of work.....

Municipality.....

Section B: Interview Schedule

- What are the challenges faced by nurses when implementing HIV/AIDS guidelines with regard to the provision of HCT services in primary health care?
- What are the challenges faced by nurses when implementing HIV/AIDS guidelines regarding the provision of ART services in primary health care?
- What are the challenges faced by nurses when implementing HIV guidelines regarding the provision of PMTCT services in primary health care?

**Appendix C: Letter to Requesting Permission from Limpopo Province Department of Health
Ethical Committee to conduct the Study**

University of Venda
P/Bag X5050
Thohoyandou
0950
15 June 2018

The Research Unit
Department of Health
Private Bag X9302
Polokwane
0700

Dear Sir/Madam

RE: REQUEST FOR PERMISSION TO CONDUCT THE RESEARCH

My Name is Pfarelo Agreement Ndou, a registered Masters in Public Health student at the University of Venda, School of Health Sciences. I hereby apply to be granted permission to conduct a study my research entitled **“Challenges faced by health professionals regarding the implementation of HIV/AIDS guidelines at PHC facilities of Vhembe District, South Africa.”**. The objectives of the study are to:

- Describe the challenges of implementing HIV/AIDS guidelines with regard to HCT in primary health care.
- Explain the challenges of implementing HIV/AIDS guidelines regarding the provision of ART in primary health care.
- Describe the challenges of implementing HIV guidelines regarding PMTCT in primary health care.

Should there be issues that you want to be clarified on with regard to this study, I am willing to address them to your satisfaction.

I look forward to your positive response

Yours sincerely,
Mr. Ndou P.A.

Appendix D: Interview Transcript Participant 2

Section A: Participant's Demographic Information

Age: 40

Sex: Female

Qualification: Diploma in Nursing

Years of experience: 15 years

Place of work: Clinic B

Municipality: Musina Local Municipality

Section B: Interview Schedule

Researcher: Morning

Participant: Morning

Researcher: How are you?

Participant: I am doing well thanks and you?

Researcher: I am also doing well, my name is Mr Pfarelo Ndou, I am here to explore challenges of implementing HIV/AIDS guidelines at primary health care facilities. My first question will be: What are the challenges of implementing HIV/AIDS guidelines with regard to HCT in primary health care?

Participant: eeh, first I would like to say thanks for this opportunity to be interviewed by you...

Researcher: It is also my pleasure to interview you..

Participant: in answering your question, when it comes to HCT, sometimes we have challenges when it comes to consent form, there is no way that you can test a patient without him or her giving you consent because we can be taken to court. You find that as a nurse I have to use my own money to makes copies of the consent forms, in order to help the community and the clinic.

Researcher: so you say you use your own money to make copies? So how much do you use maybe per month to make copies of consent forms?

Participant: [laughs]...per months I would say each nurse use about R50, we are passionate about helping this community.

Researcher: Sure, Sure, so moving forward, My second question will be what are the challenges of implementing HIV/AIDS guidelines regarding the provision of ART in primary health care?

Participant: Any challenge that I can mention is allowed?

Researcher: Yes feel free, there is no right or wrong answer

Participant: eeh, sometimes there is a shortage of the treatment, if it is not FDC it is that one with three tablets, though it is not common.

Researcher: when this happens what do you do as nurses?

Participant: we get frustrated of course, but we also come with other means we tend to give one container we give two or three and tell them to come back when the treatment is delivered. The other challenge that we are facing is that with those who are working they tend to send their children to come for their treatment.

Researcher: if I may ask for how long do you have shortages of ART?

Participant: for a week or two weeks we don't really spend a long time without treatment. It is so frustrating to see that patients who are in who are on triple therapy do not have medication but only those on single doses.

Researcher: My last question: What are the challenges of implementing HIV guidelines regarding PMTCT in primary health care?

Participant: when it comes to pregnant woman in our clinic, there are few challenges because those who are found to be pregnant they take treatment immediately, although some make the antenatal booking very late.

Researcher: like when exactly: and how is this a challenge?

Participant: mostly they come very late after the first trimester of their pregnancy and this put the baby at risk especially if the pregnant mother test positive for HIV, this is why we have some children who are being born positive in this clinic.

Researcher: Mmmmm...Alright thank you for your time.

Participant: [Laughs] thanks

Figure 1 : Vhembe District Map

