EXPERIENCES OF PROFESSIONAL NURSES CARING FOR HIV/AIDS PATIENTS ON UNIVERSAL TEST, TREAT AND RETAIN STRATEGY IN VHEMBE DISTRICT, SOUTH AFRICA

By

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DECLARATION

I, Luvhengo Tshisaphungo Elisah, hereby declare that a dissertation titled **"Experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South Africa"** hereby submitted to the University of Venda, has not been previously submitted by me at this university or any other university and that it is my work. The resources that I have used or quoted have been acknowledged by means of complete references.

Signature  Date: 23 August 2021

DEDICATION

This is dedicated to:

- My late dad - Mr Shane Andries Lebeko
- My mother - Mrs Vhulahani Annah Matumba
- My dear husband - Mr Fhalalani Jonas Raselabe
- My younger sister – Ms Fulufhelo Joyce Lebeko
- My sons - Vhuhwavho and Anzani

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ARV	Antiretroviral Drugs
ART	Antiretroviral Therapy
CHC	Community Health Centre
DoH	Department of Health
HIV	Human Immunodeficiency Virus
NIMART	Nurse- Initiated-and-Managed Antiretroviral Treatment
PHC	Primary Health Care
PLWHA	People Living with HIV/AIDS
UNICEF	The United Nations Children's Fund
SA	South Africa
WHO	World Health Organisation

ABSTRACT

There are challenges in the services rendered by professional nurses trained on Nurse-Initiated-And Managed Antiretroviral Treatment to HIV/AIDS patients. All newly diagnosed patients are compelled to commence with antiretroviral therapy as soon as they are diagnosed. The purpose of the study was to investigate the experiences of professional nurses caring for HIV/AIDS patients on the Universal Test, Treat and Retain strategy in Vhembe District of Limpopo province. A qualitative approach with the descriptive phenomenological design was employed to explore and describe the experiences of professional nurses. The study was conducted in the health centres in the Vhembe district of Limpopo. The target population comprised of professional nurses trained on the Nurse-Initiated-And Managed Antiretroviral Treatment programme caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy. Non-probability purposive sampling technique was employed to select three Community Health Centres with a high number of professional nurses trained on Nurse-Initiated-And Managed Antiretroviral Treatment programme. Data were collected using in-depth face to face interviews. The researcher interviewed 11 professional nurses caring for HIV/AIDS patients. The sample size was determined by data saturation. Data were analysed guided by Tesch's eight steps. Credibility, dependability, transferability and confirmability were employed to measure the trustworthiness of the study. Ethical considerations were adhered to throughout the study. The findings of the study revealed that professional nurses are affected negatively by the patient's responses to HIV positive results and the implementation of the Universal Test, Treat and Retain Strategy. They also experience Antiretroviral treatment challenges, shortage of manpower and material resources and they received ineffective support. The researcher made recommendations to address the challenges revealed by the study findings.

Keywords: AIDS, Experiences, HIV, Professional nurses, Universal Test, Treat and Retain strategy, Nurse-Initiated-And Managed Antiretroviral treatment

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CHAPTER ONE

ORIENTATION TO THE STUDY

1.1 Introduction and Background

On the 10th May 2016, the South African minister of health Dr Aron Motswaledi, announced during the budget speech that South Africa (SA) should implement the World Health Organization (WHO) evidenced-based guidelines of Universal Test, Treat and Retain strategy by 1st September 2016 (National Department of Health guidelines, 2016). According to Kretzschmar (2013), Universal, Test, Treat and Retain strategy which entails regular Human Immunodeficiency Virus (HIV) testing of the entire population and starting antiretroviral treatment immediately on the same day on which they test HIV positive. According to Weber, Rodger and Fidler (2010), the Universal, Test, Treat and Retain strategy may have advantages of preventing transmission and reducing AIDS incidence at a population level, as well as delivery of Antiretroviral Therapy (ART) for all HIV/AIDS infected patients.

The Department of Health (DoH) has introduced Nurse Initiated and Managed Antiretroviral Treatment (NIMART) programme designed for patients on Universal, Test, Treat and Retain strategy to access treatment, maintain compliance and retain patients on treatment. The Universal, Test, Treat and Retain strategy has yielded positive results in developing countries, and some African countries have followed similar trends and reported the effectiveness of the programme. Professional nurses trained on the NIMART programme are responsible for caring out several distinct steps in the HIV service continuum, including assessment of clients, diagnosing, counselling, adherence and initiation of antiretroviral therapy (Dillon, Warden, Lindsen and Reynolds, 2016).

Despite the implementation of the Universal Test, Treat and Retain strategy there is still an increasing number of people living with Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) around the world due to the high infection rate.

Nearly 4, 8 million people living with HIV in 2018 were on antiretroviral therapy (ART) in South Africa and many started treatments when the infection was well advanced (Stats SA, 2021). Earlier access to HIV testing and ART, strengthened retention in care, improved quality of ART regimens and expanded programmes for eliminating the mother-to-child transmission of HIV especially in the African Region, would enable the world to fast track a target of not more than 500 000 people dying of HIV related causes in 2020 (WHO, 2016).

In the United State of America, effective use of Universal, Test, Treat and Retain strategy requires considerable effort to assure that their potential for prevention is fully realised. (Berkelman, 2012). ART coverage of all HIV infected adults in Uganda is estimated to be around 85% in 2019. Registered professional nurses who are providing care to clients on Universal, Test, Treat and Retain strategy in rural health care facilities feel frustrated by the severe shortage of material and human resources.

The findings of the study conducted by Campbell, Scott, Madenhire, Nyamukapa and Gregson (2011) in Zimbabwe revealed that health care providers experienced physical and psychological stress when caring for HIV/AIDS patients. Professional nurses caring for HIV-positive patients also experience psychological and emotional challenges (Tazakoni, Moshfeghi and Karimollahi, 2017). Management of stress is therefore a real threat of nurses who spend their time providing services to people living with HIV/AIDS, dying and grieving and observe the struggles of families to survive.

The introduction of the Universal, Test, Treat and Retain strategy increased the shortage of manpower and test kits for HIV testing. The shortage of resources makes it difficult for professional nurses to provide quality health care services for the patients (Berg and Nilsson, 2015; Erkki and Hedlund, 2013). Alternatively, effective ART provision to HIV positive patients results in a substantial decrease in morbidity and reduced incidence of opportunistic infections requiring diagnosis and treatment (Hayes, Sabapathy and Filder, 2011).

In 2017, the total number of people living with HIV in South Africa was estimated at approximately 7.06 million (UNAIDS, 2018). According to statistics of South Africa (2017), HIV prevalence was approximately 12, 6 % of the total population. In South

Africa at the end of September 2016, there were 3494 260 million people on ART, this being the largest ART program in the world. An additional 32 249 48 are still in need of ART (National Department of Health, 2016).

South Africa is among the first countries in Africa to formally adopt the Universal, Test, Test and Retain strategy following the new guidelines on HIV treatment (WHO, 2016). This was adopted to decrease of HIV infection rate. Universal, Test, Treat and Retain strategy directly supports UNAIDS 90-90-90 targets of ensuring that 90% of all people living with HIV know their status, 90% of known HIV-positive individuals receive sustained ART and 90% of all individuals receiving ART have viral suppression. The provision of health care to HIV/AIDS clients poses a challenge to health care professionals. These challenges include the identification and management of special problems, counselling techniques, the administration of patient care and the ability to communicate effectively with individuals, families and community groups (Mametja, Lekhuleni and Kgole, 2013).

Plazy, Perriat, Gumede, Boyer, Pillay, Dabis, Seeley and Orne Gliemann (2017) in rural South Africa, Kwazulu Natal indicates that the implementation of Universal Test, Treat and Retain strategy by the professional nurses trained on the NIMART programme requires substantial efforts to guarantee effective monitoring of people on ART and rapidly detect defaulters, which is a key to inform differentiated care and maintain community viral suppression. The implementation of the Universal Test, Treat and Retain strategy by the professional nurses trained on the NIMART programme requires substantial efforts to guarantee effective monitoring of people on ART and rapidly detect defaulters, which is a key to inform differentiated care and maintain community viral suppression. Lyimo, De Bruin, Van den Boogaard, Hospers, Van der Ven and Mushi (2012) affirm that it is important to identify and address challenges to complete adherence when starting ART, as it is such an important part of the treatment. Furthermore, the strategy can promote retention of patients on ART for longer periods and the attainment of optimal health.

Limpopo Province is one of the most rural provinces in South Africa (SA) which is faced by a tremendous shortage of trained registered professional nurses on NIMART programme because of brain drain to the developed countries and the deaths of some nurses due to the HIV/AIDS pandemic (WHO, 2006). Professional nurses trained for

the NIMART programme are compelled to work over time to cope with the increased workload resulting from Universal, Test, Treat and Retain strategy implementation. Professional nurses who were trained on the NIMART programme were expected to work overtime to render HIV/AIDS-related tasks. Shortage of manpower is also caused by not replacing and not appointing when a professional nurse has retired or died. Nurses can therefore feel overwhelmed or helpless and may be at greater risks for mental or physical illnesses caused by stress (Haoses-Gorases, Katjire and Goraseb, 2013; Campbell et al. 2011).

Professional nurses in the Vhembe district also experience loss to follow up and non-adherence of the clients who have initiated treatment on Universal, Test, Test and Retained strategy (Rasalanavho, 2016). The reason for loss to follow-up is to start ART without clinical manifestations of AIDS (WHO, 2007). Nurses at the health care centres experience a shortage of ARV's and this causes the People Living with HIV/AIDS (PLWHA) and newly diagnosed to default the treatment (Ndacayisaba, 2017).

Ramathuba and Davhana-Maselesele (2013) in Vhembe indicate that nurses caring for HIV/AIDS clients experience stigma and discrimination both in the community and in health services. They are labelled as "those nursing people who are suffering from incurable diseases" (Ramathuba and Davhana–Maselesele, 2013). HIV/AIDS-related stigma is a complex multidimensional issue that varies from individual to individual because of different perspectives about the diseases. Stigma and discrimination are caused by many factors, including lack of knowledge among community members about transmission, risk and copying strategies. The HIV/AIDS services provided also create a secondary stigma for the professional nurses because people assume that the nurse is also infected (Delobelle, Rawlison, Ntuli, De cock and Depoorter, 2009).

Findings of the study conducted by Tazakoni, Moshfeghi and Karimollahi (2017) in Ardabil, Iran revealed that some of the professional nurses still have different types of rejection and non-acceptance of caring for HIV positive clients and they experience stress, fear, fatigue and frustration when providing services for HIV-positive clients on Universal, Test, Treat and Retained strategy. High rates of co-morbidities, such as tuberculosis or other opportunistic infections, put professional nurses at exceedingly high risk of early mortality. The goal of achieving a population-level reduction in the

transmission of HIV in South Africa will not be achieved until all ART-eligible individuals are on treatment (Kazt, Dietrich, Tshabalala, Essien, Rough, Wright, Bangsberg and Gray, 2015). The researcher has therefore decided to conduct a study on experiences of professional nurses caring for HIV/AIDS clients on Universal Test, Treat and Retain strategy in Vhembe District of Limpopo province, South Africa (SA).

1.2 Problem statement

The researcher is a professional nurse trained on the NIMART programme allocated at one of the community health centres in Vhembe district, Limpopo province, SA providing HIV/AIDS health care services. The NIMART programme, introduced in 2010, was developed for nurses allocated in the field of HIV and Tuberculosis, as a response to the call to action by the SA Government to strengthen the response to these two epidemics. The researcher observed that some of the patients diagnosed with HIV/AIDS were not willing to commence with antiretroviral treatment on the same day on which they were tested as they were still in denial of being HIV positive. Some were initiated and then later default or lost to follow-up to antiretroviral therapy (ART) contributing to high viral load. Patients with opportunistic infections consult repeatedly at the community health centres increasing the workload to the professional nurses trained on the NIMART programme. Consequently, the clients who are supposed to benefit from the services and care provided result in their health status compromised hence decreased life span. The researcher further observed that due to many patients and long queues, professional nurses provide a low standard of AIDS care. It is in this light that the researcher decided to conduct a study on experiences of professional nurses providing HIV/AIDS services to patients on the Universal Test, Treat and Retain strategy. Table 1 shows the number of patients, services and care provided by the professional nurses trained on the NIMART programme.

Table 1.1: HIV/AIDS patients on UTTR strategy 2018 April to 2019 March

Community Health centres	Tested HIV	HIV positive	ART initiated	Not initiated
Makhado	6006	201	144	57
Thohoyandou	7144	503	440	63
Mutale	4950	443	388	55
Tiyane	6673	675	621	54
Bungeni	5677	211	144	67
Tshilwavhusiku	7534	445	377	68
William Eddie	5931	309	227	82
Mphambo	7445	544	504	40

(Vhembe District Health Information System, 2019)

1.3 Purpose of the study

The purpose of this study is to investigate the experiences of professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe District, South Africa.

1.4 Research question

The study research question is:

What are the experiences of professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe District, South Africa?

1.5 Research objectives

Objectives of the study are to:

- Explore the experiences of professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe district of Limpopo province, South Africa.

- Describe the experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe district of Limpopo province South Africa.

1.6 Significance of the study

The significance of the study is associated with the importance of the study to the stakeholders (Burns and Groove, 2009). The findings of this study may inform the professional nurses on the challenges experienced by nurses of using Universal, Test, Treat and Retain strategy. The nurse managers may become aware of the support needed by the professional nurses trained to implement the NIMART programme providing care to HIV/AIDS patients on Universal, Test, Treat and Retain strategy at the Community Health Centres. The policy makers may be guided by the research findings when reviewing the policies on Universal Test, Treat and Retain strategy. The research findings may be used to develop a support system for the nurses providing Universal, Test, Treat and Retained services to patients. The findings may contribute to the body knowledge of Universal, Test, Treat and Retain strategy and form the basis from which further research can be conducted locally, nationally and internationally.

1.7 Definition of key terms

The following terms were defined

1.7.1 Acquired Immunodeficiency Syndrome

AIDS refers to incurable diseases caused by rapidly mutating retrovirus that attacks the immune system and leaves the victim vulnerable to infections (UNAIDS, 2016). In this study, AIDS refers to the state of illness from which the patients suffer because of severe weakness in their immunity caused by HIV.

1.7.2 Antiretroviral Therapy

ART refers to the treatment of people infected with HIV, using anti-HIV drugs and the standard treatment consisting of a combination of at least three drugs often called “highly active ART that suppress HIV replication (WHO, 2014). In this study, ART

refers to the therapy which consists of treatment of HIV/AIDS patients who tested HIV positive to reduce morbidity and improve their quality of life.

1.7.3 Experience

Experience refers to practical knowledge that is acquired through direct practice in an event or activity (Eunson, 2012). In this study experience refers to the practical knowledge and skills of professional nurses trained on the NIMART programme to implement the Universal Test, Treat and Retain strategy, caring for HIV/AIDS patients at the Community Health Centres.

1.7.4 Human Immunodeficiency Virus

HIV refers to two closely related retroviruses that invade T-helper lymphocytes and weakens the immune system, ultimately leading to AIDS (UNAIDS, 2016). In this study HIV is a virus that spreads through body fluids contamination to attack the body's immune system, causing HIV infections leading to AIDS.

1.7.5 Nurse-Initiated-and-Managed Antiretroviral Treatment

According to the National Strategic Plan for Nurse Education, Training and Practice, 2012/13-2016/17, Nurse-initiated-and-managed Antiretroviral Treatment refers to a programme in which professional nurses are trained to initiate and monitor patients on ARVs. For this study, NIMART refers to a programme in which professional nurses are trained to assess, manage, monitor and initiate patients who are eligible for ART.

1.7.6 Professional nurse

A professional nurse refers to a person who is registered in terms of section 31 (1) of the Nursing Act 33 of 2005 (South Africa, 2005). In this study, a professional nurse is the registered person who is authorised to assess, diagnose and provide treatment to patients.

1.7.7 Universal Test, Treat and Retain

Universal, Test, Treat and Retain is a strategy in which all HIV infected individuals are tested, counselled and initiated to ART on the same day they are diagnosed HIV positive (Plazy, Perriat, Gumede, Boyer, Pillay, Dabis, Seeley and Orne-Gliemann (2017). For this study, Universal Test, Test treat and Retained strategy refers to a

process in which patients are tested with aim of providing them ART on the same day on which they are diagnosed to be HIV positive.

1.8 Structure of the study

The dissertation is comprised of the five chapters:

Chapter 1: Outlines an introduction and general orientation to the research and provide a specific focus on the following: background and problem statement, the purpose of the study, objectives and research questions are presented. Key terms used in the study are also defined. Research methodology including ethical considerations and measures to ensure trustworthiness are highlighted. The final section of this chapter displays the structure of the dissertation.

Chapter 2: Presents the literature review process and presents the findings of the existing literature related to the topic. It also presents the gaps in the literature.

Chapter 3: Presents the research design and methodology used in the study. It also highlights fully the ethical principles and measures to ensure trustworthiness followed in the study.

Chapter 4: The results obtained after analysis of participant's transcripts were described

Chapter 5: Provides a summary, conclusions, Limitations and recommendations of the study.

1.10 Summary

Chapter one outlined the introduction and background of the study, problem statement, purpose of the study, research objectives, the significance of the study and definitions of key terms. Chapter two presents a detailed description of the literature review.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter one orientates the reader to the study. According to Polit and Beck (2012), the literature review is a synthesis of the literature that describes what is known or has been studied about a research question or purpose. This chapter discusses the literature review related to the experiences of professional nurses caring for HIV/AIDS patients on the Universal Test, Treat and Retain strategy. The search strategy included the use of electronic databases such as EBSCOhost, SABINET, HEALTHROM, SAGE, MEDLINE and GLOBAL SCIENCES. The terms used during the literature review search process are: experiences, nurses, professional nurses, NIMART program, HIV/AIDS patients and Universal, Test, Treat and Retain strategy.

The literature reviewed entails eligibility criteria for Universal, Test, Test and Retain strategy, counselling strategies for HIV testing, knowledge regarding antiretroviral treatment, challenges related to the implementation of Universal, Test, Treat and Retain strategy, mentoring and support professional nurses trained on NIMART programme, Stress and burnout, effects of Universal, Test, Treat and Retain strategy on health care services, risks of infections when caring patients on Universal, Test, Treat and Retain strategy, adherence in Universal Test, Treat and Retain strategy and Loss To Follow Up (LTFU) to antiretroviral treatment.

2.2 Eligibility Criteria for Universal, Test, Treat and Retain strategy

According to the policy guideline on the implementation of the Universal, Test, Treat and Retain strategy for HIV positive patients and differentiated care for stable patients (WHO, 2016), with effect from 1st September 2016 the following criteria to start patients on lifelong ART applies: All HIV positive children, adolescents and adults regardless of CD4 count are offered ART treatment, prioritising those with CD4 ≤350. Patients in the Pre-ART and Wellness programme shall be considered for Universal Test, Treat and Retain strategy.

Willingness and readiness to start ART shall be assessed and patients who are not ready after assessment shall be kept in the wellness programme and continuous counselling on the importance of early treatment and scheduled CD4 as per South Africa clinical guidelines shall continue at every visit. Baseline monitoring of CD4 count will still be done as it is the key factor in determining the need to initiate Opportunistic Infection prophylaxis at CD4 ≤200, identify eligibility for Cryptococcal Antigen at CD4 ≤100, prioritization at CD4 ≤350 and fast-tracking at CD4 ≤200.

2.3 Counselling strategies for HIV testing

A trial comparing two Voluntary counselling testing (VCT) delivery strategies in Zimbabwe found that HIV incidence was higher in the high-uptake VCT meaning that a high number of people were tested after voluntary counselling and testing. In the context of Universal, Test, Treat and Retain strategy, we need to examine whether counselling has an added role in changing attitudes towards treatment from the current understanding that treatment is for the very sick, to the concept of treatment irrespective of CD4 count (Wagner & Blower, 2012).

Group pre-test counselling is used as a method to scale up VCT in many countries where low staffing levels struggle with the burden of patients attending for counselling and testing. The capacity of group counselling to address pre-test issues in the context of Universal, Test, Treat and Retain strategy should be explored. Finally, where the burden of workload is high, the impact on providers and how they cope warrants investigation. (Wagner and Blower, 2012)

2.4 Knowledge regarding antiretroviral treatment

According to Kaposhi, Mqogi and Schopflocher (2015), knowledge is referred to as the facts known about the treatment, feelings or experiences by a person or group of people, the state of knowing, awareness, consciousness, or familiarity gained by experience or learning specific information about the subject. A study conducted in Nigeria considered PLHIVs knowledge about ARVs and they found that HIV/AIDS knowledge was remarkably high. In addition, it was found that knowledge of ART combinations, the appropriate time to start ART, the benefits of taking ARV regularly and the possible results of not adhering to one's ART medication was high among all the participants (Weiser, Tuller and Frongillo, 2010).

Seeling, Mavhunga and Thoma (2014) affirm that knowledge about HIV/AIDS and the benefits of ART are regarded as crucial for accepting the offer to get tested. Therefore, dissemination of HIV/AIDS information and fighting stigma and discrimination in society should be made. Since cultural background plays an important role in the individual response to HIV-related stigma, counselling and health education of patients should be adapted to cultural characteristics. Kaposhi, Mqogi and Schopflocher (2015) conducted a study in the Eastern Cape and recommended that an inaccuracy of the ART programme should be addressed; this should include improving knowledge translation during training of ART programme.

2.5 Human and material resources

Universal, Test, Treat and Retain strategy impacts negatively on the services rendered by the professional nurses trained to implement the NIMART program, by increasing the workload. Professional nurses spend more time counselling patients so that they accept the HIV positive status and convincing them to start with ART on the same day on which they tested positive. A lot of support in terms of material resources is of paramount importance for any new programme like NIMART to be successfully implemented and be accepted by the ordinary people and communities (NDoH, 2011). The shortage of resources makes it difficult for nurses to provide quality patient care (Berg and Nilsson, 2015; Erkki and Hedlund, 2013).

2.5.1 Shortage of professional nurses

Shortage of trained professional nurses in the community health care facilities the NIMART programme is a major barrier to achieve universal access to HIV/AIDS care and treatment in rural areas. According to Amakali (2013), the lack of professional nurses trained on the NIMART programme in Namibia has been intensified by the increase in health care facilities visits of clients suffering from opportunistic infections.

The backbone of the health system is human resources. The shortage of professional nurses trained in the NIMART program is a serious concern in 57 countries in the world and 36 of them are in Africa, where the need is most acute. According to WHO (2010), African regions have a shortfall of 817,992 doctors, nurses, and midwives, meaning that there is a need more than double the workforce among the professional categories because of implementing the Universal, Test, Treat and Retain strategy. Berg and

Nilsson (2015); Erkki and Hedlund (2013) also revealed that there is a shortage of staff, which increases the rate of absenteeism when the workload has increased, which makes it difficult for professional nurses to provide quality patients care.

According to Mutenwa, Mayhew, Colombini, Busza, Kivunaga and Ndwiga, (2013), the increased workload is caused by the shortage of manpower and implementation of Universal, Test, Treat and Retain strategy. Increased number of patients on Universal, Test, Treat and Retain strategy, result in burnout to the professional nurses (Campbell et al. 2011). Management is doing nothing about the shortage of manpower (Zadeh, Far & Isa, 2011). Student's nurses in Zimbabwe also support when they emphasized that several improvements are needed to the working condition by increasing human resources (Campbell et al. 2011).

The issue of scarcity of trained professional nurses becomes problematic in the context of expanding ART services. Staffing requirements for ART are often equal to a third or more of current staff for all public health services in a country. Without appropriate planning, scaling up ART in resource-poor environments can place tremendous strain on laboratory, pharmaceutical, and physician capacity (USAID, 2010).

In Kenya, there is a shortage of staff responsible for HIV/AIDS health care services (Médecins Sans Frontières, 2010). They hired 51% additional staff, to support the ARV services in primary health care facilities and to ensure the provision of comprehensive integrated HIV management. All the professional nurses trained on the NIMART programme went through the mentorship programme.

Human resource capacity is a major barrier at community health centres because of the increased volume of HIV-associated Tuberculosis (TB) cases, funding restraints hindering the creation of posts and resulting in difficulties recruiting and retaining staff. The use of community care workers was recommended to expand human resources for the health sector (Uwimana, Jackson, Hausler and Zarowsky, 2012).

Rasalanavho (2016) states that the Vhembe district is not exceptional. It is also experiencing shortages of professional nurses, failing to provide a quality and effective NIMART programme. The employment of nurses is suspended, currently, and the DoH is currently under national administration. This further strains the provision of quality HIV/AIDS management. Due to the rural nature of the Vhembe district, many

professional nurses move to urban areas, and in other countries which continues to hamper the NIMART programme to progress.

2.5.2 Shortage of material resources

Professional nurses trained on the NIMART programme in poor Zimbabwean health centres feel frustrated by a severe shortage of material resources that need to be solved to proceed in delivering high-quality care for People Living with HIV/AIDS (PLWHA). Community Health Centre facilities are faced with a serious shortage of essential materials such as ARV's, stationery (files and registers), gloves and equipment needed for blood collection. Due to either lack of support from the DOH or due to poor supplies by medical stores (Cameron et al. 2012; Davies et al. 2013). Berg and Nilsson 2015; Erkki and Hedlund 2013; Mutenwa et al. (2013) affirm that shortage of manpower it difficult for nurses to provide quality care to patients on Universal, Test, Treat and Retain strategy. The same sentiment was echoed by Feyissa, Abebe, Girma and Woldie (2012) who also found that there is a shortage of laboratory reagents and ARV drugs. It was also argued that several improvements are needed in the working condition, regarding material resources, to afford nurses to provide quality patient care.

Previous studies confirmed that professional nurses trained on the NIMART program ended up not performing some activities such as blood tests. Professional nurses did not perform follow-up review blood tests because of a shortage of manpower. In contrast, some professional nurses were willing to take care of PLWHA, regardless of the poor working conditions (Campbell et al. 2011). Due to a shortage of resources, they were unable to provide quality nursing care which led to more complications and recurrent infections to the patients resulting in repeated hospital admission or being admitted to the hospital longer than expected (Ramathuba and Davhana-Maselesele 2013; Campbell et al. 2011). Lack of material resources such as test kits for HIV testing, first response and confirmation test is a hindering factor in the provision of quality patient care as this leads to the provision of sub-standard medical care for the client on Universal, Test, Treat and Retain strategy (Marranzano et al., 2013; Berg and Nilsson, 2015).

Professional nurses need to feel well equipped and safe while providing care to patients on Universal, Test, Test and Retain strategy; they also work best in the

presence of protective clothing especially gloves, goggles and masks while providing extensive care to the patient on Universal, Test, Treat and Retain strategy (Demmer, 2004). Availability of Personal Protective Equipment (PPE) and Post Exposure Prophylaxis (PEP) aid the effective provision of care to patients on Universal, Test, Treat and Retain strategy and allay anxiety from contagion on nurses (WHO, 2010). Professional nurses work in situations where there are reduced protective resources which predispose them to work in fear of infection, which leads to perceived anxiety. To reduce the levels of anxiety among nurses, protective HIV/AIDS knowledge is important to those nurses providing care to patients on Universal Test, Treat and Retain strategy.

2.6 Challenges related to the implementation of Universal, Test, Treat and Retain strategy

Challenges related to the implementation of Universal, Test, Treat and Retain strategy are insufficient infrastructure, inadequate supply of pharmaceutical resources and loss of follow-up to ART.

2.6.1 Insufficient infrastructures

The ARV clinics are a major concern concerning the physical environment (Vawda and Variawa, 2012). According to de Wet and du Plooy (2012), structural limitations is the greatest problem as professional nurses do not have proper infrastructures to render Universal Test, Treat and Retain strategy services. Universal, Test, Treat, Retain strategy involves many health care professionals namely: lay counsellors, nurses, and medical doctors sharing consultation rooms with those serving patients in other programmes, violating the patients' constitutional right of privacy. Lutge and Mbatha (2006) confirmed lack of space as a major concern regarding the physical environment in many ARV clinics. Consulting rooms are sometimes shared by a variety of disciplines of Health care workers (HCW's). This is a serious issue because, in addition to the health risks associated with limited space, it violates the patient's right to privacy (Lutge and Mbatha, 2006).

According to the findings of the study done in the Vhembe district of Limpopo province by Rasalanavho (2016), health care providers are working in old dilapidated

structures. Inadequate number of cubicles and other material resources results in increased stress for nurses at the primary health care level. Lack of consultation rooms has been documented as a barrier to the rolling out of the NIMART programme (Nyasulu, Muchiri, Mazwi and Ratshefola, 2013).

2.6.2 Inadequate supply of Pharmaceutical resources

The widespread drugs unavailability in South Africa is a concern for professional nurses as it disrupts the sustainability of the ART programme because clients are not receiving treatment consistently. According to Visser, Wolvaardt, Cameron and Marincowitz (2018), critical medicine shortage is frustrating the patients, instead of taking one tablet at night, they take many and twice a day due to shortage and may lead to default treatment.

Service disruptions caused by strikes, which affect the supply of drug stocks, are common in primary health care clinics and extended sites providing ARVs. Georgeu et al. (2012) reported that CHCs should deal with the backlog of new clients in need of treatments soon after the service disruptions end. The most significant challenge about treatment comprises the limited, and often inadequate, supply of kit tests for HIV and antiretroviral drugs at several ARV facilities. This is also referred to as drug stock-outs and has a detrimental effect on the ARV rollout programme (Treatment Action Campaign, 2008).

More important sources of frustration and delay are the pharmacy-related logistics and infrastructure challenges. In a study conducted by Georgeu et al., (2012), it became apparent that there were unreliable deliveries of ART from hospitals and the central dispensing unit. Infrastructure deficits, such as non-functioning telephone lines, were reported to have had significant effects on patients already on ART, and this made it very difficult for nurses to initiate new patients into treatment. Another serious consequence of ARV stock-outs is that of drug resistance which results in the need for more expensive second-line medication (Ndlovu, 2009).

There are times where patients go home from the CHC's with an incomplete dosage of ARV's. The South African HIV clinician's society received reports that Tenofovir stock was being distributed to facilities in small quantities on a week-by-week basis leading to widespread shortages at clinics that were relying on that facility and that

Lamivudine was out of stock in the main pharmaceutical depot in Limpopo. Consequently, there was also a stock-out at most institutions, CHC's and clinics in the province. In May 2013, Treatment Action Campaign (TAC) received reports from Limpopo province about shortages of Lamivudine, Efavirenz, and Tenofovir from several health facilities (Doctors without borders (MSF), the Treatment Action Campaign TAC and Rural Health Advocacy Project (RHAP), 2013).

2.6.3 Loss of follow up to antiretroviral treatment

Loss to follow up represents patients who disengage from care at any stage of the continuum of care. Despite the efforts of the health care providers, for various reasons, there is still an important loss of patients from the time that people are diagnosed with HIV to the first assessment of ART eligibility (Stricker, Fox and Gill, 2014). According to the National Department of Health (2015), the treatment cascade shows two main leakages: people lost between a positive HIV, CD4 test, and those lost between CD4 test and the return visit for a CD4 test result.

The study conducted by Chauke, Huma and Madiba (2020) in Ekurhuleni district, South Africa on lost follow up rate in the first year of ART in adults initiated in Universal, Test and Treat strategy found that the patients initiated through Universal, Test, Treat and Retain strategy had higher rates of lost to follow up than pre-ART patients. The study further showed that patients initiated through Universal, Test, Treat and Retain strategy are almost twice likely to leave ART care within six months than those initiated through pre-ART.

2.7 Mentoring and support of professional nurses trained on NIMART program

Inadequate support from health management contributes to the provision of sub-standard care (Haoses-Gorases, Katjire and Goraseb, 2013). It is difficult to provide optimal health services to HIV/AIDS. Davies, Homfray and Venables (2013) attest that when nurses receive support from mentors over the phone it becomes crucial as it enables them to gain confidence gradually despite minimal on-site mentorship, and provided an essential opportunity for debriefing. According to Kgalegi (2015), clinical mentoring can be used to improve the skills and knowledge of health care practitioners, trained professional nurses on the NIMART program, doctors and pharmacists in patient management.

Mulaudzi, Pengpid and Peltzer (2011) discovered that professional nurses who are demotivated and not appreciated for what they are doing never strive for quality health care delivery. It was also stated that primary health care facilities in which staff exhaustion is ignored can expect negative outcomes in staff morale, in working atmosphere and quality care (Haoses-Gorases, Katjire & Goraseb, 2013). In such cases, social support, assistance with problem-solving and appropriate management style can reduce stress related to leadership and management (Haoses-Gorases, Katjire and Goraseb, 2013). The same view was also supported by Mulaudzi, Pengpid and Peltzer (2011) that, nurses work under stressful conditions without receiving encouragement, compensation or ongoing training and supervision. According to Makhado and Davhana- Maselesele (2015), nurses need support which includes education and organisation in respect to employee wellness programmes to address depression, burnout as well as social support. Feyissa, Abebe, and Woldie (2012) affirmed that HIV related protocols were available only to those health care providers who were trained in HIV/AIDS programmes. It was also found that there were no policies specifically dealing with HIV/AIDS clients on Universal Test, Treat and Retain strategy in their health care environment which includes stigma and discrimination (Feyissa et al. 2012). Professional nurses trained on NIMART do not always receive the necessary support from management and colleagues when caring for mentally ill clients who are living with HIVAIDS (Chorwe-Sungani, Shangane and Chilinda, 2013).

A study by Green, de Azevedo, Patten, Davies and Ibetox (2014) established that in regions where the HIV burden placed large demands on health services. Professional nurse mentoring assisted in ensuring system Universal Test, Treat and Retain strategy efficiency. By not providing mentorship to professional nurses trained on NIMART programme, their confidence was reduced by the implementation of the Universal Test, Treat and Retain strategy. Similar studies also indicated that nurses and leaders can use mentoring to improve professionalism, confidence, and self-worth.

2.8 Stress and burnout

According to Campbell et al. (2011), professional nurses experience work-related stress. Nurses" experiences several challenges when caring for clients on Universal test, treat and Retain strategy, which results in workplace stress (Haoses-Gorases, Katjire and Goraseb, 2013). According to the WHO (2011), burnout is characterised

by emotional exhaustion, depersonalisation, and a sense of reduced personal accomplishment, accompanied by a decrease in motivation and occurs because of chronic occupational stress in normal individuals. It was found that nurses described that they have learned to feel the inner pain of someone and to put themselves in someone's place (Berg and Nilsson, 2015). Professional nurses also experience stress due to a shortage of resources, staff and time. The community members perceive that professional nurses do not provide health services properly when in fact is an issue of lacking resources and time (Evans and Ndirangu, 2011; Harrowing, 2011). Professional nurses trained on the NIMART programme experience stress when patients wait in long queues and receive less counselling (Plazy et. al. 2017). Management of stress is therefore a real threat in nurses who spend their time working with HIV/AIDS patients on Universal, Test, Treat and Retain strategy with different opportunistic diseases. Professional nurses' welfare should be a high priority for all HIV/AIDS programmes (Mulaudzi, Pengpid and Peltzer, 2011).

2.9 Effects of Universal Test, Treat and Retain strategy on Health Care Services

There are concerns that a substantial increase in numbers of patients on ART could lead to over-burdening of poorly resourced and understaffed health facilities, leading to adverse effects on health services. Conversely, effective ART provision for a high proportion of HIV-positive individuals in a community should lead to a substantial decrease in HIV-related morbidity, and this should reduce the incidence of opportunistic infections requiring diagnosis and treatment. A study in Zambia showed ancillary benefit to routine clinical services when disease-specific research was combined with service delivery (Topp, Chetty-Makkan, Smith, Chimoyi, Hoffman and Fielding et al., 2019).

2.10 Risks of infections when caring for HIV/AIDS patients

The risk of transmitting HIV is dependent upon the practices of health care personnel, the prevalence of illness, and the amount and frequency of exposure (DENOSA, 2000). The susceptibility of HCW to contracting HIV in the workplace has broad implications for the entire NIMART programme. According to Manganye, Maluleke, and Lebese (2013), professional nurses are afraid to nurse people living with

HIV/AIDS as they believe that their disease is contagious. Similar infection trends are also observed in the Vhembe District. Health practitioners are at low risk of becoming infected with HIV if they follow normal precautionary measures (Zadeh, Far and Isa, 2011).

The occupational risk of becoming HIV-infected from patients in health care settings is low and in most cases, is associated with needle stick injuries stemming from a patient with HIV. Factors that increase the risk of occupational HIV infection are shortages of plastic gloves, protective aprons and proper disposal facilities (Ndou, 2005). Professional nurses are afraid that they will get infected in the line of duty. Due to fear of contracting HIV from infected patients; nurses are reluctant to provide care to the HIV/AIDS patients on Universal, Test, Treat and Retain strategy. Fear may be related to a lack of clear understanding of modes of infections, and methods of prevention, as well as to the social stigma attached to HIV/AIDS. The majority of professional nurses experience occupational exposure once or more each year. Professional nurses should have to know about PEP and its availability in hospitals this preventable approach can minimize occupationally acquired HIV infection amongst nurses.

2.11 Adherence counselling on Universal, Test, Treat, Retain strategy

Adherence counselling is the duty of all health care providers involved in the delivery of ART in all health facilities. Therefore, clinicians, nurses, pharmacy personnel and adherence counsellors should all provide counselling services for adherence and retention (Assefa, Kiflie, Tesfaye, Mariam, Klaus, Edwin, Laga and Van Damme, 2011)). Taking (ART) is a lifelong commitment that requires patients to adhere to their prescribed treatment to prevent disease progression and promote optimal health. ART allows people living with HIVAIDS to live longer, have a better quality of life and experience fewer illnesses related to HIV.

As HIV-infected individuals ARV regimens fails, each subsequent medication becomes not only more complex but also costly because a greater number of medications are needed to suppress the viral load. The ARV's currently available to treat HIVAIDS infections are used in a strategic order and in well-defined combinations to ensure efficacy. Lack of resources leads to non-adherence to medications by the patients. Poverty, lack of social support, work interference, prior negative experiences

with health services, drug side effects, and treatment fatigue also negatively affected ART adherence and viral suppression. (Ayieko, Brown, Anthierens, Van Rie, Getahun, Charlebois, Maya et.al.2018).

The study conducted at Khayelitsha revealed that the adherence-support programme used in Khayelitsha up to now has proven to be effective to achieve high levels of adherence and viral suppression in the first year of treatment. Counsellors in Khayelitsha are implementing separate support groups to respond specifically to the issues affecting patients on treatment for one year or longer (WHO, 2001). According to Ross, Weinstein and Schackman (2015), strict adherence to antiretroviral therapy (ART) is the key to sustain HIV suppression, reduced the risk of drug resistance, and improved overall health, quality of life, and survival.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter two described the literature searched by the researcher on the previously published studies related to this study. Research methodology is the process or strategy that the researcher uses to collect, organise and analyse data, to answer the research question. Chapter three describes the research approach, research design, study setting, study population, sample and sampling, sample size, pre-test, data collection, data management and analysis, trustworthiness and ethical consideration in detail.

3.2 Research approach and design

The research study employed a qualitative approach. It is an inquiry process of understanding a social or human problem based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and is conducted in a natural setting (Creswell, 2014).

3.2.1 Qualitative research approach

The primary goal of a qualitative research approach is to describe and then understand as opposed to mere explaining social action (Babbie and Mouton, 2012). The approach assisted in gathering in-depth and rich information related to the experiences of professional nurses when caring for HIV/AIDS clients on Universal, Test, Treat and Retain strategy in Vhembe District, South Africa.

According to Ehrlich and Joubert (2014), the qualitative study aims at a deeper understanding of people's feelings, beliefs, and values, especially by interpreting behaviour and the use of words.

A qualitative research approach was appropriate for this study as the experiences of professional nurses caring for HIV/AIDS clients on Universal, Test, Treat and Retain

strategy in the Community Health Centres were explored by the researcher. Participants were given chance to narrate more about their lived experiences regarding caring for HIV/AIDS clients on Universal, Test, Treat and Retain strategy. Research design is a plan or strategy that moves from the underlying philosophical assumptions to specifying the selection of participants, the data gathering methods to be used and data analysis to be done. The researcher employed a descriptive phenomenological design to explore and describe the phenomenon under study.

3.2.2 Descriptive phenomenological research design

Holloway and Wheeler (2010) defined phenomenology as a philosophy that explores the meaning of individuals' experiences through their own reported experiences. Phenomenology is defined classically by Streubert and Carpenter (2011) as a system of interpretation that helps individuals to perceive and conceive themselves. The concept is further explained as a way of viewing ourselves, others and everything else whom or with which we come into contact in life (Holloway and Wheeler, 2010).

The phenomenological design was used in this study to understand the meaning that professional nurses trained on the NIMART programme attach to their experiences of caring for patients on Universal Test, treat and Retain strategy (Brink, Van der Walt, and van Rensburg, 2013). A phenomenological design was the desired philosophy because it assists the researcher to explore and describe the experiences of professional nurses (Brink, Van der Walt, and van Rensburg, 2013; Polit and Beck 2012).

The phenomenological design consists of a set of steps or stages that guide researchers in the study of phenomena and they are not fixed and they vary from study to study. Describing in phenomenological research is a process developed by Husserl (Polit and Beck 2017) who was interested in answering the question: what do we know as persons? His philosophy emphasised descriptions of human experiences. The describing operation aimed to communicate and bring to written and verbal descriptions distinct, critical elements of the phenomenon (Streubert and Carpenter, 2011). The description was based on the classification or grouping of the phenomenon. However, Streubert, and Carpenter (2011) alert researchers to avoid describing the phenomenon prematurely, as a premature description is a common methodological

error associated with descriptive research. Descriptive phenomenological design is less focused on the interpretations of the researcher and more on the experiences of the participants (Wagner and Blower, 2012).

3.3 Study setting

The study was conducted in the community health centres of Vhembe district, Limpopo province, South Africa. Limpopo province consists of 5 districts namely: Mopani, Sekhukhune, Capricon, Waterberg and Vhembe where the study was conducted. Vhembe District is situated on the North of the Limpopo Province sharing the border with Zimbabwe and this leads to migration of the population from Zimbabwe to the Vhembe district of Limpopo province. The migration of people from the neighbouring countries increases the shortage of material resources such as drugs because they visit community Health centres for health services. Services for people diagnosed with HIV/AIDS are rendered at hospitals, Community Health Centres and clinics within the district. In the Vhembe district, there are eight community health centres namely Makhado, Thohoyandou, Bungeni, Tiyane, Tshilwavhusiku, Mphambo, William Eddie and Mutale. This study only focuses on the following four selected community health centres namely; Mutale, Thohoyandou, Tshilwavhusiku and Bungeni. Municipalities and CHCs are shown on the Vhembe district municipality map Figure. 1

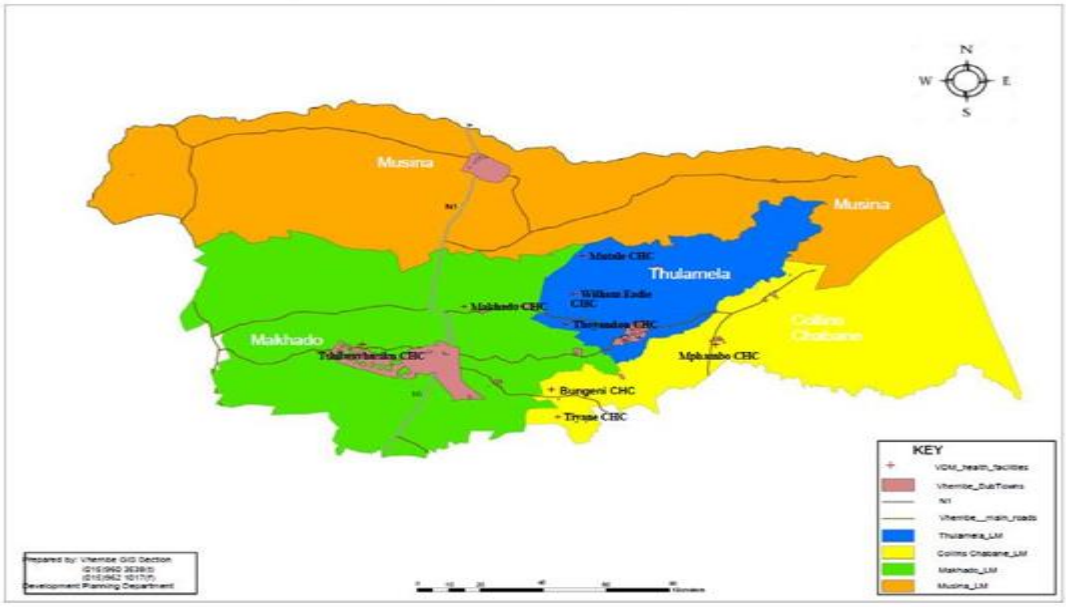

Figure 1: Vhembe District, Municipalities and Community Health Centres Map

3.4 Study population

The study population is the entire group of individuals or elements which the researcher can use in the study as the source of information (Neuman, 2011). The population in this study entailed all professional nurses who were caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in selected Community health centres in Vhembe district, South Africa from the target group. The population was further differentiated into two types, the target population and the accessible population.

3.4.1 Target population

The target group is described as the group of participants or the entire set of individuals who meet the sampling criterion, and to which the findings of the study will be generalised (Grove, Burns and Gray, 2013). The target population is the whole group to which the researcher wants to generalise the findings. The target population was all trained NIMART professional nurses who were responsible for caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in community health centres for at least a year or more.

3.4.2 Accessible population

Accessible population refers to one that meets the target population criteria and that is available (LoBiondo and Haber, 2014). An accessible population is a subset of the target population and is also known as the study population. For this study an accessible population were NIMART trained professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy for at least one year and available in the community health centres by the time the researcher was conducting interviews, knowing and ready to sign the consent forms.

3.5 Sampling method and sample

- **Sample**

A sample is a subset of population elements which are the most basic units about which data are collected (Polit & Beck, 2016). The process of selecting the sample is sampling, which is a process of selecting participants to represent the entire group. The main reason for selecting a sample rather than studying the entire population is

to make an accurate conclusion about the whole study population in a more cost-efficient way (Lyons and Doueck, 2010; Maltyby, Williams, McGarry and Day, 2010).

- **Sampling**

Sampling is the series of actions taken by the researcher to select a sample from the entire population that will represent the whole population of interest to achieve set objectives or goals (De Vos, Strydom, Fouche and Delport, 2012). According to Brink (2012), sampling involves taking part or fraction of a whole, or a subset of a larger set, to participate in the research study.

Sampling was done in two phases. The researcher first sampled the community health centres followed by the participants. The community health centres and participants were both selected through the nonprobability purposive sampling method. In the non-probability paradigm, each unit in a sampling frame does not have an equal chance of being selected for a study (De Vos, Strydom, Fouche and Delport, 2011). The researcher used the nonprobability purposive sampling method to select participants who had appropriate ha experiences of providing care to patients on the Universal Test, Treat, and Retain strategy.

3.5.1 Sampling of the Community Health Centres

The community health centres were selected through the purposive sampling method. With purposive sampling, the researcher consciously selects certain participants, elements, events, or incidents to include in the study (Burn and Groove, 2016). Purposive sampling allows the researcher to make a judgement about the characteristics which the participants or elements to be studied poses and their ability to produce relevant information (De Vos, Strydom, Fouche and Delport, 2013). In the Vhembe district, they are eight community health centres namely Mutale, William Eddie, Tshilwavhusiku, Thohoyandou, Makhado, Mphambo, Bungeni and Tiyani.

Inclusion criteria for the community health centres

The researcher selected the

- Public community health centres
- Health centres with two or more professional nurses trained on the NIMART programme

3.5.2 Sampling of the participants

Participants were sampled through non-probability purposive sampling which was selected because of some defining characteristics that make them the holders of the data needed for the study to obtain the richest possible source of information to answer the research questions (Ehrlich and Joubert, 2014). According to Kumar (2014), purposive sampling allows the researcher to use his or her judgement to select participants who can provide the best information to achieve the objectives of the study. Polit and Beck (2014) confirm that using non-probability purposive sampling requires the researcher to judge and select participants with experiences of caring for patients on Universal Test, Treat and Retain strategy.

Inclusion criteria for the participants

The researcher selected professional nurses trained on the NIMART programme who were:

- employed as a PN for 1 year in public community health centres
- caring for HIV/AIDS on Universal Test, Treat and Retain strategy

3.5.2 Sample size

The sample size is the determination of the number, or selecting an appropriate size needed for the study considering both scientific and pragmatic influencing sample size (Brink, Van der Walt, and Van Rensburg, 2012). It is the number of participants recruited and who would give the consent to participate in this study (Grove, Burns and Gray, 2013). The sample size for this study is 11 professional nurses trained on the NIMART programme and it was determined by data saturation (Ehrlich and Joubert, 2014).

3.6 In-depth face to face interviews

Interviews are used in exploratory and descriptive research and enable the researcher to obtain responses from participants in a face to face encounter (Brink, Van der Walt and Van Rensburg, 2012). Interviews can either be structured or unstructured. This study used unstructured interviews. An unstructured interview is an interactive

spontaneous communication with a participant, with an interest in understanding the experience of other people and the meaning they make of that experience (De Vos et.al, 2012). Unstructured interviews are also known as in-depth face to face interviews. The researcher conducted in-depth face to face unstructured interviews with professional nurses as it allows one to pose questions to the participants to learn more about their experiences on Universal, Test, Treat and Retain strategy. According to Babbie and Mouton (2011), an interview is an interaction between an interviewer and a participant in which the interviewer has a general plan of inquiry but not a specific set of questions that must be asked in particular words and order. The researcher used in-depth face to face interviews as an instrument for data collection because it allowed clarification of the points and detailed description of the phenomenon. An in-depth interview has the advantage of providing more detailed information and for the researcher to explore in greater depth determined until data saturation, meaning that there was no more new information given by participants.

3.7. Pre-testing

Pretesting in qualitative research allowed the researcher to test if the tape recorder is recording. The participants were interviewed, to evaluate if the question is clear and well understood by the participants. The challenges experienced during the pre-test interviews determined the changes done concerning time management, the use of an Audio recorder and the central question.

3.8 Data collection

Data collection is the gathering of information to address a research question (Polit and Beck, 2016). Grove, Burns, and Gray (2013) define data collection as a precise, systematic gathering of information relevant to the research purpose, study objectives, questions or hypotheses of a study. Data collection started after the researcher has received ethical clearance from the University of Venda Higher Degree Committee and approval from the Limpopo Provincial Department of Health Research committee, Vhembe district office and CHCs nurse managers.

Permission from the operational managers was asked, to meet the participants for recruitment and provide them with the information sheet (see Annexure G). The researcher explained the purpose of the study, ethical aspects such as confidentiality,

issues of benefits and voluntary participation and the right to withdraw without giving reasons before collecting data. All participants who met the inclusion criteria and agreed to participate in the study were contacted telephonically before the interview sessions, preparing them for the actual interviews and clarification of questions (Polit and Beck, 2016).

The interviews were audio-recorded with the permission of the participants. The interview lasted for 45 to 60 minutes, and appointments were secured in advance. Interviews were conducted during the participants' lunchtime, in a quiet room at community Health Centres. Data were collected in English for those who could express themselves and others used Tshivenda and later translated into English.

Field notes were written by the researcher during the interviews. Field notes are the notes or information written by the researcher based on the unstructured observations they have made in the field and the interpretation of those observations (Polit and Beck, 2008). Non-verbal cues that were observed by the researcher included facial expressions, gestures, and voice tones. An audio recorder was used and assisted in that there was no information lost during transcription. Data were collected until saturation was reached.

Member check was done before, during the interview and after the interview. It was also done after data collection by going back to the participants after the interview to check if what participants had said to the researcher is correct. This was done by playing back the audio recorder.

3.9 Data management

The safety of data is important in ensuring confidentiality (Polit and Beck, 2016). The audio-recorded interviews were copied to an external hard drive as audio to avoid leaving it in the digital recorder. The audio recordings were transcribed within 48 hours after each interview. Transcripts were only identified by codes and not by the names of participants. After analysis of each transcript, the transcripts were also kept safely under locked and key where only the researcher had access to ensure confidentiality. All the signed consent forms were kept under lock and key separately from the transcripts to prevent linking of the names of participants to the transcripts.

3.10 Data analysis

Qualitative data analysis refers to the organisation and interpretation of narrative data to discover important underlying themes, categories and patterns (Polit and Beck, 2016). Qualitative analysis is supported and facilitated by several tasks that help to organise and manage the mass of narrative data. Digital recorded interviews and field notes became the major data sources. The researcher analysed data through the integration and synthesis of narratives. The researcher identifies themes and categories using open coding. Open coding is the "naming and categorising of phenomena through close examination of the data (Grove, Burns and Gray, 2013). The purpose of data analysis was to organize, provide structure, and elicit meaning from data. Data were analysed according to Tesch's eight steps criteria (Creswell, 2014).

Step 1. Get a sense of the whole

The researcher read through all the transcripts carefully to get a sense of the whole several times. This was done to help the researcher to become acquainted with the data collected. Some of the ideas, which came into mind, were jotted down.

Step 2. Choose one interview document

The researcher chose one interview document, the shortest transcript and went through it. Thoughts that came out were underlined and noted in the margins. This information was then used later to group similar topics.

Step 3. Cluster together all similar topics

With thoughts written in the margins, a list of clustered topics was developed with similar ones in the same column. When the researcher has completed this task for several participants, he made a list of all topics, forms columns according to major theme themes, and sub-themes. Unique topics and uncategorised ones were arranged accordingly.

Step 4. Go back to the data.

The researcher took the list and went back to the data. After the completion of the list, the researcher abbreviated the topics as codes and write codes next to the appropriate segments of the text.

Step 5. Find the most descriptive wording for the topics and turn them into categories.

The total list of categories was reduced by grouping topics that are related to each other. Interrelationships were indicated by drawing lines between the categories.

Step 6. Abbreviate each category

Formulated topics were grouped and abbreviated as codes and closely arranged in appropriate segments of the text and reviewed to check or see if new categories are emerging.

Step 7. Similar data was assembled

The data on experiences of professional nurses providing HIV/AIDS services to patients on Universal, Test, Treat and Retain strategy were assembled in one place according to categories, and a preliminary analysis was performed.

Step 8. Record Data

Data were transcribed verbatim and transcripts were coded using an independent coder.

3.11 Measures to ensure trustworthiness

According to Polit and Beck (2014) trustworthiness is the way of ensuring data quality, a degree of confidence that qualitative researchers have in their data collected. In this study, the researcher ensured measures of trustworthiness by using credibility, dependability, transferability and conformability criteria.

3.11.1 Credibility

Credibility refers to the accuracy with which the researcher interprets data that is provided by the participants (Du Plooy-Cilliers, Davis and Bezuidenhout, 2014). Qualitative researchers strive to establish confidence in the truth of the findings for the participants and context in the research (Polit and Beck, 2012). Credibility was achieved through the prolonged engagement and member checking.

Prolonged engagement

The researcher contacted the participants telephonically and visit them for recruitment before interview sessions to participants who were willing to participate in the study.

Maintaining contact with participants before data collection assisted the researcher to make sure that participants identified were good sources of information and could provide information relevant to the study.

The researcher also spent a reasonable amount of time with participants during interviews to establish trust, rapport and understanding of the participant's culture and language (Brink, Van der Walt and Van Rensburg, 2014). Data collection was done for four weeks and one interview lasted for about 45 to 60 minutes. Fields notes were written and information from the participants was recorded using a voice recorder. Contact with supervisor and co-supervisors enhanced trustworthiness.

3.11.2 Dependability

Dependability refers to the criterion of evaluating data quality referring to the stability of data over time and conditions (Polit & Beck, 2012). The experts in the field of research were consulted to cross-check the codes, to see if they would code the same way as the researcher has coded. To ensure dependability the researcher continuously examined the research process, a complete description of the methodology was supplied, and the document was monitored by the supervisor, co-supervisor and the final document was sent to the editor.

3.11.3 Confirmability

Refers to the potential for congruency of data in terms of accuracy, relevance or meaning. According to Taylor (2014); De Vos et al. (2012), confirmability refers to the study in which results can be confirmed by others. To ensure confirmability the findings reflect the participant's voice and the conditions of the inquiry, and not the researcher biases or perspectives through using an independent coder (Polit and Beck 2016). Confirmability was also ensured by sending copies of the transcripts, field notes to an independent coder.

3.11.4 Transferability

Refers to the degree to which the findings of the study can be transferred in other contexts or to other participants (Brink, Van der Walt and Van Rensburg, 2014). In this case "other contexts" can mean similar situations, similar populations, and similar phenomena. Transferability may also refer to changes that findings have meanings to

others who are in a similar context (Brink, Van der Walt, Van Rensburg, 2012). Polit and Beck (2012) view transferability as the extent to which findings of the study may be 'generalised" to other settings or groups. The findings would be applied to various similar contexts. The researcher has shared the findings with other researchers to gain positive inputs, including other organizations that were working directly with patients on Universal Test, Treat and Retain strategy. The researcher gave rich descriptions when reporting on the research results, to enable potential users of the research results to judge the applicability of these to other contexts.

3.12 Ethical considerations

Ethics is a system of moral values that is concerned with the degree to which procedures adhere to professional, legal and social obligations to study participants (Polit & Beck, 2016). Ethical considerations will include the following: permission to conduct research, Informed consent, anonymity and confidentiality, principles of justice and beneficence.

3.12.1 Permission to conduct research

The research proposal was presented to the School's Higher Degree Committee and presented to the University Higher Degree committee for approval to conduct the study. Permission was sought from the University Ethical Committee. Permission to conduct research was also sought from the Provisional Department of Health, Vhembe district health officers and Operational managers of the four-selected community health centres where the research study was conducted.

3.12.2 Informed consent

Consent is the prospective participant's agreement to participate in a study which is reached after assimilation of essential information (Burns & Grove, 2011). Ehrlich and Joubert (2014) define informed consent as the ethical principle of voluntary participation and protecting participants from harm.

The researcher explained the purpose, significance and nature of the research to the participants (see Annexure D) what would be expected from them and how the results would be used. The participants were also informed about their rights. The participants were told that by agreeing to participate they have the right to withdraw from the study

at any time without giving the reason. The participants were given a consent form to sign and signing was voluntary. Participants were also informed that they were not remunerated for participating in the study. All participants who participate in the study sign the consent form.

3.12.3 Anonymity and confidentiality

Anonymity prohibits the researcher from making available any information which can lead to the identification of the researcher participants (Swartz, De la Rey, Duncan and Towsend, 2011). Codes instead of names were used to ensure the anonymity of participants and raw data was not exposed to anyone except to the supervisor of the study.

Confidentiality indicates the handling of information in a confidential manner (De Vos et al., 2013). Confidentiality was maintained by interviewing in a private room and each participant was interviewed separately. No information was disclosed to the people known to the participants except the participant's consent (Brink, Van der Walt and Van Rensburg, 2012). Transcribed data and audiotapes information was kept safe under lock and key.

3.12.4 Principle of Justice

Burns and Groove (2011) state that the right to fair treatment is based on the ethical principle of justice, which holds that each participant should be treated fairly and receive what he or she is due. Participants were designated based on the study requirements not on the group's vulnerability. The researcher selected the participants with fairness. There was no discrimination; participants were selected per study requirements and criteria. The principle of justice is applied by treating participants fairly and equitably before, during and after their participation in the study.

3.12.5 Principle of Beneficence

According to Polit & Beck (2016), Beneficence is concerned with the minimisation of harm and maximising the benefits to the participants. The researcher maintained the principle from harm by respecting the rights of the participants, the right to freedom from harm, the right to protection and the right to protection from exploitation. The total well-being of the participants was secured physically, psychologically, emotionally,

spiritually, economically, socially and legally. Participants were not be exposed to experiences that could have caused harm.

3.13 Summary

This chapter presented the following aspects: research designs of the study; study population; sample and sampling technique; data collection and data analysis; measures to ensure trustworthiness and ethical consideration. Chapter 4 will discuss the data analysis and interpretation of the findings.

CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

Chapter three focused on research methodology. This chapter describes the presentation of the findings, analysis and discussion thereof. A qualitative approach with the descriptive phenomenological design was employed to explore and describe the experiences of professional nurses. The purpose of conducting the study was to explore and describe the experiences of professional nurses trained on the NIMART program caring for HIV/AIDS patients on the Universal, Test, Treat and Retain strategy. Community health centres where data was collected are Bungeni, Thohoyandou, Mutale and Tshilwavhusiku. Data was collected from professional nurses trained on the NIMART programme caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy at the community health centres in Vhembe district Limpopo Province.

Data was collected through in-depth interviews. One central question asked was: "*What are the experiences of professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe district, South Africa*. Throughout the data collection process, the researcher continuously asked probing questions until data saturation was reached

The average time spent on each participant interview was 45-60 minutes. Interviews were conducted during lunchtime at the community health centres. The number of participants interviewed varied daily. Data were collected from 11 participants. Analysis of data was conducted guided by Tesch's eight steps of open-coding qualitative data (Cresswell, 2014). Two superordinate themes, four themes and nine subordinate themes were developed.

4.2. Presentation and discussion of findings

This chapter focuses on the demographic profile of the participants, superordinate themes, themes and subordinate themes that emerged from data analysis

Demographic profile of the participants

Four community health centres were selected purposively in chapter two. Twelve participants were selected through purposive and data saturation was reached at 11th participant, meaning 11 participants were interviewed from the selected community health centres. Most participants were females. There was only one male out of 11 participants. None of the participants was below the age of 31 years or over 52 years meaning that all the participants were still in their productive years. Work experience of participant's ranges from 3 to 11 years. Table 4.1 shows the demographic profile of the participants.

Table 4. 1: Demographic profile of the participants

Participants	Gender	Age	Work experience
P1	Female	47	8
P2	Male	38	7
P3	Female	51	11
P4	Female	35	3
P5	Female	33	7
P6	Female	50	10
P7	Female	43	6
P8	Female	45	5
P9	Female	52	5
P10	Female	51	9
P11	Female	31	8

4.3 Challenges experienced by the professional nurses caring for patients on Universal Test, Treat and Retain strategy

The analysis of data on experiences of professional nurses trained on NIMART caring for the patients on Universal, Test, Treat and Retain strategy revealed numerous

challenges. Lack of knowledge was evidenced by denial of HIV/AIDS positive status and emotional stress. Challenges experienced include patients' positive HIV results impact on the professional nurse's health care services, ART related challenges, shortage of resources and manpower and ineffective support to professional nurses. Ineffective support and absence of support became an issue of concern. The superordinate themes, themes and subordinate themes are shown in table 4. 3.

Table 4.2: Superordinate themes, themes and sub-ordinate themes

Superordinate theme	Themes	Subordinate themes
4.3 Challenges experienced by the professional nurses caring for patients on UTTR strategy	4.3.1 Patients' positive HIV test results' impact on the professional nurses	4.3.1.1 Denial of HIV positive results 4.3.1.2 Emotional stress
	4.3.2 ART related challenges	4.3.2.1 Denial to initiation of ART 4.3.2.2 Delay to start taking ART 4.3.2.3 Non-adherence to ART
	4.3.3 Shortage of resources and manpower	4.3.3.1 Shortage ARVs 4.3.3.2 Shortage of manpower
	4.3.4 Ineffective support to professional nurses	4.3.4.1 Support received from managers 4.3.4.2 Support received from colleagues

4.3.1 Patients' positive HIV results' impact on the professional nurses

When the patients are informed of their HIV positive results, they react in different ways. The patients become anxious, angry, scared and cry. Professional nurses trained in the NIMART programme are supposed to counsel them. Some of the patients blame their partners, who infected them and sometimes verbalize feelings of

denial, suicide and revenge. Some of the patients do not come back to the community health centre for HIV results.

4.3.1.1 Denial of HIV positive test results

The patient's denial of HIV positive results harms the professional nurse's services rendered to the patient. Professional nurses trained on the NIMART programme caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy, are expected to convince the patient to accept the status. Denial of HIV positive results may delay starting taking ARV's resulting in non-adherence to ARVs.

Participant said:

> "*Most of the patients when I tell them that they are HIV positive, they deny and go for retests in various community health care facilities. When I am busy doing, post-test counselling they cry bitterly and sometimes blaming the partner. And when I talk to them, I could see that they are shocked, Young patients who test HIV positive show signs of shock and anger. Some say it has not been long they started having sex with their partners as it is not long that they have been dating them. And you could see that they are surprised.*"

Participant said:

> *"Sometimes if I have tested a patient and she/he doesn't come back to get the results, it is very much stressful because out there they will be spreading the virus all over. Most people don't come back for follow up."*

A participant remarked that:

> *"Most of the women come to the clinic, not for HIV test but family planning or minor ailment like influenza. But when I assess the patient clinically. I suspected HIV/AIDS. Some were asking themselves where did*

> *I get this virus? And there was this other lady who came and tested positive. And she said she doesn't understand that she is HIV positive.*

Many of those who test HIV positive assume that they are going to die soon. Denial of HIV positive results was caused by the reason that they may have come to the health centre for other primary health care services like a minor ailment and family planning, and routinely tested for HIV and they hardly accept the HIV positive results.

4.3.1.2 Emotional stress

The participants explained that some of the patients become angry, reflecting on how they got infected. The questions that they ask indicate that they are afraid of death. They also verbalize and regret their sexual involvement in a short-term relationship without a condom. Professional nurses' emotions are negatively affected when patients demonstrate fear and anger.

A participant said that:

> "*Some of the patients come for testing when they had observed that their partners are taking ARVs or they are sick. Sometimes, love turns into hatred. I remember this other lady who is a traffic officer saying that I am thinking of shooting that guy, why didn't he tell me that he is HIV positive? I had to explain that sometimes a person might be HIV positive and not aware of the status."*

Participant supported to say:

> *"She will be crying a lot even people who don't know about HIV/AIDS will be asking if I start taking the medication, how many years I am going to live. I observed that the patient has got fear of death."*

The participant claimed that:

> *"It is not that simple to counsel the patient who has come to the community health centre for consultation who has tested HIV positive. I should convince her to start taking the ARVs immediately on the same day. When I inform them that their result came out positive, they become too emotional and cry. And when they are crying, I should stay calm and comfort them. And start the counselling. If the patient is known to me, I sometimes find myself crying."*

Denial of the HIV/AIDS positive results and anger resulting from fear of death cause stress to the professional nurses trained. Some of the professional nurses also cry when the patients who received the HIV positive status cry. Some of the Professional programmes remain calm and start to counsel the patients. They complain of insomnia caused by repeated exposure to emotional stress.

The same sentiment was shared in the study conducted by Haoses Gorases, Katjire and Goraseb (2013). Makhado and Davhana-Maselesele (2015) also share the same sentiment that nurses need to be supported educationally and organisationally to employee wellness programmes the addresses work burnout as well as social support.

- **Responds to emotional stress**

The majority of the professional nurses react negatively towards patient's refusal to start ARV's. They express frustration, stress and depression. This was supported by the following quotes.

A participant said that:

> *"It stresses me too much because, as I am working, I like to achieve a goal. And it hurts me too much when I see someone dying just because he refused to take*

medication. And my main motive is to convince the patient to take ART to suppress the viral load."

Another participant confirmed:

"It is painful and depressing more especially when the patients have lost weight and they show signs and symptoms of HIV/AIDS complications which might have to be prevented by adhering to ART."

A participant stated that:

"Some ended up crying, they cry in such a way that it affects me and I also end up crying. It is painful finding out that the patient is HIV positive. It is frustrating me because my motive is that they start taking the medication so that the virus be suppressed. More especially when the client comes back when they are seriously sick and they have even lost weight. It hurts me so much because some die before taking the ARVs. The depression becomes too much when you think that the person refused to take or stopped drinking the medication."

The participant indicated that:

"It pains me very much because I am expected to give a patient full service. It is very much painful for me because you're trying to help your patient and the patient doesn't want your help. I feel like I have failed the community. It hurts me a lot, but the main purpose is to convince my patient to understand and accept the situation and start taking medication."

Common amongst these nurses are their experiences about stress in their workplace because the patient refuses to take treatment on the same day they tested HIV positive. Management of stress is therefore a real threat in nurses who spend their time working with people living with HIV/AIDS, dying and grieving and observe the

struggles of families to survive. The nurses" welfare should be a high priority for all HIV/AIDS programmes (Mulaudzi, Pengpid and Peltzer 2011). When stress becomes chronic, or when you find that you're emotionally having an outsize reaction to small stressors, that's when stress can impact ones' emotions, cognition, and physical health negatively. Stress may contribute to serious illness down the line, be it heart diseases, lowered immunity, or changes in the brain.

- **Coping with emotional stress**

The findings of this study revealed that professional nurses face emotional stress in their workplace which they need strategies to cope with. Coping strategies refer to the specific efforts that people use to master, reduce, tolerate or minimize stressful events (Soliman, 2014). Participants mention the use of guidelines or protocols in managing patients so that they can cope with the patients who refuse treatment. This was supported by the following quotes:

A participant affirms that:

> *"I don't give up on them, I follow the guideline and do the counselling and after that, I give them another date for follow up. I also explain the importance of taking the medication. And what will happen if they are not taking the medication and the consequences of not taking the medication. I continue with the counselling up until they get ready to take the medication. I refer them to the psychologist and after attending their sessions they come back for ART."*

The participant explained that:

> *"I follow the guideline and do the ongoing follow up. We look for them by calling them and tell them the importance of ART. Some of the patients give us the wrong cell numbers so that we should not trace them."*

Most participants confirmed that the availability of policy guidelines enabled them to initiate HIV Testing and Counselling (HCT) and explain the rationale for testing in TB

settings. They also felt that policies would help them overcome HIV stigma as it gave them an easier route into a discussion of HIV avoiding moral judgments (Davyduke, Pietersen, Lowrance, Amwaama and Teagtmeyer, 2015). Some of the participants demonstrated remarkable innovation by adapting integration models to overcome staffing and space constraints while minimising disruption to existing service. The purpose of the policy is to provide national programmes and stakeholders with guidelines on how to implement and scale up collaborative HIV activities (WHO 2012). Management of stress is, therefore, a real threat in nurses who spend their time working with people living with HIV and AIDS who are dying and grieving and observing the struggles of families to survive. The nurses" welfare should be a high priority for all HIV/AIDS programmes (Mulaudzi, Pengpid and Peltzer, 2011).

The study conducted by Rasalanavho (2016), revealed that situations where emotional-based coping strategies were applied by NIMART nurses. Several reported situations in the results of the study confirmed that nurses trained on the NIMART programme felt they had little control of the situation and were not able to manage the source of the problem. For example, failure to initiate many patients, patients leaving before getting help, long queues, the problem of initiating children, refusal by doctors or co-workers to assist, fear of becoming infected, patients either getting worse or dying after initiation and stigmatisation by patients and co-workers all amounted to emotional stress which required proper coping strategies. According to Feyissa et al. (2012), HIV related protocols were available only to those health care providers who are trained in HIV/AIDS programmes. It was also found that there were no policies specifically dealing with PLWHA in their health care environment which includes stigma and discrimination (Feyissa et al. 2012).

4.3.2 ART related challenges

The discussion will be based on the following subordinate themes identified from the study which is, challenges related to denial to the initiation, delay to start taking ART and non-adherence to ART challenge.

4.3.2.1 Denial to initiation of ART

The findings of the study revealed that professional nurses are concerned about patients' denial to start taking ARVs before they disclose their status to the family and

husband. According to Plazy et al. (2017), lack of knowledge about the evolution of HIV medicine by the patient, the benefits of prompt ART initiation upon diagnosis as well as initiating without a caregiver, the availability of pills with fewer side effects than before, those patients were hesitant to initiate ART to reduce HIV infection.

Participant stated:

> *"I was not ready to take the treatment because I came to consult because I wanted to be treated on what I was having at that time. And we tested the patient and we found out he or she is HIV positive and they were not ready for that. And they end up not accepting it.*"

The participant indicated that:

> *"Some agree with us that they will take medication, but after some time you will notice that they are not taking the medication when they are not coming on the follow-up date*. *Others after being tested positive they start crying, refuse to start to take medications on the same day, Others they said I'm not sick I am here for family planning, Others may not start and say I will first tell my husband and others may start and go home with some medications."*

The participant said that:

> *"Ok, let me give you an example, there was this lady who tested positive and took the treatment home but never came back for follow up. We traced the lady and we got her. When we ask her why she never came for follow up. She said she is not sick and she doesn't feel anything. She started the treatment and then stopped and said she is not sick."*

Professional nurses revealed that some of the patients refuse to start the ART and say that they are not ready and not sick. The patients take ARVs home and never make a follow-up. According to Mametja et.al (2013), delayed commencement of treatment is

the main cause of increased mortality. This is also caused by a few factors that could mostly have been avoided, such as different believes and fears, patients still decided to stay without treatment. Patients found it difficult to disclose their status, they refused to be tested early and report to the hospital for medical help when the disease had progressed to a critical hence death. Patient-related stress had been described by participants, where patients refused to be tested or were tested late after being persuaded by the nurses. This frustrated the nurses as the patients were often severely ill by the time of diagnosis and they linked the delay to poor response to medication and poor adherence (Pallangyo and Mayers, 2009).

One in five eligible HIV-infected individuals in Soweto refused to initiate ART after VCT, putting himself at higher risk for early mortality. Feeling healthy was given as the most common reason to refuse ART, despite a suppressed CD4+ count and co-morbidities, such as tuberculosis. (Katz et al., 2011).

Despite 92% of VCT clients initially reporting they would be willing to disclose their status has behavioural consequences and may be more pronounced than initially acknowledged by the general population. Patients did not return after the ART initiation compared to those who were initiated later (Lilian, Rees, McIntyre, Struthers and Peters, 2020).

In a study conducted by Georgeu et al. (2012), it became apparent that there were unreliable deliveries of ART drugs from hospitals and the central dispensing unit. Infrastructure deficits, such as non-functioning telephone lines, were reported to have had significant effects on patients already on ART, and this made it very difficult for nurses to initiate new patients into treatment

4.3.2.2 Delay to start taking ART

The shortage of ARVs is a barrier to the implementation of the Universal Testing Treat and Retain strategy. Clinical readiness encompasses screening for symptoms of tuberculosis and cryptococcal meningitis, as the initiation of ART must be delayed in clients with these conditions to avoid complications such as immune reconstitution inflammatory syndrome. Numerous other barriers to ART initiation may have impacted treatment coverage rates which includes distance to testing centres, discloser to a relative, transport costs and over-busy clinic (Lilian, Rees, McIntyre, Struthers and

Peters, 2020). The participants expressed that delay occurs when patients are not ready to start ART on the same day on which they test positive for HIV.

Participant stated:

> *"Some have challenged that they can't start taking the treatment same day on which they tested HIV positive as they must first inform their family members."*

Participant elucidated that:

> *"They can't start taking the medication without their husband's knowledge. And others refuse and say they will go and think about it first. Others agree to take medication, but they never come back on the follow-up dates."*

Participant expounded that:

> *"But when we start telling them that they should start taking the treatment, they sometimes ask so many questions. She will tell you that she must go tell the husband, she will come back. And how am I going to drink the medication, she will look confused when I tell them that ART should be adhered to for life."*

Bauleth (2013) claim that HIV/AIDS patients were defaulting treatment due to reasons such as social factors that include spiritual beliefs, cultural beliefs, stigma and discrimination. Bauleth (2013) further reported that patients first sought traditional healers' opinions before consulting health workers. This had effects on disclosure of HIV status and resulted in the patient being unwilling to take the medication in the presence of others.

The fear of disclosure of HIV status and its accompanying risks prevented some patients from enrolling for care. Other studies have also highlighted this fear and stress complexities of HIV disclosure to sexual partners. (Nakigozi et al, 2013).

DoH also underlined that they faced specific difficulties in encouraging people with high CD4 counts, especially those with no HIV-related symptoms, to initiate ART. They

acknowledged that HIV disease could be a long process for those individuals to accept. They were concerned about the fact that some of their patients, and especially the youngest might not see the value of HIV care and ART initiation early during their HIV infection. Some patients feared to engage in taking ART for life. Professional nurses trained on the NIMART program also noted that some of their patients feared that ART side-effects would make them look sicker than how they truly felt. (Plazy et al, 2017)**.**

4.3.2.3 Non-adherence to ARVs

The findings of this study indicate that majority of participants have experienced non-adherence to the ARVs by the patients as they were not coming for follow-up. This was supported by the findings by Plazy et al. (2017) which say that patients having high CD4 count and not feeling sick could compromise HIV disclosure, and thus challenge ART adherence.

Participant said:

> *"Ok, let me give you an example, there was this lady who tested positive and took the treatment home and did not come back for follow up. We traced the lady and we got her. When we ask her why she did not come to the health centre for follow up. She said she is not sick and she doesn't feel anything*."

A participant stated that:

> *"Yes, I only had only one case, of someone who came for follow up after two (2) weeks, who said the medication I was given last time was locked in the cupboard. Which means he or she is in serious denial. To some of the patients, I did not observe any positive change in their health status as they are still the same as the first day they came to the health centre."*

Some of the participants revealed that some of the patients do not adhere to ART because of their religious and ancestors' beliefs. When they realize that their religious and ancestors' beliefs do not show improvements, they turn to ART.

A participant said that:

> **"**In *that situation, I don't succeed, because of those who believe in God, whereas some believed in ancestors. Those who believe in God are prayed for by the pastors and believe that they are healed and there is no need for adhering to ART. Those who believe in ancestors take herbal medications. After some time we will see the same client coming back in a critical condition."*

Plazy, et al. (2017) state that early ART initiation, among people who never felt sick, could lead some of them to forget the treatment benefits, or not consider their health as a priority, which could result in treatment interruption, and ultimately the emergence of ART resistance and complexification of HIV care management. Adherence in this case is seriously compromised. The findings of the study conducted by Georgeu et al., (2012) validated that there was unreliable delivery of ARV drugs from hospitals and the central dispensing unit. Unreliable delivery had negative effects on patients already on ART and made it very difficult for nurses to initiate new patients into treatment.

According to Musheke Bond and Merten (2013) PLWHA who default face problems with re-initiation. Such delayed re-initiation of ART also creates additional therapeutic costs when PLWHA eventually return for care, especially if their health status has deteriorated. These results are supported by the findings of the study by Bauleth (2013) who found that HIV/AIDS patients were defaulting treatment due to reasons such as social factors that include spiritual beliefs, cultural beliefs, stigma and discrimination. Bauleth (2013) reported that patients first sought traditional healers' opinions before consulting health workers. This had effects on disclosure of HIV status and resulted in the patient being unwilling to take the medication in the presence of others.

4.3.3 Shortage of ARVs and manpower

The findings of the study revealed that there is a shortage ARVs and a shortage of professional nurses trained in the NIMART programme. Availability of material,

financial and human resources is the critical component that increases the chances of success of any programme. The unavailability of one of them compromises the implementation of a successful programme. Support in terms of human resources, financial and materials is paramount for any new programme like NIMART to be successfully implemented and be accepted by the ordinary people and communities (NDoH, 2011).

4.3.3.1 Shortage of ARVs

Participants expressed a lack of adequate material resources to use in their daily operations such as medications. The shortage of medications hinders the operations of any medical institution as the core business of community health centres is to administer prescribed drugs to clients. When patients fail to get drugs in time this will break the prescribed cycle of taking medication and will ultimately affect compliance and adherence. Also, patients will stop visiting the health centres if there is a shortage of drugs and this results in high default rates. Shortage of drugs causes emotional stress to the nurses as they want to help the patients. Participants indicated that the shortage of ARVs is a problem, which prevents the provision of patient quality care.

A participant said that:

> *It has been weeks without medication for patients in the second line of ART, especially alluvia and efavirenz. The suppliers do not supply all that we order, I therefore only give them medication that lasts for only one week and refer them to Donald Fraser hospital. When the patients stop taking the ART, the viral load goes high."*

A participant stated that:

> *"Yes, and when you tell them there is no medication, they have to go to the hospital. Some of them will tell you that they don't have money for transport. It is very much stressing because some of them are not even working. I forgot to tell you that not all patients start*

with the treatment the same day. We assess them clinically and test for TB."

Campbell et al. (2011) also highlighted that human resource shortages have been identified as the greatest potential limitation to initiating and providing ART. This observation was also made by Ouko (2012) that drugs and other medical supplies are critical for effective health service delivery. Essential drugs are those that meet the basic requirements of most patients and these should be available in the hospitals (Mackey & Liang, 2013). Ouko (2012) asserted that without these drugs hospitals find it difficult to deal with patients. When patients visit the medical centre and fail to get their medication as prescribed this will result in some of the patients no longer returning to the clinic to collect the drugs resulting in an increased defaulter rate.

Adherence in this case is seriously compromised. The findings corroborated the study conducted by Georgeu et al. (2012) in other sites where the study was conducted, there were unreliable delivery of ARV drugs from hospitals and the central dispensing unit, as well as infrastructure deficits such as non-functioning telephone lines, were reported to have had significant effects on patients already on ART and made it very difficult for nurses to initiate new patients into treatment.

4.3.3.2 Shortage of manpower

Some participants reported that there are few professional nurses trained in the NIMART programme. Some of the patients who are impatient go home before they professional nurses provide services due to long queues. Manpower in healthcare settings is defined as the total number of individuals who are available to enhance health care. According to Gopee and Galloway (2014) personnel should be adequate for the institution to provide quality patient care for all patients.

Participants complained that there is a shortage of manpower in the community health centres to cater for the high number of patients living with HIV/AIDS. As universal ART implies an increased patient volume receiving care and the professional nurses trained on the NIMART programme also experience increased workload. The patients suffer from longer waiting queues, receiving less individualized counselling and thus losing motivation for HIV care and treatment. The shortage of health personnel places considerable pressure on the scarce medical workforce (Decroo, Rasschaert, Telfer,

Remartinez, Laga and Ford, 2013.). This may result in long waiting times for patients at the facility. Thus, patients may be frustrated and discouraged from seeking care, leading to poor retention in the care of the patients (Callaghan, Ford and Schneider, 2010). Results of this study indicate that there are challenges related to manpower which is signified by inadequate human resources, staff absenteeism and staff turnover which affect enrolment.

One participant indicated:

> *"When I do counselling and initiating ARVs to the patient who has tested HIV positive, it takes a lot of time and it makes the queue move so slow. It takes hours because you will find that there is only one trained professional nurse at work, who is responsible for the chronic patients."*

A participant explained that:

> *"We have a lot of patients at this health centre, and we have few professional nurses who are qualified for giving medication takes a lot of time in a consultation room because of counselling. Taking blood and explaining the importance of taking ARVs to take a lot of time."*

This high number of people seeking health care services increases the burden on health care services. The burden on health care services is worsened by a shortage of manpower. HIV AIDS are always frequenting the health care services due to HIV/AIDS-related infections and this increase the workload to nurses (Erkki and Hedlund, 2013). It was also reported that several patients discontinue treatment because of long waiting times at the ART clinics. Patients complain about long waiting times which made them more likely to stop coming to the CHCs to collect their drugs. Most of the participants reported a long waiting time of 4 to 6 hours at the CHCs before going back home. Many public facilities in sub-Saharan Africa scaled up ART without a comparable increase in personnel to accommodate the larger number of patients (Lambdin, Masao, Chang, Kaduri, Mbwambo, Magimba, Sabuni and Bruce, 2014).

The shortage of human resources for health has severely hampered the rollout of ART in Sub-Saharan Africa (Callaghan, Ford and Schneider, 2010).

4.3.4 Ineffective support from managers and colleagues

The Professional Nurse trained on the NIMART programme experience of support differs according to the CHCs. Some managers and colleagues give support to the NIMART nurses. They claim to be given ineffective support. Some of them receive psychological support whereas some are given physical support.

4.3.4.1 Support received from the managers

For patients to be provided with quality care, the professional nurse deserves some element of support from management and colleagues. The study indicates the availability of support from the colleagues and the management, even on the other hand those who do not give support are also there.

The participant had to say:

> *"I get support from the management more especially on the most difficult cases. Managers and colleagues sometimes come with other strategies to convince patients to consider the Universal, Test, Treat and Retain strategy. Management also assists in follow-ups."*

The participant attested that:

> *"I am living with it like that. I also share with colleagues even though I don't tell them the names of the patients. Just telling them of what I have gone through. And will attest on that, if they have also experienced the same situation."*

They emphasized the importance and need for counselling so that they can develop better coping skills for the situations that they always face. Quality nursing care can be improved by supportive leadership, proper planning, education and training, effective material and human resources and processes (Mosadeghrad, 2014).

Most the participants did not get enough support from the nursing staff and management. Some people may not acknowledge that feeling of grief or frustration experienced by nurses who face frequent problems of the patients - some of whom might be relatives and colleagues. Thus, nurses who provide care to people with HIV/AIDS may not be able to cope with the emotional trauma of HIV/AIDS if they are not appreciated and supported (Mametja Lekhuleni and Kgole, 2013).

A participant claimed that:

> *"There is no support and there is no programme that has been scheduled for debriefing and support for us as professional nurses. Ever since I went for the NIMART training, I have never attended any counselling or debriefing session and the way I see it is like management don't take it seriously."*

A participant alluded that:

> *"There is no support because ever since I started giving the ARVs in 2015, I haven't gone to any counselling or a briefing as a NIMART professional nurse. And I find it not good for my health more especially for us who are on hypertensive medication. Sometimes you will find that there is a programme in place for a briefing once a year but it is not done."*

A participant stated that*:*

> *"No, there is no support or program planned for us for counselling or debriefing. We are working in a stressful situation; we need to go for counselling at least once or twice per year but the managers always say there is no money because the government is financially down."*

Davies, Homfray and Venables (2013) reported that the importance of debriefing enabled nurses to re-engage with the NIMART programme after a patient's death had affected their self-confidence. Davies, Homfray and Venables (2013) also emphasised

that nurses described receiving support from mentors over the phone and the support proved crucial as it enabled these nurses to gain confidence gradually despite minimal on-site mentorship, and provided an essential opportunity for debriefing. A study by Green, de Azevedo, Patten, Davies, Ibeto and Cox (2014) established that in regions where the HIV burden placed large demands on health services, nurse mentoring assisted in ensuring system efficiency for task shifting.

General Nurses do not always receive the necessary support from management and colleagues when providing care to mentally ill patients who are living with HIV (Chorwe-Sungani, Shangane and Chilinda, 2013).

4.4.2 Support received from colleagues

Few participants in this study say that they receive support from their colleagues in managing clients with HIV/AIDS. This is supported by the following quotes

The participant explained that**:**

> *"Yes, I get support. More especially on the most difficult cases, I take it to the management office or my colleagues so that they help me to explain to the patient. Because sometimes they can come with other strategies*."

The participant said that:

> "*But if I'm facing a difficult situation, I can tell them I am having this case and they come and assist me."*

Davies, Homfray and Venables (2013) reported that nurses described receiving support from mentors over the phone and the support proved crucial as it enabled these nurses to gain confidence gradually despite minimal on-site mentorship, and provided the essential opportunity for debriefing.

Callaghan, Ford and Schneider (2010) regarded NIMART as a complex intervention intended to improve health care access and equity, ideally without compromising the quality of care, in resource-limited settings. This requires optimal support from stakeholders such as doctors, medical suppliers, programme funders, community colleagues and patients.

The long waiting times at some ART centres have contributed to high defaulter rates. There is always a long queue and because patients take a lot of time in the consultation room. When it comes to the staff, there is a continuous shortage of professional nurses trained in the NIMART programme.

4.4 Summary

This chapter focused on the presentation and analysis of the data collected from the professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy. Data expressing the same ideas were grouped into superordinate themes, themes and subordinate themes. One superordinate theme and four themes were identified from data analysis, namely: Patients' positive HIV results' impact on the professional nurses, ART related challenges, shortage of resources and manpower, and ineffective support to the professional nurses. The study findings revealed several challenges experienced by professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy. Chapter 5 describes the summary, recommendations and conclusion of the study.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The previous chapter focused on data analysis, interpretation and discussion of the findings. Chapter 5 provide a summary of the study and conclusion limitations and recommendations based on the findings of the study. The purpose of this study was to investigate the experiences of professional nurses caring for HIV/AIDS clients on Universal, Test, Treat and Retain strategy in Vhembe District, South Africa.

5.2 Purpose of the study

The purpose of the study was achieved as the experiences were determined through individuals which were guided by the grand tour question which was constructed under the supervision of the research supervisor.

5.3 Objective of the study

An objective of the study was to explore and describe experiences of professional nurses caring for HIV/AIDS clients on Universal, Test, Treat and Retain strategy in Vhembe district, South Africa. The researcher explored the experiences of professional nurses trained on the NIMART programme caring for HIV/AIDS patients. Professional nurses described their experiences of numerous challenges related to denial of HIV positive results by the patients and inadequate support from friends and managers. The experiences of the professional nurses caring for HIV/AIDS patients on the Universal, Test, Treat and Retain strategy were explored and described.

5.4 Summary of the study

The study employed a qualitative research approach with a phenomenological design. The choice of the study was congruent with the stated objectives. Permission to conduct the study was sought from the University of Venda's Ethics Committee, the Provincial Department of Health, Vhembe district office and the operational managers of the four-selected community health centres in Vhembe district. Informed consent

was obtained from the participants giving the researcher permission to conduct interviews.

This study was conducted at Mutale, Thohoyandou, Tshilwavhusiku and Bungeni community health centres in Vhembe district of Limpopo Province, SA. The researcher explored challenges experienced by professional nurses caring for HIV/AIDS clients on Universal, Test, Treat and Retain strategy. The method of data collection was using unstructured in-depth individual interviews. The primary data source was professional nurses from 31-52 years of age caring for patients on Universal, Test, Treat and Retain strategy. The target population were selected from the population using the non-probability purposive sampling technique. The significance of the study was explained about the objectives in detail. Data saturation for the study was reached after 11 participants were interviewed.

Data collection occurred concurrently with data analysis (Cresswell, 2014). Data were transcribed verbatim and transcripts were coded using an independent coder. Tesch eight steps of systematic open-coding were accomplished to support the formalization of proven, meaningful patterns (Cresswell, 2014). The researcher ensured measures of trustworthiness by using credibility, dependability, transferability and confirmability.

The study findings were categorised into two superordinate themes, four themes and nine subordinate themes on the challenges experienced by professional nurses caring for HIV/AIDS patients and inadequate support from colleagues and managers. Professional nurses trained on

NIMART programme caring for HIV/AIDS patients experience denial to start ARVs by the patients, delay to take ARVs. All participants interviewed were from community health centres in the Vhembe district namely Bungeni, Mutale, Tshilwavhusiku and Thohoyandou. Demographic data and summary of the findings are explained as follows

5.4.1 Demographic data

The researcher interviewed 10 females and one male between the ages of 31-52 years who were caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy. All participants interviewed were from the four Community Health Centres in Vhembe District of Limpopo Province, SA.

5.4.2 Challenges experienced by professional

The findings of the study revealed that professional nurses experience enormous challenges namely: Patients' positive HIV results impact on the professional nurses, ART related challenges, shortage of resources and manpower and ineffective support to professional nurses.

5.4.2.1 Patients' positive HIV results impact on the professional nurses

According to professional nurses, patients' response towards HIV results in various ways. Some of the patients do not believe that they are HIV positive hence causing emotional stress to the professional nurses.

Denial of HIV positive results

The findings revealed that some of the patients deny their HIV positive results. Professional nurses stated that patients who deny their HIV positive results visit various CHCs facilities to be tested again to confirm the results.

Emotional stress

The denial of HIV positive status by the patients caused emotional to the professional nurses. The professional nurses explained that patients who receive HIV positive results become more emotional and start to cry and some end up refusing to start ARV's. When the patients cry, the professional nurses get stressed and finally become depressed. After all the exhausting and stressful situations, there is no platform to discuss health aspects like debriefing sessions.

5.4.2.2 ART related challenges

Professional nurses revealed that patients refuse to be initiated on ART and verbalize that they are not ready as they are not sick and they came for minor ailments and family planning. It was identified that some of the patients delayed starting ARV's because of believing in religion and others in ancestors. Patients lacked knowledge about the progression of HIV medicine, the benefits of prompt ART initiation upon diagnosis as well as the availability of ARVs. ART related challenges included, denial to initiation of ART, delay to start taking ART and non-adherence to ART.

Denial to initiation of ART

Professional nurses stated that patients deny starting ARV's as they do not want to take them for life. Fear of patients disclosing HIV positive status to their sexual partners and lack of trust towards them was a hindrance**.**

Delay to start taking ART

Professional nurses some of the patients who delay starting ARV's described the challenge of embarking on lifelong therapy. Lack of information about ART by patients is an important delay in starting ART. Some of the clients complained about having to start medication without a full understanding of adherence requirements and for how long they will be needed to take treatment

Non-adherence to ART

Professional nurses indicated that patients were facing an acute economic challenge. They could not afford to pay money for transport to go to the hospital to collect the medication. That consequently resulted in non-adherence to the medication. A study, conducted in South Africa on patients who missed follow up appointments, highlights financial difficulties to be the leading cause of the problem since 34% of those who missed their appointment said it was because of financial problems (Maskew, MacPhail, Menezes & Rupel, 2007. Malinga, 2009) also supported that the transport to PHC facility to access ARVs is one of the biggest challenges facing people in Katina with HIV/AIDS (Uganda). Failure to collect ARVs on time has consequences in the long run. In many cases, some patients did not have money to pay for their transport and had to walk to CHC facilities or go to a hospital for collection. Subsequently, the tendency for defaulting collection resulted in non-adherence to medication.

5.4.2.3 Shortage of resources and manpower

- **Shortage ARVs**

Professional nurses complained that shortage of resources affect the implementation of the Universal Test, Treat and Retain strategy. They expressed feelings of hopelessness when they saw some of the patients relapsing resulting from a shortage of ARVs. ARVs such as Efavirenz was out of stock in the CHCs around the Vhembe district of Limpopo province. It was difficult for nurses when they counted the pills for

a week. Professional nurses requested the patients to return for ARVs that were out of stock. Mnyaka, Mabunda, Chitha, Nomatshila, and Ntlongweni (2021) supported that there is a shortage of resources, for instance, ARV's medication and other commodities act as barriers to ARV initiation, which made it difficult for professional nurses to provide quality patient care. Shortages existed due to either lack of support from the DoH and poor supplies by medical stores (Makhado and Davhana-Maselesele 2016; Davies et al., 2013)

- **Shortage of manpower**

Professional nurses' health care services to patients on Universal, Test, Treat and Retain strategy is compromised by shortage of manpower. The shortage of professionals trained in the NIMART programme is a concern. The statistic of patients diagnosed with HIV/AIDS on Universal, Test, Treat and Retain strategy is increasing yearly (see table 1.1) hence increased workload when the professional nurses implement the NIMART programme as required by the policy of increasing the chances of success. The same sentiment was shared in the study conducted by Berg and Nilsson (2015) that there is a shortage of staff, which increases the rate of absenteeism as the workload is very high, which made it difficult for nurses to provide quality patient care because nurses are always stressed by workload and shortage of staff, whereas patients are many (Berg and Nilsson 2015).

5.4.2.4 Ineffective support to professional nurses

- **Support received from the managers**

The findings revealed that nurses lack motivation in their workplace, they reported that they work very hard in a stressful environment and there is no support from the management. The study findings revealed that there is no counselling or debriefing session. Professional nurses expect support from supervisors and managers. The in-service training increases knowledge of Universal, Test, Treat Retain hence increasing the confidence. They need to be afforded professional support. They want to be trained in matters related to HIV/AIDS. Chorwe-Sungani, Shangane, and Chilinda (2013) claimed that professional nurses are not afforded the support when caring for people living with HIV and AIDS with mental illness.

- **Support received from colleagues**

Lack of support for nurses is one of the major challenges that affected Universal Test, Treat and Retain strategy implementation. If poorly managed, Universal, Test, Treat and Retain strategy implementation risks inadequately supported nurses providing suboptimal care, negatively impacting patient outcomes, staff confidence, morale and broader health care services (Davies et al., 2013). In this study, few participants revealed that they get support from colleagues. George et al. (2012) indicated that nurses in their study felt that commitment often had negative effects on their well-being they felt that they needed much more support to sustain their CHC facilities work, and that middle and upper management layers were uninterested, or unable to provide this support, or both.

5.5 Recommendations of the study

The recommendations made by the researcher focussed on further research, community structures, shortage and support

5.5.1 Recommendations related to further research

- The same study could be conducted in some other districts of Limpopo province.
- The study could be conducted in urban provinces in South Africa.
- A quantitative approach may be obligatory to supplement these preliminary findings and should involve health care to substantiate the findings.

5.5.2 Recommendations related to community structures

The researcher recommends that respective stakeholders such as churches, education, women and traditional leaders.

- **Churches:** There should be an awareness by the church leaders related to the Universal, Test, Treat Retain strategy.
- **Education:** The educators should be well educated about Universal, Test, Treat and Retain strategy and assist learners to diagnosed with HIV/AIDS.
- **Health care workers:** The health worker should inform youth about the impact of indulging in early sexual activities to prevent transmission of HIV.

- **Traditional leaders**: Traditional leaders to be equipped with knowledge on Universal, Test, Treat and Retain strategy.

5.5.3 Recommendations to address a shortage of material resources

- Shortage of resources such as pharmaceutical and equipment should be attended to improve Universal, Test, Treat and Retain strategy.
- The budget allocated for Universal Test, Treat and Retain strategy to be used for its purpose.

5.5.4 Recommendations to address a shortage of manpower

- The CHCs nurse managers should motivate for the employment of more professional nurses to be trained on NIMART programme
- The SA nurse-patient ratio should be taken into implemented to maintain quality health care services

5.5.5 Recommendations for enhancing support

- Provision of debriefing programmes for professional nurses in coping with traumatic events
- Emotional support for professional nurses should be provided regularly.
- Provision of training and development of other professional nurses in the management and different regimen treatments of HIV/AIDS.
- Nurse Managers to strengthen team-building between professional nurses and operational managers.
- Regular meetings should be held between nurse managers and staff members concerning patient care and management.

5.6 Delimitation and limitations of the study

Delimitation is referred to as those characteristics or boundaries set by the researchers to restrict the population to a homogeneous group of subjects to narrow the scope of a study (Cresswell, 2013). The researcher only included the professional nurses trained on the NIMART programme employed in the Vhembe district CHCs. Burns and Groove (2013), describe limitations as the restrictions or problems in a study that may decrease the generalizability of the findings. Interviews were conducted during the

level 3 lockdown COVID 19 pandemic. Professional nurses were very busy due to the increased number of patients diagnosed with COVID- 19. Some of them could not give the researcher time for an interview as there were attending to a long queue of patients. The researcher had to make new arrangements with the professional nurses telephonically. The study, findings may not be generalised since it was conducted in one district of Limpopo province.

5.7 Plan for Dissemination and implementation of results

The final report of the study will be submitted to the chief district executive officer of the Vhembe district. The report and recommendations will be thoroughly discussed with the DEM. The report will also be given to the CHC's committee and operational managers during the meeting. The findings of the study will be presented at seminars, workshops and conferences. Articles will be published in accredited journals.

5.8 Contribution of the study

The study findings revealed that some of the patients become emotional to an extend of killing those who infected them.

5.9 Conclusion

The purpose of the study was to investigate the experiences of professional nurses caring for HIV/AIDS clients on Universal, Test, Treat, Retain strategy at Vhembe district of Limpopo province, South Africa. The objectives of the study were to explore and describe the experiences of professional nurses caring for HIV/AIDS patients on the Universal Test, Treat and Retain strategy. However, professional nurses trained on NIMART face difficult situations, denial of HIV positive results by the patients and refusal to be initiated on ART. Shortage of ARV's and manpower give rise to many challenges, there is the risk of patients developing a resistance to medication by increasing viral load. That subsequently make them more vulnerable to some opportunistic infections. The shortage of NIMART-trained nurses persists and cause delays in the initiation of patients. There was a lack of support in most of the CHC's facilities and this affected the implementation of the programme negatively. Professional nurses trained on the NIMART programme experience several challenges, including insufficient staffing, unmanageable workloads and burnout,

emotional stress, lack of support and shortage of ARV's. Some of the nurse managers are not trained in the NIMART programme.

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ANNEXURE A: Permmision to conduct research from UNIVEN

ETHICS APPROVAL CERTIFICATE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Ms TE Luvhengo

STUDENT NO:
17015232

PROJECT TITLE: **Experiences of professional nurses caring for HIV/AIDS clients on universal test, treat and retain strategy in Vhembe district, South Africa.**

PROJECT NO: SHS/20/PDC/01/0104

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr ND Ndou	University of Venda	Supervisor
Dr KG Netshisaulu	University of Venda	Co - Supervisor
Ms TE Luvhengo	University of Venda	Investigator – Student

Type: Masters Research
Risk: Minimal risk to humans, animals or environment
Approval Period: May 2020 – May 2022

The Human and Clinical Trails Research Ethics Committee (HCTREC) hereby approves your project as indicated above.

General Conditions
While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following.

- The project leader (principle investigator) must report in the prescribed format to the REC:
  - Annually (or as otherwise requested) on the progress of the project, and upon completion of the project
  - Within 48hrs in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
  - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project. The project leader must apply for approval of these changes at the REC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date; a new application must be made to the REC and new approval received before or on the expiry date.
- In the interest of ethical responsibility, the RECs retains the right to:
  - Request access to any information or data at any time during the course or after completion of the project,
  - To ask further questions; Seek additional information; Require further modification or monitor the conduct of your research or the informed consent process.
  - withdraw or postpone approval if:
  - Any unethical principles or practices of the project are revealed or suspected.
  - It becomes apparent that any relevant information was withheld from the REC or that information has been false or misrepresented.
  - The required annual report and reporting of adverse events was not done timely and accurately.
  - New institutional rules, national legislation or international conventions deem it necessary

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE
Date Considered: May 2020

Name of the HCTREC Chairperson of the Committee: Prof Sonto Maputle

Signature:

Director Research and Innovation

Signature:

Date: 26 May 2020

Date: 26 May 2020

ANNEXURE B: Letter of permission to the Provincial Department of Health

P.O Box 864
Nzhelele
0993

Provincial Department of Health
Research ethical committee
Polokwane
0700

Request for permission to conduct research.

Topic: Experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South Africa

Dear sir/madam

I Luvhengo Tshisaphungo Elisah a Masters student at the University of Venda request permission to conduct research at the district community health centres in Limpopo Province.

The title of the study is **"Experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South Africa**

The purpose of the study

The study aims to investigate experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South AFrica

The significance of the study

- The research findings could be used to develop a support system for the nurses providing services to HIV/AIDS clients.

If you have any queries on the matter which is not reflected in this correspondence, the contact details are as follows:

Researcher : Luvhengo TE
Cell number : 0763036926 E-mail : luvhengoelisah@gmail.com
Thank you in anticipation

ANNEXURE C: Aproval from Department of Health

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

Ref	:	LP- 2020-06-001
Enquires	:	K. Letseparela
Tel	:	015-293 6028
Email	:	Kurhula.Hlomane@dhsd.limpopo.gov.za

Ms Luvhengo T. E

PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

Experiences of professional nurses caring for HIV/AIDS clients on universal test, treat and retain strategy in Vhembe District, South Africa

1. Permission to conduct research study as per your research proposal is hereby Granted.
2. Kindly note the following:
   a. Present this letter of permission to the institution supervisor/s a week before the study is conducted.
   b. In the course of your study, there should be no action that disrupts the routine services, or incur any cost on the Department.
   c. After completion of study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
   d. The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   e. The approval is only valid for a 1-year period.
   f. If the proposal has been amended, a new approval should be sought from the Department of Health
   g. Kindly note that, the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated

Head of Department

24/07/2020
Date

Private Bag X9302 Polokwane
Fidel Castro Ruz House, 18 College Street. Polokwane 0700. Tel: 015 293 6000/12. Fax: 015 293 6211.
Website: http/www.limpopo.gov.za

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ANNEXURE D: Letter of permission to Vhembe District Department of Health

P.O Box 864
Nzhelele
0993

Enquiries: Luvhengo
Cell: 0763036926
E-mail: luvhengoelisah@gmail.com

Requisition for permission to conduct research: Vhembe District Department of Health Ethical Committee.

I Luvhengo Tshisaphungo Elisah a Masters student at the University of Venda request permission to research the district community health centres in Limpopo Province.

The title of the study is **"Experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South Africa"**

The purpose of the study: The study aims to investigate the experiences of professional nurses caring for HIV/AIDS patients on the Universal Test, Treat and Retain strategy in the Vhembe District. This will be achieved through exploring and describing the experiences of professional nurses caring for HIV/AIDS patients on the Universal Test, Treat and Retain strategy.

The significance of the study: The findings may inform the nurse manager about the experiences of NIMART professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe District. The research findings could be used to develop a support system for the nurses providing services to HIV/AIDS patients. The findings will contribute to the body knowledge and form the basis from which further research can be conducted locally, nationally and internationally.

If you have any queries on the matter which is not reflected in this correspondence, the contact details are as follows:

Researcher: Luvhengo
Cell number: 0763036926

E-mail: luvhengoelisah@gmail.com Thank you in anticipation

ANNEXURE E: Letter seeking consent from the community health centres.

P.O. BOX 864

Nzhelele

0993

The Operational Manager

Community health centres in the Vhembe District

Limpopo

Request for permission to conduct research.

I Luvhengo Tshisaphungo Elisah a Magisterial Curations student at the University of Venda request permission to research a requirement for my studies.

The title of the study is **"Experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South Africa"**

The purpose of the study is to investigate the experiences of professional nurses caring for HIV/AIDS patients on the Universal Test, Treat and Retain strategy in Vhembe District. This will be achieved through exploring and describing the experiences of professional nurses caring for HIV/AIDS patients on the Universal, Test, Treat and Retain strategy. The findings may inform the nurse manager about the experiences of NIMART professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe District. The policymakers will be enlightened about hands modification of the policies on Universal, Test, Treat and Retain strategy.

Thanking you in anticipation

…… …… ……..

Luvhengo T.E (Researcher) Student no Date ……

ANNEXURE F: Consent form

RESEARCH ETHICS COMMITTEE

UNIVEN INFORMED CONSENT

LETTER OF INFORMATION

Title of the Research Study: Experiences of professional nurses caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy in Vhembe District, South Africa

Principal Investigator/s/ researcher: Luvhengo Tshisaphungo Elisah

Co-Investigator/s/supervisor/s : Dr N.D Ndou and Netshisaulu KG.

Brief and Purpose of the Study: Due to a high number of patients diagnosed with the Human immunodeficiency virus in public health care facilities, nurses experience more stress, fatigue and burnout. The purpose of the study is to determine the experiences of professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe District, South Africa.

Outline of the Procedures: Participants who met the inclusion criteria and agree to participate in the study will be contacted telephonically before the interview and clarifying of questions. The researcher will make appointments with individual participants in advance to set the date, time and venue for the interview. The researcher will explain the ethical issues like confidentiality, issues of benefits and voluntary participation and the right to withdraw from participating without giving any reasons. Permission for audio recording will be obtained from each participant. The interview of each participant will last for 30 - 45 minutes. The researcher will conduct in-depth one to one interviews with professional nurses as it allows the researcher to pose questions to participants to learn more about the experiences. An interview guide with one central question will be used for all participants. Then probing questions will be asked, determined by the response from the participants. An interview session will last for 30-45

minutes. This study will focus only on those aspects which are related to the phenomenon under investigation, without the researcher losing focus.

Risks or Discomforts to the Participant: No invasive procedures will be done to the participants but in case of adverse reaction the participants will be taken to the Doctor while reporting to the operational manager of the institution, the participants will be withdrawn from the study.

Benefits: The findings may inform the nurse manager about the experiences of NIMART professional nurses caring for HIV/AIDS patients on Universal, Test, Treat and Retain strategy in Vhembe District. The policymakers will be enlightened about hands modification of the policies on Universal, Test, Treat and Retain strategy. The research findings could be used to develop a support system for the nurses providing services to HIV/AIDS clients. The findings will contribute to the body knowledge and form the basis from which further research can be conducted locally, nationally and internationally.

Reason/s why the Participant May Be Withdrawn from the Study: The participant has the right to withdraw at any stage of the research if you wish to do so. There is no harm or threats expected in participating in the study or to withdraw from the study

Remuneration: No remunerations will be offered.

Costs of the Study: Participants will not be expected to pay anything towards the study.

Confidentiality: To ensure confidentiality, the Interview will take place in a quiet private place

Your anonymity will also be safeguarded by using pseudo names throughout the study.

No information will be linked to your name.

Research-related Injury: In case of research-related injury, the researcher will withdraw the participant from the study, refer to the Doctor and report the event to the managers of the institution and my supervisors at UNIVEN for assistants. No compensation is available.

Persons to Contact in the Event of Any Problems or Queries:

Please contact the researcher Luvhengo TE at (0763036926) my supervisor DR N.D Ndou at (tel no.060 613 5281) or the University Research Ethics Committee Secretariat on 015 962 9058. Complaints can be reported to the Director: Research and Innovation, Prof GE Ekosse on 015 962 8313 or Georges Ivo.Ekosse@univen.ac.za

General:

Potential participants must be assured that participation is voluntary and the approximate number of participants to be included should be disclosed. A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, (*Luvhengo Tshisaphungo Elisah*), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: I have also received, read and understood the above-written information (*Participant Letter of Information*) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research that may relate to my participation will be made available to me.

Full Name of Participant Date Time Signature

I,…… …… ……. ……..

(*Name of the researcher*) herewith confirm that the above participant has been fully

Informed about the nature, conduct and risks of the above study.

Full Name of Researcher

Luvhengo Tshisaphungo Elisah Date**……..**

Signature**……**

Full Name of Witness (If applicable)

…… Date **……** Signature**……..**

Full Name of Legal Guardian (If applicable)

..... Date..... Signature.....

ANNEXURE G: Grandtour question

"*May you please share with me your experiences as a professional nurse caring for HIV/AIDS patients on Universal Test, Treat and Retain strategy*?"

ANNEXURE H: Permission to conduct the study from the district.

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OFHEALTH
VHEMBE DISTRICT

Ref: S5/6
Enq: Muvari MME
Date: 03.08.2020

Dear Sir/Madam. LUVHENGO T.E

Permission to conduct a research on the
"Experiences of professional nurses caring for HIV/AIDS clients".

1. The above matter refers.

2. Your letter received on the 03.08.2020 requesting for permission to conduct a research is hereby acknowledged.

3. The District has no objection to your request.

4. Permission is therefore granted for the study to be conducted within Vhembe District. You are expected to submit the results to the District.

5. You are however advised to make the necessary arrangements with the facilities concerned.

Wishing you success in your endeavors.

pp [signature] 05/08/2020
CHIEF DIRECTOR: DISTRICT HEALTH DATE

Private Bag X5009 THOHOYANDOU 0950
OLD parliamentary Building Tel (015) 962 1000 (Health) (015) 962 4958 (Social Dev) Fax (015) 962 2274/4623
Old Parliamentary Building Tel: (015) 962 1848, (015) 962 1852, (015) 962 1754, (015) 962 1001/2/3/4/5/6 Fax (015) 962 2373, (015) 962 227

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ANNEXURE I: Editing certificate

F&M Editing Services
"Your Success, Our Priority"

Proof of editing

Date: 08 August 2021

This is to certify that I have edited a Maters Dissertation for the following candidate

Name: Luvhengo Tshisaphungo Elisah

Student number: 17015232

Title: EXPERIENCES OF PROFESSIONAL NURSES CARING FOR HIV/AIDS PATIENTS ON UNIVERSAL TEST, TREAT AND RETAIN STRATEGY IN VHEMBE DISTRICT, SOUTH AFRICA

F&M EDITING SERVICES
"Your success our priority"
6746 Pablo Street, Karen Park
Ext 34, Akasia, Pretoria 0118
fmeditingservices@gmail.com

ANNEXURE J: Interview transcript

R: Good morning

P: Good morning

R: How are you doing in this nice weather?

P: I'm good and indeed we have beautiful weather.

R: Like I said last week when I came to ask to do research today about the experience that you have when giving HIV/AIDS treatment. Like I said to you, it is your choice to agree or disagree because I said I'm going to be using a voice recorder when we are having this conversation. When you want to say something you wouldn't want me to record you press here. And if you agree to continue with this conversation, know that there will be no payment for our conversation. And even if you feel like you don't want to continue feel free to let me know so we can stop the conversation. I came to research to know what experience you have when a person came to consult, and you test your patience and the results come out positive and the patient has to start taking HIV/AIDS treatment the same day.

P: I can start by saying, years back we use to first counsel then test our patient. And if they tested positive we take the blood and tell them to come back after seven (7) days. It was simple for us because the person was given time to digest that in his or her mind and the time they come back they will be already accepted that they are HIV and AIDS positive. And by that time they are also ready to start taking treatment. And what we are experiencing now is that when our patient comes to consult and they have to start the treatment the very same day. They don't take the treatment according to the prescription. Some will say I was not ready to take the treatment. After all, I came to consult because I wanted to be treated on what I was having at that time and the time you tell them their result came out positive, they become too emotional in a way that they start crying. And when they are crying, I have to stay calm, relaxes, comfort them, and start the counselling. By telling them that it didn't start with them and it is not the end of the world, there is still life ahead. From there some start to refuse that it is not true, they are not HIV positive left the clinic, they take the treatment home and never use it because they will be telling themselves that I'm not even sick, how I can take the treatment when I'm not sick. And that is what we are experiencing.

R: Mmhhh, even when a patient is not sick, are they supposed to test?

P: Yes, even if they are not sick we encourage them to get tested. They pass by the testing room before they go to the consultation room, because the person may not be aware that they are HIV positive. I must test on the same day. Because some don't come back on their follow updates. And it is very good to start the treatment at an early stage. But it goes with the people understanding, some don't think it is good. It is only a few people who tested positive to accept it on the very same day.

R: When you say, they don't understand, is there anything thing that shows that the person doesn't understand?

P: Ok, let me give you an example, there was this lady who tested positive and took the treatment home but never came back for follow up. We traced the lady and we got her. When we ask her why she never came for follow up. She said she is not sick and she doesn't feel anything. She started the treatment and then she stops because she is not sick. And I can also give the example of a pregnant woman. When they come to book, we have to test them and if they are positive they have to start with the treatment. To protect their babies not to get infected. When they finish their treatment they never come back for follow up. And it is not like all who tested positive take the treatment, some don't agree to take the treatment, they will tell you I'm not taking it because I'm not going to drink it, I will better come back when I'm ready. And some do come back and explain that that day I was very upside down, my head was aching. And I even thought of what people say about this treatment. Some say it makes people go crazy. So today he or she is ready to start the treatment. And some people before use to start taking the treatment, and stop drinking it because of the side effects. They will say when I started I was not sick, but when I started the treatment I started to get sick, so I stopped taking the treatment. And by that, I explained that some do experience the side effect after starting taking the treatment.

R: When you said some refuses, Can you please tell me more about those who refuse to take the treatment the same day?

P: They will tell you that they are not sick and they won't take the treatment. And some will be asking themselves where did I get this? And there was this other lady who came and tested positive. And she said she doesn't understand that she is HIV positive because she is not sick. And only to find out she has tested somewhere before and

even took the treatment but she was not drinking it. Some will test again knowing that they are HIV positive and they are not taking treatment. And you will be surprised when you see their rival load it is very high.

R: I heard you saying that lots of people refuse and some will say they are not sick. And you as a nurse how do you feel about that?

P: It is very much painful for me because you're trying to help your patient and the patient doesn't want your help. But I don't give up, I give them follow updates to come back. So that they can come to understand that there is no other way but to take ARVs.

R: Mmhhh

P: I also tell them that even the side effects of the treatment are for a short time, it will come to end.

R: When you experience painful things, do you get support from your seniors?

P: Yes I get support. More especially on the most difficult case, I take it to the management office or to my colleagues to help me to explain to the patient. Because sometimes they can come with other strategies. Management also assists in follow-ups.

R: I heard you say there is a shortage of medication, what else do you run short of?

P: Most medications on ARVs, and in most people in the second line, especially Alluvia and Efavirenz is a challenge. The suppliers are not bringing all things. And now people on the second line it has been weeks without getting their medication. I only give them one week of medication and send them to Donald Fraser hospital. I will be knowing that the viral load is going to start going high because there is a shortage of medication. And the patient when they start afresh with the treatment they will start having side effects again. I understand that there should not be any shortage of drugs in ARVs. Because it is very much stressful.

R: Ok, it is very much understandable things that you are experiencing here. When you want your patient to continue with the treatment and there is a shortage of the medication.

P: Yes, and when you tell them there is no medication, they have to go to the hospital. Some will tell you that they don't have money for transport. It is very much stressing

because some of them are not even working. And I forgot to tell you that it is not all that starts with the treatment the same day. Some I first check them clinically and also test for TB.

R: That means you need support when it comes to making sure there is medication. Thank you very much for your time and for allowing me to have this conservation with you.