FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR
NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL
THERAPY NORTH WEST PROVINCE

By

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THESIS

Submitted in the fulfilment of the requirements for the degree

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In

Nursing Science

at the

SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY

SUPERVISOR: PROFESSOR E J VAN ASWEGEN

CO-SUPERVISOR: DR Y HAVENGA
DECLARATION

I Susan Naude declare that the FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY NORTH WEST PROVINCE is my own work and has not been submitted previously to any other institution for any other degree. All the sources used or quoted in the study have been indicated and acknowledge by complete references.

200818354  28 November 2017
Student number  Date

Susanna Maria Naudé
ABSTRACT

The extent of the HIV/AIDS epidemic in South Africa necessitated the shifting of initiation of antiretroviral therapy (ART) from hospital-based by medical practitioners to primary health care level by nurses to improve access to this lifesaving intervention. The purpose of this concurrent triangulation mixed method design was to develop a framework to empower professional nurses for nurse-initiated management of antiretroviral (NIMART) therapy in primary health care facilities in the North West Province.

Phase one consisted of a literature review on World Health Organization (WHO) recommendations and guidelines on task shifting, NIMART, empowerment, and Kanter’s and Spreitzer’s empowerment theories. The literature review was followed by exploring and describing structural and psychological empowerment of professional nurses (n=182) by using the following questionnaires: Conditions of Work Effectiveness Questionnaire and Psychological Empowerment Questionnaire. The background questionnaire described the training, knowledge and perceived competency of professional nurses. Data were analysed using the latest version of SAS software. In-depth interviews (n=20) were employed to obtain the experiences of professional nurses regarding NIMART, what they needed to be empowered to initiate ART and their understanding of empowerment. Four open-ended questions were included in the background information questionnaire that were coded (n= 80) with the interviews (total n=100). Data analysis of qualitative strand entailed Tesch’s method of data analysis and integration with quantitative data and literature.

Chinn and Kramer’s guidelines for framework (theory) development and evaluation were employed in phases two and three. The framework to empower professional nurses for NIMART in PHC facilities in the North West province was developed by adapting Kanter’s and Spreitzer’s empowerment theories.
Integrated data as well as the WHO recommendations and principles were used to contextualise NIMART within the context of task shifting for empowerment.

Peer evaluation of the framework included nurse academics and professional nurses implementing NIMART. The framework was adapted to include the recommendations of the peer evaluators. Finally, an overview, conclusions, limitations of the research, and recommendations for practice, education, research and policy were discussed.

KEY CONCEPTS

Empowerment, nurse-initiated management of antiretroviral therapy, primary health care facilities, professional nurses, psychological empowerment, structural empowerment, task shifting
ACKNOWLEDGEMENTS

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- To the **North West Province** who allowed me to conduct the study in their province.
- **To the professional nurses in the North West Province** who participated in this study for your time and honesty. Without you, this would not be possible.
DEDICATION

This study is dedicated to the professional nurses rendering HIV services and, more specifically, the professional nurses in the North West Province. Lastly, but most importantly, my Heavenly Father who is always present.
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<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
</tr>
<tr>
<td>APC 101</td>
<td>Adult Primary Care (PC 101)</td>
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<tr>
<td>ART</td>
<td>Antiretroviral therapy</td>
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<tr>
<td>ARV</td>
<td>Antiretroviral</td>
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<td>CHC</td>
<td>Community health centre</td>
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<td>CWEQ-II</td>
<td>Conditions of Work Effectiveness Questionnaire II</td>
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<td>FPD</td>
<td>Foundation for Professional Development</td>
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<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<td>ICN</td>
<td>International Council of Nurses</td>
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<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
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<tr>
<td>MREC</td>
<td>Medunsa Research and Ethical Committee</td>
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<tr>
<td>NCD</td>
<td>Non-communicable disease</td>
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<td>NGO</td>
<td>Non-Governmental Organisations</td>
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<td>NIMART</td>
<td>Nurse Initiated and Managed Antiretroviral Therapy</td>
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<tr>
<td>PEPFAR</td>
<td>President’s Emergency Plan for AIDS Relief</td>
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<td>PEQ</td>
<td>Psychological Empowerment Questionnaire</td>
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<tr>
<td>PHC</td>
<td>Primary health care</td>
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<td>PLWA</td>
<td>People Living With AIDS</td>
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<td>Acronym</td>
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<td>PALSA PLUS</td>
<td>Practical Approach to Lung Health and HIV/AIDS</td>
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<td>QAUL</td>
<td>Qualitative</td>
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<td>QUAN</td>
<td>Quantitative</td>
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<td>SANC</td>
<td>South African Nursing Council</td>
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<td>SD</td>
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<td>STRETCH</td>
<td>Streamlining Tasks and roles to Expand Treatment and care for HIV</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

South Africa has the world’s largest population living with the human immunodeficiency virus (HIV). The Joint United Nations Programme on HIV/AIDS (UNAIDS) (2014b:5) estimated that 6.1 million people in the country were living with HIV in 2014. This number increased to an estimated seven million (6.7-7.4 million) in 2015 (UNAIDS, 2015)

Early diagnosis of infants and children with HIV is essential for survival, as reported by the World Health Organisation (WHO) (2011:159). The report also states that children still going undiagnosed and that “one third of children under the age of one living with HIV will die before one year and almost half of these children will die before they are two years of age” (WHO, 2011:159) if they are not diagnosed and treated correctly with antiretroviral therapy (ART).

Literature supports task shifting for scaling up ART and addresses challenges to scale up ART for eligible patients, such as lack of human resources (medical practitioners) (Cohen, Lynch, Bygrave, Eggers, Vlahakis, Hilderbrand, Knight, Pillay, Saranchuk, Goemaere, Makakole & Ford, 2009; Green, De Azevedo, Patten, Davies, Ibeto & Cox, 2014; Shumbusho, Van Griesven, Lowrance, Turate, Weaver, Price & Binagwaho, 2009) and standardised, competency-based and accredited training (Callaghan, Ford & Schneider, 2010; Van Rensburg, Steyn, Schneider & Loffstad, 2008). Appropriate training, mentoring and supervision are seen as essential strategies for task-shifting (Bedelu, Ford, Hildebrand & Reuter, 2007; Davies, Homfray & Vnables, 2013; Hirschhorn, Oguda, Fullem, Dreesch & Wilson, 2006; Zachariah, Ford, Phillips, Lynch, Massaquoi, Janssens & Harries, 2009:550).

Dohrn, Nzama and Murrman (2009) raised the point that the South African health system has historically been nurse-driven, and the majority of the people
receive their health care from nurses. This statement is affirmed by the National Department of Health (2011b:24) in their human resource planning for health services in South Africa.

Therefore, the aim of this study was to develop a framework to empower professional nurses to render ART to an increased number of people living with HIV and acquired immune deficiency syndrome (AIDS) (PLWA) who need ART in South Africa and are dependent on professional nurses in primary health care (PHC) clinics for their care.

In this chapter, the background that led to the formulation of the research problem, research questions and objectives is explored. An overview of the paradigm, research design and research method is given, as well as the ethical considerations.

1.2 BACKGROUND AND RATIONALE

In the UNAIDS (2014b:5, 9) Gap Report, it was estimated that, in 2013, there were 35 million people living with HIV and 1.5 million AIDS-related deaths worldwide. Sub-Saharan Africa still bears the burden of the epidemic with the region accounting for 24.7 million (71%) of people living with HIV at the end of 2013. Ten countries account for 81% of all people living with HIV in the region and half of those are in only two countries: South Africa and Nigeria (UNAIDS, 2014b:26). Although new HIV infections have decreased in sub-Saharan Africa, South Africa (33%), Nigeria and Uganda represented almost 48% of the 1.5 million new HIV infections (UNAIDS, 2014b:30).

South Africa has the world’s largest population of PLWA. It is estimated that 6.1 million people in the country are living with HIV, representing nearly one sixth of the global disease burden. An estimated 18% of adults in South Africa are infected with HIV (UNAIDS, 2014b:17). The 2015 estimate of PLWA for South Africa increased to seven million (UNAIDS, 2015). AIDS deaths have claimed at least a million lives annually since 1998 in the sub-Saharan region, with 1.7 million people dying in 2005. Although ART became available free of
charge in these countries between 2003 and 2005, there were still 1.5 million deaths related to AIDS in 2013 (UNAIDS, 2014b:9).

The picture for children is even worse, with an estimated 2.6 million children living with HIV in the world and 90% of them living in sub-Saharan Africa (Davies & Pinto, 2015:1). The United Nations Children’s Fund (UNICEF) (2013:2) reports that “overall, ART coverage for children under 15 years old living with HIV in low- and middle-income countries has consistently been around half that for adults at 34 per cent of children in 2012 compared with 64 per cent of adults in 2012”, while UNAIDS (2014b:19) estimates that only 22-26% of children are receiving ART.

ART was launched in the public sector in South Africa in April 2004 and 900 000 PLWA were initiated by doctors in the first six years (Colvin, Fairall, Lewin, Georgeu, Zwarenstein, Bachmann, Uebel & Bateman, 2010:210). To enable expanded access to ART, the South African government changed their policy to allow nurses to initiate ART due to a shortage of doctors in the public sector and an increasing number of people who are eligible for ART (Colvin et al., 2010:210).

The WHO recommendation of initiating ART early, which changed in 2013 from a CD4 cell count of less than 350 cells/µl to a CD4 cell count of less than 500 cells/µl, notably reduces mortality and morbidity, and provides significant benefits in preventing HIV infection and tuberculosis (TB) (WHO, 2013:25). This increases the number PLWA who are eligible for ART. UNAIDS (2014b:19) estimated that 22 million of these were not accessing ART services. In 2014, UNAIDS (2014a:1) announced the 90-90-90 targets, which imply that, by 2020, 90% of people living with HIV must know their status, 90% of the people who are HIV-positive must be on sustainable ART, and 90% of people receiving ART must have viral load suppression. These targets increase the number of PLWA who need to access ART and who need to be on sustainable ART for viral load suppression.
Although there has been a decrease in both the global number of AIDS-related deaths and new HIV infections in the sub-Saharan African region, the growing number of people living with HIV presents new challenges (UNAIDS, 2010:29, 101). Management of people needing ART is one of the challenges, as reflected in the ART coverage, which measures the proportion of people receiving ART as reported in national programmes in relation to the estimated number of people who need it. The national HIV prevalence curve is used to calculate the number of people eligible for ART (UNAIDS, 2011:39).

In December 2010, the estimated coverage for South Africa based on WHO (2010:19) guidelines was only 55% (UNAIDS, 2011:98). In the Gap Report, UNAIDS (2014b:19, A73) estimated that 58% of the South African HIV-positive people who were eligible for ART and 56% of children who were eligible for ART were not on treatment. This was before the Minister of Health’s announcement that the ART guidelines would be adapted and that, from January 2015, the South African guidelines would be in line with the WHO guidelines. In the annual reports from the National Department of Health (2015a:15), there were 3,103,902 clients remaining on ART by the end of March 2015. This increased to 3,407,335 (National Department of Health, 2016b:5) by the end of March 2016, an increase of 303,433 which still leaves more than three million people who are HIV-positive without treatment.

With the 90-90-90 targets from UNAIDS (2014a:1), the burden to initiate ART will increase as the target is that 90% of HIV-positive clients need to be initiated onto ART and 90% of those initiated should have viral load suppression (UNAIDS, 2014a:1).

Currently, there are national protocols and guidelines for initiating and managing patients on ART, but different strategies and programmes are used to train nurses for Nurse Initiated and Managed Antiretroviral Therapy (NIMART). Aspects emphasised in the literature as essential to ensure competent nurses for initiating and management of patients on ART are training, mentoring, supervision and support to be able to perform new tasks with confidence
emerging evidence from the Streamlining Tasks and Roles to Expand Treatment and Care for HIV (STRETCH) trial suggests that NIMART is feasible and acceptable in the public sector, but these findings are based on an intervention model that:

i. Uses an incremental approach to implementation, including an initial phase of external training and support; and

ii. Is based on clinical guidelines tailored to nurses at different levels of care.

Fairall, Bachmann, Lombard, Timmerman, Uebel, Zwarenstein, Boulle, Georgeu, Colvin, Lewin, Faris, Cornick, Draper, Tshabalala, Kotze, Van Vuuren, Steyn, Chapman and Bateman (2012:897-898) explain that the abovementioned trial was implemented in three phases to allow nurses time to gain confidence in initiating ART. They were supported by 24 doctors during the trial after receiving training, as well as a STRETCH team who were responsible for the support during the decentralising phase.

Stender (2011) highlights the following facts regarding NIMART:

- regulations for prescribing by nurses are still outstanding;
- only 1,754 of professional nurses have some type of certification in PHC (clinical skills diagnosing and management of patients);
- 336 professional nurses have some certification in pharmacology training; and
- there is a lack of support from managers, mentorship and resources.
The President’s Emergency Plan for AIDS Relief (PEPFAR, 2011) reported that 7 694 nurses had been trained in NIMART in SA and only 2 646 (34.4%) were initiating ART. In South Africa’s North West Province (henceforth referred to as North West), only 25.5% of the trained professional nurses were initiating ART. This was confirmed by Dr Tumbo, a family physician from the Bojanala district in North West, referring to the current situation in this district where 242 professional nurses had been NIMART trained but only 20 professional nurses were initiating ART (Tumbo, Personal interview, 17 January 2012, Pretoria).

By the end of May 2016, the figures reported by Mutiti (2016) for NIMART-trained professional nurses were as follows:

- Nationally, 18 043 professional nurses were trained in NIMART. Of these, 4 515 (25%) were mentored and only 2 743 (15.2%) were certified.
- For North West, 976 professional nurses were trained in NIMART. Of these, 251 (25.7%) were mentored and only 229 (23.5%) were certified.

No studies could be found that address the problem of nurses being trained for initiating ART but not implementing it. Cohen et al. (2009) suggest that the high workload of nurses, staffing levels, lack of on-going training and mentorship, and lack of confidence remain challenges in scaling up ART. Colvin et al. (2010:211) highlight the risk that nurses will be left to accept the burden of the on-going expansion without sufficient training or support to empower them in a health care system already under significant strain. Other challenges include professional and institutional resistance, the need to sustain motivation, performance, supervision and training (Fulton et al., 2011; Georgeu, Colvin, Lewin, Fairall, Bachmann, Uebel, Zwarenstein, Draper & Bateman, 2012; Zachariah et al., 2009:550, 554).

Shumbusho et al. (2009:1) describe the shortage of human resources for scaling up ART as another challenge, especially in sub-Saharan countries where there is reliance on physician- and hospital-centred care. Decentralising ART services into the communities is needed to improve access for people
living with HIV and AIDS (primary care model). Two of the important interventions highlighted by Mulamba, Fullem, Hirschhorn, Allers, Oser and Rau (2010:2-3) for decentralised care include an enabling environment (relevant policies and legal framework) as well as development of human resource capacity. Mulamba et al. (2010:1) continue to describe that the health workforce should be skilled and comfortable with initiating and monitoring patients on ART. A study done by Fairall et al. (2012:895) in the Free State province in South Africa reports evidence that supports task shifting from doctors to nurses as essential for expanding ART services. In this study, they also highlight some practical problems related to the STRETCH programme, such as hesitation of nurses to initiate ART if they had an option to refer the patient to the doctor, staffing and drug distribution (Fairall et al., 2012:892, 895).

The need to scale up ART in sub-Saharan Africa has highlighted the human resource challenges. One possible strategy to cope with the increasing number of patients is task shifting, as discussed by Van Rensburg et al. (2008) and Zachariah et al. (2009:550). The WHO (2008) defines task shifting as a process of delegation whereby tasks are moved, where appropriate, to less specialised health workers. By reorganising the workforce in this way, task shifting presents a viable solution for improving health care coverage by making more efficient use of the human resources already available and by quickly increasing capacity while training and retention programmes are expanded. The WHO's (2008:3-5) recommendations and guidelines on task shifting and five key principles require country-specific adaptation to support successful national level implementation of the task shifting, and are as follows:

- involvement of stakeholders;
- resources available;
- regulatory framework;
- integration with other basic health services; and
- training of health workers according to need.

The recommendations and principles are discussed in more detail in Chapter 3.
In a systematic literature review, Callaghan et al. (2010) concluded that task shifting is a viable option for sub-Saharan Africa’s human resources crisis in HIV/AIDS care and that, with the necessary training and supervision, non-physician care is equal to the care that doctors provide. In a study done by Sanne, Orrell, Fox, Conradie, Ive, Zeinecker, Cornell, Heiberg, Ingram, Panchia, Rassool, Gonin, Stevens, Truter, Dehlinger, Van der Horst, McIntyre and Wood (2010:38) in Cape Town and Soweto, they concluded that NIMART was not inferior to doctor-monitored ART. This is supported by other literature (Callaghan et al., 2010; Zachariah et al., 2009:553).

To be able to render quality care, Colvin et al. (2010:211) emphasise the importance of adequate training and supervision with the transfer of responsibilities. This is supported by Van Rensburg et al. (2008), who add that HIV/AIDS training should be standardised, competency-based and accredited. Fairall et al. (2012:895) also emphasise the importance of sufficient clinical supervision and management support.

Aspects such as training, mentoring and transfer of responsibilities, discussed by Colvin et al. (2010:211), are also aspects that are necessary for empowerment according to Kanter’s theory of structural empowerment (Laschinger, Finegan, Shamian & Wilk, 2001:261). Laschinger et al. (2001:261) describe access to opportunity as the possibility to increase knowledge and skills that will make professional growth possible, while access to support involves receiving feedback and guidance from peers and superiors. Colvin et al. (2010:2011) refer to this as mentoring. Other conditions described in Kanter’s theory are access to resources and access to information. Access to resources includes financial means, materials, time and supplies required to do the work. Access to information refers to having the formal and informal knowledge that is necessary to be effective in the workplace, technical knowledge and expertise required to accomplish the job, and an understanding of organisational policies and decisions (Laschinger et al., 2001:261).
Structural empowerment (Kanter, in Faulkner & Laschinger, 2008:215) includes access to support (feedback and guidance), resources (time and material to do one’s job), information (technical knowledge and expertise required by one’s position) and opportunity (change to learn and grow and autonomy). These are some of the identified challenges that need to be addressed in NIMART (Cohen et al., 2009; Colvin et al., 2010:211). Laschinger et al. (2001:261) and Steward, McNulty, Griffin and Fitzpatrick (2009:27) suggest that structural empowerment influences psychological empowerment and positive work outcomes.

Other studies link structural empowerment to respect for nurses (Faulkner & Laschinger, 2008:220), burnout (Gilbert, Laschinger & Leiter, 2010), job satisfaction and job stress (Lautizi, Laschinger & Ravazzolo, 2009:446-452; Ning, Zhong, Libo & Qiujie, 2009:2642-2648), and intent to leave current position and/or job (Zurmehly, Martin & Fitzpatrick, 2009:383-391). All this is relevant in the rendering of ART services to patients and keeping trained professional nurses in the PHC facilities.

Psychological empowerment, as described by Spreitzer (1995:1442, 1996:484), consists of meaning (the value of the work being done), self-determination (sense of choice and autonomy over work), competence (self-belief in one’s abilities to complete activities with proficiency) and impact (sense of being able to influence key work outcomes). Empowerment of nurses for NIMART is critical to scaling up ART access for eligible patients in SA.

Steward et al. (2009:27) describe the implications for practice related to structural and psychological empowerment as follows: “study results support the critical importance for the organisation or practice to facilitate both psychological and structural empowerment.” They also refer to relationship between empowerment and work effectiveness, patient care and staff retention. All these aspects are relevant for NIMART to retain skilled nurses and to improve ART coverage in South Africa by empowering professional nurses.
Studies conducted in South Africa related to ART include studies focusing on patient outcomes and studies investigating whether care rendered by nurses is equal to care rendered by doctors (Fairall et al., 2012:889-898; Fatti, Grimwood & Bock, 2010; Sanne et al., 2010:33-39). Other studies have explored expanding ART services, impact on workforce, task shifting and specific initiatives like the PALSA PLUS (Practical Approach to Lung Health and HIV) and STRETCH programmes (Colvin et al., 2010; Fairall et al., 2012; Georgeu et al., 2012; Stein, Lewin, Fairall, Mayers, English, Bheekie, Bateman & Zwarenstein, 2008; Tobi, George, Schmidt & Renton, 2008; Uebel, Fairall, Van Rensburg, Mollentze, Bachmann, Lewin, Zwarenstein, Colvin, Georgeu, Mayers, Faris, Lombard & Bateman, 2011; Van Rensburg et al., 2008). Ruud, Srinivas and Toverud (2012) describe health care providers’ experiences with adverse drug reactions due to ART. Davies et al. (2013) describe the perceptions of professional nurses regarding ART. Some of the challenges mentioned earlier are also highlighted in this study and include lack in human resources, task shifting from doctor to nurses being seen as abuse, and lack of mentoring, support and communication.

Scholarly work in South Africa on empowerment includes studies by Jooste (1997:36, 1999:57-58) with a focus on nurse managers’ empowerment, and by Van der Merwe (1999:1272-1279), who summarises her findings as follows:

    Registered nurses created their own freedom, often away from their men as in divorce, and sought solutions concerning powerlessness in more distant terms. They communicated a sense of empowerment in terms of education and personal qualities. Culture rather than race was emphasized as an essence of women’s oppression.

Dolamo (1998:54), in her study on nurse managers’ perceptions of job-related empowerment and organisational management, perceived that they were only moderately empowered.
Aspects of the working life of women in the nursing profession in South Africa include barriers in the workplace, career expectations and changes for a better workplace (Erasmus & Brevis, 2005). Stander and Rothmann (2009a, 2009b, 2010) studied psychological empowerment, job insecurity and employee engagement in different organisations. No studies could be found on empowerment for nurses initiating ART.

In other words, while NIMART appears feasible, it results in significant increases in training, clinical support and supervision needs, increased workload on nurses who are already under pressure and in short supply, capacity constraints, as well as shifts in the working and referral relationships between health staff (Colvin et al., 2010:211; Georgeu et al., 2012; Uebel et al., 2011).

1.3 PROBLEM STATEMENT

A comprehensive HIV programme needs to deliver a broad range of interventions covering the continuum of HIV prevention, diagnosis, care and treatment, and should reach diverse populations in many different settings. Initial ART services were highly centralised and specialised, but service delivery has been shifted to a decentralised model that is more suitable for settings with a high prevalence of HIV infection and inadequately resourced health systems (WHO, 2014:101-103).

Initiation of patients on ART was centralised (hospital-based) and doctor-driven in South Africa until 2009-2010. It became evident that, due to a lack of doctors available and hospitals that could not cope with the demand, this approach was failing to reach PLWA in need of ART. Decentralisation of services and utilisation of professional nurses (task shifting) to initiate ART (NIMART) were needed to increase the access to ART.

Dohrn et al. (2009) state “it is clear that nurses have been insufficiently empowered and resourced to play their key roles effectively as highlighted by the HIV epidemic.”
Davies et al. (2013) describe NIMART as a complex intervention intended to improve healthcare access without compromising quality of care in resource-limited settings. Optimal task shifting requires intensive staff engagement, training, mentoring and support, health system strengthening, referral routes, drug supply, and quality assurance. The rapid implementation of NIMART raised questions regarding whether we are meeting the criteria recommended by the WHO (2008:3-5) on task shifting, training, mentoring, strengthening of health systems and referral routes (Davies et al., 2013; Nyasulu, Muchiri, Mazwi & Ratshefola, 2013:235).

1.4 RESEARCH QUESTIONS

In response to the problem, the following research questions were posed:

- What is the role of task shifting, NIMART, structural and psychological empowerment on nurses according to a literature review?
- How empowered are professional nurses in PHC facilities in North West?
- What are the experiences of professional nurses in PHC facilities of NIMART in North West?
- What do professional nurses in PHC facilities in North West need to empower them for NIMART?
- What is the professional nurses’ understanding of empowerment?

1.5 PURPOSE OF THE STUDY

The purpose of this study was to develop a framework to empower professional nurses for NIMART in PHC facilities in North West Province.

1.6 OBJECTIVES OF THE STUDY

Phase one: Empirical research

1. To explore and describe the concepts of task-shifting, NIMART, structural and psychological empowerment on nurses according to the literature review.
2. To explore and describe the structural and psychological empowerment of professional nurses in PHC facilities in North West Province.

3. To explore and describe the professional nurses' experiences of NIMART in PHC facilities in North West Province.

4. To explore and describe what professional nurses need to empower them for NIMART in PHC facilities in North West Province.

5. To explore and describe the understanding of empowerment of professional nurses working in PHC facilities in North West Province.

**Phase two: Conceptualisation and framework development**

6. To develop a framework to empower professional nurses for NIMART in PHC facilities in North West Province.

**Phase three: Evaluation of framework.**

7. To have the framework evaluated by peers and experts in the field of NIMART and adapt where necessary.
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<th>Research questions</th>
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<td><strong>Phase one: Literature review empirical research</strong></td>
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<tr>
<td>What is the role of task shifting, NIMART, structural and psychological empowerment on nurses according to a literature review?</td>
<td>1. To explore and describe the concepts of task-shifting, NIMART, structural and psychological empowerment on nurses according to the literature review.</td>
<td>Literature review.</td>
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<td>How empowered are professional nurses in PHC facilities in North West?</td>
<td>2. To explore and describe the structural and psychological empowerment of professional nurses in PHC facilities in North West.</td>
<td>Conditions of Work Effectiveness Questionnaire II (CWEQ-II) (Annexure G) Psychological Empowerment instrument (PEQ) (Annexure H).</td>
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<td>What is the professional nurses’ understanding of empowerment?</td>
<td>3. To explore and describe the understanding of empowerment by the professional nurses working in PHC facilities in North West.</td>
<td>In-depth interviews (Annexure I) and open questions in background questionnaire (Annexure F).</td>
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<td>What are the professional nurses’ experiences of NIMART in PHC facilities in North West?</td>
<td>4. To explore and describe the professional nurses’ experiences of NIMART in the PHC facilities in North West.</td>
<td>In-depth interviews (Annexure I) and open questions in background questionnaire (Annexure F).</td>
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<td>What do professional nurses in PHC facilities in the North West Province need to empower them for NIMART?</td>
<td>5. To explore and describe what professional nurses need to empower them for NIMART, in the PHC facilities in North West.</td>
<td>In-depth interviews (Annexure I) and open questions in background questionnaire (Annexure F).</td>
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<td><strong>Phase two: Conceptualisation and framework development</strong></td>
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<td>6. To describe concepts and develop a framework to empower professional nurses in the PHC facilities in North West Province for NIMART.</td>
<td>Data obtained from literature review and empiric data were used to describe concepts relationship between concepts and develop the framework.</td>
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<td>7. To have the framework evaluated by peers and experts in the field of NIMART and adapt where necessary</td>
<td>Peer evaluation instrument (Annexure N).</td>
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1.7 PARADIGM

Creswell and Plano Clark (2011:39) describe a paradigm (worldview) as a set of basic beliefs and values that will direct the research. In this study, the researcher utilised a pragmatic view which is pluralistic and orientated towards what works in the practice. The focus in this paradigm is on the question asked and not on methods; thus, multiple research methods are used to answer the research questions. The approach in this study is illustrated in Figure 1.1.

![Figure 1.1 Research paradigm](image)

1.7.1 Ontological assumptions

Ontological assumptions refer to what we believe the nature of reality to be (Biesta, 2010:194).
The researcher’s argument is the pragmatic claim that knowledge arises out of actions, situations and consequences, and is concerned with applications, in other words what works or what the solution for a problem is. Instead of focusing on methods, the emphasis is on the research problem and all approaches available are used to understand and solve the problem (Creswell & Plano Clark, 2011:41).

The ontological assumptions underlying this study were that there are various realities that allow the researcher the freedom of choice to select methods, techniques and procedures that will work to answer the research questions. Both quantitative and qualitative methods for data collection and analysis were utilised in order to understand the research problem (Biesta, 2010:95; Creswell & Plano Clark, 2011:41).

The pragmatic approach provided the researcher with the opportunity to conduct the research by employing a quantitative method to measure the structural and psychological empowerment of professional nurses and a qualitative method to describe the experiences and identify the needs of professional nurses for NIMART to develop a conceptual framework for empowerment for NIMART. Utilising mixed methods allowed the researcher to study both the objective and subjective data, and to triangulate these data to understand the research question better (Biesta, 2010:95; Creswell & Plano Clark, 2011:41).

1.7.2 Epistemological assumptions

Epistemological assumptions are what we believe can be known about reality and the best ways of coming to know (Biesta, 2010:95).

The best way of coming to know the reality of empowerment is to explore a theoretical framework or model that addresses structural and psychological empowerment.
1.7.2.1 Theoretical frameworks and models

Theoretical assumptions are a reflection of the researcher's view of truthful or valid knowledge, which can be based on theories, conceptual frameworks or models. Theoretical assumptions are epistemic in nature and are subject to testing with the intention of clarifying the research problem (Creswell, 2009:11).

The epistemological assumptions of this study were based on Kanter's theory for structural empowerment, developed in 1977, and Spreitzer's (1995) theory of psychological empowerment in the workplace. Kanter's and Spreitzer's theories of empowerment formed the basis of the theoretical framework for this study. These theories were tested and expanded by Laschinger to a model of empowerment (Laschinger et al., 2001:261; Smith, Andrusyszyn & Laschinger, 2010:1006), as shown in Figure 1.2 below.
Figure 1.2  Expanded model of empowerment

The focus of this study was the empowerment of nurses for NIMART. The framework was adapted and excluded positive work behaviours and attitude as described in Laschinger’s model (Laschinger et al., 2001:261; Smith et al., 2010:1006). Figure 1.3 shows the theoretical framework.
Figure 1.3 Theoretical frameworks for empowerment

Both theoretical frameworks were discussed in chapter 3

i) Structural empowerment

Kanter (1977, in Faulkner & Laschinger, 2008:215) defines power as the “ability to mobilise resources to get things done.” She further states that job characteristics shape the work behaviour and attitudes of employees, which either restrict or support work performance. She argues that the influence of organisational structure is far more important than the workers’ personality traits when it comes to employees’ organisational behaviour (Cai & Zhou, 2009:398; Casey, Saunders & O’Hara, 2010:25; Faulkner & Laschinger, 2008:215;
Laschinger et al. (2001:261), Laschinger, Finegan, Shamian and Wilk (2004:527-528), and Smith et al. (2010:1005) report that power arises from both formal and informal structures. **Formal power** refers to the job characteristics that contribute to job recognition within the organisation and are important to the organisation’s goals. **Informal power** refers to development of effective relationships with peers, superiors and subordinates within the organisation (Cai & Zhou, 2009:398; Laschinger, 2008:323; Laschinger et al., 2001:261).

Smith et al. (2010:1005) argue that the structure of power is related to having access to the following in an organisation: information, support, resources, and opportunities to learn and grow, as described by Kanter to facilitate formal and informal power (Casey et al., 2010:23; Faulkner & Laschinger, 2008:215; Laschinger, 2008:323; Laschinger et al., 2001:261; Ning et al., 2009:398; Smith et al., 2010:1005-1006).

The above structures of power are described by Kanter as follows (Casey et al., 2010:23; Faulkner & Laschinger, 2008:215; Laschinger, 2008:323; Laschinger et al., 2001:261; Ning et al., 2009:398; Smith et al., 2010:1005-1006):

- **Information** means having knowledge of organisational decisions, policies and goals, as well as technical knowledge and expertise, to carry out one’s job responsibilities and be effective in the organisation.

- **Support** includes problem-solving advice, feedback and guidance received from superiors, peers and subordinates.

- **Resources** refer to the necessary time, money and materials needed to get the job done effectively and the employees’ capacity to access this.
• **Opportunities** include mobility, growth and advancement in the organisation, as well as opportunities to increase knowledge, skills and professional development.

Kanter’s theory has been tested in different nursing research studies to show the relationship between structural empowerment, job satisfaction, turnover, job autonomy and patient outcomes (Ahmad & Oranye, 2010:590; Armellino, Griffin & Fitzpatrick, 2010:801-802; Cai & Zhou, 2009:398; Carman-Tobin, 2011:135-136).

Kanter’s theory is important for empowering professional nurses for NIMART. If there is a lack of resources, support form management and peers, access to information and opportunities to improve their knowledge and skills, they will not be able to initiate ART. Further consequences can be burnout and turnover, as described by Armellino et al. (2010:801-802).

**ii) Psychological empowerment**

Kanter’s (1977, in Faulkner & Laschinger, 2008:215) theory of structural empowerment focuses only on structural factors and does not pay any attention to personality or individual qualities. The difference between structural empowerment and psychological empowerment is that structural empowerment is the employee’s perception of the empowering characteristics in the workplace or the absence thereof, while psychological empowerment is the understanding or response of the individual employee. Spreitzer (1996:498) suggests a relationship between structural and psychological empowerment.

Thomas and Velthouse (1990:675) and Spreitzer (1995:1442, 1996:484) identified the following concepts in psychological empowerment: meaning, competence, self-determination and impact. In addition, according to Spreitzer (1995:1444), it will also “reflect an active rather than a passive orientation to a work role.”
Spreitzer (1995:1442, 1996:484) describes the four concepts of empowerment as follow:

- **Meaning** involves a fit between the requirements of a work role and one’s beliefs, values and behaviours.

- **Competence** or self-efficacy is one’s belief in one’s capability to perform activities with skill.

- **Autonomy** is one’s perception of control over one’s work.

- **Impact** is a sense of being able to influence important strategic, administrative or operating outcomes in the organisation (Laschinger et al., 2001:261; Spreitzer, 1995:1443, 1996:484).

Laschinger et al. (2001:264-268) expanded Kanter’s theory to include psychological empowerment. They came to the conclusion that that psychological empowerment is a logical outcome of structural empowerment (Laschinger et al., 2004:8) and continue to test structural and psychological empowerment related to different aspects of work behaviour. Organisational empowerment or the lack thereof has been linked to burnout (Harwood et al., 2010:16), work satisfaction (Laschinger et al., 2004:538) and organisational commitment (Smith et al., 2010:1010). The theories of structural and psychological empowerment were expanded by Laschinger et al. (2001:8) into a model as they concluded that the presence of structural empowerment has a positive effect on work behaviours (Smith et al., 2010:1006).

Structural empowerment of professional nurses can lead to psychological empowerment as described by Laschinger et al. (2001:264-268), which can enhance job autonomy as well as patient outcomes, with an increase in people living with HIV and AIDS being initiated on to ART by professional nurses.

1.7.2.2 **Operational definitions of concepts**

The following concepts are central to this study and are defined as follows:
Task shifting

The WHO (2008:7) defines task shifting as the rational redistribution of tasks among health workforce teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health. For example, when doctors are in short supply, a professional nurse could prescribe and dispense ART.

Professional nurses

In this study, a professional nurse is a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability for such professional practice according to registration with the South African Nursing Council (SANC) (South Africa, 2005:25).

In this study, nursing is seen as the use of clinical judgement in the provision of care to PLWA to improve, maintain or recover health, to cope with health problems, and to achieve the best possible quality of life, whatever their disease or disability, until death (Royal College of Nursing, 2003:3).

Nurse-initiated management of antiretroviral therapy (NIMART)

In this study, NIMART is defined as nurse-initiated management of ART to naïve patients. ART according to the WHO consist of the use of at least three antiretroviral (ARV) drugs to maximally suppress the HIV virus and stop the progression of the HIV disease (WHO, 2011).

Empowerment

In this study, empowerment refers to both structural and psychological empowerment as described by Kanter (1977) and Spreitzer (1995) respectively. Spreitzer (1995:1442) describes autonomy, competence, meaning and impact as the four sub-constructs of psychological empowerment, while Kanter
(1977:166, in Faulkner & Laschinger, 2008:215) defines power as the “ability to mobilise resources to get things done.” According to Kanter (Faulkner & Laschinger, 2008:215, 216), there are six conditions for structural workplace empowerment: opportunity, information, support, resources, formal power and informal power.

**Primary health care facilities**

In this study, PHC facilities refer to fixed PHC clinics and community health centres (CHCs).

**1.7.2.3 Methodological assumptions**

Methodology is the science of determining the procedures for scientific investigation (Babbie, 2010:4). Methodological assumptions give direction to the methods within the study and are the logical application of scientific methods to the investigation of phenomena (Babbie, 2010:33). Methodological assumptions have their origin in science-philosophy and direct the research design as the researcher decides on the most suitable design to address the research question (Creswell, 2009:11).

In this study, mixed methods were utilised to collect both quantitative (questionnaires) and qualitative (interviews) data that were triangulated after data analysis.

**1.8 RESEARCH DESIGN**

A convergent parallel mixed methods design (Creswell & Plano Clark, 2011:69) was used. This method is also referred to as a concurrent triangulation mixed methods design (Onwuegbuzie & Combs, 2010:363). Figure 1.4 below illustrates this design.
Figure 1.4  Convergent parallel mixed method design

This research design is discussed in detail in Chapter 2.

1.9 RESEARCH METHOD

The setting, study population and phases of the research are described below.

1.9.1 Setting

The research site was the PHC facilities in the North West. This province has four districts with 390 clinics. Ninety of these clinics are already initiating ART. In the PEPFAR (2011) update on NIMART and mentoring, the percentage of professional nurses who were trained for NIMART and initiating ART varied from 76.7% in the Eastern Cape to only 8.1% in KwaZulu-Natal. North West had the second lowest number of professional nurses who were NIMART trained – 597. Only 25.5% of these nurses were initiating ART at the time (PEPFAR, 2011). Only North West was included in this study because organisational culture and practices may vary from one province to another, which might influence the professional nurses’ response to organisational empowerment.

1.9.2 Study population

For all the phases of the study, the target population was all the professional nurses and managers in the PHC facilities in North West who were willing to participate in the research project.
1.9.3 Phases of research

The study was done in three phases as represented in Figure 1.5. In phase one, the objectives and study design were set out and sample selection, data collection and data analysis were done. Conceptualisation and framework development took place in phase two, utilising all data obtained in phase one. In phase three, the framework was evaluated by experts in NIMART and adjusted.

Reliability and validity of all the instruments are discussed later in this chapter.

Figure 1.5 Phases of research

Phase 1

In this phase, both quantitative (QUAN) and qualitative (QAUL) data were collected. In addition, a literature review was conducted to explore and describe task shifting, NIMART, empowerment, and structural and psychological empowerment. An overview of the research methods is presented in Table 1.2.
Table 1.2  Overview of the research methods

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Empirical research – concurrent triangulation (QUAN + QUAL) mixed methods design</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td><strong>Data collection</strong></td>
</tr>
<tr>
<td><strong>Objective 1</strong></td>
<td>To explore and describe the concepts of task-shifting, NIMART, structural and psychological empowerment on nurses according to the literature review.</td>
</tr>
</tbody>
</table>
### Study design
A quantitative descriptive survey was implemented to explore and describe the organisational and psychological empowerment of nurses in the PHC facilities in the North West Province (objective 2).

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data collection</th>
<th>Population and sample</th>
<th>Data analysis</th>
<th>Reliability and validity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 2</strong>&lt;br&gt;To explore and describe the organisational and psychological empowerment of professional nurses in the PHC facilities in North West.</td>
<td>Questionnaires on background information (see Annexure F); Conditions of Work Effectiveness II (CWEQ-II) for structural empowerment (see Annexure G) and Psychological Empowerment Instrument (PEQ) (see Annexure H) were handed out by the researcher to all professional nurses in PHC facilities that formed part of the study.</td>
<td>Representative sampling of the health care facilities was done to include all four districts (Dr Ruth Segomotsi Mompati, Dr Kenneth Kaunda, Bojanala and Ngaka Modiri Molema). Power analysis was used to determine the sample size of participants based on 2 420 professional nurses in the clinics at a 95% confidence level. Written consent was obtained from participants (Annexure E). This is discussed in detail in Chapter 2.</td>
<td>SAS release 9.0 or higher running under Microsoft Windows for a personal computer was used by the statistician to analyse the data. Descriptive statistics (frequencies, percentages, means and standard deviations) were utilised to describe and compare or differentiate between organisational and psychological empowerment, as well as the biographic and background information. Data were presented in tables and graphs.</td>
<td>CWEQ-II has been studied and used frequently in nursing research since 2000 and has shown consistent reliability and validity of 0.8. This is discussed in detail in Chapter 4.</td>
</tr>
</tbody>
</table>
### Study design
A qualitative (Creswell, 2009:176), descriptive (Babbie, 2010:93) and explorative (Babbie, 2010:92) design was used to explore and describe the professional nurses’ understanding of empowerment (objective 3), their experiences of NIMART (objective 4) in PHC facilities in North West, and what they need to be empowered for NIMART (objective 5). Three open questions were also included in the background questionnaire (questions 11-13 in Annexure E).

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data collection</th>
<th>Population and sample</th>
<th>Data analysis</th>
<th>Trustworthiness</th>
</tr>
</thead>
</table>
| **Objective 3**
To explore and describe the professional nurses’ experiences of NIMART. | Purposive sampling was used to select the sample for the qualitative part of this study. Professional nurses who were interested in participating in the study and who met the specified sampling criteria were included in this study. Interviews were conducted until data saturation occurred. | Semi-structured face-to-face interviews were conducted with professional nurses in the PHC facilities. The interviews were done by the researcher at a time that was convenient for the participants without interfering with service delivery. Interviews were conducted in English and audio recorded after written consent was obtained from participants (see Annexure I). | Tesch’s process of coding, as described by Creswell (2014:198), was used for analysis of the qualitative data. Data were presented in themes, categories and subcategories. Detail discussion follows in Chapter 2. | Trustworthiness was enhanced through credibility, confirmability, dependability and authenticity (Babbie, 2010:276-278; Polit & Beck, 2008:539-540). Detailed discussion follows in Chapter 2. |
| **Objective 4**
To explore and describe what the professional nurses need to empower them for NIMART. | | | |
| **Objective 5**
To explore and describe the professional nurses’ understanding of empowerment. | | | |

### Phase 2
Conceptualisation and framework development

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data analysis</th>
<th>Structuring and contextualising</th>
</tr>
</thead>
</table>
| **Objective 6**
To develop a framework to empower professional nurses for NIMART in PHC facilities in the North West Province. | In this phase, qualitative and quantitative data were triangulated and interpreted. | Purpose of the framework. Identifying and defining concepts. Identifying assumptions. Clarifying the context within which the framework is placed. Designing relationship statements. Structure description. |
<table>
<thead>
<tr>
<th>Phase 3</th>
<th>Evaluation of framework</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td><strong>Evaluation</strong></td>
</tr>
</tbody>
</table>
| Objective 7  
To have the framework evaluated by peers and experts in the field of NIMART and adapt where necessary. | Framework evaluation was done during an individual evaluations and discussion with evaluators. The panel included experts from the HIV and public health field and academia, as well as professional practice experts. | Evaluation instrument was utilised for feedback (Annexure N) and included the following questions:  
How clear is the framework?  
How simple is the framework?  
How general is the framework?  
How accessible is the framework?  
How important is the framework? |
Data analysis

Qualitative data analysis was discussed in Table 1.2 above under objective two (2), while quantitative data analysis was discussed under objective two (3-5).

The two datasets were kept independent during analysis and were only triangulated during the overall interpretation of results using side-by-side comparison (Creswell & Plano Clark, 2011:70-71). This is discussed in detail in Chapter 2.

Figure 1.6 illustrates the data collection methods and the triangulation of data.
1.10 RIGOUR

Rigour refers to reliability and validity (Polit & Beck, 2008:536-537) to ensure the quality of research. These are terms that are used in quantitative research and their application in qualitative research is often debated. Polit and Beck
describe trustworthiness in qualitative research as being parallel to reliability and validity in quantitative research.

1.10.1 Quantitative data

1.10.1.1 Background questionnaire

This questionnaire was piloted with five professional nurses who were not part of this study to ensure correct interpretation of questions.

1.10.1.2 Structural empowerment questionnaire

The CWEQ-II (Laschinger et al., 2001), a modification of the original CWEQ, consists of 19 items that measure the six components of structural empowerment described by Kanter (opportunity, information, support, resources, formal power and informal power), and a two-item global empowerment scale which is used for construct validation purposes.

Items on each of the six subscales are summed and averaged to provide a score for each subscale ranging from 1-5. These scores of the six subscales are then summed to create the total empowerment score (score range: six to 30). Higher scores represent higher perceptions of empowerment. The construct validity of the CWEQ-II was substantiated in a confirmatory factor analysis that revealed a good fit of the hypothesised factor structure. CWEQ-II has been studied and used frequently in nursing research since 2000 and has shown consistent reliability and validity of 0.8.

The questionnaire uses a five-point Likert scale ranging from “none” to “a lot”. Permission to use the questionnaire was obtained from Prof Laschinger (see Annexure H).

This questionnaire was piloted with five professional nurses who were not part of this study to see if they understood the questions and to revise the questions if necessary.
1.10.1.3 Psychological empowerment questionnaire

Spreitzer (1995:1442-1465, 1996:483-504) describes the validation of the PEQ. The instrument has been used successfully in more than 50 different studies in contexts ranging from nurses to low-wage service workers to manufacturing workers. The validity of the instrument has been proven. Test retest-reliability has been shown to be strong and validity estimates for the dimensions are typically around 0.80. A seven-point Likert scale is used ranging from “very strongly disagree” to “very strongly agree”.

This questionnaire was piloted with five professional nurses who were not part of this study to see if they understood the questions.

1.10.1.4 Reliability

Polit and Beck (2012:331-332) describe reliability as the accuracy and stability of data obtained in a study. It is associated with the method that was used to obtain the data as well as the interpretation and statistical analysis of the data. Statistical reliability refers to the possibility that the same results will be obtained with a new group of participants and that the results are an accurate reflection of a wider group of people (Polit & Beck, 2012:331).

Cronbach’s alpha coefficient is a widely-used index to determine the internal consistency of an instrument which compares the sub-constructs with each other during statistical analysis. Normal range of values is between 0.0 and 1.0, and higher values reflect higher internal consistency (Polit & Beck, 2012:333).

The Cronbach’s alpha coefficient of CWEQ-II (Laschinger et al., 2001) varies between 0.68 and 0.88 in different studies (Gilbert et al., 2010:343; Knol & Van Linge, 2008:362; Laschinger, 2008:325), indicating acceptable levels of reliability.

The validation of the PEQ is described by Spreitzer (1995:1442-1465, 1996:483-504). The PEQ has been used successfully in different studies and in different contexts ranging from nurses to low-wage service workers to
manufacturing workers. Stander and Rothmann (2009a) have confirmed the reliability of the instrument, with a Cronbach’s alpha coefficient varying between 0.81 and 0.89. Other studies have reported a Cronbach’s alpha coefficient varying between 0.74 and 0.91 (Knol & Van Linge, 2008:362; Laschinger, 2008:325; Stander & Rothmann, 2010), indicating a high internal consistency.

Other studies have reported a Cronbach’s alpha coefficient varying between 0.74 and 0.91 (Knol & Van Linge, 2008:362; Laschinger, 2008:325; Stander & Rothmann, 2010), indicating a high internal consistency.

1.10.1.5 Validity

Validity is broadly concerns the soundness of the study evidence and whether the method really measures the aspects that it claims to measure. Polit and Beck (2012:236-243) describe content validity; construct validity and statistical conclusion validity as follows:

- **Construct validity** concerns the instrument that is being used and whether it really measures the variables it claims to measure.
- **Content validity** addresses the extent to which an instrument has a suitable sample of items to measure the construct under investigation.
- **Statistical conclusion validity** concerns the validity of interferences that there is really an empirical correlation between the presumed cause and effect.

The items were put through a second-order confirmatory factor analysis ($\chi^2 = 279$, df = 129, CFI = .992, IFI = .992, RMSEA = .054) showing a good fit for structural empowerment (Laschinger et al., 2001). Spreitzer’s Psychological Empowerment Scale is a 12-item tool that uses a 5-point Likert scale used to measure four components of psychological empowerment: meaningful work, competence, autonomy, and impact. Convergent and divergent validity was established in a study by Spreitzer (1995) examining management and non-management personnel. The proposed factor structure was validated by previous data ($\chi^2 = 117$, df = 49, CFI = .996, IFI = .996, RMSEA = .059)
Internationally validated instruments that have been used in nursing studies since 2000 were used to measure structural (CWEQ-II) and psychological empowerment (PEQ) (Barden et al., 2011:215-216; Harwood et al., 2010:15; Knol & Van Linge, 2008:362; Laschinger et al., 2001:265).

Reliability and validity are discussed in detail in Chapter 2.

1.10.2 Qualitative data

1.10.2.1 Measurements to enhance trustworthiness

Trustworthiness was enhanced through credibility, dependability, confirmability and authenticity (Babbie, 2010:276-278; Lincoln & Guba, 1985:289-331; Polit & Beck, 2012:539-585).

a) **Credibility** was assured by prolonged engagement. Time was spent in the PHC facilities to build trust with the participants. During this study, peer debriefing with fellow PhD scholars and supervisors took place on a two-monthly basis to discuss issues related to the study.

    Member checking was done with participants during interviews and after data collection and data analysis to validate that the understanding and interpretation by the researcher was what the participants meant.

    The interview schedule was piloted with five professional nurses who were not part of this study to ensure that the questions were clearly understood and to clarify any misinterpretations.

    Multiple methods of data collection were used for triangulation of data. This included individual interviews, questionnaires and literature review. Data were triangulated during the final interpretation stage of the research as shown in Figure 1.5.

b) **Transferability** was ensured through thick detailed descriptions of the research design, as discussed in Chapter 2. Results are described in depth.
and illustrated with direct quotes from the participants in Chapter 4. Background information of this study was used to provide a dense description of the sample in order to contextualise the findings and increase transferability of the data.

c) **Dependability** focuses on the stability (reliability) of data over time. To ensure this, an audit trail of interviews (audio tapes), data analysis (transcribed interviews) and coding by researcher and an independent coder will be kept safely locked away for five years at a place only known to the researcher. Additionally, field notes were kept to report critical incidents and a daily journal accounted for the process of inquiry.

d) **Confirmability** was ensured through bracketing; the researcher isolated her preconceived ideas about the research subject, kept reflective field notes and clarified data with participants and supervisors to increase the study’s confirmability (Polit & Beck, 2008:539). Additionally, for enhanced objectivity, a reflective diary was kept to reflect on the researcher’s own perceived ideas to address bias.

e) **Authenticity** was achieved by ensuring accuracy and fairness in the reporting of participants’ views, including direct quotes of participants and member checking to confirm the accuracy of the data as well as the researcher’s interpretation of the data.

Measures to ensure trustworthiness are discussed in detail in Chapter 2.

1.11 BIAS

1.11.1 Response bias

Response bias, which is regarded as a type of cognitive bias where participants answer questions based on the way they feel that the researcher wants them to answer, might be present in the study. Response bias is more often incurred when using self-reported surveys than when using face-to-face surveys.
1.11.2 Sampling bias

Sampling bias could be present because only selected PHC facilities in North West Province were included, as discussed in the discussion on sampling. Subjectivity of research could not influence participants because they answered self-report questionnaires. Data were also triangulated with qualitative data (Polit & Beck, 2012:176).

1.12 ETHICAL CONSIDERATIONS

After ethical clearance was obtained from the University Of Limpopo (Medunsa Campus) Research and Ethical Committee (MREC) (Annexure A), the researcher approached the Directorate of Policy, Planning, Research, Monitoring and Evaluation of the North West Department of Health for permission to conduct the study. Permission was granted after the researcher presented the study to the ethical committee of the North West Department of Health (Annexure C). The study title was changed during the research and submitted for approval (see Annexure B).

Written consent was obtained from participants before interviews started and before questionnaires were handed out (Annexure E). Interviews were conducted early in the morning and late in the afternoon to prevent disruption of services and harm to patients. Confidentiality was ensured by numbering interviews and questionnaires (no reference was made to names) to protect the participants’ privacy. Recordings and data will be kept safe by researcher for five years (locked away at a safe place). If any of the participants experienced distress during interviews, they were supported by the researcher and appropriate referral was arranged.

1.13 SIGNIFICANCE OF THE STUDY

This study aims to contribute new knowledge about empowerment of professional nurses for NIMART and to develop a framework for empowerment that can be used to influence policies for practice and nursing education. This
will be a unique contribution because no studies could be found on nurse empowerment for NIMART in South Africa.

1.14 CHAPTER LAYOUT OF THE STUDY

The thesis consists of the following chapters:

Chapter 1: Overview of the study
Chapter 2: Research design and methods
Chapter 3: Literature review
Chapter 4: Quantitative data analysis and discussion
Chapter 5: Qualitative data analysis and discussion
Chapter 6: Integration and discussion of quantitative and qualitative data
Chapter 7: Framework development and evaluation
Chapter 8: Overview, limitations and recommendations

1.15 SUMMARY

This chapter provided an introduction, as well as a discussion on the study’s background, problem statement, research questions, research objectives and theoretical background. The research design, method and ethical considerations were outlined, and lastly a brief outline of the rest of the chapters was provided.

Chapter 2 focuses on the research design and research methodology.
CHAPTER 2

RESEARCH DESIGN AND METHOD

2.1 INTRODUCTION

In the previous chapter, an overview of the research study was provided. This chapter describes and explains the research design and method used in this study, population sample, data collection procedure, data analysis, and measures to ensure rigour. The ethical considerations and data protection of the study are also discussed.

The research design and research methods undertaken in this study were a convergent parallel mixed methods design as it was considered the most appropriate to be able to achieve the overall aim and objectives of this study.

The researcher’s departure point is the pragmatic claim that knowledge arises out of actions, situations and consequences. Pragmatism is concerned with applications, in other words, what works or what the solution for a problem is. Therefore, all approaches available to understand the research problem are used instead of focusing on methods (Creswell, 2009:10). An overview of the eight main areas of this chapter is presented in Table 2.1

**Table 2.1 Overview of headings in Chapter 2**

<table>
<thead>
<tr>
<th>Heading</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Introduction</td>
</tr>
<tr>
<td>2.2</td>
<td>Research paradigms, design and methods</td>
</tr>
<tr>
<td>2.3</td>
<td>Overview of mixed methods research</td>
</tr>
<tr>
<td>2.4</td>
<td>Mixed methods design consideration in this study</td>
</tr>
<tr>
<td>2.5</td>
<td>Research methods</td>
</tr>
<tr>
<td>2.6</td>
<td>Ethical considerations and data protection issues</td>
</tr>
<tr>
<td>2.7</td>
<td>Summary</td>
</tr>
</tbody>
</table>
2.2 RESEARCH PARADIGMS (WORLDVIEWS), METHODOLOGY AND METHODS

2.2.1 Paradigms

Paradigms are sets of generalisations, beliefs and values shared by communities of researchers that guide inquiries within disciplines (Creswell & Plano Clark, 2011:39).

The main paradigms or worldviews that are traditionally presented as being fundamentally opposed are those of positivism/post-positivism and constructivism/interpretivism (Feilzer, 2010:6). Creswell (2014:9-10) describes two additional world views, namely, transformative and pragmatic. The transformative worldview derived from the post-positivist worldview and these researchers feel that the inquiry needs to be intertwined with the political change agenda and needs to address social oppression. “Pragmatism sidesteps the contentious issues of truth and reality, accepts, philosophically, that there are singular and multiple realities that are open to empirical inquiry and orients itself toward solving practical problems in the real world” (Feilzer, 2010:8).

The different paradigms have common elements but take different stances on these elements: ontology (nature of reality), epistemology (knowledge of that reality) and methodology (the ways of understanding that reality). The reasoning approach and analysis of data also vary. Positivists believe in deductive logic, while constructivists recognise inductive logic. Pragmatists apply both deductive and inductive reasoning in their research (Feilzer, 2010:8-9).

*Inductive analysis* refers to approaches that primarily use detailed readings of raw data to develop concepts and themes. The primary purpose of the inductive approach is to allow research findings to emerge from the data (Thomas, 2006:238).
Deductive analysis refers to data analysis that sets out to test whether data are consistent with prior assumptions, theories or hypotheses identified or constructed by an investigator.

The researcher’s departure point is the pragmatic claim that knowledge arises out of actions, situations and consequences. Pragmatism is concerned with applications, in other words, what works or what the solution for a problem is. Therefore all approaches available to understand the research problem are used instead of focusing on methods (Creswell, 2009:10).

A summary and comparison of the three paradigms mostly used in research and relevant to this study is presented in Table 2.2.

**Table 2.2  Paradigms, methodology and methods**

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Postpositivist</th>
<th>Constructivist</th>
<th>Pragmatic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perspective</strong></td>
<td>• Determination or cause and effect</td>
<td>• Understanding of meaning</td>
<td>• Consequences of actions</td>
</tr>
<tr>
<td></td>
<td>• Reductionism</td>
<td>• Multiple participant meanings</td>
<td>• Problem-centred</td>
</tr>
<tr>
<td></td>
<td>• Empirical observation and measurement</td>
<td>• Social and historical construction</td>
<td>• Pluralistic</td>
</tr>
<tr>
<td></td>
<td>• Theory testing and verification</td>
<td>• Theory generation</td>
<td>• Real-world practice-oriented</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td>Quantitative methods predominate and are normally used</td>
<td>Qualitative methods predominate and are normally used</td>
<td>Qualitative and/or quantitative methods may be used. Methods are matched to the specific questions and purpose of the research.</td>
</tr>
<tr>
<td><strong>Designs</strong></td>
<td>Experimental designs</td>
<td>Narrative research</td>
<td>Convergent</td>
</tr>
<tr>
<td></td>
<td>• Non-experimental designs such as surveys</td>
<td>• Phenomenology</td>
<td>Explanatory sequential</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Grounded theory</td>
<td>Exploratory sequential</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ethnographies</td>
<td>Transformative, embedded or multiphase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Case studies</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection tools</strong></td>
<td>Tests, Questionnaires, Scales</td>
<td>Interviews</td>
<td>May include tools from both positivist and interpretivist paradigms, e.g., interviews, observations, and testing and experiments</td>
</tr>
</tbody>
</table>

Adapted from Creswell (2014), Creswell and Plano Clark (2011) and Mackenzie and Knipe (2006)
Mackenzie and Knipe (2006) and Morgan (2007:71) describe a pragmatic alternative and include the following aspects: connection of theory and data, relationship to the research process and inference of data as presented in Table 2.3.

Table 2.3  Pragmatic alternative to the key issues

<table>
<thead>
<tr>
<th>Connection of theory and data</th>
<th>Deduction</th>
<th>Induction</th>
<th>Abduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship to research process</td>
<td>Objectivity</td>
<td>Subjectivity</td>
<td>Inter-subjectivity</td>
</tr>
<tr>
<td>Inference from data</td>
<td>Generality</td>
<td>Context</td>
<td>Transferability</td>
</tr>
</tbody>
</table>

Adapted from Mackenzie and Knipe (2006) and Morgan (2007:71)

2.2.2  Research design and methods

Polit and Beck (2012:58) describe the research design as an overall plan for obtaining the answers to the research questions. The design clearly states the procedures to be followed and the conditions under which data collection and analysis will be carried out to minimise bias and improve the validity, reliability and trustworthiness of the study (Creswell & Plano Clark, 2011:53; Polit & Beck, 2012:58).

Creswell (2014:3-5) refers to research approaches when he discusses qualitative, quantitative and mixed methods. He also provides a framework for research with the interconnection of the worldviews, design and research methods.

Mixed methods research is seen as a research design that embraces philosophical assumptions as well as methods of inquiry. The core assumption of mixed methods is that the combination of qualitative and quantitative methods provides a more in-depth understanding of the research problem (Creswell, 2014:4).
2.3 OVERVIEW OF MIXED METHODS RESEARCH

There is still a great deal of debate and discussion going on in the research community regarding mixed methods (Bryman, 2006:117; Morris & Burkett, 2011:29; Torrance, 2012:112). Creswell (2014:217) advises scholars to provide a brief overview of mixed methods research to familiarise readers with its terminology and procedures. This overview includes definitions, history, rationale for using mixed methods, mixed methods design and data analysis, rigour, and validly.

The definitions of mixed methods used by Creswell and by Tashakkori and Teddlie are included in the overview.

John Creswell:

Mixed methods research is a research design (or methodology) in which the researcher collects, analyses and mixes (integrates or connects) both quantitative and qualitative data in a single study or a multiphase program of inquiry (Johnson, Onwuegbuzie & Turner, 2007:119).

Abbas Tashakkori and Charles Teddlie:

Mixed methods research is a type of research design in which qualitative and quantitative approaches are used in type of questions, research methods, data collection and analysis procedures, or inferences (Johnson et al., 2007:119).

In the above definitions, it is clear that mixed methods research design involves the collection, analysis and integration (or combination) of both quantitative and qualitative research and methods within a single research study in order to answer research questions (Creswell, 2009; Creswell & Plano Clark, 2011; Johnson et al., 2007:119).
2.3.1 History of mixed methods research

In their discussion of mixed methods research history, Johnson et al. (2007:113) refer to an article by Campbell and Fiske, published in 1959, which already formalised the practice of using multiple research methods.

Creswell and Plano Clark (2011:23-25) discuss the development of mixed methods research according to different periods. The formative period started in 1959 and lasted until 1979. During this period, the focus was on combined surveys and interviews and the use of both quantitative and qualitative data in one study. This was followed by the paradigm debate period, where the discussion was about how to establish connections within the two traditions and reconcile them. This era ended in 1997 when Green and Caracelli suggested moving on (Creswell & Plano Clark, 2011:23). However, this debate is still ongoing (Johnson et al., 2007:71-72; Morgan, 2007:65; Morris & Burkett, 2011:29-30). This was followed by the procedural development period where mixed methods research, the procedures of mixed methods research and the types of mixed methods design were developed.

Expansion and advocacy that argued for mixed methods research designs as a natural component to qualitative and quantitative research were followed by a reflective period where controversies where identified, a map was developed of mixed methods literature and the assumptions underpinning mixed methodology were interrogated (Morris & Burkett, 2011:29-30).

Polit and Beck (2012:603-604) state that mixed methods research has been around for decades, but specific methodological developments and widespread acceptance is a recent phenomenon. Sufficient resources on conducting mixed methods research are now available.

2.3.2 Rationale for mixed methods

The idea behind mixed methods research is that both qualitative and quantitative approaches to data-gathering, in combination, provide a better understanding of a research problem or issue than using either research
approach alone (Creswell & Plano Clark, 2011:54). It does not involve replacing either of these approaches; rather, it draws from the strengths and minimises the weaknesses of both (Johnson & Onwuegbuzie, 2004).

A mixed methods design is often chosen because it strengthens the research by using both qualitative and quantitative approaches and minimising the limitations of both designs (Creswell, 2014:218). It can also offer a more comprehensive understanding of the phenomenon under investigation and triangulation of data. Creswell and Plano Clark (2011:62) illustrate five different purposes of mixing methods as shown in Table 2.4.

### Table 2.4  Rationale for mixing methods

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complementarity</td>
<td>Where different methods are used to investigate different aspects or dimensions of the same phenomenon in order to deepen or broaden the interpretations and conclusions from a study.</td>
</tr>
<tr>
<td>Triangulation</td>
<td>Where different methods are used to measure the same phenomenon, to increase confidence in conclusions reached (whether those conclusions are consistent or convergent).</td>
</tr>
<tr>
<td>Initiation</td>
<td>Where different methods are used to investigate different aspects or dimensions of the same phenomenon; in contrast to complementarity, the intention is divergence in order to generate new understandings.</td>
</tr>
<tr>
<td>Expansion</td>
<td>Where different methods are used to assess different phenomena in order to expand the scope and range of the study.</td>
</tr>
<tr>
<td>Development</td>
<td>Where results from one method are used to inform the development of another method, e.g., instrument development, then sampling and implementation.</td>
</tr>
</tbody>
</table>

Adapted from Creswell and Plano Clark (2011:62)

2.3.3  Mixed methods design

Mixed methods research is mostly associated with a pragmatic approach, in which the research question is driving the inquiry and the research question is more important than the methods used (Polit & Beck, 2012:604). Mixed methods include both a quantitative and a qualitative phase within an overall research study. In the design of a mixed method study, Polit and Beck (2012:608-609) describe three decisions that need to be taken by the researcher:
- whether to conduct the research phases concurrently or sequentially;
- whether to prioritise one approach (qualitative or quantitative) – this is referred to as equal versus dominant status; and
- integration of quantitative and qualitative methods.

To be considered a mixed methods design, the findings must be mixed or integrated at some point. A qualitative phase might be conducted in order to inform a sequential quantitative phase; alternatively, if the quantitative and qualitative phases are undertaken concurrently, the findings must, at a minimum, be integrated during the interpretative phase (Polit & Beck, 2012:608-609). Table 2.5 provides a summary of notations used to describe mixed methods design.

Table 2.5  Notations used in mixed methods design

<table>
<thead>
<tr>
<th>Notation</th>
<th>What it indicates</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uppercase letter</td>
<td>Greater emphasis given to a method</td>
<td>QUAN, QUAL</td>
</tr>
<tr>
<td>Lowercase letters</td>
<td>Lesser emphasis given to a method</td>
<td>quan, qual</td>
</tr>
<tr>
<td>Plus sign: +</td>
<td>Convergent methods</td>
<td>QUAN + QUAL (methods occur concurrently)</td>
</tr>
<tr>
<td>Arrow: →</td>
<td>Sequential methods</td>
<td>QUAN → qual</td>
</tr>
<tr>
<td>Parentheses: ( )</td>
<td>Embed within a design or framework</td>
<td>QUAN (qual)</td>
</tr>
<tr>
<td>Double arrows: →←</td>
<td>The methods are implemented in a recursive process</td>
<td>QUAL →← QUAN</td>
</tr>
<tr>
<td>Brackets: [ ]</td>
<td>Study within a series</td>
<td>QUAL→ [QUAN+qual]</td>
</tr>
</tbody>
</table>

Adapted from: Creswell (2014:229) and Creswell and Plano Clark (2011:10)

2.3.4 Data analysis in mixed methods research

Data analysis in mixed methods research involves separate (concurrent or sequential) analysis of both the qualitative data (description and thematic text) and quantitative data (descriptive and inferential numeric), using quantitative and qualitative methods of data analysis. The second part of the analysis is to
analyse both sets of information using techniques that ‘mix’ the two data sets and results (Creswell & Plano Clark, 2011:203; Onwuegbuzie & Comb, 2010:422).

Onwuegbuzie and Combs (2010:422) describe nine crossover mixed method analyses that involve the integration of qualitative and quantitative analysis and can be used to reduce, display, transform, correlate, consolidate, compare, integrate, assert or import data. Table 2.6 presents these nine strategies (Onwuegbuzie & Combs, 2010:422).

**Table 2.6 Cross-over (mixed) analysis strategies**

<table>
<thead>
<tr>
<th>Analysis step</th>
<th>Cross-case analysis strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated data reduction</td>
<td>Reducing the dimensionality of qualitative data/findings using quantitative analysis (e.g., exploratory factor analysis of qualitative data) and/or quantitative data/findings using qualitative techniques (e.g., thematic analysis of quantitative data)</td>
</tr>
<tr>
<td>Integrated data display</td>
<td>Visually presenting both qualitative and quantitative results within the same display</td>
</tr>
<tr>
<td>Data transformation</td>
<td>Converting quantitative data into data that can be analysed qualitatively (i.e., qualitising) and/or qualitative data into numerical codes that can be analysed statistically (i.e., quantitising data)</td>
</tr>
<tr>
<td>Data correlation</td>
<td>Correlating qualitative data with quantitised data and/or quantitative data with qualitised data</td>
</tr>
<tr>
<td>Data consolidation</td>
<td>Combining or merging multiple datasets to create new or consolidated codes, variables or datasets</td>
</tr>
<tr>
<td>Data comparison</td>
<td>Comparing qualitative and quantitative data/findings</td>
</tr>
<tr>
<td>Data integration</td>
<td>Integrating qualitative and quantitative data/findings into either a coherent whole or two separate sets (i.e., qualitative and quantitative) of coherent wholes</td>
</tr>
<tr>
<td>Warrant assertion analysis</td>
<td>Reviewing all qualitative and quantitative data to yield meta-inferences</td>
</tr>
<tr>
<td>Data importation</td>
<td>Using follow-up findings from qualitative analysis to inform the quantitative analysis (e.g., qualitative contrasting case analysis, qualitative follow-up interaction analysis, qualitative internal replication analysis) or follow-up findings from quantitative analysis to inform the qualitative analysis (e.g., quantitative extreme case analysis, quantitative negative case analysis)</td>
</tr>
</tbody>
</table>

Adapted from Onwuegbuzie and Combs (2010:422)
2.3.5 Rigour and validity of mixed methods

Polit and Beck (2012:625) note that mixed methods require validity for aspects of both the quantitative methods (threats to internal validity, external validity and design validity) and qualitative methods (trustworthiness, authenticity, member checking and so on).

Creswell and Plano Clark (2011:240-241) define validity in mixed methods research as using strategies to minimise potential threats in data collection, analysis and interpretation that might compromise the merging of the data and conclusions drawn from the combination of qualitative and quantitative data. Table 2.7 displays strategies to minimise potential threats.

Table 2.7 Potential validity threats and strategies to minimise the threats

<table>
<thead>
<tr>
<th>Potential validity threats</th>
<th>Strategies to minimise the threats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data collection issues</strong></td>
<td></td>
</tr>
<tr>
<td>Inappropriate selection of individuals for qualitative and quantitative data collection</td>
<td>Draw quantitative and qualitative sample from same population to compare data</td>
</tr>
<tr>
<td>Unequal samples size for data collection</td>
<td>Either increase qualitative sample or decrease quantitative sample to select the same number of cases</td>
</tr>
<tr>
<td>Collection of types of data that do not address the same topic</td>
<td>Address the same question in quantitative and qualitative data collection</td>
</tr>
<tr>
<td><strong>Data analysis issues</strong></td>
<td></td>
</tr>
<tr>
<td>Use of insufficient approaches to converge the data</td>
<td>Develop a joint display for the two datasets</td>
</tr>
<tr>
<td>Unfounded comparisons of the two results of analysis</td>
<td>Quotes should match the statistical results</td>
</tr>
<tr>
<td><strong>Interpretation issues</strong></td>
<td></td>
</tr>
<tr>
<td>No resolution of divergent findings</td>
<td>Evaluate procedures for the current data and consider collecting more data</td>
</tr>
<tr>
<td>More weight given to one form of data</td>
<td>Use procedures to present both sets of data in an equal way (e.g., a joint display)</td>
</tr>
</tbody>
</table>

Adapted from: Creswell and Plano Clark (2011:240-241)
2.4 MIXED METHODS DESIGN CONSIDERATIONS IN THIS STUDY

Creswell and Plano Clark (2011:19) describe different aspects that should be taken into account when designing a mixed methods study. This includes the knowledge assumptions made by the researcher that contributed towards the strategies of enquiry to inform procedures and which methods of data collection/analysis would be required. These aspects are discussed in this section.

The researcher selected the pragmatic claim that knowledge arises out of actions, situations and consequences, and that it is concerned with applications; in other words, what works or what the solution for a problem is. This knowledge claim made it possible to focus on the research problem as experienced by professional nurses in practice initiating ART. The aim of this study was to develop a framework to empower professional nurses for NIMART in North West Province.

Only a few studies could be found on psychological empowerment in the South African context (Erasmus & Brevis, 2005:59; Stander & Rothmann, 2009a, 2010), some of which were specifically tested on professional nurses. Taking into consideration the dearth of relevant studies, as well as the abovementioned research problem and study aim, the researcher decided to select a convergent parallel (triangulation) mixed methods design (QUAN + QUAL) for this study to explore and describe the organisational and psychological empowerment of professional nurses (quantitative), who are generally seen as a disempowered group (Daiski, 2004:43; Fletcher, 2006:50; Manojlovich, 2007), and exploring the experiences of professional nurses with NIMART initiation (qualitative). In the quantitative instruments (open questions in the background questionnaire annexure) and the interviews (qualitative data), professional nurses’ understanding of empowerment was explored.

Convergent parallel mixed methods design is discussed in detail below.
2.4.1 Convergent parallel mixed method design (triangulation design)

A convergent parallel mixed methods design (QUAN + QUAL) was used to develop a framework for empowerment of professional nurses for NIMART (Creswell & Plano Clark, 2011:69).

This mixed methods approach is based on knowledge entitlements that are embedded in pragmatism and include a consequence-oriented and problem-centred focus. Furthermore, a mixed methods approach employs strategies of inquiry that involve collecting data either simultaneously or sequentially in order to best understand the research problem and also involves both quantitative and qualitative techniques (Creswell & Plano Clark, 2011:43-46). A mixed methods design recognises that all methods of data collection and analysis have weaknesses and strengths, and by combining qualitative and quantitative methods of data collection and analysis, the weaknesses inherent in the one method are balanced by the strengths of the other. Triangulation of data collection and analysis is often a key reason why mixed methods studies are conducted (Polit & Beck, 2012:625). In this study, the researcher conducted a literature review and collected both quantitative and qualitative data from the same study population. Both sets of data were analysed individually and integrated during the interpretation of the findings (Creswell & Plano Clark, 2011:207-209). Both the quantitative and qualitative data were collected from participants at the same time (concurrent), but integration of the results only occurred during the discussion of the results.

Table 2.8 shows an overview of the convergent parallel mixed methods (triangulation) design, while the concepts of quantitative, qualitative, exploratory, descriptive and contextual designs are discussed individually thereafter.
### Table 2.8 Overview of convergent parallel design

<table>
<thead>
<tr>
<th>Phase 1 (Empirical research)</th>
<th>Qualitative design</th>
<th>Phase 2 and 3 Framework development and evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative design</td>
<td>Qualitative design</td>
<td>Framework development and evaluation</td>
</tr>
<tr>
<td><strong>Research questions</strong>&lt;br&gt;How empowered are professional nurses in the PHC facilities in North West Province?</td>
<td><strong>Research questions</strong>&lt;br&gt;- What is the professional nurses' understanding of empowerment?&lt;br&gt;- What do professional nurses in the PHC facilities need to empower them for NIMART in the North West Province?&lt;br&gt;- What are the experiences of professional nurses in the PHC facilities of NIMART in North West Province?</td>
<td><strong>Framework development included:</strong>&lt;br&gt;- purpose of the framework;&lt;br&gt;- assumptions of the framework;&lt;br&gt;- conceptual definitions;&lt;br&gt;- relationship statements; and&lt;br&gt;- structure description. The framework evaluation was done by experts from the field and faculty staff using the evaluation instrument (see Annexure N)</td>
</tr>
<tr>
<td><strong>Ethical clearance and permission for the study</strong>&lt;br&gt;Ethical clearance was obtained from both the University of Limpopo and North West Province research committees. Written permission was obtained from each participant before the interview was conducted or before the questionnaires were handed out.</td>
<td><strong>Data collection and instruments</strong>&lt;br&gt;- Questionnaire on background information, which included three open-ended questions that were asked in the in-depth interviews (see Annexure F).&lt;br&gt;- CWEQ-II (structural empowerment) (see Annexure G).&lt;br&gt;- PEQ (see Annexure H). As the questionnaires had already been used in different countries and the reliability and validity were already confirmed, a pilot study with 10 professional nurses was done to ensure that the content was clear to participants. No changes were needed.</td>
<td><strong>Data collection and instruments</strong>&lt;br&gt;- Semi-structured interview schedule for in-depth individual face-to-face interviews with professional nurses (see Annexure I). The interview schedule was be piloted with two professional nurses who were not part of this study. No changes were needed.</td>
</tr>
<tr>
<td>Phase 1 (Empirical research)</td>
<td>Phase 2 and 3</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td><strong>Quantitative design</strong></td>
<td><strong>Qualitative design</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Quantitative sample</strong></td>
<td><strong>Qualitative sample</strong></td>
<td></td>
</tr>
<tr>
<td>Representative sampling of the health care facilities was done to include all four districts. Power analysis was used to determine the sample size of participants based on 2 420 professional nurses in the clinics. With an expected response rate of 50% and at a 95% confidence level, a sample of 320 participants would constitute an acceptable sample with a margin of error set at five percent.</td>
<td>Purposive sampling was used to select the sample professional nurses who met the specified sampling criteria were included in this study interview were conducted until data saturation occurred. Sixteen interviews were done with professional nurses and five with managers. Saturation was confirmed by supervisors and an independent coder (see Annexure L). Three open-ended questions were included in the background questionnaire. The data from the first 80 questionnaires were included in the qualitative data. After saturation was confirmed, the rest of the questionnaires’ data were not coded.</td>
<td></td>
</tr>
<tr>
<td>Analysis of quantitative data</td>
<td>Analysis of qualitative data</td>
<td></td>
</tr>
<tr>
<td>SAS release 9 software or higher running under Microsoft Windows for a personal computer was used by the statistician to analyse the data from the empowerment questionnaires.</td>
<td>Tesch’s process of coding, as described by Creswell (2009:186), was used for analysis of the qualitative data.</td>
<td></td>
</tr>
<tr>
<td>Interpretation of quantitative data</td>
<td>Interpretation of qualitative data</td>
<td></td>
</tr>
<tr>
<td>Empowerment and background data were presented in descriptive and inferential statistics were utilising tables and graphs.</td>
<td>The data were organised into themes, categories and subcategories obtained from interviews and open-ended questions in the questionnaire.</td>
<td></td>
</tr>
<tr>
<td>Strategies to merge data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side-by-side comparison was done by presenting the quantitative results and then the qualitative findings together in a discussion with quotes from the qualitative findings that either confirmed or contradicted the quantitative results (Creswell &amp; Plano Clark, 2011:223).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

53
A quantitative, explorative and descriptive survey was utilised to explore and describe the organisational and psychological empowerment of professional nurses rendering NIMART in PHC facilities in North West. To explore and describe the experiences of the professional nurses regarding NIMART and their understanding of empowerment, a descriptive (Babbie, 2010:93), explorative (Babbie, 2010:92) and contextual qualitative design was utilised.

2.4.2 Quantitative design

Quantitative design is normally divided into three different types of research design, namely, experimental research, quasi-experimental research and non-experimental research design (Polit & Beck, 2012:78). Non-experimental designs are usually descriptive or explorative and might be explanatory as well. Babbie (2010:92) explains descriptive studies in social science as follows: it is a scientific process of observation during research and therefore it is more accurate and precise than casual observation. Explorative research is normally conducted when the subject of study is relatively new or when the researcher examines a new interest (Babbie, 2010:92). A descriptive, explorative design was used to explore and describe the organisational and psychological empowerment of professional nurses as no South African studies could be found on empowerment of professional nurses in the NIMART context.

2.4.3 Qualitative design

Qualitative research explores and tries to understand the meaning that individuals or groups make regarding a human or social problem (Creswell, 2014:4). Polit and Beck (2012:14) emphasise that the focus is on understanding human experiences in their holistic and dynamic entirety, within the context of those experiencing them. In this study, qualitative research was utilised to explore the professional nurses’ understanding of empowerment and to understand their experiences relating to the initiation of HIV-positive clients on ART (Polit & Beck, 2012:16). The characteristics of qualitative research that were adhered to during the research are described in the subsections that follow.
2.4.4 **Exploratory design**

The aim of exploratory research is to gather new data, to determine whether there are new patterns in the data, and to gain new insights and understanding of the phenomenon (Babbie, 2010:92; Polit & Beck, 2012:18-19).

The aim of this research was to explore and gather new data on professional nurses’ understanding of empowerment and their experiences of rendering NIMART services to patients in PHC facilities.

2.4.5 **Descriptive design**

Creswell (2009:145, 162) states that the data that materialise from a qualitative study are descriptive in that the researcher is interested in process, meaning and understanding. Descriptive refers to the accurate representation of particular individuals or real-life situations (in words) for the purpose of discovering new meaning, describing what exists and categorising information (Burns & Grove, 2009:29).

The design of this study was descriptive in nature to outline the current situation regarding NIMART and empowerment of professional nurses in the PHC facilities in North West province. Literature was applied to describe both organisational and psychological empowerment and the current status of NIMART and task shifting.

2.4.6 **Contextual design**

The context involves situating the object or phenomenon of study within its immediate setting (Creswell, 2009:62). In a contextual strategy, a phenomenon is studied because of its fundamental and immediate contextual significance. A contextual design refers to the specific understanding of the reality of the participants’ experiences in their specific context (Holloway, 2005:275).

This research was contextual as the focus was on PHC facilities in the North West Province with their unique political, social, health and economic environment. In this context, the professional nurses provided a better
understanding of empowerment within their working environment and their experiences, both positive and negative, with NIMART.

2.5 RESEARCH METHODS

Research methods refer to the data collection, analysis and interpretation (Creswell, 2009:15, 2014:17). A brief overview of the research setting is given below before the data collection, instruments and data analysis are discussed. The discussion is organised according to the phase and objectives of the research.

2.5.1 Research setting

2.5.1.1 Description of the North West Province

The North West Province is situated in the north of South Africa on the Botswana border, fringed by the Kalahari Desert in the west, Gauteng to the east, and the Free State to the south. It is known as the Platinum Province because it has a wealth of this metal. The province encompasses 106 512 square kilometres, constituting 8.7% of the total land area of South Africa. To create perspective: it is slightly smaller than the state of Pennsylvania in the United States of America. There is an increased migration to the cities, mainly due to a declining agricultural sector and growth in urban employment (Maota, 2017).

i) Economy

More than 80% of the province’s economic activity takes place in the southern region between Potchefstroom and Klerksdorp, as well as Rustenburg and the eastern region.

The mining industry, for example, platinum, diamond and gold mining, and fluorspar exploitation, is the dominant economic activity in the province. The mining industry contributes 23.3% to North West Province’s economy and 94% of the country’s platinum is found here. Other main sectorial contributions are government services, trade and catering, manufacturing, finance and
agriculture. Marico and Vryburg are cattle country, with some of the largest cattle herds in the world found at Stella near Vryburg. Areas around Rustenburg and Brits are fertile, mixed-crop farmland with corn and sunflower as the major farming products (Maota, 2017).

ii) Population

North West has a total population of 3,509,953; the male population is 1,779,903 and the female population is 1,730,049 (Statistics South Africa, 2015).

2.5.1.2 Districts and PHC facilities in the North West Province

The province has four districts, all of which were included in this study to ensure representation of all the districts. Due to the fact that each district consists of four to five sub-districts, not all the sub-districts were included, but the sub-districts that were included were representative of urban, suburban, rural and remote rural areas. PHC facilities in the North-West Province include 20 community health centres, 275 clinics and 70 mobile units. Local sub-district health officials manage all fixed clinics and mobile units.

The research was done in PHC facilities in North West. In the PEPFAR 2011 update on NIMART and mentoring, the percentage of professional nurses who were trained for NIMART and initiating varied from province to province. North West had the second lowest number of professional nurses who were NIMART trained at 597, and only 25.5% of these nurses were currently initiating ART (PEPFAR, 2011). Only North West was included in this study because organisational culture and practices may vary from one province to another, which may influence the professional nurses’ responses to the organisational empowerment. Figure 2.2 displays the districts in North West.
2.5.2 Phase 1: Quantitative

Objective 1:

To explore and describe the concepts of task shifting, NIMART, and structural and psychological empowerment.

Polit and Beck (2012:95) explain that literature reviews are undertaken for many different reasons – as a review in a research report, proposal, thesis or dissertation, or as a freestanding literature review. As this literature review was part of a thesis, attention was given to evaluation of the literature relating to task shifting, NIMART, and structural and psychological empowerment. Reference was made to individual studies and systematic reviews.
International and national literature published since 2000 was studied to describe empowerment, structural and psychological empowerment. Some primary sources published before 2000 were also included. Literature on the implementation of NIMART was limited to sources published after 2005.

The following databases were searched for literature related to task shifting NIMART, empowerment, and structural and psychological empowerment: Cumulative Index to Nursing and Allied Health Literature, ScienceDirect, EBSCOHost, PubMed, Medline, Gateway and Emerald. A librarian assisted the researcher with the literature search. The abstracts of the studies were selected based on their relevance to this study and if articles or studies were not available at the library, the librarian assisted the researcher to obtain copies. Nexus and ProQuest databases were used in the search to identify theses and dissertations on empowerment and implementation with regard to NIMART.

The literature review on empowerment included concept analysis of empowerment, hypothesis testing of both structural and psychological empowerment, and systematic reviews of the effect of empowerment on job satisfaction, intention to stay, burnout and patient outcomes.

**Objective 2**

To explore and describe structural (organisational) and psychological empowerment of professional nurses in clinics in North West

2.5.2.1 Study population

The target population was all the professional nurses and managers in the PHC facilities in North West Province who were willing to participate in the research project.

2.5.2.2 Sample selection

Representative sampling of the health care facilities was done to include all four regions (Dr Ruth Segomotsi Mompati with 57 PHC facilities, Dr Kenneth Kaunda with 57 PHC, Bojanala with 117 PHC facilities and Ngaka Modiri
Molema with 98 PHC facilities) of North West as well as urban, semi-urban and rural areas. A third of the sample came from the Dr Ruth Segomotsi Mompati PHC facilities and Dr Kenneth Kaunda PHC facilities (34 PHC facilities, 17 from each district), a third from the Bojanala district (39 PHC facilities) and a third from the Ngaka Modiri Molema (33 PHC facilities).

Power analysis was used to determine the sample size based on 2420 professional nurses in the PHC facilities. With an expected response rate of 50% and at a 95% confidence level, a sample of 320 participants constituted an acceptable sample with a margin of error set at five percent. The sample included professional nurses who were NIMART trained and initiating NIMART, professional nurses who were NIMART trained and not initiating, professional nurses who were not NIMART trained and initiating NIMART, and professional nurses who were not NIMART trained and not initiating NIMART.

2.5.2.3 Pilot study

According to Burns and Grove (2009:42), a pilot study is a small study done to improve or refine the research method before the major study is conducted. All three the questionnaires were pretested with five professional nurses who worked in PHC facilities not included in the study. As both the CWEQ-II (Laschinger et al., 2001, see Annexure G) and PEQ (Spreitzer 1995:1442-1465, 1996:483-504, see Annexure H) had already been tested in many studies, the pilot study was done to ensure that the participants understood the questions. There were no queries from the participants. The data obtained through the pilot study were not used in the analysis of the quantitative data.

2.5.2.4 Data collection

Data collection is the process of gathering data from participants and there are various ways of doing this, for instance through interviews, observation and questionnaires (Burns & Grove, 2009:430).

A questionnaire is a self-report form designed to elicit information from participants applicable to the problem being studied for analysis. In a structured
questionnaire, participants need to choose between pre-set answers, while with unstructured questionnaires, participants need to answer questions by expressing their own views on the subject (Babbie, 2010:255; Burns & Grove, 2009:406). In this study, the quantitative data collection was done through three questionnaires. These were the background information questionnaire (Annexure F), CWEQ-II to measure structural empowerment (Laschinger et al., 2001:265-267, see Annexure G) and PEQ to measure psychological empowerment (Spreitzer 1995:1442-1465, see Annexure H). Permission to use the CWEQ-II was obtained from Prof Laschinger (see Annexure D).

**Background information** (Annexure F) was obtained to describe the training participants received, knowledge on HIV/AIDS and ART, perceived competency and HIV/AIDS care, and service delivery in order to understand the background of the participants.

**Structural empowerment** was measured through the CWEQ-II (Annexure G), measuring the six subscales of perceived structural empowerment described by Kanter (opportunity, information, support, resources, formal power and informal power). Each subscale consists of three items. These 18 items were scored on a five-point Likert scale. The scores were then summed and averaged to generate the six subscale scores.

The Cronbach’s alpha coefficient of the CWEQ-II (Laschinger et al., 2001) varies between 0.68 and 0.88 for different studies (Gilbert et al., 2010:343; Knol & Van Linge, 2009:362; Laschinger, 2008:325) and indicates acceptable levels of reliability.

**Psychological empowerment** was measured with the PEQ, which measures individuals’ perception of their psychological empowerment (Spreitzer, 1995:1442-1465). The PEQ measures the four sub-con structs of psychological empowerment. The sub-constructs, namely, meaning, competence, autonomy and impact, were rated on a seven-point Likert scale ranging from “very strongly disagree” to “very strongly agree”. Each sub-construct had three questions and these 12 items were summed to provide the scores ranging from 1 to 7.
Spreitzer (1995) reports a reliability coefficient ranging from 0.62 to 0.74 for the PEQ. Stander and Rothmann (2009a) have confirmed the reliability of the instrument with a Cronbach’s alpha coefficient varying between 0.81 and 0.89. Other studies have reported Cronbach’s alpha coefficients varying between 0.74 and 0.91 (Knol & Van Linge, 2008:362; Laschinger, 2008:325; Stander & Rothmann, 2010), indicating a high internal consistency.

The questionnaires on the background information (Annexure F), the CWEQ- II (Annexure G) and the PEQ (Annexure H) were handed out by the researcher after obtaining written consent from the participants (Annexure E). All professional nurses in the PHC facilities that formed part of the sample of facilities in North West and who were willing to participate were included. The researcher explained the questionnaires after handing them out to be completed during the day as it would only take 15-20 minutes. English questionnaires were used as the researcher was available to answer questions from participants. The researcher collected the questionnaires in the afternoon, or the following morning if the participants were not able to complete the questionnaires during the day.

The collection of the qualitative data was done through in-depth face-to-face interviews with participants (Annexure I). Interviews lasted between 30-45 minutes and were audio recorded. Three open-ended questions were included in the background questionnaire, as discussed in section 2.5.2.2.

2.5.2.5 Data analysis

SAS release 9.2 software or higher running under Microsoft Windows for a personal computer was used by the statistician to analyse the data from the background information questionnaire (Annexure F), the CWEQ- II (Annexure G) and the PEQ (Annexure H). Descriptive statistics (frequencies, percentages, means and standard deviations) were used to describe and compare or differentiate between the organisational and psychological empowerment of the professional nurses in PHC facilities in North West. The responses to the open
questions in the background questionnaire (Annexure F) were coded with the qualitative data.

2.5.2.6 Rigour, validity and reliability

The validity of the research instrument refers to the extent to which the instrument measures what it was intended to measure (Polit & Beck, 2012:236-237). Reliability of an instrument refers to internal consistency, to estimate the extent to which sub-items of an instrument are reliable in measuring the relevant characteristic (Polit & Beck, 2012:333).

i) Validity of instruments

Two questionnaires were used. Validity was determined by different scholars who tested the construct validity and internal validity (consistency) of the questionnaires.

The CWEQ-II (Laschinger et al., 2001) has been studied and used frequently in nursing research since 2000. It has shown consistent construct validity and a reliability coefficient ranging from 0.79-0.90 (Caspar & O’Rourke, 2011:161; Chang & Liu, 2008:1446; Knol & Van Linge, 2008:362).

For the internal validity of the PEQ, Spreitzer (1995) reports a Cronbach’s alpha of 0.8. This questionnaire has been used in different studies to measure psychological empowerment (Ahmad & Oranye, 2010:586; Knol & Van Linge, 2008:361-362; Stander & Rothmann, 2010).

O’Cathain (2010:534-535) describes three different approaches that can be utilised in assessing quality in mixed method research. The first is the generic research approach, assessing mixed methods studies as a whole using tools developed for generic use across all study designs. This approach was found to be to general and its applicability varies across different research designs. The second approach is the individual-components approach, assessing quantitative and qualitative methods separately. This is considered essential as each contributes to the study as a whole, and as concerns have been raised that one
component might suffer in mixed methods studies. The third approach is the mixed methods approach that was developed by Tashakkori and Teddlie. This approach includes inference quality and interpretive rigour. Tashakkori and Teddlie’s concepts are central to this third approach, and contributions of the other groups of mixed methods scholars are assessed in terms of expanding or challenging the framework (O’Cathain, 2010:536).

The individual-components approach, assessing quantitative and qualitative methods separately and integrating and triangulated data after both sets of data were analysed, was utilised in this study to ensure the quality of the study.

**ii) Background questionnaire**

The background questionnaire was piloted with five professional nurses who were not part of this study to make sure that participants understood the questions. No adjustments were needed as the pilot group understood the questions.

**iii) Structural (organisational) empowerment questionnaire**

The CWEQ-II (Laschinger et al., 2001, see Annexure G) is a self-reported questionnaire that uses a five-point Likert scale ranging from “none” to “a lot”. Permission was obtained from Prof Laschinger to use the questionnaire (see Annexure D).

The CWEQ-II (Laschinger et al., 2001) consists of 18 items, three for each of the four components of structural empowerment described by Kanter (opportunity, information, support and resources) and the two types of power (formal and informal power). The questionnaire also includes a two-item global empowerment scale providing evidence of construct validity. Items on each of the six subscales are summed and averaged to provide a score for each subscale ranging from 1-5. These scores of the six subscales are then summed to create the total empowerment score. According to Laschinger et al. (2001), structural empowerment scores of 6-13 are considered as low structural empowerment; 14-22 as moderate structural empowerment and 23-30 as high
structural empowerment. The construct validity of the CWEQ-II was substantiated in a confirmatory factor analysis that revealed a good fit of the hypothesised factor structure (Laschinger et al., 2001).

Scholars have studied structural empowerment using the CWEQ-II in nursing research since 2000 and it has shown consistent reliability and validity at 0.8 (Caspar & O’Rourke, 2011:161; Chang & Liu, 2008:1446; Knol & Van Linge, 2008:362; Livsey, 2009).

This questionnaire was piloted with five professional nurses who did not form part of this study to see if they understood the questions. No adjustments were necessary.

iv) Psychological empowerment questionnaire

The PEQ (Annexure H) has been used successfully in more than 50 different studies in contexts ranging from nurses to low-wage service workers to manufacturing workers (Dewettinck & Van Ameijde, 2010:293; Faulkner & Laschinger, 2008:219; Stander & Rothmann, 2009a, 2010).

Spreitzer (1995:1442-1465, 1996:483-504) describes the validation of the instrument. The validity of the instrument has been proven and test-retest reliability has been shown to be strong. Validity estimates for the dimensions are typically around 0.8.

The PEQ is a self-reported questionnaire consisting of 16 items measuring meaning, competence, autonomy and impact on a seven-point Likert scale, ranging from “very strongly disagree” to “very strongly agree”.

This questionnaire was piloted with five professional nurses who were not part of this study to see if they understood the questions. No questions were asked during the pilot study.
v) Bias

Response bias might be present in the study. This is regarded as a type of cognitive bias where the participants answer questions based on the way they feel that the researcher wants them to answer (Polit & Beck, 2012:312-313).

Sampling bias could be present because only selected PHC facilities in North West were included (as discussed section 2.5.2.2) and asked to complete questionnaires. Subjectivity of the researcher could not influence participants because they answered self-report questionnaires. Data were triangulated with qualitative data during discussion of data (Polit & Beck, 2012:17).

2.5.3 Qualitative

Objectives 3, 4 and 5

3. To explore and describe the professional nurses’ experiences of NIMART in PHC facilities in North West.

4. To explore and describe what professional nurses need to empower them for NIMART in PHC facilities in North West.

5. To explore and describe the understanding of empowerment of professional nurses working in PHC facilities in North West.

2.5.3.1 Study population

The target population was all the professional nurses and managers in the PHC facilities in North West who were willing to participate in the research project.

2.5.3.2 Sample selection

Purposive sampling was used to select the sample for this study. Professional nurses who were interested in participating in the study and who met the specified sampling criteria were included. Professional nurses who were NIMART trained and rendering NIMART, professional nurses who were NIMART trained and not rendering NIMART, and professional nurses who were
not NIMART trained and initiating ART were included in the study. Data saturation was determined by the researcher and discussed with the supervisors for confirmation. Twenty (20) in-depth interviews were conducted and open ended questions from 80 questionnaires were also analysed. Saturation was also confirmed by the independent coder.

2.5.3.3 Data collection process

Greeff (2011:342) states that interviewing is the predominant way of collecting data in quantitative research, and this allows direct interaction between the researcher and participant. The quality of the interview and data is dependent on the skill of the interviewer and the collaboration between the researcher and the participant (Richard & Morse, 2007:109).

i) Gaining entry

After ethical clearance had been obtained from MREC (see Annexure A) and the North West Province ethical committee (Annexure C), permission was obtained from the nursing managers to spend some time in the facilities to get acquainted with the staff and the facility environment before conducting the study. The researcher invited professional nurses who were willing to participate in the study.

ii) Structure of the interview schedule

Semi-structured interviews are used when a researcher wants to cover certain topics in the interview and to understand the complexity of the phenomenon (Polit & Beck, 2012:536). During in-depth face-to-face interviews, the researcher can explore the answers given by the participant by probing. Probes include phrases like “tell me more” and “what is your understanding”. This can lead to better understanding of the participants’ experiences. It is also possible to make notes of any additional observations during the interview.

For this study, a semi-structured interview schedule (Annexure I) was used with four open-ended questions. This allowed the researcher to explore the
professional nurses’ understanding of empowerment, their experiences with NIMART as well as what they need to empower them for NIMART. The same open-ended questions were added to the biographic and background questionnaire (Annexure F) to enhance the understanding of empowerment and experiences with NIMART. Creswell and Plano Clark (2011:240-241) suggest increasing the qualitative sample or decreasing the quantitative sample in order to select the same number of cases to minimise potential validity threats.

To ensure acceptability, the interview schedule was piloted with four professional nurses who were not part of the study (Burns & Grove, 2009:44). The data of these interviews were not included in the qualitative data.

**iii) Interviewing techniques**

During the interviews, the researcher applied the communication skills learnt throughout her professional career as a professional nurse with psychiatric and counselling training and experience. Attentive listening and showing respect for the participants (Greeff, 2011:351) created a safe and trustworthy environment for the participants to share their understanding and experiences. Questions were asked and the participants were allowed to respond. If the response was unclear, the researcher would ask for clarification. Probing was used to explore the professional nurses’ understanding of empowerment. During the interviews, the researcher acknowledged what the professional nurses said by nodding, paraphrasing and clarifying statements that were not clear.

**2.5.3.4 Data collection**

Written consent was obtained from the participants (Annexure D) before conducting the interviews (refer to Annexure I for the interview schedule). The professional nurses were interviewed in the PHC facilities by the researcher at a time that was convenient for them without interfering with service delivery. Interviews were held in a private room away from possible interference. Most of the interviews were conducted in English, but some of the participants preferred Afrikaans and were allowed to continue in Afrikaans. With the permission of the
participants, interviews were audio recorded to guarantee those participants’ views and experiences were represented during data analysis. Duration of interviews varied between 30 and 45 minutes. Field notes were added of the participants’ responses and other observations next to the relevant questions (Creswell, 2009:183).

After the interviews had been completed, the biographic information questionnaires (Annexure F), the CWEQ-II (Annexure G) and the PEQ (Annexure H) were handed out to be completed.

2.5.3.5 Data analysis

Babbie (2010:338) describes coding as the process of transforming raw data into a standardised form, while Polit and Beck (2012:556) describe data analysis as providing structure and meaning to the data.

Tesch’s steps in coding data, as described by Creswell (2009:186, 2014:195), were used for analysis (coding) of the qualitative data.

i) Preparation for data analysis

Polit and Beck (2012:557) state that verbatim transcriptions of audio tapes are critical in preparing for data analysis and researchers should ensure that they are accurate and reflect the interview experience. Errors during transcription could threaten the trustworthiness of the research findings. To minimise the risk, an experienced transcriptionist was used and the researcher checked the transcriptions randomly to ensure accuracy.

ii) Coding

Inductive reasoning was used to identify categories and themes (Creswell, 2009:175). During this process, the researcher continued to work back and forth between themes to establish a comprehensive set of themes. Thomas (2006:237) explains that “the primary purpose of an inductive approach is to allow research findings to emerge from the frequent, dominant, or significant
themes inherent in raw data without the restraints imposed by structured methodologies.”

Tesch’s steps, as described by Creswell (2014:197-198), were followed during the coding process. Transcriptions were carefully read and notes were made of ideas. This was followed by reading the transcriptions one by one to understand the meaning of what was said and writing down thoughts during this process. A list of topics was compiled after all the transcriptions had been studied. This was followed by clustering topics together into major and unique topics. Topics were abbreviated in codes and written down next to the appropriate sections of the text (data) to see if any new categories were identified.

Description of categories is illustrated by the two categories derived from the question on their experiences of initiating ART:

a. Enablers of ART initiation as experienced by professional nurses.
b. Constraints to initiating ART as experienced by professional nurses.

Under the category constraints to initiating ART as experienced by professional nurses, important data were highlighted as the following subcategories:

- incompetence (lack of knowledge and skills) due to ineffective training;
- training and clinical opportunities based on favouritism; and
- negative psychological experiences: self-doubt, fear of unknown, demotivation and negative attitudes (note influence of peers).

An independent experienced coder with a doctorate in nursing was employed to code the data independently from the researcher’s coding. A meeting was arranged to discuss the data, and consensus was reached on the themes, categories and subcategories that derived from the data (see Annexures K and L).

These categories and subcategories were used as part of the concepts for the development of an empowerment framework (Creswell, 2014:201).
2.5.3.6 Rigour and trustworthiness

Tobin and Beckley (2004:390) describe rigour as a way of demonstrating the legitimacy of the research process and that the participants’ views have been represented accurately.

During the qualitative part of the study, Lincoln and Guba’s framework was applied to ensure trustworthiness (Creswell, 2014:210; Polit & Beck, 2012:582-586).

Trustworthiness was enhanced through credibility, confirmability, dependability and authenticity (Babbie & Mouton, 2001:276-278; Polit & Beck, 2012:582-586; Tobin & Beckley, 2004:388-393). These criteria represent parallels to the quantitative criteria of internal validity, reliability, objectivity and external validity (Polit & Beck, 2012:584). Table 2.9 provides a summary of the strategies used to ensure trustworthiness in this study.
Table 2.9  Strategies to ensure trustworthiness

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Strategies to ensure trustworthiness</th>
<th>Application in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prolonged engagement</td>
<td>The researcher spent time with the participants, conducting 20 in-depth interviews over a period of time.</td>
</tr>
<tr>
<td></td>
<td>Triangulation</td>
<td>Multiple methods of data collection were used – individual interviews, field notes, open-ended questions in the background questionnaires, and review of the literature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Different groups were included in the interviews (professional nurses rendering services as well as the managers of the PHC facilities).</td>
</tr>
<tr>
<td>Credibility</td>
<td>Peer debriefing</td>
<td>Regular discussion took place with experienced promoters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An independent coder was consulted to confirm themes and categories and a consensus meeting was held to finalise themes, categories and subcategories.</td>
</tr>
<tr>
<td></td>
<td>Member checking</td>
<td>During the interviews, the researcher clarified any statement that was not clear with the participant. Participants were consulted after the transcription of the data to ensure the accuracy of the data.</td>
</tr>
<tr>
<td></td>
<td>Reflexivity</td>
<td>Field notes were kept during data collection and reflective discussions were held with peers during the entire research process.</td>
</tr>
<tr>
<td></td>
<td>Authority of researcher</td>
<td>This researcher’s authority has been established by her being an experienced advanced nurse practitioner in primary care. The researcher also attended research methodology courses and has done research previously.</td>
</tr>
<tr>
<td>Transferability</td>
<td>Accurate descriptions</td>
<td>Dense description was given of the context and research process. Results of the study were provided with direct quotes from the participants.</td>
</tr>
</tbody>
</table>
The two sets of data were kept independent during analysis and were only mixed during the overall interpretation of results (Creswell & Plano Clark, 2011:70-71). Qualitative and quantitative data were presented side-by-side during the interpretation of the results.

2.5.4 Integration of data from the Quantitative and qualitative phase

Mixed methods research entails that the quantitative and qualitative data are integrated, also known as the point of interface (Creswell, 2014:22; Creswell & Plano Clark, 2011:66). Data obtained from the quantitative phase and qualitative phase were integrated and are discussed in Chapter 6. Integration of
data from mixed methods studies necessitates merging results that support or contradict each other with references from previous research. Concluding statements were formulated from the integrated data, providing the basis for developing the framework.

2.5.5 Phase 2: Conceptualisation and framework development

**Objective 6**

*To develop a framework to empower professional nurses in PHC facilities in North West for NIMART.*

Meleis (2012:354) states “that theory provides the contextual interpretation of research findings and the framework to connect the different experiences nurses encounter.” Chinn and Kramer (2011:156-157) describe conceptualisation as a process of making meaning and exploring a range of possible meanings for a concept in order to create meaning that is relevant for your study or purpose. Table 2.10 describes conceptual definitions in relation to concepts of theory.

**Table 2.10 Conceptual definitions of terms related to concepts of theory**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>A symbolic representation of an empiric experience in the form of words, pictorial or graphic diagrams.</td>
</tr>
<tr>
<td>Theoretic or conceptual framework</td>
<td>A logical grouping of related concepts or theories that usually is created to draw together several different aspects that are related to complex situation, such as practice settings</td>
</tr>
</tbody>
</table>

Adapted from Chinn and Kramer (2011:156-157)

The following guidelines that Chinn and Kramer (2011:156-181) suggest for framework (theory) development were applied:

- purpose of the framework;
- identifying and defining concepts;
- identifying assumptions;
- clarifying the context within which the framework is placed;
designing relationship statements; and
structure description.

2.5.5.1 Purpose of the framework

The general purpose of the framework is important and specifies why the framework was developed. It should provide an answer as to why was the framework developed (Chinn & Kramer, 2011:180).

The purpose of the framework was to empower professional nurses for clinical primary care practice, specifically for HIV and the initiation of NIMART, in the context of PHC facilities.

2.5.5.2 Conceptual definition and synthesis

Concepts were identified during the literature review of task shifting, NIMART, empowerment, and structural and psychological empowerment. Empirical data were obtained from empowerment questionnaires and in-depth interviews on the experience of professional nurses initiating ART in PHC facilities and their understanding of empowerment.

Definition suggests that the linguistic representation of an idea is expressed (Chinn & Kramer, 2011:189). Description of the concepts through language must represent the objects, properties and events to be able to create the framework (Chinn & Kramer, 2011:188-189).

The implicit and explicit meanings of concepts were described to enable others to understand the central and supportive concepts of the framework. These concepts were derived from the empirical data, the theoretical framework of the study and the WHO (2008:3-5) recommendations and guidelines for task shifting (Chinn & Kramer, 2011:189). Walker and Avant (1995:55-56) describe synthesis as a strategy to develop concepts. It is based on empirical evidence and observation. Synthesis in this study included information obtained from the literature review and empirical data from the questionnaires and interviews.
Concept analysis was not done during this study as the empirical data, Kanter’s theory on structural empowerment, and the WHO principles and recommendations were the guiding principles for the framework development and these concepts were used.

2.5.5.3 Assumptions of the framework

An assumption is something the researcher takes as an accepted truth or a basic given that is fundamental to theoretical reasoning (Chinn & Kramer, 2011:195-196).

Assumptions for this study were that empowerment includes both structural and psychological empowerment as described by Kanter and Spreitzer, and that task shifting should be guided by WHO recommendations and guidelines.

2.5.5.4 Description of relation statements

Chinn and Kramer (2011:180) state that relation statements structurally relate the concepts of the framework. Relationship statements for this framework are described in Chapter 7.

2.5.5.5 Structure of the framework

The structure of a framework presents the overall form of the relationships among the concepts (Chinn & Kramer, 2011:191-192). The structure is described and visually presented in a diagram in Chapter 7 to illustrate the relationships and context of the framework.

2.5.6 Phase 3: Evaluation of framework

**Objective 7**

*To evaluate framework by peers and experts in the field of NIMART and to adapt the framework where necessary.*

Critical reflection of the framework is needed to evaluate how adequate the framework is in relation to its purpose. Chinn and Kramer (2011:196-205)
suggest that the clarity, simplicity, generality, accessibility and importance of the framework should be evaluated.

i) **Clarity of the framework**

The clarity of the framework was evaluated by experts in the field for semantic clarity (meaning), structural clarity (concepts and relationships to each other) and consistency of both these aspects (Chinn & Kramer, 2011:198-201).

ii) **Simplicity of the framework**

Simplicity reflects on the number of concepts and their interrelationships. These should be kept to a minimum, otherwise the framework becomes too complex (Chinn & Kramer, 2011:201-202).

iii) **Generality**

Generality refers to the width of scope of the framework and its application to a broad group of situations (Chinn & Kramer, 2011:202-203). To reflect on the generality of the framework, experts in the fields of education and HIV were consulted during evaluation.

iv) **Accessibility of the framework**

Accessibility speaks to the attainability of the framework and the degree to which empiric indicators of the concepts can be identified by others in the field (Chinn & Kramer, 2011:203-204). Accessibility was evaluated by the peer reviewers.

v) **Importance of the framework**

Importance of a framework is related to its clinical significance or practical value and should answer the question of whether it creates understanding that is important to nursing (Chinn & Kramer, 2011:204). The importance was assessed in the context of primary care and explicitly for NIMART. Experts in
the field of HIV/AIDS, including educators, nurse managers and professional nurses, evaluated the framework (refer to Annexures M & N).

2.6 ETHICAL CONSIDERATIONS

Ethical clearance was obtained from MREC (see Annexure A). In addition, permission was received from the North West Province Policy, Planning, Research Monitoring and Evaluation (Annexure C) to conduct the study.

Codes of ethics have been developed to prevent human rights violations. These codes include the Nuremberg Code and the Declaration of Helsinki (Polit & Beck, 2012:151). The Belmont report describes the principles of ethical conducted research as beneficence, respect for human dignity and justice (Polit & Beck, 2012:156-157). These principles are the standards on which ethical research is based.

In this study, the following ethical principles were adhered to (Burns & Grove, 2009:189-207; Creswell, 2014:95-101; Polit & Beck, 2012:156-157):

- protection of human rights;
- the right to privacy;
- the right to autonomy and confidentiality;
- the right to fair treatment; and
- the right to protection from discomfort and harm.

2.6.1 Respect for human dignity

Respect for human dignity consists of the right to self-determination and the right to full disclosure (Polit & Beck, 2012:154). Participation in this study was voluntary and the professional nurses in the clinics had a choice about whether they wanted to participate. No incentives were offered for participation, as this might have influenced voluntary participation. Full disclosure was ensured by explaining the purpose of the research, objectives and the research methods to each of the participants before written consent was obtained and they were enrolled in the study.
The right to privacy, confidentiality and anonymity was ensured in several ways. Questionnaires were numbered and did not include any personal data. Interviews were audio recorded with the participants’ permission and contained no personal information. Interviews were also numbered and the names of the participants did not occur in the recordings. All data and information obtained were treated as confidential and information provided to the coder and statistician for analysis was returned to the researcher after analysis.

An audit trail of interviews (audio tapes), data analysis (transcribed interviews) and coding by the researcher and independent coder will be kept safe (locked away) for five years at a place only known to the researcher.

2.6.2 Justice

The research was conducted in a way that excluded harm to any patients in the clinics where the research were conducted. If it was not possible to do interviews or distribute questionnaires due to patients waiting to be seen, the researcher returned at a time that was convenient for the clinic and the professional nurses. Justice includes the right to fair treatment and was not applicable in this study as there were no direct treatments or benefits for the participants.

2.6.3 Beneficence

Beneficence refers to right to freedom from harm and discomfort. As the topic was not a sensitive issue, no harm was expected to occur during the interviews; therefore, this principle did not apply to this study.

Participants could still exercise their right to withdraw from the research and they were able to continue with their normal duties as time for interviews was scheduled to suit the clinics in order to minimise any possible risk of interfering with service delivery.
2.7 SUMMARY

In this chapter, an overview of mixed methods design was presented, along with a description of the mixed methods research design, strategy and method that were applied in this study. Measures to ensure validity, reliability, trustworthiness and ethical aspects were addressed. The process to develop and evaluation of a framework for empowerment of professional nurses to initiate NIMART was discussed. In Chapter 3, a literature review related to the concepts of task-shifting, NIMART, structural and psychological empowerment on nurses were explored and discussed.
CHAPTER 3
LITERATURE REVIEW

3.1 INTRODUCTION

In Chapter 2, the research design and methodology were discussed. This chapter covers the literature review and a discussion of the main concepts related to this study, addressing objective one. Electronic databases such as CINAHL, Medline, ScienceDirect, EBSCOHost, Gateway and Emerald were searched for English-language results for the key concepts, namely, task shifting, NIMART, empowerment, structural empowerment and psychological empowerment.

Documents published from 1977 to 2016 were included for the search on power, empowerment, psychological empowerment and structural empowerment in order to include primary sources. Electronic searches on NIMART and task shifting were limited to 2005 to 2016. A librarian assisted the researcher in the literature searches. In this chapter, task shifting and NIMART are discussed first, followed by the concepts power, empowerment, structural empowerment and psychological empowerment, as these concepts are central to this study.

3.2 TASK SHIFTING

Task shifting is an approach being used in the health sector in under-resourced countries to manage the shortage of staff. The WHO (2008:7) defines task shifting as “a process whereby specific tasks are moved, where appropriate, to health workers with shorter training and fewer qualifications”. Tasks can be shifted from doctors to non-physicians and nurses to render clinical care, while other tasks, such as counselling, can be shifted to nursing assistants and lay workers.

Countries all around the world have made significant progress in scaling up HIV services. Nevertheless, major barriers must be overcome if universal access is
to be achieved. One of the main constraints is a serious shortage of health workers – the people on the front line of the efforts to prevent and treat HIV infection. By reorganising the workforce, more efficient use can be made of the available human resources. Figure 3.1 illustrates the process of tasks shifting. The inner circle indicates the other requirements for task shifting.

**Figure 3.1 WHO task shifting**

The WHO (2008:2) emphasises that task shifting alone cannot solve the health worker shortage and that other strategies that should run alongside task shifting are also needed. To guide the process, the WHO developed 22 recommendations during consultations with experts and stakeholders on task shifting over a period of time. A brief summary of these recommendations is given below (WHO, 2008:3-5).
3.2.1 Adopting task shifting as a public health initiative

Adopting task shifting as a public health initiative addresses increasing skilled health care workers, including stakeholders, creating a national framework and analysing the human resources situation (WHO, 2008:3-5):

- A task shifting approach should be considered to increase access to HIV and other health services, while increasing the numbers of skilled health workers.
- An attempt should be made to include all relevant stakeholders in consultations from the beginning of the process.
- A nationally authorised framework is required to coordinate and provide stability for the HIV services.
- An analysis of human resources, the need for HIV services and gaps in service provision should be conducted. The degree to which task shifting is already implemented and quality assurance measures that are in place should be considered.

Task shifting was adopted in South Africa in 2010 when initiation of ART was decentralised from hospitals and doctor initiation to PHC facilities and professional nurse initiation (Fairall, Bateman, Cornick, Faris, Timmerman, Folb, Bachmann, Zwarenstein & Smith, 2015; Mabelane, Marincowitz, Ogunbanjo & Govender, 2016).

3.2.2 Creating an enabling regulatory environment for implementation

An enabling environment for the implementation of task shifting consists of a regulatory framework and a scope of practice for health care workers (WHO, 2008:3-5). In this regard, revision of the scope of practice is necessary to allow an extended scope of practice for health workers to be able to practice within the legal and regulatory requirements. In addition, a fast-track approach for essential revisions of regulatory frameworks is necessary.

Creating an enabling environment for NIMART is lacking and is described as a constraint in initiating ART by professional nurses (Crowley & Mayers, 2015;

3.2.3 Ensuring quality of care

Under the recommendation of ensuring quality of care, role definitions and clarification, training and mentoring, support, and assessment are addressed as follows (WHO, 2008:3-5):

- Quality assurance mechanisms must be in place to support task shifting and to monitor the quality of care provided by health workers.
- Role definition and clarification with accompanying competency levels are required for health workers who are extending their scope of practice. This should form the basis for recruitment, training and evaluation.
- A systematic approach should be implemented for accredited competency-based training, so that all the health workers have the necessary competencies for their new tasks.
- Support for continuous education, certification and career progression that is nationally endorsed must be provided.
- Clinical mentoring and supportive supervision should be provided by competent mentors with the necessary skills to supervise the health workers to whom tasks are being shifted.
- Assessment on performance of health workers should be conducted against clearly defined roles, competency levels and standards.

Training, mentoring and support are some of the challenges described in the literature. There is no accredited training for NIMART and the standards vary from one provider to another (Crowley & Mayers, 2015; Kaposhi, Mqoqi & Schopflocher, 2014; Mabelane et al., 2016; O’Malley, Asrat, Sharma, Hamunime, Stephanus, Brandt, Ali, Kaindjee-Tjituka, Natanael, Gweshe, Feldacke & Shihepo, 2014).
3.2.4 Sustainability

Financial sustainability of task shifting, remuneration and incentives for trained health workers to retain them are part of sustainability strategy that should be implemented. In this regard, the following is mentioned (WHO, 2008:3-5):

- Performance-based incentives (financial or non-financial) should be applied to retain health workers with new responsibilities and enhance their performance. These incentives should be matched with available resources in a sustainable manner.
- Trained health workers providing essential services and community health workers should receive adequate remuneration and incentives, and the country should not depend on volunteers.
- Task shifting plans must be costed and adequately financed for sustainability.

Remuneration of professional nurses rendering NIMART is still a sensitive issue as they do not receive additional remuneration or incentives for the additional tasks that they are performing (Crowley & Mayers, 2015; Dambisya & Matinhure, 2012; Davies et al., 2013; Dawson, Buchan, Duffield, Homer & Wijewardena, 2013).

3.2.5 Organisation of clinical care services

Clinical care organisation refers to the tasks that are shifted from doctors to non-physicians, nurses, community health workers, pharmacists and administrative staff, with appropriate referral systems that need to be in place. The following is mentioned in this regard (WHO, 2008:3-5):

- The country should elect to adopt, adapt or extend the task shifting model most suitable for their context, taking into consideration the health workforce, disease burden and service delivery gaps.
- Referral systems should be in place to support the decentralisation of service delivery and health workers should know how to use these systems.
• Non-physician clinicians can safely undertake the majority of clinical tasks.
• Nurses and midwives can safely undertake a range of HIV clinical services.
• Community health workers can effectively provide specific HIV services.
• People living with HIV/AIDS can be empowered to take responsibility for certain aspects of their own care, particularly in relation to self-care and to overcoming stigma and discrimination.
• Pharmacists, pharmacy technicians and administrators could be included in a task-shifting approach.

Clinical tasks were shifted to professional nurses and the counselling task was shifted to lay counsellors because of the HIV epidemic (Assefa, Van Damme & Herman, 2010; Emdin & Millson, 2012). Due to the shortage of doctors in South Africa and the HIV epidemic in South Africa, initiation of ART was shifted to professional nurses (NIMART) in PHC settings. The recommendations of the WHO (2008:3-5) were not always adhered to with the implementation of NIMART.

3.3 NURSE INITIATED ANTIRETROVIRAL THERAPY

It is estimated that South Africa has seven million people living with HIV/AIDS. The country is also experiencing a shortage of health workers (UNAIDS, 2015).

Initiation of ART was initially done by doctors at hospital level. However, due to the number of people who needed this life-saving intervention and WHO recommendations for the scale-up of ART, South Africa include professional nurses on PHC level in initiation of ART in 2010. At first, professional nurses were only initiating adults onto ART, but children were added later.

3.3.1 Training of nurses to initiate ART

NIMART training was introduced with two weeks of training and mentoring from the training organisation. This changed to a five-day course with mentoring. PALSA PLUS was later added to the training and IMCI training was adapted to included initiation of children on ART. NIMART training has not been accredited yet, although different courses are run by universities, other training institutions,
NGOs and the National Department of Health. An overview of these courses is presented below as training and mentoring is still deficient in practice.

3.3.1.1 NIMART course

The initial NIMART course consisted of 10 days of theory training with mentoring after completion of the theory training. This changed to five days of training with mentoring, according to the Foundation for Professional Development (FPD) (Cameron, Gerber, Mbatha, Mutyabule & Swart, 2012:98). Mentoring after training as described by Cameron et al. (2012:98) involves that professional nurses are encouraged to work in facilities where they can receive weekly mentoring until they are confident to work more independently. Mentoring is done by local HIV doctors or nurse mentors working for one of the PEPFAR-funded partners.

3.3.1.2 Clinical management of HIV/AIDS for nurses: theory and practical training and mentoring

This course is offered in different formats, ranging from a postgraduate diploma, to a short course consisting of a three-day interactive workshop and self-study (FPD www.foundation.co.za), to a six-day initial workshop with skills training, followed by four weeks of mentoring (https://www.sun.ac.za).

3.3.1.3 IMCI theory and practical training and mentoring

IMCI training, as recommended by the WHO (1997:119-128), is an 11-day course that combines classroom work with hands-on clinical practice in the afternoon. This includes screening children for severe and acute illness, as well as under-nutrition, HIV and TB.

3.3.1.4 Comprehensive paediatric HIV care and treatment initiative (South to South) theory and practical training and mentoring

This course is a five-day course offered by the University of Stellenbosch. It consists of on- and off-site face-to-face teaching, a distance learning component, group discussions, demonstrations, practice, field visits (clinic
visits) and mentoring. At the end of the course, students are assessed to see if they are competent (South to South, n.d.).

3.3.1.5 **PALSA PLUS theory and practical training and mentoring**

PALSA PLUS training is based on PALSA, which consists of evidence-based algorithms for PHC nurses (Georgeu et al., 2012). PALSA became PALSA PLUS when it was adapted to integrate management of HIV/AIDS and ART into the algorithms (Uebel et al., 2011). Stein et al. (2008) explain the training as follows: trainers (nurses and doctors) are trained face to face for five days. This is followed by three six-weekly support visits, which is in turn followed by the training of PHC nurses by the trainers in an outreach format (onsite training) of weekly two-hour sessions over a period of three to four months. The five-day NIMART course offered by the FPD includes the PALSA PLUS training (Cameron et al., 2012:98).

Initiation of ART by professional nurses has been accepted as a strategy to accelerate initiation of patients needing ART, and an enabling environment is vital for implementation. Enablers and constraints to the initiation of ART are discussed in the next section.

3.3.2 **Barriers to rendering ART services**

Factors described in the literature will act as either enablers or constraints for implementation of ART and effective task shifting. These factors are discussed next.

3.3.2.1 **Human resources**

Insufficient human resources present a risk, as there are not enough medical practitioners, pharmacists, pharmacy assistants or professional nurses in the public health sector. A critical gap of 4 128 trained PHC nurses were identified for 2015 (National Department of Health, 2011b:134, 2015b:9).

In their study on staffing norms for PHC in the context of PHC re-engineering, Daviaud and Subedar (2012:21) calculated that there is a shortage of 361
medical doctors, over 10 000 professional nurses (including specialised nurses), 4 500 post-basic pharmacy assistants, 1 417 administrative supporters and 1 652 counsellors. The calculation of the shortage of professional nurses takes the professional nurses needed for outreach teams and school health teams into account.

Makhado (2014:96-98) identified human resources as one of the main barriers to the implementation of ART, with participants emphasising time pressure, heavy workload and shortage of staff as human resources-related barriers. Other researchers have confirmed that these aspects and other health system challenges influence effective task shifting (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016:10; Makhado, 2014:96-98; Mathibe, Hendricks & Bergh, 2015).

Nurses at clinic level are already over-stretched due to a high percentage of professional nursing posts vacant and the number of patients that need to be seen per day (Crowley & Mayers, 2015; Stein et al., 2008).

3.3.2.2 Training and mentoring

Current NIMART training in South Africa was discussed earlier in this chapter. The NIMART training is not accredited and the standard of training varies between the providers. Cameron et al. (2012:98) explain that professional nurses are encouraged to work in facilities where they can receive mentoring until they are confident to work more independently. Mentoring is provided by local HIV doctors or nurse mentors working for one of the PEPFAR-funded partners, and by nurse mentors from the provincial departments of health.

In 2011, the National Department of Health developed a clinical mentorship manual for integrated services to assist mentors from provincial, district and sub-district teams (National Department of Health, 2011a:7). Didactic training in a specific field like NIMART should be followed up with clinical practice and mentoring in the facility by an experienced, competent clinical mentor who will
assess the mentees until they are competent (National Department of Health, 2011a:6-8).

The reality in practice is that not all the professional nurses initiating ART are trained and very few of the ones that have been trained, received mentoring. Mutiti (2016) states that, at the end of May 2016, out of 18 043 professional nurses trained in NIMART, only 25% were mentored.

Training, mentoring and support have been identified as essential for the implementation of NIMART and to warrant the quality of care (Callaghan et al., 2010; Crowley & Mayers, 2015; Ferrinho, Sidat, Goma & Dussault, 2012; Hirschhorn et al., 2006; Mabelane et al., 2016:10; Makhado, 2014:96-98). To ensure that the correct standards are adhered to, training needs to be standardised and accredited.

3.3.2.3 Other resources

Additional factors that relevant to initiating ART are infrastructure, with limited working space, unavailability of drugs, equipment and stationery acting as constrains to implement NIMART. These constraints need to be addressed for effective implementation of NIMART and task shifting (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016:10; Mathibe et al., 2015).

3.3.3 Feasibility of NIMART and quality of care

Initially, there was resistance from doctors to allow initiation of ART by professional nurses as the doctors were concerned about the quality of care. In their randomised non-inferiority trial on nurse versus doctor management of HIV infected patients on ART, Sanne et al. (2010:33) reported that nurse-monitored ART is non-inferior to doctor-monitored therapy. Literature has confirmed the above finding (Cohen et al., 2009; Emdin & Millson, 2012; Fatti et al., 2010; Green et al., 2014; Kaposhi et al., 2014; Monyatsi et al., 2012).

In their systematic review, Mdege, Chindove and Ali (2013:232-233) concluded that switching ART initiation from doctors to nurses can reduce costs without
compromising patient outcomes or quality of care. NIMART is seen as a feasible option to improve access to ART and has been accepted by professional nurses; however, there are still constraints that should be addressed to ensure quality of care and sustainability of HIV/AIDS services at PHC level.

Miles, Clutterbuck, Seitio, Sebego and Riley (2007:557-558) recommend that the following process should be followed for successful implementation of task shifting and NIMART:

- Consider medico-legal aspects and consult all stakeholders.
- Involve national nurses’ associations and training institutes to obtain buy-in.
- Address political and professional barriers to prevent objections from doctors, and to prevent nurses from feeling they are taking over doctors’ roles without additional remuneration.
- Clarify the medico-legal position of nurses and adapt legislation and policy to address the scope of practice of nurses and to protect their professional identity.
- Stipulate minimum educational requirements and implement accredited ART training and mentoring to ensure competent practitioners.
- Set monitoring and evaluation measures in place to safeguard quality of care.

Crowley and Mayers (2015) conclude that task shifting is effective to increase access to ART; however, there is a lack of commitment to WHO guidelines and recommendations, especially regarding training and supportive supervision, regulatory frameworks, strengthening of health systems, and monitoring and evaluation.

The concepts of power and structural and psychological empowerment, as well as the relation of the recommendations to structural empowerment, are discussed next.
3.4 POWER AND EMPOWERMENT

Although there is a substantial body of knowledge on empowerment, scholars still differ on its definition and interpretation (Bradbury-Jones, Sambrook & Irvine, 2008:258-259; Kuokkanen & Leino-Kilpi, 2001:273-274; Manojlovich, 2007; Ryles, 1999:601).

Robbins, Crino and Fredendall (2002:419-420) refer to the definitions used by other scholars, including intrinsic task motivation (Thomas & Velthouse, 1990), psychological motivation (Spreitzer, 1996:484), job structure comprising opportunity, resources, information, support and transferring of power or authority (Kanter, 1977), job support structures such as the sharing of resources and information, and human resource practices such as training programmes or reward systems (Conger & Kanungo, 1988:474).

The concept of power forms the core of any review of empowerment (Bradbury-Jones et al., 2008:258-259; Gilbert, 1995; Rodwell, 1996; Ryles, 1999). Power is conceptualised differently by different scholars; however, it is better known for its negative connotation of control over other people (Bradbury-Jones et al., 2008). Ryles (1999:602) views power as positive, playing a major role in the possibility that groups and individuals can free themselves from domination by others.

Due to the different opinions in the empowerment literature and the lack of a set of accepted and commonly applied definitions of the central elements, some of these definitions are discussed here.

Avram and Priescu (2012:950) define empowerment as a “multi-layer concept, which can be investigated at an individual, organisational community or social level.” They consider workplace empowerment as a significant aspect in ensuring psychological comfort and personnel management in an organisation.

Hur (2006:524) describes empowerment as multidimensional, as it occurs within sociological, psychological, economic, political and other fields, as well as at different levels, from individual to community level.
Hur (2006:526), Lincoln, Travers, Ackers and Wilkinson (2002), and McCarthy and Freeman (2008:69-71) have described empowerment in different disciplines. Table 3.1 summarises the process of empowerment as described by the above mentioned authors.

**Table 3.1 Process of empowerment in various disciplines**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Process of empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political science</td>
<td>Strengthening representational links, fostering positive attitudes, strengthening intellectual capabilities and encouraging political participation. Giving power to the people.</td>
</tr>
<tr>
<td>Social welfare</td>
<td>Mobilising and transforming.</td>
</tr>
<tr>
<td>Education</td>
<td>Inspiring, Liberating oppressed people.</td>
</tr>
<tr>
<td>Empowerment women</td>
<td>Giving women tools to better control their lives and join a collective struggle. This includes intellectual empowerment as well experiential empowerment (the capacity to control behaviour).</td>
</tr>
<tr>
<td>Health</td>
<td>Discovering reality, developing the necessary knowledge, fostering competency and employing confidence to make people’s voices heard.</td>
</tr>
<tr>
<td>Management</td>
<td>Sharing power information and creating autonomy through boundaries and team building.</td>
</tr>
<tr>
<td>Organisational empowerment</td>
<td>Access to information, support, resources and opportunities to learn and grow in the work setting. This also includes delegation and decision-making.</td>
</tr>
<tr>
<td>Community empowerment</td>
<td>Correcting an imbalance of power by increasing access to resources such as communication and negotiating skills.</td>
</tr>
<tr>
<td>Psychology empowerment</td>
<td>A process by which people and organisations gain mastery over issues of concern to them. The results will be autonomy, decision-making power, and improved self-esteem, self-efficacy and competency.</td>
</tr>
</tbody>
</table>


Business Dictionary (Web Finance, n.d.: s.v. ‘empowerment’) defines empowerment as:

a management practice sharing information, rewards and power with employees so that they can take initiative and make decisions to solve problems and improve service and performance. Empowerment is based on the conception that giving employees skills, holding them accountable for outcomes of their actions, will contribute to their competence and satisfaction.
Kanter (1993, in Casey et al., 2010:30) defines power as “the ability to get things done, to mobilise resources, to get and use whatever it is that a person needs for the goals he or she is attempting to meet”.

Gibson (1991:360) describes empowerment as a positive and dynamic process that focuses more on solutions than on problems and relates to enabling others to choose to take control over and make decisions about their lives (Gibson, 1991:359-360; Rodwell, 1996:309).

Udod (2012:17) argues that empowerment refers to, firstly, enabling an individual to act by sharing power with others to achieve a common goal; and secondly, enabling individuals to gain control over their lives as they become aware of aspects of the organisational system and practices that constrain their work.

Empowerment is also an important concept in nursing practice. The Merriam-Webster Online Dictionary (n.d., s.v. ‘empower’) defines the word ‘empower’ as giving official authority or legal power, or enabling and promoting self-actualisation or influence.

In her concept analysis of empowerment, Febriana (2011:181) concluded that empowerment is an important concept in nursing practice, management, research and education, and that it raises awareness of personal and contextual resources.

Ahmad and Oranye (2010:583) argue that there are mainly two important concepts of empowerment in the literature, namely, structural empowerment (Kanter, 1977) and psychological empowerment (Spreitzer, 1995). Structural empowerment was developed from organisational management theory and focuses on organisational behaviour, but lacks individual attributes that contribute to psychological factors. Psychological empowerment derives from the social psychological model and focuses on the perception or attitudes of employees about their work, their organisational roles and intrinsic task
motivation, but it does not consider important components like environmental factors (Ahmad & Oranye, 2010:583).

3.5 THEORIES OF EMPOWERMENT

Organisational management theory and social psychological theories, from which structural and psychological empowerment, respectively, developed, are discussed in this section.

3.5.1 Organisational and management theory

Structural empowerment focuses on organisational conditions, including empowering structures, policies and practices.

Most of the management literature consulted addresses the use of power in organisations (Conger & Kanungo, 1988; Kanter, 1993, in Casey et al., 2010:30). Kanter (1993, in Casey et al., 2010:30) views power as the ability to get things done, to mobilise resources, and to obtain whatever a person requires achieving intended goals. Evidence in the literature confirms that Kanter’s theory on structural empowerment is widely used in nursing research over the world. Various studies have linked Kanter’s concept of structural empowerment to organisational attitudes and behaviours.

Ahmad and Oranye (2010:582-590) conducted a comparative analysis on job satisfaction and organisational commitment of nurses working in Malaysia and England. They found a significant correlation between structural empowerment, job satisfaction and organisational commitment.

Casey et al. (2010:32) concluded that social empowerment is crucial to psychological empowerment and job satisfaction. They recommend that nurse managers should be included in organisational decision-making to improve patients’ and clients’ health outcomes. A statistically significant positive correlation between structural empowerment and job satisfaction was found by Ning et al. (2009:2646). This finding on the link between structural
empowerment and job satisfaction has been confirmed by Baker, Fitzpatrick and Griffin (2010:237), Cai and Zhou (2009:401), and Lautizi et al. (2009:450).

Another positive employee behaviour linked to empowerment was intent to stay in their current position (Gilbert et al., 2010:345; Laschinger et al., 2001:261, 2004:538; Nedd, 2006). Kanter (1977 & 1993, in Laschinger et al., 2001:261) views empowerment as arising from social structures in the workplace that enable employees to be satisfied and more effective in their jobs.

Laschinger et al. (2001:268) report that structural empowerment can increase nurses’ job satisfaction and decrease their job strain, while Faulkner and Laschinger (2008:219) support Kanter’s theory of workplace empowerment having positive effects on organisational behaviour and attitudes. Knol and Van Linge (2008:367) concluded in their research that structural, as well as psychological, empowerment leads to innovative behaviour and that impact and informal power are the most relevant aspects.

According to Kanter (1993, in Casey et al., 2010:30), social structures in the workplace influence employee behaviour more than individual characteristics. These structures include employees having access to information, receiving support from managers, having access to resources to be able to complete their job and having opportunities to learn and grow. Access to these structures is facilitated by formal and informal job characteristics (power) (Gilbert et al., 2010:346; Knol & Van Linge, 2008:361; Laschinger et al., 2001, 2004).

Work that is considered relevant and important for the organisation and central to the organisational goals creates formal power (Lethbridge, Andrusyszyn, Iwasiw, Laschinger & Fernando, 2011). Formal power is evident in high-profile jobs with autonomy in decision-making that directs the organisations goals. In the public health sector in South Africa, professional nurses and nurse managers are often excluded from decision-making processes.

Informal power is derived from associations and communication with people within and outside the organisation on all levels. Relationships with superiors or
sponsors, peers and subordinates improve access to opportunities (Lethbridge et al., 2011).

Organisational structures include the following (structural empowerment):

- **Information**: Knowledge of organisational decisions, policies and goals is important, as well as the data, technical knowledge and expertise required to be effective within the organisation. Information gives employees a sense of purpose and meaning, and enhances their ability to make decisions that contribute to organisational goals.

- **Support**: Support from superiors, peers and subordinates are needed and include feedback about performance, guidance, emotional support, problem-solving advice and hands-on assistance.

- **Resources**: Resources include the materials, money, supplies, time, and equipment that employees need to achieve the demands of their jobs and accomplish organisational goals. Employees’ capacity to access these resources is also important.

- **Opportunities**: Opportunities include the possibility for learning and growth to advance in the organisation. This requires access to challenges, rewards and professional development opportunities to increase knowledge and skills, which may be provided through participation in committees and work groups that give opportunities to work with and learn from people in other areas of the organisation (Casey et al., 2010:32; Faulkner & Laschinger, 2008:220; Gilbert et al., 2010:346; Knol & Van Linge, 2008:367; Laschinger et al., 2001:125, 2004:528; Ning et al., 2009:2646).

In a systematic literature review, Wagner, Cummings, Smith, Olson, Anderson and Warren (2010) concluded that research studies have proven that structural empowerment leads to psychological empowerment. Psychological empowerment, in turn, leads to measurable positive workplace outcomes such as increased job satisfaction (Laschinger et al., 2001, 2004; Manojlovich & Laschinger, 2002) for both registered nurses and nurse managers, increased
perceptions of respect and affective commitment for registered nurses (DeCicco, Laschinger & Kerr, 2006; Faulkner & Laschinger, 2008), increased organisational commitment of the individual registered nurse (Laschinger, Finegan & Wilk, 2009), increased innovation by registered nurses (Knol & van Linge, 2008) and reduced burnout off staff (Ahmad & Oranye, 2010:589; Laschinger et al., 2004).

There is limited South African literature on structural empowerment.

Jooste (1997, 1999) concentrated on the empowerment of nurse managers and referred to De Villiers’ conclusion that South African public health services are bureaucratic, with an emphasis on legitimate power and authority of top-level management (Jooste & Booyens, 1998). Jooste (1997:36-39) identified several factors that could improve empowerment of nurses, namely, management structures, power sharing, participative decision-making, management skill development, motivation and reward strategies.

Dolamo (1998:54) researched nurse managers’ perceptions of job-related empowerment and organisational commitment, and reported that the managers were moderately empowered. Their perception of power and opportunity (M = 3.51, SD = 0.86 and M = 3.47, SD = 0.74), formal power characteristics (M = 3.50, SD = 0.54), informal alliances of empowerment (M = 3.35, SD = 0.63), and the strength of their individual commitment to the organisation (M = 4.62, SD = 0.64) were rated. Dolamo’s (1998:57) conclusion in her research supports Kanter’s argument that access to the power structures is the main factor in work behaviours and organisational commitment.

3.5.2 Social psychological theories

Conger and Kanungo (1988:484) argued that a structural perspective was incomplete as management practices are necessary, but not sufficient, conditions for empowering employees. To them, empowerment was a “process of enhancing feelings of self-efficacy among organisational members through the identification and removal of conditions that foster powerlessness” (Conger
& Kanungo, 1988:484). The scholarly work of Conger and Kanungo (1988) was advanced by Thomas and Velthouse (1990:675) with the development of a broader theoretical framework that describes empowerment as essential motivation that is evident in four cognitions that influence employees' behaviour that are visible in their attitude towards their work. The four dimensions identified by them are:

- meaningfulness (how individuals value the task in relation to their ideals);
- competence (skilfully performing tasks);
- impact (making a difference in the organisation); and
- choice (making decisions that influence their actions).

Spreitzer studied the interdisciplinary literature on empowerment, drawing on psychology, sociology, social work and education. She concluded that the literature across these disciplines support these four dimensions of empowerment. Based on these results, she continued to refine these four dimensions as follows (Spreitzer, 1995:1443; Spreitzer, Kizilos & Nason, 1997:483-504):

- Meaning involves a fit between the needs of one's work role and one's beliefs, values and behaviours.
- Competence refers to self-efficacy specific to one's work or a belief in one's capability to perform work activities with skill.
- Self-determination (autonomy) is a sense of choice in initiating and regulating one's actions. It reflects a sense of autonomy or choice over the initiation and continuation of work behaviour and processes (e.g., making decisions about work methods, pace and effort).
- Impact is the degree to which one can influence strategic, administrative or operating outcomes at work.

Spreitzer (1995:1443) argues that feeling a certain level of independence and efficacy is needed to feel psychologically empowered, and that all four cognitions are required to “capture the full essence of empowerment”. Individual
behaviour, personality characteristics and interaction with the work environment affect the process of empowerment turning into motivation (Spreitzer, 1995). Psychological empowerment emphasises the characteristics of an individual influencing his/her orientation to work and ability to arrange his/her work surroundings.

Empirical research has demonstrated that psychological empowerment constructs are related to organisational commitment – where there are higher levels of psychological empowerment and work independence, higher levels of organisational commitment are present (Ahmad & Oranye, 2010:589; Spreitzer, 1996:498).

Spreitzer (1996:497-499) states that clear tasks, goals and lines of responsibilities are necessary to prevent role ambiguity, as this influences empowerment. Furthermore, empowerment is influenced by the level of information provided and a participative climate that helps employees to believe that they are valuable assets.

Spreitzer et al. (1997:681-682) describe the four dimensions of psychological empowerment as follows:

- Meaning is the engine of empowerment and, if work activity conflicts with their value system, individuals will not feel empowered.
- Competence reflects individuals’ belief that they have what it takes to do the job. If they do not feel confident, they will lack a sense of empowerment.
- Self-determination (autonomy) indicates individuals’ independence to make decisions regarding their work. If they feel that they have little autonomy or freedom and that they just following orders, they will feel disempowered.
- Impact reflects employees’ belief that they are making a difference in the organisation. If they feel they have no influence, they will feel disempowered.

Spreitzer et al. (1997:681-682) concluded that all four dimensions of psychological empowerment are required to be empowered, and that
psychological empowerment has an influence on effectiveness, work satisfaction and job strain.

Macsinga, Sulea, Sârbescu, Fishman and Dumitru (2014:271) emphasise the influence of psychological empowerment on positive work outcomes and state that it increases employees’ work engagement and organisational commitment.

Nasiripour and Siadati (2011:909) identified that appropriate workload, respect, physician dominance, access to information, support and respect in workplace settings influenced work empowerment. Continuous education and communication were also identified as empowering aspects. It is noteworthy that these aspects have also been identified and addressed in the context of NIMART (Crowley & Mayers, 2015).

Research conducted in South Africa on psychological empowerment is discussed next.

Studies by Stander and Rothmann were not specific to nursing staff; their participants were from government and industry, and participants varied from semi-skilled workers to professionals. The importance of the four constructs of Spreitzer (1995) was confirmed, with self-determination and impact having the strongest loading on psychological empowerment (Stander & Rothmann, 2009a). The reliability confirmed internal consistency of the four subscales with an alpha coefficient of between 0.81-0.89, matching with findings in the literature (Stander and Rothmann, 2009a). In their study on the relationship between leadership, job satisfaction and organisational commitment, Stander and Rothmann (2009b) established statistically significant relationships between leader-empowering behaviour, job satisfaction and organisational commitment. The findings of their study on psychological empowerment, job insecurity and employee engagement (Stander & Rothmann, 2010) found that self-determination was statistically significantly related to employee engagement, while employees who feared that they might lose their job experienced a loss of meaning.
Erasmus and Brevis (2005:59) identified heavy workload, staff shortages and uncertainty regarding work roles as issues in nurses’ working environment. The aspects identified in this research, namely, training opportunities, feedback on performance and respect, are included in Kanter’s empowerment model (Erasmus & Brevis, 2005:59).

Laschinger has expanded the theories of Kanter and Spreitzer into a model, arguing that structural empowerment leads to psychological empowerment, and this has the subsequent positive work outcomes: job satisfaction, organisational commitment, trust and low burnout (Laschinger et al., 2001:261; Laschinger, 2008:326-327; Smith et al., 2010:1006).

The WHO (2008:3-5) recommendations on task shifting includes all the aspects of structural empowerment and a comparison is presented in Table 3.1.

**Table 3.2 Comparison between the WHO recommendations and structural empowerment**

<table>
<thead>
<tr>
<th>WHO recommendations</th>
<th>Structural empowerment</th>
</tr>
</thead>
</table>
| Involvement of stakeholders | Informal power  
Network of alliances with sponsors, senior managers, peers and direct reports within and outside the organisation |
| Resources available | Resources  
Capacity of individual to access supplies, equipment and time to accomplish organisational goals |
| Regulatory framework | Information  
Knowledge of organisational decisions, policies and goals, as well as technical knowledge and expertise to be effective in the organisation |
| Integration with other basic health services | Formal power  
Jobs that afford flexibility and visibility and that are relevant to key organisational processes |
| Training of health workers according to need | Opportunity  
Access to challenges to grow, rewards and professional development opportunities to improve knowledge and skills  
Information  
Technical knowledge and expertise to be effective in the organisation |
3.6 EMPOWERMENT IN NURSING AND POWER OVER NURSING PRACTICE

Bradbury-Jones et al. (2008:258) state that power is an important issue in nursing practice and that nurses need to be empowered (as they are seen as an oppressed group) before they will be able to empower clients and patients (Fulton, 1997:529; Rodwell, 2006).

Nurses’ inter- and intra-disciplinary relationships are frequently understood as oppressed group behaviours, contributing to their relatively disempowered status (Daiski, 2004:33). Nursing is still challenged by negative stereotypes and nurses are still not empowered. Manojlovich (2007) argues that powerless nurses are ineffective nurses and that they need power to be able to influence patients, physicians, other healthcare professionals and each other.

Manojlovich (2007) discusses the importance of nurses having power over their own practice, which is referred to as professional autonomy. To attain autonomy, nurses should also have control over the content of nursing practice. In South Africa, nurses are often excluded in the decision-making processes regarding content when physicians decide what should go into a programme.

Barden, Quinn, Donahue and Fitzpatrick (2011:213) highlight the aspects of shared governance as forming an integral part of professional practice and control over nursing practice to promote excellence in nursing practice. Kaplow (2011:26-27) emphasises the value of certification as it was found that certified nurses were able to make decisions with greater confidence, influencing patient outcomes positively. Registered nurses, who were certified demonstrated higher levels of knowledge and skills were more empowered, were highly professional and functioned independently. It is important to take note of Kaplow’s findings as this can have a very positive influence on NIMART training if it is formalised and certified and recognised.

Power over nursing practice is often influenced by medical practitioners and management of health care services.
3.7 CONCLUSION

Task shifting is seen as a feasible option to increase access to ART. Services rendered by professional nurses are not inferior to doctors’ ART management. Adherence to the WHO’s recommendations and guidelines is necessary to ensure quality of care and sustainability. Challenges to NIMART still exist and involve lack of human resources and high workload, training and mentoring, other resources, and lack of a regulatory framework.

Structural empowerment is related to organisations and contributes to psychological empowerment of the employee and improved work outcomes. Where there is a high level of structural empowerment, there is also a high level of organisational commitment, job satisfaction and trust, as well as lower burnout. All four of the dimensions of psychological empowerment must be present to create psychological empowerment.

In Chapter 4, the quantitative data on structural and psychological empowerment and the background information are discussed and presented in graphs and tables.
CHAPTER 4

QUANTITATIVE DATA ANALYSIS AND DISCUSSION

4.1 INTRODUCTION

The literature review in the previous chapter incorporated task shifting, NIMART, empowerment, and structural and psychological empowerment, the main concepts of this study.

In Chapter 4, the data analysis of the quantitative data to answer objective 2 is discussed. The findings are presented by discussing the following aspects: background information comprising of SANC qualifications, training in HIV/AIDS and HIV/AIDS care services rendered, as well as structural and psychological empowerment.

Descriptive statistics were used and findings are presented in tables, pie and bar graphs with supporting discussions and literature references. A detailed discussion of the process was done in Chapter 2.

4.2 VALIDITY AND RELIABILITY

4.2.1 Validity

Validity consists of quality criteria that refer to the degree to which conclusion made in a study are accurate and justifiable. It reflects the degree to which an instrument measures what it is supposed to measure (Polit & Beck, 2012:768). Validity includes content validity, construct validity and face validity.

4.2.1.1 Content validity

Content validity means ensuring all the constructs of the phenomenon under investigation are adequately represented in the instrument (Polit & Beck, 2012:768). Internationally validated instruments that have been used in nursing studies since 2000 were used to measure structural (CWEQ-II) and

4.2.1.2 Construct validity

Construct validity refers to determining the extent to which an instrument measures an abstract construct. Construct validity in this study was ensured by clearly defined concepts that were supported by the theoretical framework and empirical data (Polit & Beck, 2012:237).

4.2.1.3 Face validity

Face validity involves the appearance of the instrument regarding the degree to which it measures what it is supposed to measure. This should not be considered as strong evidence, but it will help to motivate people to participate (Polit & Beck, 2012:458).

4.2.2 Reliability

Cronbach’s alpha coefficient is a widely-used index to determine the internal consistency of an instrument which compares the sub-constructs with each other during statistical analysis. Normal range of values is between 0.0 and 1.0, and higher values reflect higher internal consistency (Polit & Beck, 2012:333).

The Cronbach alpha coefficient for structural empowerment questionnaire in this study varied between 0.68 and 0.83 for the subscales and an overall score of 0.78. A score of above 0.70 is an acceptable score and confirm reliability.

The internal consistency coefficients for the sub-scales of psychological empowerment questionnaire varied between 0.80 and 0.90) may be considered as good this correlates with a study done in Turkey were the Chronbach alpha coefficients reported varied between 0.81-0.94 (Uner. & Turan)
4.3 BACKGROUND RESULTS

The background questionnaire (Annexure E) was divided into three parts and is discussed under the following headings: SANC qualifications, HIV/AIDS training, perceived knowledge of HIV/AIDS and ART, and perceived competency in HIV/AIDS care and services.

4.3.1 SANC qualifications, courses and HIV/AIDS training

All of the participants (n=182) were trained as registered nurses. This was followed by qualifications in midwifery (n=163) and community health nursing (74%). Paediatric nursing was the least represented qualification, with seven of the 182 participants having this qualification, while the second lowest number was for the dispensing course with 16.9% of participants, and then the clinical nursing science, health assessment, treatment and care qualification, with 45% (see Table 4.1).

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency (N=182)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered nurse</td>
<td>182</td>
<td>100%</td>
</tr>
<tr>
<td>Registered midwife</td>
<td>163</td>
<td>90%</td>
</tr>
<tr>
<td>Registered community health nurse</td>
<td>134</td>
<td>74%</td>
</tr>
<tr>
<td>Registered psychiatric nurse</td>
<td>107</td>
<td>59%</td>
</tr>
<tr>
<td>Registered paediatric nurse</td>
<td>7</td>
<td>4%</td>
</tr>
<tr>
<td>Clinical nursing science, health assessment, treatment and care</td>
<td>81</td>
<td>45%</td>
</tr>
<tr>
<td>Dispensing course</td>
<td>16</td>
<td>9%</td>
</tr>
</tbody>
</table>

The clinical nursing science, health assessment, treatment and care course equips professional nurses with specialist knowledge on diagnosing and managing patients and the paediatric course focuses on management of children. The absence of these qualifications can have an influence on the ability of the professional nurses to initiate and manage HIV/AIDS patients. Four percent of participants had the paediatric qualification and 45% had the clinical qualification. With increasing clinical responsibilities, it is necessary to improve
professional nurses’ physical examination skills and clinical decision-making to ensure quality clinical care (Morris, Chapula, Chi, Mwango, Chi, Mwanza, Manda, Bolton, Pankratz, Stringer & Reid, 2009). ART coverage reported in 2014 was 32% [30-34%] for children, compared with 41% [38-46%] for adults (UNAIDS, 2014a:19). If the 90-90-90 targets to be reached by 2020 are taken into account (UNAIDS, 2014a:1), stating that “90% of people living with HIV know their status 90% of all people diagnosed with HIV will receive sustainable ART and 90% of all people receiving ART will have viral suppression”, it highlights the urgency to initiate HIV-positive people onto treatment. This is even more important for HIV-positive children, as half of them will die before their second birthday if they do not receive ART (UNICEF, 2013:11).

It is a concern that only 16 participants (9%) had training in dispensing, as this influence professional nurses’ understanding of drug interaction, side effects and relevant information that they should provide to the patients regarding the drugs that are prescribed to them. In a study done by Ruud et al. (2012), a lack of training was found to be related to the inadequate management of adverse drug reactions at PHC level. The health care workers were uncertain whether signs and symptoms patients presented with were potential adverse drug reactions or not; therefore, they did not have sufficient knowledge to treat adverse drug reactions. Cameron et al. (2012:99) reported in a follow-up of 126 professional nurses trained in NIMART by the FPD that 55% of professional nurses had received training in clinical skills and 38% had completed a dispensing course. Of these professional nurses, seven percent were prescribing ART to children after the NIMART training, compared with the 62% prescribing ART to adults (Cameron et al., 2012:99).

In the next section, specific training related to HIV/AIDS is discussed.

4.3.2 HIV training

Currently, there is different training that professional nurses are doing to initiate ART. NIMART training and PALSA PLUS were the two major courses with IMCI (that included the provision of ART to children).
The majority (70%) of the participants indicated that they had received some HIV/AIDS training. This included NIMART, clinical management of HIV/AIDS, PALSA PLUS, paediatric training in HIV management (South to South) and IMCI Provision of ART in Children. Figure 4.1 explains the training.

![HIV training received](image)

**Figure 4.1** HIV training received

4.3.2.1 NIMART training and initiation

Of the 182 participants (n=182), 57% were trained in NIMART and 12 (7%) of the NIMART trained professional nurses were not initiating ART. It is also important to take note that 26 (14%) were initiating ART without any training, as illustrated in Figure 4.2.
Even though 57% of the professional nurses were initiating ART after training, they might not be competent. Jones (2014:14) reported that, of the 1 609 professional nurses they mentored in a study after NIMART training in four districts in South Africa, only 129 (13%) received competency certificates based on a portfolio of evidence that is needed to initiate ART. Although the others did not receive a competency certificate, they continued to initiate patients on ART. Ford (2013:48) also states concern regarding the competency needed by professional nurses to be authorised to prescribe ART.

4.3.2.2 HIV training

Of the total (n=182) participants, 103 indicated that they had received training in HIV/AIDS and were asked to comment further on the training they had received. Seventy three percent were trained in NIMART (n=103 professional nurses received HIV/AIDS training) HIV testing and counselling 72% and PALSA PLUS 44%. The number of professional nurses with training in paediatric HIV management (South to South) was the lowest at 20%, followed by those with
training in IMCI at 56%. Table 4.2 illustrates the training in different courses related to HIV.

### Table 4.2 HIV training

<table>
<thead>
<tr>
<th>HIV training courses</th>
<th>Yes, had training</th>
<th>No training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiretroviral therapy (NIMART)</td>
<td>93 (73%)</td>
<td>35 (27%)</td>
</tr>
<tr>
<td>Clinical management of HIV/AIDS for nurses</td>
<td>33 (26%)</td>
<td>95 (74%)</td>
</tr>
<tr>
<td>IMCI, provision of ART to children</td>
<td>72 (56%)</td>
<td>56 (44%)</td>
</tr>
<tr>
<td>Comprehensive paediatric HIV care and treatment initiative (South to South)</td>
<td>25 (20%)</td>
<td>103 (80%)</td>
</tr>
<tr>
<td>Prevention of mother-to-child transmission (PMTCT)</td>
<td>75 (59%)</td>
<td>53 (41%)</td>
</tr>
<tr>
<td>PALSA PLUS</td>
<td>56 (44%)</td>
<td>72 (56%)</td>
</tr>
<tr>
<td>HIV testing and counselling</td>
<td>92 (72%)</td>
<td>36 (28%)</td>
</tr>
<tr>
<td>Adherence counselling</td>
<td>49 (38%)</td>
<td>79 (62%)</td>
</tr>
</tbody>
</table>

The IMCI and South to South training focus on paediatric initiation of ART and the low percentage of professional nurses trained in these aspects might contribute to the low initiation rate of children of 34% in 2012 compared with 64% of adults in 2012, as reported by UNICEF (2013:2). UNAIDS (2014b:19) reports that only 22-26% of children living with HIV receive ART.

#### 4.3.2.3 Duration of theory, practical training and mentoring in the different HIV trainings

The following training programmes are discussed in terms of theory and practical training as well mentoring: NIMART, clinical management of HIV/AIDS for nurses, IMCI, comprehensive paediatric HIV care and treatment initiative (South to South) and PALSA PLUS. These courses and training are related to initiating ART and clinical management of PLWA.

The courses and training were discussed in terms of theory and practical training and mentoring in Chapter 3 to provide an overview.
i) **Duration of NIMART theory and practical training and mentoring NIMART**

Ninety three of the participants indicated that they had received NIMART training. The duration of the training varied between one to four days and two weeks.

Seven of the participants received training that lasted for two weeks and 86 (92.5%) reported four or five days' training. In this study, 58 (62.4%) of participants reported that they had not received any mentoring and 35 (37.6 %) received practical training during the course, as explained in Table 4.3 below.

**Table 4.3 Duration of NIMART theory and practical training and mentoring**

<table>
<thead>
<tr>
<th>Antiretroviral therapy (NIMART)</th>
<th>Duration of theory training</th>
<th>Duration of practical training</th>
<th>Mentoring and supervision after training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>N</td>
<td>93</td>
<td>35</td>
<td>58</td>
</tr>
<tr>
<td>1- 4 days</td>
<td>16</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>5 days</td>
<td>70</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>2 weeks</td>
<td>7</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

According to the WHO (2008:4) guidelines for task shifting, health care workers should be trained and mentored to fulfil their new roles. Therefore, the implementation of NIMART must be based on training professional nurses for their new roles and tasks, as well as effective mentoring and supervision, as highlighted in the literature (Colvin et al., 2010:211; Crowley & Mayers, 2015; Dambisya & Martinhure, 2012; Davies, et al., 2013; Georgeu et al., 2012).

According to Mutiti (2016), at the end of May 2016 there were 18 043 professional nurses in South Africa trained in NIMART. Of these, 4 515 (25%) were mentored and only 2 743 (15.2%) were certified competent. For North West, the following figures were reflected: 976 professional nurses were trained in NIMART; of these, 251 (25.7%) were mentored and only 229 (23.5%) were
certified competent (Mutiti, 2016). This confirms earlier findings of an FPD study in which 59% of participants reported that they received mentoring after NIMART training (Cameron et al., 2012:98). Despite the fact that professional nurses are trained, they do not complete their portfolios to receive competency certificates. This is confirmed by Jones (2014:14), who found that only 129 out of 1 609 professional nurses (13%) received competency certificates based on a portfolio of evidence of initiating 80 clients on ART. Although the others did not receive competency certificates, they continued to initiate patients on ART. Concerns have been raised regarding the competency needed by professional nurses to prescribe ART within their scope of practice and the legal implications of prescribing ART (Ford, 2013:48). From the above discussion, it is evident that professional nurses are not empowered to fulfil their new roles, tasks and duties.

ii) *Duration of theory and practical training and mentoring of clinical management of HIV/AIDS for nurses*

In Table 4.4, the clinical management of HIV/AIDS training is presented in terms of the duration of theory training, practical training, and mentoring and supervision after the training per related field. Of the 33 participants who had done this course, 55% stated that they had done practical training and a mere 21% had received mentoring.

**Table 4.4 Duration of theory and practical training and mentoring of clinical management of HIV/AIDS for nurses**

<table>
<thead>
<tr>
<th>Clinical management of HIV/AIDS for nurses</th>
<th>Duration of theory training</th>
<th>Duration of practical training</th>
<th>Mentoring and supervision after training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>1-4 days</td>
<td>10</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>5 days</td>
<td>19</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>2 weeks</td>
<td>4</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>33</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>
No literature could be found regarding the implementation of this course and outcomes in practice. Absence of mentoring was visible, as described in many other studies (Assefa et al., 2010; Crowley & Mayers, 2015; Fulton et al., 2011; Georgeu et al., 2012).

**iii) Duration of IMCI theory and practical training and mentoring**

Seventy two of the participants were trained in IMCI. In this study, 61% of participants stated that the theory training had lasted between 1-5 days, which is less than the 11 days recommended by the WHO (1997:119-128), while 39% of participants indicated that their training was 11 days long. Of the 72 participants, 93% had received practical training and 87% had received mentoring. See Table 4.5 below for information on IMCI training.

**Table 4.5 Duration of IMCI theory and practical training and mentoring**

<table>
<thead>
<tr>
<th>IMCI Provision of ART in children</th>
<th>Duration of theory training</th>
<th>Duration of practical training</th>
<th>Mentoring and supervision after training</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>1- 4 day</td>
<td>17</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>5 days</td>
<td>27</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>11 days</td>
<td>28</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>72</td>
<td>67</td>
<td>63</td>
</tr>
</tbody>
</table>

The mentoring received by participants in this study was higher than described in the literature on IMCI training (Pillay, 2012:60-62). Pillay (2012:60-62) found in her study that 77.5% of the IMCI trained nurses disagreed that they had received on-going mentoring, while 10% had received a follow-up visit at six weeks and 35% claimed that they had not received any follow up visit. In this study, theory training varied between 1-4 and 11 days, with 39% of participants indicating that they had received the recommended 11 days of training.

The duration of IMCI training is currently being debated with regard to the duration and effectiveness of longer and shorter versions of IMCI training. Mayhew, Ickx, Newbrander, Stanekzai and Alawi (2015:151) report that, in their
study, the outcomes were the same irrespective of the duration of the training. Rowe, Rowe, Holloway, Ivanovska, Muhe and Lambrechts (2012:190) conducted a systematic review that showed that the standard training (11 days) seemed more effective than shorter training, but outcomes showed substantial room for improvement. Regardless of the length of training, factors like support for health care workers are important. Horwood, Vermaak, Rollins, Haskins, Nkosi and Qazi (2009) and Pillay (2012:84) note poor implementation of IMCI, including the HIV component, in practice. This might be related to poor skills and mentoring. Horwood et al. (2009) state that participants in their study attended a one-hour clinical session each day in either in a PHC facility or a hospital paediatric ward, and that some respondents had received only one follow-up visit or no follow-up with no mentoring. South Africa recommends follow-up six weeks after the training and then every three months thereafter (National Department of Health, 2009:5, 17).

iv) **Duration of the comprehensive paediatric HIV care and treatment initiative (South to South) theory and practical training and mentoring**

This training on paediatric HIV management is only presented by South to South. Twenty five of the 182 participants were trained in this course, with 13 out of 25 receiving training lasting between 1-4 days and the other 12 receiving training for between one and two weeks. Ninety two percent received practical training as well as mentoring during their training. Data are presented in Table 4.6 below.
Table 4.6  Duration of the comprehensive paediatric HIV care and treatment initiative (South to South) theory and practical training and mentoring

<table>
<thead>
<tr>
<th>Comprehensive paediatric HIV care and treatment initiative (South to South)</th>
<th>Duration of theory training</th>
<th>Duration of practical training</th>
<th>Mentoring and supervision after training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>1- 4 days</td>
<td>13</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>5 days</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2 weeks</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>25</td>
<td>23</td>
<td>23</td>
</tr>
</tbody>
</table>

This training is focused on ART initiation of paediatric patients. An insufficient number of participants (25/182) received this training, considering the challenge with initiation of children. Different studies reported that initiation of children on ART is still very low due to limited capacity, lack of knowledge and lack of skills to initiate children (Fayorsey, Saito, Carter, Gusmao, Frederix, Koech-Keter, Tene, Panya & Abrams, 2013:e125; Railton & Mash, 2012:230, 235; UNICEF, 2013:11). This needs to be addressed as a third of infants living with HIV will die before their first birthday and half of them before their second birthday if they do not receive ART (UNICEF, 2013:11).

v) Duration of PALSA PLUS theory and practical training and mentoring

Most of the participants (91%) said that their training in PALSA PLUS had lasted between one and five days, with 54% receiving practical training and 41% being mentored. Implementation in practice is described in the STRETCH intervention that took place as a controlled intervention in the Free State. See Table 4.7 for a summary of the duration of theory training, practical training, and mentoring and supervision.
Table 4.7  Duration of PALSA PLUS theory and practical training, and mentoring and supervision

<table>
<thead>
<tr>
<th>PALSA PLUS</th>
<th>Duration of theory training</th>
<th>Duration of practical training</th>
<th>Mentoring and supervision after training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>1- 4 days</td>
<td>18</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>5 days</td>
<td>33</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>2 weeks</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>56</td>
<td>30</td>
<td>26</td>
</tr>
</tbody>
</table>

PALSA PLUS training was offered as a separate training and has now been included in the five-day NIMART course. Georgeu et al. (2012) found that there was a significant variation in the quality and quantity of support to professional nurses on PALSA PLUS at different sites. This also applied to the physicians mentoring of these nurses. Where there was good support, nurses reported that they felt clinically confident. However, some of the intervention sites could not progress through the suggested programme and nurses generally felt that there was a lack of clinical support (Georgeu et al., 2012). Davies et al. (2013) discuss the limited capacity of supporting partners to provide follow-up and mentoring for nurses.

4.3.3 Perceived HIV/AIDS and ART knowledge and competence in initiating ART

Professional nurses were asked to rate their knowledge regarding HIV/AIDS and initiation of ART. Questions on their knowledge of ART initiation included clinical assessment and staging of patients, diagnosis and treatment of opportunistic infections, initiation and follow-up of patients on ART, and interpretation of laboratory results.
4.3.3.1 Perceived HIV/AIDS knowledge

Participants generally perceived their knowledge on HIV/AIDS as good (n=182), with 41% rating their knowledge as very good or excellent, as shown in Figure 4.3.

![HIV/AIDS knowledge chart](chart.png)

**Figure 4.3 Perceived HIV AIDS knowledge**

This finding about perceived knowledge regarding HIV/AIDS agrees with information found in the literature. In a study on ART training needs assessment for clinicians in Uganda, the knowledge of health professionals, including doctors, clinical officers and professional nurses, was rated as very good (Lutalo, Schneider, Weaver, Oyugi, Sebuyira, Kaye, Lule, Namagala, Scheld, McAdam & Sande, 2009).

4.3.3.2 Perceived ART knowledge

Perceived ART knowledge was lower, with 34% (n=182) of participants rating their knowledge as very good or excellent, and 28% of participants considering their knowledge to be fair, as shown in Figure 4.4.
Participants' perceived knowledge of ART was lower than their perceived knowledge of HIV/AIDS. This might be due to not being trained or the quality of training. Quality and standardisation of informal training is questioned by Callaghan et al. (2010) and Crowley and Mayers (2015). These factors might contribute to the perception of HIV and ART knowledge.

Cameron et al. (2012:99) report that only 60% of professional nurses in their study passed an open-book test after their five-day NIMART training. In another study regarding NIMART training, 53% of the trained nurses felt competent to initiate ART and only 44% were actually initiating NIMART, due to gaps related to the training and confidence to initiate NIMART (Smith, Odera, Chege, Muigai, Patnaik, Michaels-Strasser, Howard, Yu-Shears & Dohrn, 2016:324-325). Although evidence supports employing nurses for initiating ART, well trained nurse is critically for NIMART implementation (Monyatsi et al., 2012:36; Sanne et al., 2010:38). South Africa currently has no formal competency regulatory system for prescribing ART (Crowley & Mayers, 2015).

4.3.3.3 Perceived competence

The perceived competence of the participants (n=182) is reflected in Table 4.8. The following perceived competencies were the lowest, with participants reporting not being competent on initiation of children on ART (75.3%); follow-
up of children on ART (59.3%); initiation of adults on ART (43.4%); and interpretation of laboratory results (42.9%). The highest perceived competencies by participants were collection of samples (87.9%) and performing and interpreting rapid HIV tests (86.3%)

Table 4.8  Perceived competency

<table>
<thead>
<tr>
<th>HIV related field</th>
<th>Not yet competent</th>
<th>Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a  HIV testing and counselling</td>
<td>38 (20.9%)</td>
<td>144 (79.1%)</td>
</tr>
<tr>
<td>b  Performing and interpreting rapid HIV tests</td>
<td>25 (13.7%)</td>
<td>157 (86.3%)</td>
</tr>
<tr>
<td>c  Initial ART counselling</td>
<td>77 (42.3%)</td>
<td>105 (57.7%)</td>
</tr>
<tr>
<td>d  Clinical assessment of patients</td>
<td>42 (23.1%)</td>
<td>140 (76.9%)</td>
</tr>
<tr>
<td>e  WHO staging of HIV/AIDS</td>
<td>48 (26.4%)</td>
<td>134 (73.6%)</td>
</tr>
<tr>
<td>f  Diagnosis of opportunistic infections</td>
<td>62 (34.1%)</td>
<td>120 (65.9%)</td>
</tr>
<tr>
<td>g  Treatment of opportunistic infections</td>
<td>60 (33%)</td>
<td>122 (67%)</td>
</tr>
<tr>
<td>h  Initiation of ART in adults</td>
<td>79 (43.4%)</td>
<td>103 (56.6%)</td>
</tr>
<tr>
<td>i  Follow-up of adults on ART</td>
<td>55 (30.2%)</td>
<td>127 (69.8%)</td>
</tr>
<tr>
<td>j  Initiation of ART in children</td>
<td>137 (75.3%)</td>
<td>45 (24.7%)</td>
</tr>
<tr>
<td>k  Follow-up of children on ART</td>
<td>108 (59.3%)</td>
<td>74 (40.7%)</td>
</tr>
<tr>
<td>l  Collection of samples for laboratory tests</td>
<td>22 (12.1%)</td>
<td>160 (87.9%)</td>
</tr>
<tr>
<td>m  Interpretation of laboratory results CD4+ count, Viral load Hb and FBC (full blood count) Liver function test or renal function tests</td>
<td>78 (42.9%)</td>
<td>104 (57.1%)</td>
</tr>
<tr>
<td>Total (N=182)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Twenty five percent of the participants (45) reported that they perceived themselves to be competent in initiating children on ART against 57% who felt competent to initiate adults on ART. Regarding follow-up of adults on ART, 70% considered themselves competent against the 41% who felt competent in follow-up of children on ART.

Other aspect with less than 60% perceived competency included interpretation of laboratory tests (57%) and initial ART counselling (58%). In general, participants perceived that they were competent in the other fields, although they indicated that training could improve their competencies.
4.3.3.4 Perceived competency and training required

The perceived competency of the participants can be linked to training that participants had received, with paediatric training the lowest – only 20% of participants (n=182) had done paediatric training in HIV management (South to South) and only 56% had done training in IMCI (see section 4.3.2). As only 25 out of 182 participants considered themselves competent in initiating children on ART, this has serious implication for survival of these children. The WHO (2011:159) states that a third of children living with HIV will die before turning one and almost half will die before they are two years of age. Early initiation of children is critical for the survival of children under two years of age.

Horwood et al. (2009:316) emphasise that there is poor follow-up of HIV-exposed children. They attribute this to poor knowledge and skills of health workers due to a lack of training, mentoring and supervision. In this study, 39% of participants indicated that they were IMCI trained. This lack of training means that there will be a gap in the identification of HIV-exposed children and management of children on ART according to IMCI guidelines. Skilled IMCI practitioners are needed to manage and identify HIV-infected and -exposed children, but unfortunately IMCI is poorly implemented in practice (Horwood et al., 2009). This might also be related to clinical supervision and support.

In a study by Smith et al. (2016:325) on the assessment of nurse training and competencies in HIV care in Kenya, 37% (n=165) of the nurses trained in child ART initiation considered themselves competent, but 27% were involved in initiating children on ART. Other gaps identified were initiation of adults, identifying side effects of ARV drugs and treatment failure, as well as a gap in training and implementation (Smith et al., 2016: 325). Green et al. (2014) concluded that, with quality training and one-on-one mentoring, the confidence level of professional nurses improved with regard to HIV-related services for children, interpretation of laboratory results and the management of long-term side effects. This highlights the importance of appropriate training and quality mentoring, as emphasised throughout the literature, to ensure effective task shifting (Davies et al., 2013; Sanne et al., 2010:39; Smith et al., 2016:327-228;
4.3.4 Provision of HIV/AIDS care and services

Participants were asked to comment on the provision of HIV services in the clinics. This included duration of providing HIV/AIDS care, number of patients seen per day as well as number of HIV/AIDS patients seen per day, number of patients on ART, and number of patients being initiated on ART per week. These questions were asked to establish experience in rendering HIV/AIDS care, the workload of professional nurses and the number of patients initiated per day.

4.3.4.1 Duration of providing HIV/AIDS care and services

Figure 4.5 explains the number of years that the participants had been rendering HIV/AIDS care services in North West Province (n=182). More than half the participants (53%) had been providing HIV/AIDS care for between one and five years, and 18% had been doing NIMART for less than a year.

![Duration of providing HIV/AIDS care and services](image)

**Figure 4.5 Duration of providing HIV/AIDS care and services**

Literature supports the initiation of patients on ART at PHC level (Callaghan et al., 2010; Van Rensburg et al., 2008; Zachariah et al., 2009:550). Nevertheless,
HIV/AIDS care was centralised (hospital based) and doctor driven in South Africa before professional nurses started initiating ART in 2010.

4.3.4.2 Number of patients cared for on an average clinic day

The question on how many patients the participants cared for per day is reflected Table 4.9 and was not answered by all participants. From the 170 participants who answered the question (n=170), 44.7% indicated that they consulted between 10 and 30 patients per day and 30.6% managed more than 40 patients per day. Ten (7.5%) of the professional nurses who were initiating ART initiated more than 30 patients per week on ART – an average of six patients per day.

Table 4.9 Patients cared for on an average clinic day

<table>
<thead>
<tr>
<th>Number of patients cared for per day</th>
<th>Number of participants and %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 10 and 20</td>
<td>39 (22.9%)</td>
</tr>
<tr>
<td>Between 20 and 30</td>
<td>37 (21.8%)</td>
</tr>
<tr>
<td>Between 30 and 40</td>
<td>42 (24.7%)</td>
</tr>
<tr>
<td>Between 40 and 50</td>
<td>28 (16.5%)</td>
</tr>
<tr>
<td>More than 50</td>
<td>24 (14.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
</tr>
</tbody>
</table>

Although the WHO (Cohen et al., 2009) recommendation is 30 consultations per day for a professional nurse, this study established that 55% of the participants consulted more than 30 patients per day and 30% consulted more than 40 patients per day. This is an indication of the high workload of professional nurses in PHC facilities. High workload and shortage of PHC workers have been identified as critical issues, and already overworked nurses’ burden is increased by the new roles they have to accept without any additional resources (Crowley & Mayers, 2015; Georgeu et al., 2012). Nurses are under pressure to consult 40 patients per day and still complete all their administrative work (Uebel, Guise, Georgeu, Colvin & Lewin, 2013). Cohen et al. (2009) report that
some professional nurses carry out up to 45 consultations a day, which exceeds
the WHO recommended maximum of 30 consultations per day.

4.3.4.3 Number of patients initiated on ART in one week

Ten of the professional nurses who were initiating ART (n=133) initiated more
than 30 patients per week on ART; this is an average of six patients per day.
The rest of the participants (91.7%) were initiating between 10 and 20 patients
per week, as demonstrated in Table 4.10 below. This pace of initiation is too
slow for reaching PLWA.

Table 4.10 Number of patients initiated on ART in a week

<table>
<thead>
<tr>
<th>Number of patients initiated on ART in a week</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 10 and 20</td>
<td>122 (92%)</td>
</tr>
<tr>
<td>Between 20 and 30</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Between 30 and 40</td>
<td>4 (3%)</td>
</tr>
<tr>
<td>Between 40 and 50</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>More than 50</td>
<td>4 (3%)</td>
</tr>
<tr>
<td>N</td>
<td>133</td>
</tr>
</tbody>
</table>

If only 10 to 20 patients are initiated per day, patients needing ART will have to
wait for this lifesaving intervention. This findings correlate with a study done by
Cameron et al. (2012:99) which evaluated initiating of ART in clinics after
NIMART training. They reported that patients initiated on ART by professional
nurses varied between one to 35 adults per week and one to five children per
week. This can be due to a lack of confidence to initiate or the workload of the
nurses, where there is not a dedicated person to initiate. Professional nurses’
workload is emphasised as an aspect that needs to be addressed for successful
task shifting and implementation of NIMART (Crowley & Mayers, 2015; Davies
et al., 2013; Fatti et al., 2010; Ferrinho et al., 2012; Fulton et al., 2011; Georgeu
et al., 2012; Uebel et al., 2013).
The following section describes the structural empowerment of professional nurses and the relation between structural empowerment and professional nurses who are NIMART trained/not trained and initiating/not initiating.

4.4 STRUCTURAL EMPOWERMENT

The CWEQ-II (see Annexure F) (Laschinger et al., 2001:265-267) was used to measure the six subscales of structural empowerment described by Kanter (opportunity, information, support, resources, formal power and informal power). The 18 items, three items under each of the six subscales, were summed and averaged (mean) to provide a score for each subscale ranging from 1 to 5. These scores were summed to create the total empowerment score (score range: 6-30). According to Laschinger (in Casey et al., 2010:29), structural empowerment scores that range between, 6-13 are considered low perceptions of structural empowerment; scores between 14-22 are considered moderate, and scores between 23-30 are considered high (Casey et al., 2010:27; Gilbert et al., 2010:343). Table 4.11 presents a description of the items in the CWEQ-II.

Table 4.11 Description of items in the CWEQ–II

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity</td>
<td>Access to challenges to grow, rewards, and professional development opportunities to improve knowledge and skills.</td>
</tr>
<tr>
<td>Information</td>
<td>Knowledge of organisational decisions, policies and goals, as well as technical knowledge and expertise to be effective in the organisation.</td>
</tr>
<tr>
<td>Support</td>
<td>Feedback and guidance from superiors, peers and subordinates, including hands-on assistance and problem-solving advice.</td>
</tr>
<tr>
<td>Resources</td>
<td>Capacity to access supplies, equipment and time to accomplish organisational goals.</td>
</tr>
<tr>
<td>Formal power</td>
<td>Jobs that afford flexibility and visibility and that are relevant to key organisational processes.</td>
</tr>
<tr>
<td>Informal power</td>
<td>Network of alliances with sponsors, senior managers, peers and direct reports within and outside the organisation.</td>
</tr>
</tbody>
</table>

Source: Casey et al. (2010:25); Ning et al. (2009:2643)
4.4.1 Descriptive statistics for structural empowerment

The sample (n=182) included professional nurses who were rendering PHC services, 64% of whom were initiating ART. Descriptive statistics and alpha reliabilities are presented in Table 4.12.

The mean refers to the average achieved by calculating the sum of the items under each construct and dividing the result by the number of items under the same construct (Babbie, 2010:429).

Moderate structural empowerment was reported, with a mean of 18.7. The standard deviation (SD) varied between 0.90 and 1.09 for the subscales and the Cronbach’s alpha varied between 0.83 and 0.68. Both the SD and Cronbach’s alpha compare with other studies done on structural empowerment. Barden et al. (2011:215) reported a mean score of 19.88 in their study, while other studies reported a mean of 17.8 and SD of 3.3 (Faulkner & Laschinger, 2008:218). The average structural empowerment scores of professional nurses in this study correlate with other studies where scores have been reported to vary between 17.35 and 20.04 (Barden et al., 2011:215; Laschinger, 2008:326; Ning et al., 2009:2645). Dolamo (1998:43-44) conducted a study in in South Africa on nurse managers’ job-related structural empowerment and organisational commitment. The following results for the structural empowerment was reported by Dolamo (1998:43-44): the mean was 20.1 (moderate empowerment), the SD varied between 0.54 and 2.52 and the Cronbach’s alpha reliability coefficient varied between 0.77 and 0.92. Although the mean was 20.1 in Dolamo’s (1998) study and this study found a mean of 18.7, both the nursing managers and the professional nurses reported only moderated empowerment. The overall descriptive statistics of this study are compared to scores revealed in literature and are presented at the end of section 4.4.

4.4.1.1 Professional nurses structural empowerment

The mean score for structural empowerment was 18.7, which indicates moderate structural empowerment. Resources and formal power were scored
the lowest with a mean of less than 3, while the highest subscale was opportunity with a mean of 3.8. Table 4.12 provides an overview of the structural empowerment scores for this study.

Table 4.12  Descriptive statistics for structural empowerment subscales

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Mean</th>
<th>SD</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity</td>
<td>3.8</td>
<td>0.90</td>
<td>0.83</td>
</tr>
<tr>
<td>Information</td>
<td>3.2</td>
<td>0.95</td>
<td>0.81</td>
</tr>
<tr>
<td>Support</td>
<td>3.0</td>
<td>1.07</td>
<td>0.82</td>
</tr>
<tr>
<td>Resources</td>
<td>2.6</td>
<td>1.01</td>
<td>0.74</td>
</tr>
<tr>
<td>Formal power</td>
<td>2.8</td>
<td>1.09</td>
<td>0.68</td>
</tr>
<tr>
<td>Informal power</td>
<td>3.3</td>
<td>1.02</td>
<td>0.77</td>
</tr>
<tr>
<td>Total score</td>
<td>18.7</td>
<td>1.02</td>
<td>0.78</td>
</tr>
</tbody>
</table>

The lowest score for an item under a subscale reported was access to resources, with a mean of 2.6, while the highest was opportunity, with a mean of 3.8. Table 4.13 provides descriptive statistics for each of the subscales with the items under each subscale to indicate the items that were scored the lowest by the participants.
Table 4.13  Nurses’ perceptions of structural empowerment

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenging work</td>
<td>3.88</td>
<td>0.95</td>
</tr>
<tr>
<td>The chance to gain new skills and knowledge</td>
<td>3.57</td>
<td>0.92</td>
</tr>
<tr>
<td>Tasks that use all of your own skills and knowledge</td>
<td>3.86</td>
<td>3.86</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The current state of the clinic</td>
<td>3.52</td>
<td>0.94</td>
</tr>
<tr>
<td>The values of top management</td>
<td>3.07</td>
<td>0.95</td>
</tr>
<tr>
<td>The goals of top management</td>
<td>3.12</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific information about things you do well</td>
<td>2.97</td>
<td>1.14</td>
</tr>
<tr>
<td>Specific comments about things you could improve</td>
<td>3.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Helpful hints or problem solving advice</td>
<td>3.02</td>
<td>1.03</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time available to do necessary paperwork</td>
<td>2.34</td>
<td>1.00</td>
</tr>
<tr>
<td>Time available to accomplish job requirements</td>
<td>2.71</td>
<td>0.98</td>
</tr>
<tr>
<td>Acquiring temporary help when needed</td>
<td>2.70</td>
<td>1.03</td>
</tr>
<tr>
<td><strong>Formal power</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The rewards for innovation on the job</td>
<td>2.23</td>
<td>1.09</td>
</tr>
<tr>
<td>The amount of flexibility in your job</td>
<td>3.18</td>
<td>1.05</td>
</tr>
<tr>
<td>The amount of visibility of your work-related activities within the institution</td>
<td>3.07</td>
<td>1.12</td>
</tr>
<tr>
<td><strong>Informal power</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating on patient care with physicians</td>
<td>3.48</td>
<td>0.98</td>
</tr>
<tr>
<td>Being sought out by peers for help with problems</td>
<td>3.52</td>
<td>0.93</td>
</tr>
<tr>
<td>Being sought out by managers for help with problems</td>
<td>3.12</td>
<td>1.02</td>
</tr>
</tbody>
</table>

The lowest score for a subscale reported was access to resources, with a mean of 2.6. This is not unique to South Africa as low access to resources has been reported by scholars in other countries as well (Casey et al., 2010:29; Ning et al., 2009:2645). Formal power was perceived as the second lowest aspect of empowerment, with a mean of 2.8. This score means that participants perceived a lack in rewards for innovation on the job, flexibility in their work and the visibility of their work-related activities within the institution.

The two subscales that participants perceived themselves the most empowered in were opportunity relating to a challenging work environment, with a mean of 3.8, and informal power, with a mean of 3.3.

The findings in this study are aligned with other studies done on structural empowerment in nursing. This comparison is presented later in the chapter.
Subscales and items under each subscale are discussed below in more detail with the responses from the participants per item.

4.4.1.2 Access to opportunity

This section describes participants’ possibility for growth and movement within the organisation, as well as opportunities to increase knowledge and skills. The chance to gain new skills and knowledge to do their job was perceived the lowest, with 54% of participants (n=182) indicating that they had access to opportunities to improve their skills and knowledge. Seventy percent of the professional nurses perceived their work to be challenging and 65% of the participants reported that their tasks used all of their own skills and knowledge.

Figure 4.6 illustrates the participants’ perceived access to opportunities in their present job.

### Types of opportunity in present job

<table>
<thead>
<tr>
<th></th>
<th>Challenging work</th>
<th>The chance to gain new skills and knowledge on the job</th>
<th>Tasks that use all of your own skills and knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>6%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Some</td>
<td>24%</td>
<td>38%</td>
<td>32%</td>
</tr>
<tr>
<td>A lot</td>
<td>70%</td>
<td>54%</td>
<td>65%</td>
</tr>
</tbody>
</table>

**Figure 4.6 Types of opportunity in present job**

The three questions for this subscale related to challenging work, opportunities to gain new skills and knowledge, and tasks that used the participants’ knowledge and skills.
Regarding tasks that used all their skills and knowledge, a professional nurse who was NIMART trained stated the following (Georgeu et al., 2012): “It’s giving us an opportunity to be able to use our brains…. It’s broadening our intelligence and achievement”.

Other participants (46%) perceived that they did not have many opportunities to improve their skills or knowledge and were not empowered to render services as was expected of them. In a study done by Davies et al. (2013), a professional nurse said the following: “It was unfair for NIMART to be introduced in that fashion without in service training. We learned as we are going on and taking chances.”

Training and mentoring to gain new skills and knowledge for NIMART is essential to scale up NIMART, as debated in literature (Assefa et al., 2010:80; Georgeu et al., 2012; Green et al., 2014; Stein et al., 2008). There are professional nurses who initiate ART without being trained and lack who knowledge and skills (Crowley & Mayers, 2015; Monyatsi et al., 2012:36; Uebel et al., 2011).

Appropriate training for NIMART mentoring and support is also lacking and the high workload often prevents skills and knowledge transfer (Davies et al., 2013; Sanne et al., 2010:39; Smith et al., 2016:327-228; Uebel et al., 2011; Zuber et al., 2014:526, 529-540).

4.4.1.3 Access to information

This section describes the participants’ perceived access to information related to top management’s goals and values, and the current state of the clinic. Professional nurses rated access to top management's goals and values very low, with 26% having access to the values and 31% to the goals. More of the participants thought that they had access to information related to the current status of the clinics, with 11% reporting no access to this information. This is explained in Figure 4.7 below.
Implementation of NIMART is a priority programme and is driven from the National Department of Health with set timelines. Staff at grassroots levels is not involved in decision-making and are sometimes not well informed. Georgeu et al. (2012) emphasise that the STRETCH intervention in the Free State was successful due to informing the province, districts and facilities involved in the study. Having regular meetings with staff, including them in decision-making for their own clinics and valuing their opinions is important (Nankimbi, Groves, Leontsini, Kyegombe, Countinho & Manabe, 2011).

4.4.1.4 Access to Support

Between 41% and 50% of the participants perceived that they had some support to improve what they do and assistance with problem solving. Feedback on things done well was the lowest, with 31% reporting no information on things they did well. Figure 4.8 below provides full details.
Support for nurses at ground level is an essential component for scaling up ART and to ensure good quality care (Crowley & Mayers, 2015; Morris et al., 2009). Supportive team-oriented implementation contributes to positive experiences, improvising and working together to overcome barriers in the implementation of NIMART (Davies et al., 2013).

Nyasulu et al. (2013:232) report that patient dissatisfaction with a lack of trained HIV clinical staff and negative patient-nurse interaction can be prevented with better support and mentoring of nursing staff, feedback and training in areas of poor performance to ensure good quality care (Crowley & Mayers, 2015; Morris et al., 2009). Thirty one percent of participants reported that they received no feedback on things well done while 28% of participants stated that they did not receive specific comments on things they can improve. Not receiving support and feedback can influence the quality of care (Crowley & Mayers, 2015; Morris et al., 2009).
4.4.1.5 Access to resources

Access to resources consists of time available to complete necessary paperwork and accomplish job requirements, as well as the ability to acquire temporary help when required. This is the subscale where participants perceived the lowest empowerment, with a mean of 2.8. Figure 4.9 shows the amount of access to resources in the participants’ present jobs.

<table>
<thead>
<tr>
<th>Amount of access to resources in present job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time available to do necessary paperwork</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Some</td>
</tr>
<tr>
<td>A lot</td>
</tr>
</tbody>
</table>

Figure 4.9 Access to resources in present job

Time to do the necessary paperwork was rated the lowest, with 56% of participants indicating that they had no time to complete their paperwork. This might be the reason why data are not captured and ART registers not properly completed.

Paperwork demand in the health system is enormous, and nurses have reported that it has been increased by NIMART (Georgeu et al., 2012). This burden is further increased by a lack of time available to manage patients safely as time per consultation decreases. Professional nurses are expected to
manage a large number of patients (40 per day) in PHC clinics, which does not allow enough time for quality care (Uebel et al., 2013).

Only 17% of the participants felt that they could acquire temporary help when needed. Professional nurses at clinic level are over-stretched, and a high percentage of professional nursing posts are vacant (Crowley & Mayers, 2015; Stein et al., 2008). To ensure quality of care, adequate staff and resources are needed for effective task shifting and NIMART (Crowley & Mayers, 2015; Georgeu et al., 2012; Uebel et al., 2013).

4.4.1.6 Access to empowerment structures (formal power)

Access to formal power involves rewards for innovation, flexibility in one’s job and the visibility of work-related activities in the institution

Formal power was the second lowest subscale, with a mean of 2.8. Figure 4.10 shows the participants’ perceived access to formal power structures.
Figure 4.10 Access to formal power structures

Thirty five percent of the participants perceived their work-related activities as visible within the institution. This is very concerning, considering the scale-up of NIMART and the implementation of the 90-90-90 strategy with a focus on sustained ART and improving adherence to achieve viral load suppression in 90% of people enrolled on ART (UNAIDS, 2014a:1).

Nurse managers control the NIMART environment and their attitudes influence professional nurses’ flexibility in practice, for example, in integrating ART services into PHC services (Uebel et al., 2013). Professional nurses feel that the work they do is not recognised by doctors, peers and managers. Additionally, relationships between doctors and nurses are often strained (Georgeu et al., 2012; Stein et al., 2008; Uebel et al., 2011). Callaghan et al. (2010) stated that adequate remuneration should be addressed for the new roles and tasks that professional nurse are taking on.

Fifty five percent of participants stated that there were no rewards for innovation. Implementation of NIMART is not only dependent on training, mentoring and supervision, but also on the retention of professional nurses, a
stimulating working environment and performance-based financial incentives (Assefa et al., 2010).

4.4.1.7 Informal power

Access to informal power includes collaborating on patient care with physicians, and being sought by peers and managers for help with problems. This subscale received a mean score of 3.3. Figure 4.11 illustrates the participants’ access to informal power.

![Access to informal power](chart)

**Figure 4.11 Access to informal power**

Forty nine percent of the participants reported that they collaborated on patient care with doctors and 33% indicated that managers approached them for help. There is still a lack on team work between professional nurses and medical practitioners, as well as a lack of availability of medical practitioners in PHC facilities.

Collaboration on patient care with doctors poses challenges as there are often no doctors in the PHC clinics. Feedback from doctors to professional nurses is
also problematic, which leaves professional nurses discouraged, as a learning opportunity is missed (Davies et al., 2013).

HIV programme coordinators and managers as seen as not understanding the problems of integration of services and not consulting with PHC services (Mathibe et al., 2015).

4.4.1.8 Overall empowerment (global empowerment)

Overall empowerment (or global empowerment as it is sometimes referred to) consists of the following items: “Overall, my work environment empowers me to accomplish my work in an effective manner” and “Overall, I consider my workplace to be an empowering environment.” Figure 4.12 illustrates the participants’ overall access to empowerment.

<table>
<thead>
<tr>
<th>Overall, my current work environment empowers me to accomplish my work in an effective manner</th>
<th>Overall, I consider my workplace to be an empowering environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>27%</td>
</tr>
<tr>
<td>Some</td>
<td>32%</td>
</tr>
<tr>
<td>A lot</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>45%</td>
</tr>
</tbody>
</table>

**Figure 4.12** Overall accesses to power (global empowerment)

Less than half of the participants (41%) experienced their work environment as empowering, while 45% considered their workplace as empowering.

To be able to accomplish their work in an effective manner, the professional nurses need adequate training, mentoring, support and resources. Where these
entities are present, professional nurses consider themselves to be empowered (Assefa et al., 2010:80; Green et al., 2014). Regrettably, the literature reports that there are still challenges with human and other resources, training, mentoring, supervision, and support from managers and colleagues (Crowley & Mayers, 2015; Mathibe et al., 2015; Uebel et al., 2013).

4.4.2 Structural empowerment comparison with other studies

In Table 4.14 below, the results of this study are compared with scores from four other studies, including the Cronbach’s alpha, mean, subscale scores and overall empowerment score. Piazza, Donahue, Dykes, Griffin and Fitzpatrick (2006:280-281) studied the difference in perceptions of empowerment between nationally certified and non-certified nurses. Ning et al. (2009:2645) investigated the impact of empowerment on job satisfaction in China. The other two studies, by Casey et al. (2010:29) and Laschinger (2008:326), focused on empowerment and job satisfaction.

In all these studies, nurses perceived themselves as moderately empowered, with overall scores between 18.34 and 19.27. According to Laschinger, an overall score between 14 and 22 indicates moderate empowerment (Barden et al., 2011:215). Four out of the five studies that are compared found the lowest scores in resources.

Psychological empowerment is described in section 4.5, after the comparison table on structural empowerment.
Table 4.14  Structural empowerment comparison with over studies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Opportunity</td>
<td>3.97</td>
<td>0.84</td>
<td>2.97</td>
<td>0.87</td>
<td>4.12</td>
</tr>
<tr>
<td>Information</td>
<td>3.48</td>
<td>1.06</td>
<td>3.02</td>
<td>0.95</td>
<td>3.16</td>
</tr>
<tr>
<td>Support</td>
<td>3.23</td>
<td>0.85</td>
<td>3.19</td>
<td>0.89</td>
<td>2.82</td>
</tr>
<tr>
<td>Resource</td>
<td>3.58</td>
<td>1.05</td>
<td>2.96</td>
<td>0.85</td>
<td>2.69</td>
</tr>
<tr>
<td>Formal power</td>
<td>3.14</td>
<td>0.88</td>
<td>2.79</td>
<td>1.01</td>
<td>2.57</td>
</tr>
<tr>
<td>Informal power</td>
<td>3.07</td>
<td>0.75</td>
<td>3.69</td>
<td>1.09</td>
<td>3.56</td>
</tr>
<tr>
<td>Total score</td>
<td>18.35</td>
<td>19.27</td>
<td>19.17</td>
<td>18.7</td>
<td>18.7</td>
</tr>
</tbody>
</table>
4.5 PSYCHOLOGICAL EMPOWERMENT

The PEQ (see Annexure G) (Spreitzer, 1995:1442-1465) measures individuals’ perception of their psychological empowerment (Spreitzer, 1995:1442-1465). The PEQ measures the four sub-constructs of psychological empowerment (meaning, competence, autonomy and impact). Each of the four sub-constructs has three questions and these 12 items are summed to yield scores ranging from 1 to 7. Spreitzer (1995) reports a reliability coefficient ranging from 0.62 to 0.74. The Cronbach’s alpha was confirmed by Stander and Rothmann (2009a) and varied between 0.81 and 0.89 for the four subscales. Ahmad and Oranye (2010:586) found a mean of 62.90 for professional nurses at a Malaysian hospital and 62.90 at an English hospital. The mean for this study is 67.48. Professional nurses in clinics function more independently than nurses in hospital settings. Findings from a South African study were as follows: a mean of 62.24, SD of 13.53 and Cronbach’s alpha of 0.91 (Stander & Rothmann, 2009a). The study population included government and manufacturing sector employees. The Cronbach’s alpha coefficient for this study is 0.84. See Table 4.15 for the description of the sub-constructs of the PEQ.

Table 4.15 Description of sub-constructs of the Psychological Empowerment Questionnaire

<table>
<thead>
<tr>
<th>Sub-constructs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning</td>
<td>The fit between an individual’s beliefs, values and behaviour, and the requirements of a work role</td>
</tr>
<tr>
<td>Competence/self-efficacy</td>
<td>One’s belief in one’s capability to perform activities with skill.</td>
</tr>
<tr>
<td>Autonomy</td>
<td>One’s perception of control over one’s work. This includes decision-making on work methods and pace.</td>
</tr>
<tr>
<td>Impact</td>
<td>A sense of being able to influence important strategic, administrative or operating outcomes in the organisation.</td>
</tr>
</tbody>
</table>


The findings of the study are similar to other studies of the same nature done in other countries (see Table 4.17). The scores of the subscales were summarised to create an average empowerment score, with higher scores representing higher understanding of empowerment. Each component is discussed in further
detail, with responses per subscale discussed in terms of percentages and descriptive statistics.

4.5.1 Overall descriptive statistics

Studies from literature used both a seven- and five-point rating scale and comparisons were made between the ones that used a seven-point Likert scale. Professional nurses working in PHC perceived themselves to be psychologically empowered. Meaning was the sub-construct with the highest score (a mean of 17.99) and impact on the workplace had the lowest score (a mean of 15.71). The mean (67.48) for this study was higher than the previous studies done in South Africa (with mean of 62.24 and 60.97) (Stander & Rothmann, 2009a, 2010). The population for this study included only professional nurses, while the other studies included workers from manufacturing sectors as well as different government departments. Ahmad and Oranye (2010:586) only reported the mean and standard deviation for the total psychological empowerment and not for each sub-construct; in their study, the total psychological empowerment for the two study groups of hospital nurses showed means of 62.90 and 60.92 and SDs of 9.74 and 10.74.

The total psychological empowerment for this study was higher, with a mean of 67.48 and SD of 15.38. Participants scored the sub-construct of meaning the highest, with a mean of 17.99, and impact the lowest, with a mean of 15.71 due to the amount of influence they had on their department. In Table 4.16, descriptive statistics and totals for each sub-construct are presented.
Table 4.16 Descriptive statistics for psychological empowerment subscales

<table>
<thead>
<tr>
<th>Sub-constructs</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The work I do is important to me</td>
<td>6.22</td>
<td>1.11</td>
</tr>
<tr>
<td>My job activities are personally meaningful to me</td>
<td>5.80</td>
<td>1.25</td>
</tr>
<tr>
<td>The work I do is meaningful to me</td>
<td>5.97</td>
<td>1.21</td>
</tr>
<tr>
<td>Total</td>
<td>17.99</td>
<td>3.57</td>
</tr>
<tr>
<td><strong>Competence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident about my ability to do my job</td>
<td>5.92</td>
<td>1.15</td>
</tr>
<tr>
<td>I have mastered the skills necessary for my job</td>
<td>5.53</td>
<td>1.24</td>
</tr>
<tr>
<td>I am self-assured about my capabilities to perform my work activities</td>
<td>5.76</td>
<td>1.07</td>
</tr>
<tr>
<td>Total</td>
<td>17.21</td>
<td>3.46</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have significant autonomy in determining how I do my job</td>
<td>5.61</td>
<td>1.23</td>
</tr>
<tr>
<td>I can decide on my own how to go about doing my own work</td>
<td>5.63</td>
<td>1.40</td>
</tr>
<tr>
<td>I have considerable opportunity for independence and freedom in how to do my job</td>
<td>5.33</td>
<td>1.36</td>
</tr>
<tr>
<td>Total</td>
<td>16.57</td>
<td>3.99</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My impact on what happens in my department is large</td>
<td>5.64</td>
<td>1.28</td>
</tr>
<tr>
<td>I have a great deal of control over what happens in my department</td>
<td>5.01</td>
<td>1.53</td>
</tr>
<tr>
<td>I have significant influence over what happens in my department</td>
<td>5.06</td>
<td>1.55</td>
</tr>
<tr>
<td>Total</td>
<td>15.71</td>
<td>4.36</td>
</tr>
<tr>
<td><strong>Psychological empowerment</strong></td>
<td>67.48</td>
<td>15.38</td>
</tr>
</tbody>
</table>

Participants (n=182) saw their work as meaningful, with a mean of 17.99, for the reason that they provide life-saving treatment, as they also experienced family dying waiting for doctors to initiate patients and now they can provide the treatment (Davies et al., 2013; Georgeu et al., 2012). Impact on what happens in their department was the lowest, with a mean of 15.71, as professional nurses are not involved in decision-making processes and are told what to do, and managers do not listen to challenges (Mabelane et al., 2016:12).

4.5.1.1 Meaning of the work role

All the participants reported that their job was important to them and that their work was meaningful to them, with 97% of participants considering their work to be important and 91% reporting that their job activities were personally meaningful, as shown in Figure 4.13 below.
More than 90% of the participants agreed with all the questions about the sub-construct of meaning. Professional nurses see their work as meaningful because they provide life-saving treatment and play a key role in the recovery of their patients (Davies et al., 2013; Georgeu et al., 2012). Nurses have also expressed satisfaction and a feeling of accomplishment regarding the initiating patients on ART because they improve these patients’ quality of life (Mabelane et al., 2016:12).

4.5.1.2 Competence in the work role

In general, the participants (92%) felt that they were confident to do their job and 82% of participants thought they had mastered the skills necessary for their jobs. All the results are dispayed in Figure 4.14 below.
Figure 4.14 Competence in the work role

Competence associated with NIMART is dependent on the training, mentoring supervision and support that professional nurses receive. Where these factors are present, professional nurses reflect that they are competent (Davies et al., 2013; Fairall et al., 2012:895; Georgeu et al., 2012). The high score on competence might have been influenced by the fact that it was related to all the services that the participants rendered, not only initiation of ART.

4.5.1.3 Autonomy over their work role

In Figure 4.15 below autonomy in the work role is displayed. Ninety two percent of the participants indicated that their work was meaningful, while 83% of participants thought they had autonomy over deciding how to do their work job and 17% thought they had no control.
Figure 4.15 Participants’ autonomy over their work role

Seeing the change in patients’ lives, with even terminally ill individuals rapidly improving on treatment, makes the job done by professional nurses meaningful (Davies et al., 2013; Georgeu et al., 2012; Mabelane et al., 2016:12). In PHC clinics, professional nurses have to follow protocols and guidelines with allocated quotas and services to render that leave them without control over how to organise their work (Kinkel, Adelekan, Marcus & Wolvaardt, 2012; Mathibe et al., 2015; Uebel et al., 2013).

4.5.1.4 Impact on work role

Impact on work role was the sub-construct with the lowest scores. It is important to note that 66% of participants perceived that they had control over what happened in their departments and 72% thought that they had significant influence on what happened in their department, as illustrated in Figure 4.16 below.
Figure 4.16 Impact on work role

More than 66% of participants thought that they had an impact on their departments, but they are excluded from decision-making. This has been expressed by managers and professional nurses complaining about the way NIMART was implemented. They felt there was minimal consultation for input into guidelines and opportunity to communicate their concerns (Davies et al., 2013; Mabelane et al., 2016:12; Makhado, 2014:95-97).

4.5.2 Comparison of descriptive statistics for psychological empowerment with literature

Table 4.17 compares the results of this study with two other studies done in South Africa. In this study, the perceived empowerment was higher than in the other two studies and it is important to note that the other studies were not conducted among professional nurses, but government and manufacturing sector employees.
Table 4.17 Comparison of descriptive statistics for psychological empowerment with literature

<table>
<thead>
<tr>
<th>Variable</th>
<th>Stander &amp; Rothmann (2009a)</th>
<th>Stander &amp; Rothmann (2010)</th>
<th>This study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Meaningful work</td>
<td>17.45</td>
<td>3.51</td>
<td>16.10</td>
</tr>
<tr>
<td>Competence</td>
<td>16.90</td>
<td>3.71</td>
<td>16.75</td>
</tr>
<tr>
<td>Impact</td>
<td>14.80</td>
<td>4.35</td>
<td>13.35</td>
</tr>
<tr>
<td>Psychological empowerment</td>
<td>62.24</td>
<td>13.53</td>
<td>60.97</td>
</tr>
</tbody>
</table>

4.6 CONCLUSION

In this chapter, the quantitative data were analysed, presented and discussed, reflecting on the participants’ background information, as well as training of professional nurses rendering HIV care and services. Participants described their knowledge of HIV/AIDS and ART as good, but perceived competence in initiating children on ART was a concern as it was below 50%, which has serious implications for the implementation of the 90-90-90 strategy and the survival of HIV-positive children. Participants emphasised inadequate mentoring and supervision for the training that they had received in NIMART, which contributes to professional nurses not feeling confident to initiate ART. Participants considered themselves to be moderately empowered; with access to resource to enable them do their work and formal power being scored the lowest. The two subscales of opportunity, namely, challenging work and work that used all the participants’ skills and knowledge were scored the highest, which might be because of their extended scope of practice. Due to their contributions to initiated clients on ART and saving lives, the participants rated the construct of meaning the highest on the psychological empowerment scale, as they described the work they did as meaningful.

Literature on NIMART indicates that there are factors empowering nurses to initiate NIMART; however, there are still barriers remaining to effective
implementation of NIMART and the quality of care rendered to these patients. In Chapter 5, the qualitative data with the literature control are discussed. This is followed by the integration of the quantitative and qualitative data in Chapter 6.
CHAPTER 5

QUALITATIVE DATA ANALYSIS, PRESENTATION AND DISCUSSION WITH LITERATURE CONTROL

5.1 INTRODUCTION

In the previous chapter, structural and psychological empowerment of the professional nurses were discussed, and quantitative data obtained with the CWEQ-II (Laschinger et al., 2001:265-267) and PEQ (Spreitzer, 1995:1442-1465) questionnaires were analysed. In this chapter, qualitative data answering objectives 3, 4 and 5 are discussed. This includes professional nurses’ experiences of initiating ART, what is needed for them to be empowered to initiate ART and their understanding of empowerment. Data were obtained from professional nurses and managers working in PHC facilities using an in-depth interview schedule (see Annexure I) and open-ended questions in the background questionnaire (see Annexure F).

Tesch’s method of data analysis, as described by Creswell (2009:186, 2014:195), was used for analysis of the qualitative data as discussed in Chapter 2.

Data were also provided to an independent coder to analyse. A consensus discussion was held to finalise the themes, categories and subcategories, and three main themes were identified.

5.2 DESCRIPTION OF Background INFORMATION OF PARTICIPANTS

The target population for this research included managers and professional nurses working in PHC facilities. Data was gathered from 20 participants during in-depth interviews. This included 16 professional nurses and 4 managers. Additional data were obtained from 80 participants’ responses open-ended questions that were included in the background questionnaire (see Annexure F). By this point, no new themes were coming forward and, as data were saturated, not all the participants’ responses to the open questions were coded.
In the next session the following background information was discussed below: training in ART of professional nurses, initiating/not initiating ART and HIV-related training.

5.2.1 Nurses trained or not trained in NIMART and initiating or not initiating ART

Of the participants (n=100), 45% were NIMART trained and initiating, while 12% were initiating ART without being trained, as shown in Table 5.1 below.

Table 5.1 Nurses trained or not trained in NIMART and initiating or not initiating ART

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency (N=100)</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained and initiating</td>
<td>45</td>
<td>45%</td>
</tr>
<tr>
<td>Trained and not initiating</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>Not trained and initiating</td>
<td>14</td>
<td>14%</td>
</tr>
<tr>
<td>Not trained and not initiating</td>
<td>29</td>
<td>29%</td>
</tr>
<tr>
<td>(N=100)</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

5.2.2 Training related to HIV/AIDS

Fifty two percent of participants were trained in NIMART and 35% were trained in PALSA PLUS. Six participants were trained in Comprehensive Paediatric care and 25% of participants indicated that they had received no training in any of the courses. Six participants were trained in comprehensive paediatric HIV care and treatment initiative (South to South) and 36 participants were trained in IMCI. This is a great concern as it influences the initiation of children on ART. Data on HIV/AIDS training are presented in Table 5.2.
Table 5.2   Training in HIV/AIDS

<table>
<thead>
<tr>
<th>HIV training courses</th>
<th>Frequency (N=100)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART (NIMART)</td>
<td>52</td>
<td>52%</td>
</tr>
<tr>
<td>Clinical management of HIV/AIDS for nurses</td>
<td>17</td>
<td>17%</td>
</tr>
<tr>
<td>IMCI provision of ART in children</td>
<td>36</td>
<td>36%</td>
</tr>
<tr>
<td>Comprehensive paediatric HIV care and treatment initiative (South to South)</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>PMTCT</td>
<td>42</td>
<td>42%</td>
</tr>
<tr>
<td>PALSA PLUS</td>
<td>35</td>
<td>35%</td>
</tr>
<tr>
<td>HIV testing counselling</td>
<td>42</td>
<td>42%</td>
</tr>
<tr>
<td>Adherence counselling</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td>No HIV training</td>
<td>25</td>
<td>25%</td>
</tr>
</tbody>
</table>

5.3 DISCUSSION OF RESULTS AND LITERATURE CONTROL

Three themes with eight categories and their subcategories emerged from the data. The following themes were identified:

- Theme one: Professional nurses’ experiences of initiating ART.
- Theme two: Factors related to management and organisational processes.
- Theme three: Professional nurses' understanding of empowerment and related concepts.

In Table 5.3, an overview of the themes, categories and subcategories from the qualitative data is presented.
Table 5.3  Overview of the themes, categories and subcategories

<table>
<thead>
<tr>
<th>Themes</th>
<th>Categories</th>
<th>Subcategories</th>
</tr>
</thead>
</table>
| **Theme 1: Professional nurses’ experiences of initiating ART** | Enablers to initiating ART as experienced by professional nurses | • Knowledge, skills and competency  
• Support /mentoring/guidance from management and trainers  
• Availability of protocols and guidelines  
• Ability to render quality care which assists patients and saves lives  
• Positive psychological experiences: self-motivation, confidence as a result of recognition/positive feedback/appreciation and acknowledgement |
| | Barriers to initiate ART as experienced by professional nurses | • Incompetence (lack of knowledge and skills) due to ineffective training  
• Training and clinical opportunities based on favouritism  
• Negative psychological experiences: self-doubt, fear of unknown, demotivation and negative attitudes (note influence of peers) |
| **Theme 2: Factors related to management and organisational processes** | Availability of resources to practice/perform tasks/initiate ART | • Human resources: availability of enough staff and a multidisciplinary team.  
• Excessive workload  
• Other resources: availability of drugs, equipment and consulting rooms |
| | Information and communication needed from managers and other team members | • Information on changes new policies and guidelines  
• Feedback from managers and evaluation of performance  
• Support and guidance |
| | Task shifting and role clarification | • Shift of responsibility from doctors to nurses (effect of shortage of doctors)  
• Clear role delineation needed |
| **Theme 3: Understanding of empowerment and related concepts** | Competence | • Knowledge and skills to render quality of care (effective and efficient service rendering)  
• Independence as a professional  
• Improved standard of education |
| | Availability and equal access to opportunities | • Professional development  
• Promotion |
| | External resources | • Sufficient staff  
• Conducive working environment  
• Encouragement, constructive criticism  
• Acceptance by other team members |
| | Internal resources | • Power to perform tasks according to experience in the field  
• Confidence and commitment  
• Job satisfaction |
5.3.1 Theme 1: Professional nurses’ experiences of initiating ART

In theme one, professional nurses’ experiences of initiating ART, two categories emerged, namely, enablers of initiating ART and barriers to initiating ART. These two categories describe both the positive and negative aspects regarding the participants’ experiences with initiating ART. From the category enablers of initiating ART, five subcategories emerged, while three subcategories emerged from the category of barriers to initiating ART. Table 5.4 indicates theme one’s categories and subcategories.

**Table 5.4 Theme 1: Professional nurses’ experiences of initiating ART**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Categories</th>
<th>Subcategories</th>
</tr>
</thead>
</table>
| Theme 1: Professional nurses experiences of initiating ART | Enablers of initiating ART | • Knowledge and skills to be competent  
• Support /mentoring/guidance from management and trainers  
• Availability of protocols and guidelines in facilities  
• Ability to render quality care which assists patients and saves lives  
• Positive psychological experiences: self-motivation, confidence as a result of recognition/positive feedback/ appreciation and acknowledgement |
|                                               | Barriers to initiating ART | • Incompetence (lack of knowledge and skills) due to ineffective training  
• Training and clinical opportunities based on favouritism  
• Negative psychological experiences: self-doubt, fear of unknown, demotivation and negative attitudes (note influence of peers) |

5.3.1.1 Category: Enablers of initiating ART as experienced by professional nurses

Five subcategories were associated with enablers of initiating ART, namely: knowledge, skills and competence; support/mentoring/guidance from management and trainers; availability of protocols and guidelines; ability to render quality care which assists patients and saves lives; positive psychological experiences, including self-motivation and confidence as a result
of recognition, positive feedback, appreciation and acknowledgement. These subcategories are discussed in more detail below.

i) **Knowledge and skills to be competent**

The transfer of knowledge and acquiring the necessary skills to initiate ART is very important and was stressed by participants. Where professional nurses have been trained by skilled staff, they are more confident to initiate ART, as described in the literature (Green et al., 2014). The following statements reflect participants’ views:

*They have to be trained in NIMART by qualified team who knows their story because my group was not satisfied by the team who trained us. They had no answers for most of the things.*

*A professional nurse we need proper training and confidence to be able to initiate ART.*

*Professional nurses do not initiate ART because most of them are not trained and when others are taken for training its short trainings that one came out without even feeling competent to initiate.*

*Meer kennis rakende die behandeling en nodige newe-effekte asook drug interactions. [More knowledge is necessary regarding the treatment and side effects as well as drug interactions.]*

The opinion of the participants that professional nurses need to be trained to gain new skills and knowledge is supported by other scholars, confirming that knowledge and skills are essential for NIMART (Green et al., 2014; Smith et al., 2016:325), and that nurses need to be competent and are often not well trained (Mathibe et al., 2015). Kaposhi et al. (2014) found that there was a dramatic difference between the curriculum of the training centres and what professional nurses reported that they were trained on.
ii) Support/mentoring/guidance

In the subcategory of support, mentoring and guidance from management and trainers, participants highlighted the need for supervision and mentoring which was lacking in practice. Support and mentoring influenced the ability of the professional nurses to initiate ART, as described by the following statements. The first statement was made by a manager of one of the clinics and the second and third by professional nurses.

*What is positive the ones who went for this NIMART training, but rather these five professional nurses. I have only two who were managed by a mentor through FPD. They are the ones who are busy with the NIMART.*

(Manager)

*Support from a doctor to identify side-effects correctly and quickly. Overall team support.*

*To be accompanied at least for the first 10 patients that needs to be initiated.*

Appropriate training and quality mentoring is emphasised throughout the literature as essential for effective NIMART implementation (Davies et al., 2013; Green et al., 2014; Sanne et al., 2010:39; Smith et al., 2016:327-228; Uebel et al., 2011; Zuber et al., 2014:526, 529-530). Davies et al. (2013) underline the importance of fast-tracking NIMART mentors with the necessary knowledge and experiences to be equipped to supervise and support colleagues in practice. The importance of mentoring and supervision in the initial phase when training professional nurses on NIMART is very important, but adequate supervision is also needed for long-term success of NIMART programmes (Assefa et al., 2010:80; O’Malley et al., 2014).

iii) Availability of protocols and guidelines in facilities

Availability of protocols and guidelines in facilities was a problem, as participants indicated that policies and guidelines were not available in the
clinics and, when protocols and guidelines changed, they were not informed or updated on the changes:

*Training is needed to increase competency, good supervision and policies and protocols must be available.*

*Availability of specific guidelines and protocols and wall charts that easily explain the steps.*

*New revised policy to be dispensed equally.*

Availability of policies, guidelines and protocols were considered a challenge by the professional nurses as they did not have these documents in the clinics and would sometimes be unaware of new guidelines. Georgeu et al. (2012) reported that nurses’ clinical confidence is influenced by nurse-specific guidelines, familiarity with the guidelines and approach, as well as clear referral protocols. This is supported by other researchers (Crowley & Mayers, 2015; Stein et al., 2008).

*iv) Ability to render quality care which assists patients and saves lives*

Participants were concerned with the quality of care that they were rendering. This was due to different factors: pushing queues to reach their daily targets, number of patients and a lack of knowledge and skills were mentioned. Despite these factors, it was important for the professional nurses to initiate patients on ART in the PHC facilities, as they will be able to treat patients in need of ART in their communities.

*Equip professional nurses with knowledge and skills in order to be able to improve quality of care.*

*We do not give quality; pushing quality of work is supposed to go as we start this training those are the things that it is going to back fire on us.*
The reasons that influence professional nurses to initiate ART, the prevalence of HIV/AIDS is very high in our community and a lot of clients in the PHC setting are due for ART.

When one has undergone training, being mentored and competent can be a factor which will be a driving force to initiate especially when there are patients in need of treatment.

Davies et al. (2013) found that professional nurses are concerned about quality when they have to meet performance targets and high patient loads. Despite many challenges, professional nurses are positive to initiate ART as they can initiate patients, they do not have to wait for doctors anymore and they are now saving lives (Crowley & Mayers, 2015; Davies et al., 2013; Georgeu et al., 2012).

v) Positive psychological experience

There were a number of positive psychological experiences, such as self-motivation and confidence due to positive feedback. Positive psychological experiences were associated with recognition, positive feedback and acknowledgement. These experiences are illustrated by the following quotations from participants;

Need to be trained, have self-confidence, and be able to face challenges. Need to be supported and given feedback.

Those who initiate they are eager to learn and feel competent and confident and are able to interpret results.

Nurses needs to be supported by the management and appreciated doing well.

Have self-confidence, be able to face challenges. Be given feedback and support.

Just a word for encouragement.
Self-motivation, self-trust and professionalism.

Evidence supports positive psychological experiences and emotional rewards, because professional nurses are able to render ART services to meet patients’ needs, which contributes to improvement in the health of patients and saving lives (Crowley & Mayers, 2015; Georgeu et al., 2012). Davies et al. (2013) found that, due to the positive experiences, professional nurses persuaded their colleagues to undertake NIMART training and experience the satisfaction of saving lives.

5.3.1.2 Category: Barriers to initiating ART as experienced by professional nurses

Three barriers to initiating ART were experienced by the participants, namely: incompetence (lack of knowledge and skills) due to ineffective training; training and clinical opportunities based on favouritism; and negative psychological experiences.

i) Incompetence due to a lack of knowledge and skills

Lack of training and practical exposure to correlate the theory with the practice was the main reason given by participants for incompetence. The duration of training was considered to be too short and needs to be extended to two weeks. Participants expressed the following views regarding incompetence and lack of skills:

Nurses must be trained for at least two weeks or more and practica must be done to correlate theory and practice.

The training, that are offered now, you can find that it is maybe one week and it is like, you know, microwave cooking. A NIMART trained nurse and a PULSA PLUS, nurse, sorry to mention them by name, but PULSA PLUS, takes one week and you are expected to initiate and a NIMART one, it is at least longer and people from NIMART training, as I see them,
are confident enough, to initiate, but most of our nurses here aren’t NIMART trained. (Manager).

Professional nurses do not initiate ART because most of them are not trained and when others are taken for training its short trainings that one came out without even feeling competent to initiate. Lack of people who can mentor you so that you can feel that you are competent to be able to initiate.

Yes, I think it’s not enough, because in clinical guideline of the PULSA PLUS, they didn’t teach us about that baseline blood. They have just give us the baseline of HIV and AIDS and then of the symptoms of the client and how to follow the guideline, but with the blood and how to prescribe. They didn’t teach us about that and then the guideline doesn’t direct us about the blood.

Due to the urgency of rolling out the NIMART programme, capacity-building interventions are often compromised, which undermines the confidence of professional nurses to initiate ART (Davies et al., 2013; Davies & Pinto, 2015; Nyasulu et al., 2013:235). Gaps in the training of professional nurses to initiate ART include the initiation of children on ART and interpretation of blood results (Green et al., 2014). In an evaluation study done on an HIV nurse practitioner’s programme in Zambia (Smith et al., 2016:326-327), 50% of the participants reported that the two weeks’ didactic training was too short. In South Africa, the didactic training for NIMART is 5 days, with no guaranteed mentoring, and professional nurses have stated that the duration of the training is too short (Cameron et al., 2012:99; Mophosho, 2015:22).

ii) Training and clinical opportunities were linked to favouritism

Participants stated that professional nurses who were sent for training were not always interested in working with people with HIV/AIDS, but were sent for training due to their relationship with the manager, while other professional nurses do not have an opportunity access NIMART training:
Some of nurses are not sent for training. Only favourites are sent for training we should have equal opportunities to attend training.

The manager chooses her favourites to go for the training and they do not initiate when they come back.

Participants indicated that there were professional nurses who were interested to be involved in HIV care and initiation of clients onto ART and who expressed their interest but were not given an opportunity to be trained. Other professional nurses who were not interested in rendering HIV care were sent for training due to seniority, haphazard coordination and staff selection from the manager’s side. This leads to inappropriate staff being trained (Davies et al., 2013).

iii) Negative psychological experience

A number of negative psychological experiences, such as self-doubt, fear of unknown, demotivation and negative attitudes, were reported by the participants.

Negative psychological experiences were influenced by the attitudes of peers as well as by professional nurses’ fear that they could do something wrong when initiating ART because of incompetence. Emotional distress due to managing very sick people on a daily basis contributed to the negative psychological experiences.

Lack of knowledge, feeling of not been competent enough. Feel it is extra work for nurse’s peer moral and bad attitude.

Insufficient knowledge and bad attitude of professional nurses towards HIV patients. Emotional distress/depression of seeing very sick patient every day.

It can be due to incompetency and also fear of doing something one has never done before.
Scholars emphasise that additional workload on already overburdened professional nurses, pushing the queues and the amount of paperwork related to ART services, are worsening the feeling of overburdening (Davies et al., 2013; Georgeu et al., 2012; Mathibe et al., 2015; Stein et al., 2008; Uebel et al., 2013). Lack of clinical confidence and complications can undermine professional nurses’ confidence to initiate patients on ART. As one professional nurse said, “when you see (clinical complications) then you feel somehow guilty” (Georgeu et al., 2012; Makhado, 2014:95-96).

5.3.2 Theme 2: Factors related to management and organisational processes

This theme described the factors associated with management and organisational processes. The following categories emerged: availability of resources to practice/perform tasks/initiate ART; information and communication needed from managers and other team members; task shifting; and role clarification. Table 5.5 explains these categories with their subcategories.

Table 5.5  Theme 2: Factors related to management and organisational processes

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<tr>
<th>Themes</th>
<th>Categories</th>
<th>Subcategories</th>
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<td>Factors related to management and organisational processes</td>
<td>Availability of resources to practice/perform tasks/initiate ART</td>
<td>• Human resources: availability of enough staff and a multidisciplinary team</td>
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<td></td>
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<td>• Excessive workload</td>
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<td>• Other resources: availability of drugs, equipment and consulting rooms</td>
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<td>• Information on changes, new policies and guidelines</td>
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<td></td>
<td>Task shifting and role clarification</td>
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<td>• Shift of responsibility from doctors to nurses (effect of shortage of doctors)</td>
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<td>• Clear role delineation</td>
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</table>
5.3.2.1 Category: Availability of resources to practice/perform tasks or to initiate ART

In this category, three subcategories were identified, namely: human resources (availability of enough staff); excessive workload of professional nurses; and other resources, including availability of drugs, equipment and consulting rooms. Below, subcategories are discussed in more detail with quotes from participants.

i) Human resources

Availability of staff in PHC facilities is one of the great challenges in initiating ART, with too few professional nurses, but also a lack of administrative personnel to assist with administration and multidisciplinary teams. This is reflected by the following quotations by participants:

Shortage of staff and overloading of clients in clinics. Nurse patient ratio is very high and nurses need to spend more time with the client to be initiated.

Because in SA we have a shortage of doctors and there is only doctor visit two times a week.

More staff – professional nurses are doing more than what they can do, like drawing blood (lab technician job) doing pap smear, prescribing medications, looking for files of clients (clerk’s job) doing statistics rendering patient care in a small clinic without space, all programmes rendered under one roof by one professional nurse.

The National Health Facilities Baseline Audit (National Department of Health, 2012:31) reported that 47% of the 3 356 clinics and community health centres had no visiting doctors and 84% had no input from pharmacist or pharmacy assistants.

Other scholars emphasise that there are inadequate human resources, especially professional nurses who are already overloaded (Cohen et al., 2009;
Crowley & Mayers, 2015; Makhado, 2014:96-97; O’Malley et al., 2014; Uebel et al., 2013). In the absence of doctors and pharmacists, the burden on professional nurses increases as they need to carry out these tasks.

ii) Excessive workload

Participants reported that it was expected from them to manage 40 patients per day, but that they often saw more than 40 patients.

*Shortage nurses not enough to do the work and no support from management. Too many patients, workload is too high for nurses more than 40 patients per day.*

*Maybe more than 100, if it is 100 per day can be 80 depends on monthly, pension, during the month very hectic …I feel like burn out at this stage.*

Workload of professional nurses increases as NIMART was added to their other tasks and roles without any additional staff. They already see their work as pushing queues to reach the target set for professional nurses (Cohen et al., 2009; Georgeu et al., 2012)

Paperwork also increased because of all the registers that need to be completed with information of patients initiated on ART (Georgeu et al., 2012). This burden was further increased by time available to manage patients safely as time per consultation decreased. Nurses are expected to manage 40 patients per day in PHC clinics; this is higher than the 30 recommended by WHO (Uebel et al., 2013).

iii) Availability of other resources

Professional nurses said that there was a lack of consulting rooms in the clinics, that not every consulting room had the basic equipment to examine patients and that they were sharing equipment:

*I think the lack of support from our management and then lack of equipment and the space. There is not enough space and sometimes*,
the shortage is the one that makes people not to be able to do the work properly.

This Clinic needs a lot of things of like you can see yourself, the clinic is not in a good condition, but they say, they are going to renovate it and the space too small for us to work and there are shortage of staff and it is only me and the other.

Other scholars have underlined different factors that act as either enablers or barriers to NIMART programmes, namely, health systems resources, inadequate infrastructure, absence of the necessary equipment, lack of support from managers, and inadequate human resources (Cohen et al., 2009; Crowley & Mayers, 2015; Makhado, 2014:96-97; O’Malley et al., 2014; Uebel et al., 2013).

There is a commitment from professional nurses to render NIMART services, but it is important to ensure that resources are available to render quality care. This was questioned by many of the participants. Additionally, the workload is seen as pushing queues to reach the target set for professional nurses (Cohen et al., 2009; Georgeu et al., 2012).

5.3.2.2 Category: Information and communication needed from managers and other team members

Three subcategories were identified in this theme, namely: information on changes new policies and guidelines, feedback from managers and evaluation of performance, and support and guidance. More in-depth discussion of subcategories follows below.

i) Information on changes and new policies and guidelines

Professional nurses need to be informed when there are changes in policies and guidelines. Participants reported that they often hear about changes from other nurses or receive updates months after being implemented.
Every time there is a new development. There should be clear communication, should be a clear communication, because you hear about changes. There should be, there should be written communication or at least uhm … coordinators in the district should meet and from there, they disperse the message to different clinics. Coordinators in districts should meet via different clinics.

That’s why I am saying, you know, it was a lack of feedback, because sometimes we are trained by different, others by WITS Institute, others by FPD so we were trained by WITS and he was trained by a different, you know, so there is no feedback, to say, here is the latest set of rules, this, what is happening. We do not give each other any feedback.

**Clear communication about new developments and policies**

Communication of changes in guidelines and policies were not communicated down to the clinics from provincial and district level, which influences the implementation of programmes and leaves professional nurses uninformed and frustrated (Davies et al., 2013; Makhado, 2014:102).

**ii) Feedback from managers on performance**

Participants requested honest feedback from managers on both the positive and negative aspects of their work. This is necessary after audits and evaluations of staff, and could help to improve skills that is still lacking but also motivate them and create a feeling of appreciation.

We don’t really need money just a mere thank you for us to keep us going and to work more heartened then, what we are doing right now.

No feedback from manager especially poor motivation from manager on doing a good work.

Need support from top management in a form of incentives to boost their morale.
Not receiving feedback can influence the morale and commitment of professional nurses to render NIMART. It is necessary that feedback on poor performance should be followed by the necessary interventions to ensure good quality care (Crowley & Mayers, 2015; Morris et al., 2009).

iii) Support and guidance

Support and guidance from the trainers, mentors and doctors is compulsory in the initial phase when professional nurses start to initiate ART, to assist the professional nurses with questions and to help them gain confidence. Managers need to support staff in the clinics and give guidance on performance:

*I think lack of support from the relevant stakeholders that I have seen, there is no support if you having any challenge. You do not know where to go, no whom one to ask, even myself. I sometimes, you know, I become so afraid and I see no like this patient.*

*Support from a doctor to identify side-effects correctly and quickly Overall team support. Yes, especially with children. They are many challenges with children, who are on NIMART. If you can have somebody, when I am stuck there, I can call, to give us assistance on both.*

Support to initiate NIMART is required from programme managers and coordinators, facility managers, doctors and colleagues. Negative attitudes from colleagues and managers are seen as a stumble blocks (Davies et al., 2013; Makhado, 2014:106). The need to be clinically supported by doctors, NGOs and trainers is more prevalent in the initial phase to gain clinical confidence (Assefa et al., 2010:80; Crowley & Mayers, 2015; Georgeu et al., 2012; Mathibe et al., 2015). Professional nurses are lost to other Western countries where working conditions are conducive, where they receive better remuneration packages and where they are appreciated (Kang’ethe & Manomano, 2014:1863).
5.3.2.3 Category: Task shifting and role clarification

In this category, two subcategories emerged, namely, shift of responsibility and tasks from doctors to nurses (effect of shortage of doctors), and role delineation needed.

i) Shift of responsibility from doctors to nurses

Task shifting is recommended by the WHO to manage the HIV/AIDS epidemic in under-resourced countries. Where tasks are shifted from doctors to nurses, the nurses, to whom the tasks are shifted, should be involved in this process and prepared. Tasks should not simply be dumped on professional nurses. The participants reflected the following:

*The way everything is pushed towards the nurses because of not enough doctors.* (Manager)

*Nurse do not initiate because they feel that they are overworked and less paid. They also feel that there is a shift of responsibility from doctors to nurses and doctors are well paid.*

WHO recommendations and guidelines state that consultation with relevant stakeholders, national endorsement and providing an enabling regulatory framework for task shifting is necessary (WHO, 2008:2). Although there are certain challenges with task shifting, professional nurses are willing to take on the new roles and tasks shifted to them as they feel empowered by their expanded role (Crowley & Mayers, 2015).

Recognition from managers and doctors is important to retain nurses who have been trained to initiate ART. This includes financial incentives, stimulating work environment and trust of colleagues (Assefa et al., 2010; Davies et al., 2013).

ii) Clear role delineation

Participants stated that there was an overlapping of roles with the doctors. Clarification of new roles was not done, leading to a grey area, as professional
nurses would take on responsibilities of other health professionals in their absence, like dispensing medicine in the absence of pharmacy assistants. Doctors considered nurses not to be able to initiate ART and the scope of practice of professional nurses were not amended.

*I was in a facility with a doctor, but he was not prepared for me to start initiating. He felt like, I was taking his job away from him and with this other nurses, they felt that now they are doing the doctors’ duties. They even do, sometimes you have to do PHC though.*

The following challenges have been highlighted throughout the literature and need to be addressed for successful task shifting: reorganising of health teams and clarification of the roles of the professionals to whom the tasks are shifted (Assefa et al., 2010; Crowley & Mayers, 2015; Georgeu et al., 2012; Green et al., 2014; Kang’ethe & Manomano, 2014:1861-1863; Mathibe et al., 2015). The scope of practice of professional nurses, with the necessary regulatory frameworks, should be in place (Crowley & Mayers, 2015; Georgeu et al., 2012; Kang’ethe & Manomano, 2014:1861-1863; Mathibe et al., 2015).

### 5.3.3 Theme 3: Understanding of empowerment and related concepts

Theme three defines the professional nurses’ understanding of empowerment and related concepts. This question was included in the background information and the interviews before the participants answered any of the empowerment questionnaires and reflects their own understanding of empowerment.

Four categories materialised in this theme, namely: competency, availability of and equal access to opportunities, external resources, and internal resources. Table 5.6 displays the categories and subcategories in theme three.
Table 5.6  Theme 3: Understanding of empowerment and related concepts

<table>
<thead>
<tr>
<th>Themes</th>
<th>Categories</th>
<th>Subcategories</th>
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| Understanding of empowerment and related concepts. | Competency | • Knowledge and skills to render quality care (effective and efficient service rendering)  
• Independence as a professional  
• Improved standard of education |
| | Availability of and equal access to opportunities | • Professional development  
• Promotion |
| | External resources | • Sufficient staff to render services  
• Conducive working environment  
• Encouragement and constructive criticism  
• Acceptance by other team members |
| | Internal resources | • Power to perform tasks according to experience in the field  
• Confidence and commitment  
• Job satisfaction |

5.3.3.1 Category: Competency

In this category, three subcategories were identified: knowledge and skills to render quality care (effective and efficient service rendering), independence as a professional and improved standard of education. Each subcategory is discussed below.

i) Knowledge and skills to render quality care

Knowledge and skills were seen as essential by the participants as this will assist them to provide quality care to the patients. The participants expressed the need to specialise in the HIV field to develop expertise. The following quotations relate to these findings:

Nurses should be NIMART trained do practical mentored throughout, yes given support by our Operational Managers by Management, that day and be given enough equipment. Resources there shouldn’t be any shortage of treatment and equipment’s in order for us to deliver quality nursing care for our patients.
To equip people with knowledge and skills so that they can deliver effective and efficient services to patients.

Empowerment is a process of developing or increasing one’s knowledge in a particular field of work in the form of workshops in-service training and even allowing one opportunities to further their studies.

Literature on the subject of NIMART and empowerment underlines the importance of knowledge and skills, and even to specialise in the field of HIV/AIDS: “We cannot be experts on everything” (Smit, Church, Milford, Harrison & Beksinska, 2012; Uebel et al., 2013).

Skills and knowledge and the possibility for learning and growth in an organisation are part of opportunities according to Kanter’s structural empowerment theory (Casey et al., 2010:32; Faulkner & Laschinger, 2008:220; Gilbert et al., 2010:346; Knol & Van Linge, 2008:367; Laschinger et al., 2001:125, 2004; Ning et al., 2009:2646), while Spreitzer (1995:1443) relates self-efficacy to do one’s work and perform work activities with skill under competence in her psychological empowerment theory.

ii) Independence as a professional

Independence as a practitioner and the ability to make decisions were important to the participants, as this is seen as authority over their practice:

Empowerment is whereby when you are given knowledge and skills to provide services better because if you do not have knowledge it is difficult to render services and you cannot be independent.

Empowerment for me means information with regard to theory and also skills or practical applications and also to give power or authority to make important decisions.

Independence as a professional is not described in either of the theories on structural or psychological empowerment. However, in their study on effects of structural and psychological empowerment on respect, Faulkner and
Laschinger (2008:220) concluded that networking and collaborative relationships with colleagues and other health professionals influence nurses’ opinions of respect and professional autonomy.

iii) Improved standard of education

Participants mentioned that the standard of education is important for technical skills to provide NIMART. They also expressed the need to further their professional qualifications and to have an opportunity to practise newly acquired skills:

*Empowerment is about being given skills & knowledge and improving the standard of education.*

*Be academically developed so that one can be skilful and competent in what one does. Standard of education must be good.*

Training to acquire the knowledge and skills necessary for NIMART is considered to be vital for the successful rollout of NIMART programmes (Crowley & Mayers, 2015; Fulton et al., 2011; Uebel et al., 2013).

5.3.3.2 Category: Availability of and equal access to opportunities

In the category of availability of and equal access to opportunities, two subcategories were identified, namely, professional development and promotion.

i) Professional development

Participants expressed the need to have the opportunity to develop their professional qualifications and to be supported to complete the practical requirements. Opportunities to further their studies are influenced by seniority and years in the services. Participants stated the following:

*Letting staff to have the opportunity to study further with their own money and be given a change to do practical.*
Is where someone is been developed in a certain position.

According to Kanter’s structural theory empowerment, possibilities for learning and growth form part of opportunities (Casey et al., 2010:32; Faulkner & Laschinger, 2008:220; Gilbert et al., 2010:346).

**ii) Promotion**

Participants expressed their disappointment that there were no incentives or possibility of promotion, given that NIMART is an essential service that increases their workload and need for specialist knowledge.

_Empowerment for me is like when there is a certain change on your work, some sort of promotion from your work._

_Is when people are being given changes or exposed to different trainings, are given opportunities to practices. Are being supported and applauded or rewarded._

Promotions and incentives for professional nurses are seen as one of the matters that need to be addressed for a successful NIMART programme (Assefa et al., 2010; Callaghan et al., 2010; Crowley & Mayers, 2015). Promotion and incentives are described under formal power in Kanter’s structural empowerment theory (Ahmad & Oranye, 2010:582-590; Casey et al., 2010:32).

5.3.3.3 **Category: External resources**

Resources are identified as either an enabler or barrier in rendering HIV services and comprise human resources, working environment, equipment and policies (Makhado, 2014:98). The four subcategories identified in this category were sufficient staff to render services, conducive working environment, encouragement and constructive criticism, and acceptance from other team members. These subcategories are discussed below.
i) Sufficient staff

Participants stated that there were not enough staff in the clinics and there was an increased workload due to NIMART. This was confirmed by Daviaud and Subedar (2012:21) in a study on staffing norms in the context of PHC re-engineering in PHC facilities. They reported a shortage of over 10 000 professional nurses, including specialised nurses, to cover all the services recommended in the PHC re-engineering, for example, school health and outreach teams. They also reported a shortage of 361 medical officers (Daviaud & Subedar, 2012:21).

We are experiencing a shortage of staff and increased workload because of all the patients.

What I can say, is that, what I have realised, NIMART, it’s a programme that has been introduced to the nurses with a workload that we already had and it came out with its own workload, and you look at this workload, and the number of professional nurses, in there, with professionalism, that number never changed at all.

It really drains us, professional nurses, on the nurses in the clinics and if the Government can make a point to increase staff, staff establishment.

Professional nurses already carry a high workload and NIMART increases this workload even more. With the shortage of doctors, counsellors, pharmacists and administrative staff, professional nurses have to dispense medicine and do the administrative work, further increasing their workload (Daviaud & Subedar, 2012:21; National Department of Health, 2012:31). Outreach teams are linked to facilities and professional nurses working in clinics will often also perform these duties. According to professional nurses there are also too few counsellors, pharmacy assistants and administrative support (Daviaud & Subedar, 2012:21).

Professional nurses at clinic level are over-stretched, with a high percentage of professional nursing posts vacant (Crowley & Mayers, 2015; Stein et al., 2008)
and a large amount of paperwork to be done with ART registers (Uebel et al., 2013). The need for support staff to alleviate the burden on the professional nurses should consist of administrative clerks and data capturers to allow the professional nurses more time for clinical work (Davies et al., 2013).

ii) **Conducive working environment**

To be able to render NIMART services, professional nurses must have a space to work and the necessary equipment to examine patients. Participants voiced their concern about the infrastructure, with too few consulting rooms and having to share equipment, leading to wasting time in looking for equipment

*Sufficient space to do initiation and follow-up treatment. Resources (bed other equipment’s).*

*Empowerment is the ability to do my work in a good way and for that I need the proper knowledge, resources to do my job, plus the working environment needs to be suitable.*

The above views from participants are supported by literature, where the lack of infrastructure with limited working space, and unavailability of drugs, equipment and stationery are pointed out as factors that are constraints to implementing NIMART. These factors need to be addressed for effective implementation of NIMART (Crowley & Mayers, 2015; Davies et al., 2013; Ferrinho et al., 2012; Mabelane et al., 2016:10; Mathibe et al., 2015).

iii) **Encouragement, constructive criticism**

Participants expressed the sentiment that they do not receive feedback from the managers and other team members. If feedback is given to them, it is in a negative way without mentioning any positive aspects, and even when they are doing well there is no appreciation or recognition. The following quotations illustrate this:

*Being provided with necessary resources e.g. human and material and on-going monitoring coupled with constructive criticism.*
Nurses’ needs to be supported by the management feedback must be given on the positive but also on what need to be improved in a good manner and appreciated for doing well.

Encouragement and to do something new being supported helped by others.

In their systematic review, Callaghan et al. (2010) reported that adequate remuneration should be addressed for the new roles and tasks that professional nurses are taking on. A stimulating working environment, promotion and performance-based financial incentives are necessary to retain skilled professional nurses who are NIMART trained (Assefa et al., 2010).

iv) Acceptance by other team members

With the rollout of NIMART, professional nurses experienced that doctors did not accept them as part of the team and some of their colleagues did not support them with the implementation of NIMART. Participants appreciated the doctors that were willing to assist them and discussed the patients that they required assistance with:

Empowerment means an individual must be supported and encouraged. Assistance and motivation from other team members is needed.

Our doctor is helping us a lot, he is not rude and he likes to teach also. Yes, when we refer a patient, he wants to know, who referred the patient, and then they explain. We must do this and this and this, when you refer a patient, when you say the diagnosis is this, how you have reached this diagnosis.

Davies et al. (2013) found that, where there was a supportive team-oriented culture, staff could manage the changes and pressure due to NIMART better. However, in the facilities where this was lacking, professional nurses had negative experiences and felt unsupported (Davies et al., 2013).
Lack of **resources** (materials, money, supplies, time, and equipment) and **support** from superiors, peers and subordinates, including feedback about their performance, guidance, problem-solving advice or hands-on assistance, are two of the six components of Kanter’s structural empowerment theory (Casey et al., 2010:23; Faulkner & Laschinger, 2008:215; Laschinger, 2008:323; Laschinger et al., 2001:261; Ning et al., 2009:398; Smith et al., 2010:1005-1006).

5.3.3.4 **Category: Internal resources**

Internal resources are related to psychological empowerment as described by Conger and Kanungo (1988:484) as a “process of enhancing feelings of self-efficacy among organizational members.” These categories correspond to competence (skilfully performing tasks) and impact (making a difference in the organization) in Spreitzer’s psychological theory. Three subcategories were documented; namely, power to perform tasks according to experience in the field, job satisfaction, and confidence and commitment.

i) **Power to perform tasks**

Participants who were initiating ART indicated that shifting initiation of patients in clinics to professional nurses also meant that the professional nurses needed the authority to make independent decisions regarding the management and consult with medical practitioner when necessary:

> Empowerment for me means information with regard to theory and also skills or practical applications and also to give power or authority to make important decisions e.g. initiate patient without first referring to medical doctor or any medical support person.

> It means that you are being capacitated and hence you have power to perform the duties that you are expected to perform.

Manojlovich (2007) indicates that power is necessary for professional nurses in order to practise more autonomously, referred to as professional autonomy.
ii) **Confidence and commitment**

Self-confidence, motivation and commitment were highlighted by the participants as necessary internal resources; if there was a lack in self-confidence; professional nurses were hesitant to start initiating ART.

> I think empowerment is having skills, when you are well trained and you have self-confidence to do the job, you have a proper knowledge and you can be able to work alone.

> Nurses need confidence knowing protocol patient needs, clinical picture and motivation to initiate ART.

> Self-motivation, self-trust and professionalism is necessary.

Clinical confidence of professional nurses is influenced by several factors, including effective training with good clinical support and supervision, clear guidelines, and referral protocols (Uebel et al., 2011). Green et al. (2014) found that well-trained professional nurses had increased confidence and that there was an improvement in indicators as well as quality of care in their study. In the STRETCH trial, professional nurses experienced accomplishment and a degree of prestige for being able to initiate ART after they were trained to do so (Georgeu et al., 2012).

iii) **Job satisfaction**

Participants who were confident to initiate ART reported that they experienced job satisfaction as they were saving lives and providing quality care.

> We find, managing and providing quality care very satisfactory (job satisfaction) and I am saying this, as an operational manager.

> The interest to strive for more than you can do “Walk a mile for your clients”.
According to Davies et al. (2013), due to the job satisfaction that professional nurses initiating ART experience, they persuade other colleagues to also become NIMART nurses. Job satisfaction has also been confirmed by other scholars (Mabelane et al., 2016; Uebel et al., 2011). Laschinger (2008:328) confirmed previous findings that, if there is structural empowerment, job satisfaction of professional nurses will increase (Laschinger et al., 2004:538).

Despite all the challenges in the PHC clinics, professional nurses are committed to initiate ART as this bring hope for patients and improves their health and quality of life. As one professional nurse commented, “this is making it worth it” (Georgeu et al., 2012). Davies et al. (2013) state that family members who died awaiting doctor-initiated ART and providing continuous HIV care for their own patients because they do not need to wait for the doctors anymore enhanced the commitment from the professional nurses.

In conclusion, professional nurses’ understanding of empowerment comprised aspects of both empowerment theories. Access to opportunities and resources are related to Kanter’s structural empowerment theory, and competency and internal resources are related to Spreitzer’s psychological empowerment theory. In the subcategories, other aspects of these theories, like impact, support, power and meaning, were also evident.

5.4 CONCLUSION

In this chapter, the qualitative data were analysed and discussed. This discussion reflected the professional nurses’ experiences with initiating ART, what they thought were needed to empower them to initiate ART, and their understanding of the concept empowerment. It was found that there were enablers of and barriers to initiating ART, related to personal experiences, training, mentoring clinical supervision, professional roles and task shifting, management, and organisational processes. Professional nurses’ understanding of empowerment addressed both components included in the structural and psychological theories that formed the theoretical framework for this study. A literature control was done which indicated similarities and
differences to previous studies. In Chapter 6, integration of quantitative and qualitative is done as required in mixed methods studies, with supportive literature.
CHAPTER 6
INTEGRATION AND DISCUSSION OF QUANTITATIVE AND QUALITATIVE DATA

6.1 INTRODUCTION

In Chapter 4, background information, structural empowerment and psychological empowerment of professional nurses were discussed (quantitative data). Qualitative data were discussed in Chapter 5 and included their experiences of initiating ART, what is needed to empower professional nurses to initiate ART, and their understanding of empowerment. In this chapter, both sets of data are integrated and discussed.

The background information obtained in this study confirmed the gaps in NIMART training, lack of mentoring after training, and the necessity of standardising NIMART training (Colvin et al., 2010:211; Crowley & Mayers, 2015; Dambisya & Martinhure, 2012; Davies et al., 2013; Georgeu et al., 2012).

Initiation of children on ART is still a challenge as participants did not feel competent to initiate children on ART. A study carried out in Kenya by Smith et al. (2016:325) reported that 37% of the nurses trained in child ART initiation considered themselves competent; however, only 27% were involved in initiating children on ART.

Integration of the data from the structural and psychological empowerment questionnaires (quantitative) and the in-depth interviews and open questions (qualitative) is discussed further down.

In a convergent parallel mixed method design, quantitative and qualitative data are separately collected and analysed. The second part of the analysis is to interpret both sets of data using techniques that “mix” the two datasets and results (Creswell, 2014:223; Creswell & Plano Clark, 2011:203; Onwuegbuzie & Combs, 2010:422).
Side-by-side comparison was utilised in this study to merge the two sets of data. Quantitative results are first presented, followed by the qualitative findings together with a discussion with quotes and references to the literature that either confirm or contradict the quantitative results (Creswell & Plano Clark, 2011:223).

6.2 STRUCTURAL EMPOWERMENT

Kanter (in Casey et al., 2010:30) states that social structures in the workplace influence employees’ behaviour more than individual characteristics. These structures include having access to information, receiving support from managers, having access to resources to be able to complete their job, and having opportunities to learn and grow.

Formal power originates from work that is considered relevant and important for the organisation and central to the organisational goals (Lethbridge et al., 2011). This is manifested in high-profile jobs that allow autonomy in decision-making. In the public health sector in South Africa, professional nurses and nurse managers are often excluded from decision-making processes.

Informal power is derived from alliances and communication with people within and outside the organisation on all levels. Association with superiors, sponsors, peers and subordinates improves access to opportunities (Lethbridge et al., 2011).

According to Laschinger, structural empowerment scores from 6 to 13 are considered low perceptions of structural empowerment; scores from 14 to 22 moderate, and scores between 23 and 30 high (Casey et al., 2010:27; Gilbert et al., 2010:343). Moderate structural empowerment was reported in this study with a mean of 18.7. This compares with other scholarly work on structural empowerment (Barden et al., 2011:215; Casey et al., 2010:27; Ning et al., 2009:2645).

Laschinger et al. (2001) state that structural empowerment can increase nurses’ job satisfaction and decrease their job strain, while Faulkner and Laschinger
(2008:219) support Kanter’s theory of workplace empowerment having positive effects on organisational behaviour and attitudes.

In the qualitative data, one of the subcategories that emerged was power to perform tasks according to experience in the field, as illustrated by the following quotes:

*Empowerment for me means to give power or authority to make important decisions e.g. initiate patient without first referring to medical doctor or any medical support person.*

*When person are given opportunities to explore, practice and implement what they are capable of.*

The qualitative data confirm a lack of formal power and are supported by literature, as professionals should have power over the practice of their discipline, often referred to as professional autonomy (Laschinger, Sabiston & Kutscher, 1997). This is confirmed by Manojlovich (2007) as she states that “autonomy represents one kind of power nurses need, and is defined as the freedom to act on what one knows.”

### 6.2.1 Opportunity

Opportunity is described as access to professional development to improve knowledge and skills, challenges to grow, and rewards. This was sub-construct rated the most highly for structural empowerment by professional nurses, with a mean of 3.8 (5-point Likert scale). One study done in China reported a lower mean of 2.97 (Ning et al., 2009:2645). In two other studies, the means were 4.12 and 4.05 (Casey et al., 2010:29; Laschinger, 2008:326). Crowley and Mayers (2015) describe outstanding remuneration issues, and accredited training based on competencies to assure knowledge and skills as barriers to the implementation of NIMART.

In the qualitative data, the following subcategories were noted as barriers to the implementation of NIMART: incompetence (lack of knowledge and skills) due to
ineffective training, and clinical opportunities based on favouritism. Participant descriptions are quoted below:

*Intensive training not only one week training is necessary. Intensive training and after the training, someone who can mentor you, so that you can feel, that you are competent.*

*Knowledge in a particular field of work need to be increases in the form of workshops in-service training and even allowing one opportunities to further their studies and careers in his/her area of interest in order to equip oneself with the latest knowledge.*

*Only favourites are sent for training we should have equal opportunities to attend training.*

These categories are supported by a body of evidence that training is needed to increase professional nurses’ knowledge and skills for initiation of ART (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016; Makhado, 2014:96; Smith et al., 2016:328) and *contradict* the high score for access to opportunities in the quantitative data. The contradiction might be due to questions asked under the subscale, where one question was about gaining new skills and knowledge and 54% present of the participants reported that they had access. The other two questions asked about challenging work, and work that use all the professional nurses’ knowledge and skills, where 70% of participants perceived that their work required all their skills and knowledge.

6.2.2 Information

Information is the knowledge of organisational decisions, policies and goals, as well as having technical knowledge and expertise to be effective in the organisation. Information was ranked third out of the six sub-constructs with a mean of 3.2. This compares with other studies done on structural empowerment (Casey et al., 2010:29; Laschinger, 2008:326).
Communication and sharing of policies and goals are often a challenge on PHC level and many researchers advocate for improvement in this regard (Crowley & Mayers, 2015; Crowley & Stellenberg, 2014; Davies et al., 2013; Ford, 2013:47; Kaposhi et al., 2014).

The following subcategories were emphasised in the qualitative data: information on changes, new policies and guidelines, as well as knowledge and skills, are needed to render quality care to patients, as referred to by participants:

- **To equip a person with the necessary knowledge and skills to be able to improve quality of care patients are receiving.**
- **Nurses must be trained thoroughly at least two weeks or more and practical must be done to correlate theory and practice.**
- **Training is needed to increase competency, good supervision and policies and protocols must be available.**
- **Lack of communication between management and personnel is a problem.**
- **Receiving information on task to be performed and also needs to be accompanied.**

The above view is supported by literature indicating that knowledge and skills are essential for NIMART (Green et al., 2014; Smith et al., 2016:325), and that nurses need to be competent and are often not well trained (Mathibe et al., 2015).

Availability of policies, guidelines and protocols was considered a challenge by the professional nurses, as sometimes they are not even aware of new guidelines (Crowley & Mayers, 2015; Ford, 2013:47; Stein et al., 2008).
6.2.3 Support

Support is seen as feedback and guidance from superiors, peers and subordinates. It includes hands-on assistance and problem-solving advice when needed. Support was rated fourth out of the six sub-constructs of the structural empowerment scale with a mean of 3.0. This compares with other studies done (Barden et al., 2011:216; Regan & Rodrigues, 2011:e104)

Appropriate training and quality mentoring are emphasised throughout the literature as essential for effective NIMART implementation (Davies et al., 2013; Green et al., 2014; Sanne et al., 2010:39; Smith et al., 2016:327-228; Zuber et al., 2014:526, 529-530). Mentoring and supervision in the initial phase are crucial, but adequate supervision is also needed for long-term success of NIMART programmes (Assefa et al., 2010:80; O’Malley et al., 2014).

The qualitative data support the findings in the quantitative data, accentuating support, mentoring and guidance required from managers and trainers for effective initiation of NIMART. Evaluation on performance and feedback from managers, together with mentoring, are seen as an important part of management’s responsibilities:

\[The \ three \ do \ not \ have \ the \ mentorship, \ hence \ for, \ whereby \ this\ professional \ nurses \ is \ unable \ to \ go \ on \ with, \ initiating \ to \ the \ client, \ because \ they \ were \ unable \ to \ be \ mentor.\]

\[Empowerment \ is \ to \ receive \ training \ necessary \ to \ do \ something \ and\ getting \ enough \ support \ based \ on \ the \ task \ you \ are \ doing \ ... \ on-going \ monitoring \ coupled \ with \ constructive \ criticism\]

\[Professional \ nurses \ only \ need \ mentoring \ and \ to \ be \ supported \ from \ management.\]

\[Be \ given \ feedback \ and \ support.\]

Ford (2013:50) recommends that training and mentoring must be provided to each individual professional nurse who is initiating NIMART to provide services
that are ethically acceptable. Safe task shifting and quality of care are dependent on training and mentoring to ensure nurses’ confidence and competence (Callaghan et al., 2010; Crowley & Mayers, 2015; Davies et al., 2013; Shumbusho et al., 2009).

### 6.2.4 Resources

Resources were scored the lowest in this research with a mean of 2.6. Resources refer to the capacity of an individual to access supplies, equipment and time to accomplish organisational goals. This finding compares with other studies on structural empowerment where resources were scored the lowest (Barden et al., 2011:216; Casey et al., 2010:29; Laschinger, 2008:326; Regan & Rodrigues, 2011:e104). Literature highlights a lack of resources as one of the greatest barriers for NIMART implementation and suggests that health system strengthening and human resource planning should form an integral part of task shifting (Emdin & Millson, 2012:318; Kang’ethe & Manomano, 2014; Mabelane et al., 2016; Makhado, 2014:109; Mathibe et al., 2015; O’Malley et al., 2014).

Availability of resources to practise, perform tasks and initiate ART was identified as one of the main categories and the following subcategories emerged from the qualitative data: availability of sufficient human resources and a multidisciplinary team, excessive workload of professional nurses in PHC facilities, and the lack of other resources, including drugs, equipment and consulting rooms. The following quotes reflect the participants’ views:

> What I can say, is that, what I have realised, NIMART, it’s a program that has been introduced to the nurses with a workload that we already had and it came out with its own workload, and you look at this workload, and the number of professional nurses, in there, that number never changed at all. The staff stays as it is and the paperwork is a lot, for one patient. When you initiate them, one patient for an hour, from five to an hour, their workload still stays behind, and so, it really drains us, professional nurses, on the nurses in the clinics and if the Government can make a point to increase staff, establishment.
Shortage of staff, excessive workload and overloading of clients in the clinics.

Sometimes we will find that institutions don’t have enough machines, for example, to check haemoglobin for patients, your blood pressure machines, sometimes, facilities don’t have enough and those that have enough machines, breaks and it takes time to repair and stuff.

You know me I would like to see medication not out of stock. I would like to see more professional nurses, so that the service must continue. I would like us to attend in-service training to update ourselves with the changes.

Challenges with resources were confirmed by both sets of data, and literature describes the following challenges in the implementation of NIMART: workload of professional nurses, available workspace, availability of drugs and stationery (Emdin & Millson, 2012:318; Kang’ethe & Manomano, 2014; Mabelane et al., 2016; Makhado, 2014:109; Mathibe et al., 2015; O’Malley et al., 2014).

6.2.5 Formal power

Formal power is the visibility and flexibility assigned to a position and the relevance to key organisational processes. Participants scored formal power the second lowest of the sub-constructs in the empowerment survey with a mean of 2.8. This corresponds with the literature (Casey et al., 2010:29; Laschinger, 2008:326; Ning et al., 2009:2645). Ford (2013:50) recommends that professional nurses should not be reduced to pawns and that they need to be consulted to keep control over their professional development to be able to act as autonomous clinical practitioners. Laschinger et al. (1997) stated that professionals should have power over the practice of their discipline, referred to as professional autonomy.

Independence as professional practitioners was confirmed in the qualitative data as one of the subcategories that emerged, together with acceptance and
recognition from other team members, confirming the low score in the quantitative data. Participants stated the following:

_Empowerment for me means to give power or authority to make important decisions eg initiate patient without first referring to medical doctor or any medical support person._

_I was in a facility with a doctor, but he was not prepared for me to start initiating. He felt like, I was taking his job away from him and with this other nurses, they felt that now they are doing the doctors duties._

Evidence advocates for the involvement of professional nurses and managers in decision-making processes, which is often lacking in practice (Crowley & Mayers, 2015; Dambisya & Matinhure, 2012; Ford, 2013:50; Uebel et al., 2011; Zachariah et al., 2009:554). Professional nurses are independent clinical practitioners, are responsible for their own acts and omissions, and should be allowed to practise according to their competency (Ford, 2013:50; Manojlovich, 2007; South Africa, 2005:25).

### 6.2.6 Informal power

Informal power is linked to the networks and alliances that are formed with senior managers, peers and sponsors, as well as direct contact within and outside the organisation. It seems as if the professional nurses are successful in forming networks (Callaghan et al., 2010; Davies et al., 2013; Mabelane 2016:10; O’Malley et al., 2014), as this was the second highest score with a mean of 3.3. This compares with results from Casey et al. (2010:29), Laschinger (2008:326) and Ning et al. (2009:2645).

In the qualitative literature, acceptance from other team members and availability of a multidisciplinary team were subcategories identified as aspects under organisational factors that influence initiating of NIMART either positively or negatively. Participants responded both positively and negatively regarding acceptance by medical practitioners:
OK according to me, I don’t see myself as taking the doctors work, because I believe doctors, physician, dietician, professional nurses, social workers, we have to be a health team in order to give a holistic approach, quality care to our patient. We need each other that are why if you encountering any problems, regarding our patient, we need to refer to the doctor for further assessment.

I think, lack of support from the relevant stakeholders that I have seen, there is no support if you having any challenge.

The doctors are very good and are willing to teach us, and you are working harmonious with them and they also treat our patients very well and if they come it’s a learning phase for us, because if there is something that we don’t understand they come and show us and show us, how to treat this problem.

The doctors are not yet open with the whole issue, that the nurses must initiate the ARVs.

Davies et al. (2013) report that, where there is a team culture and support from the team, professional nurses seems to handle change-related pressures better. Although there might be areas where the relationships between health care workers can increase, there is evidence that the working relationship between doctors and professional nurses is good (Mabelane et al., 2016:10; O’Malley et al., 2014; Zuber et al.,2014:526).

6.3 PSYCHOLOGICAL EMPOWERMENT

Psychological empowerment is seen as a process, because it begins with the interaction of the work environment and personality characteristics, which affects empowerment conditions, which in turn motivate individual behaviour (Spreitzer, 1995). Finally, psychological empowerment emphasises the personality or attitudes of an individual and reflects an active orientation to work in which employees feel able to shape their work role and context.
Spreitzer (1995:1443) concluded that the literature across disciplines support these four dimensions of empowerment, and refined these four dimensions identified in the literature as follows:

- **Meaning** involves a fit between the needs of one’s work role and one’s beliefs, values and behaviours.
- **Competence** refers to self-efficacy specific to one’s work, or a belief in one’s capability to perform work activities with skill.
- **Self-determination** is a sense of choice in initiating and regulating one’s actions. It reflects a sense of autonomy or choice over the initiation and continuation of work behaviour and processes (e.g., making decisions about work methods, pace, and effort).
- **Impact** is the degree to which one can influence strategic, administrative or operating outcomes at work.

### 6.3.1 Meaning

Meaning is an alliance between an individual’s beliefs, values and behaviour, and the requirements of a work role. This was most highly rated in the psychological empowerment survey, with a mean of 17.99 (seven-point Likert scale). This compares with studies done by Stander and Rothmann (2009a, 2010).

Professional nurses perceive the work they do as meaningful and that they contribute to improvement in the health of the HIV patients (Davies et al., 2013; Georgeu et al., 2012; Mabelane et al., 2016:12).

This was confirmed by the qualitative data and was enhanced by the ability to render quality care which assists patients and saves lives. It also contributed to the positive psychological experiences of confidence as a result of recognition, positive feedback, appreciation by patients and acknowledgement from team members:
We are fine managing and providing quality care and saving patients’ lives very satisfying (job satisfaction) and I am saying this, as an operational manager.

Nurses needs to be supported by the management and appreciated doing well.

Have self-confidence; be able to face challenges, given positive feedback and a word of appreciation.

In a study done by Georgeu et al. (2012), the following quote illustrates their commitment and the positive response they received from patients: “When you see our patients doing well, then you feel proud at times, the clients come back to say, ‘You have brought my life back,” and thank you for that.” this is confirmed in other studies (Davies et al., 2013; Mabelane et al., 2016:12).

Professional nurses report job satisfaction as they are making a difference and have positive psychological experiences (Georgeu et al., 2012; Mabelane et al., 2016:12; O’ Malley et al., 2014).

6.3.2 Competence/self-efficacy

Competence or self-efficacy is an individual’s belief in his/her capability to perform activities with skill and was graded second highest, with a mean of 17.21. This value is higher than in the studies done by Stander and Rothmann (2009a, 2010), with a mean of 16.9 and 18.75 respectively. Evidence supports the implementation of NIMART, and care rendered by competent professional nurses are not inferior to care rendered by doctors (Callaghan et al., 2010; Cohen et al., 2009; Sanne et al., 2010:39).

Competence is one of the aspects that were perceived as positive and negative by participants. Competence was identified in the following category: enablers of or barriers to initiating ART. Where professional nurses were trained and mentored, they perceived themselves as competent, which contributes to professional nurses initiating ART. Participants said the following:
Having the necessary skills and knowledge to be competent to perform the required tasks and duties and initiating ART.

Being academically developed so that one can be skilful and competent in what one does.

Self-doubt and feeling incompetent to do what is expected of me.

The literature confirms both the quantitative and qualitative data that training and mentoring ensure competent professional nurses who can initiate ART. On the other hand, a lack of competence is a constraint to NIMART (Davies et al., 2013; Ford, 2013:50; Georgeu et al., 2012; Mabelane et al., 2016:12; O’Malley et al., 2014).

6.3.3 Autonomy

Autonomy is one’s perception of control over one’s work and includes decision-making on work, methods and pace of work. This aspect was ranked second lowest, with a mean of 16.57. The two South African studies done by Stander and Rothmann (2009a, 2010) had much lower scores, with mean scores of 13.46 and 14.77. This might be due to the fact that these studies did not include professionals.

Evidence in nursing literature emphasises the importance of autonomy over one’s own professional practices, which is often referred to as professional autonomy (Laschinger et al., 1997). Manojlovich (2007) states that autonomy implies that nurses need to react on what they know.

Independence as a professional practitioner and power to perform tasks according to experience were a subcategory identified under the professional nurses’ understanding of empowerment. Participants stated the following:

*It would to be my desire, to see that our professional really start off with the programme to give the necessary inputs on how we can actually improve the programme.*
When person are given opportunities to explore, practice and give what they are capable of with slight supervision and support.

Ford (2013:50) recommends that professional nurses and managers should be involved in the decision-making processes, as they are independent clinical practitioners and are responsible for their own acts (Manojlovich, 2007; South Africa, 2005:25). This is often lacking in practice (Crowley & Mayers, 2015; Dambisya & Matinhure, 2012; Ford, 2013:50; Uebel et al., 2011; Zachariah et al., 2009:554).

6.3.4 Impact

Impact is a sense of being able to influence important strategic, administrative or operating outcomes in the organisation. This aspect obtained the lowest score in the PEQ with a mean of 15.71. This score was higher than in the two other South African studies done by Stander and Rothmann (2009a, 2010).

Minimal consultation took place between senior management, managers and professional nurses when the NIMART programme was implemented, which created confusion and antagonism among staff, although some facilities were not ready to initiate ART. The answer was “it is not ideal but start any way” (Davies et al., 2013), which contributed to the frustration of professional nurses and managers on ground level.

This view was shared by participants in the qualitative data. They perceived that they had no control or impact on their working environment, and the subcategory indicated that an enabling (conducive) working environment was needed for empowerment. Professional nurses highlighted the impact that they had on patients’ lives by rendering care which assists patients and saves lives:

**Empowerment is to have an impact on the work environment and patients’ lives and being asked about your experience to improve the programme.**
The need for input from the nursing profession and professional nurses is described by Makhado (2014:96-97), and Ford (2013:50) recommends that professional nurses should be consulted to restore their professional development and practice, and to not just be used to expand HIV treatment.

6.4 UNDERSTANDING OF EMPOWERMENT

Understanding of empowerment was not part of the quantitative data and a brief summary was given for a complete picture of the data. Four categories emerged; competency, availability and equal access to opportunities, external and internal resources.

6.4.1 Competence

In this category, three subcategories were identified, namely: knowledge and skills to render quality care (effective and efficient service rendering), independence as a professional and improved knowledge and standard of education.

Knowledge and skills to render quality of care (effective and efficient service rendering)

*To equip people with skills so that they can deliver effective and efficient services.*

Independence as a professional practitioner

*Empowerment for me means information with regard to theory and also skills or practical applications and also to give power or authority to make important decisions.*

Improved knowledge and standard of education

*Empowerment is about being given skills & knowledge and improving one standard of education.*
Skills, knowledge, and the possibility for learning and growth in an organisation are part of opportunities according to Kanter’s organisational empowerment theory (Casey et al., 2010:32; Faulkner & Laschinger, 2008:220; Knol & Van Linge, 2008:367; Laschinger et al., 2001:125; Ning et al., 2009:2646). Technical knowledge and expertise required to be effective within the organisation, on the other hand, fall under information in her empowerment theory (Gilbert et al., 2010:346; Laschinger et al., 2001:125; Ning et al., 2009:2646). Spreitzer (1995:1443) refers to competence, which includes self-efficacy specific to one’s work and performing work activities with skill, in her psychological empowerment theory.

### 6.4.2 Availability of and equal access to opportunities

Professional development and promotion was the only subcategory in the category of availability of and equal access to opportunities:

*Is where someone is been developed in a certain position.*

*Empowerment for me is like when there is a certain change on your work, some sort of promotion from your work.*

Possibility for learning and growth is part of opportunities according to Kanter’s organisational empowerment theory (Casey et al., 2010:32; Faulkner & Laschinger, 2008:220; Gilbert et al., 2010:346). Incentives and remuneration of professional nurses is seen as one of the matters that need to be address for a successful NIMART programme (Assefa et al., 2010; Callaghan et al., 2010; Crowley & Mayers, 2015).

### 6.4.3 External resources

Resources are identified as either enablers of or barriers to rendering HIV services (Makhado, 2014:98). The four subcategories identified in this category were: sufficient staff to render services, conducive working environment, encouragement and constructive criticism, and acceptance from other team members.
Sufficient staff to render services

Being provided with necessary resources eg human and material and on-going monitoring coupled with constructive criticism.

Conducive working environment

Empowerment is the ability to do my work in a good way and for that I need the proper knowledge, resources to do my job, plus the working environment needs to be suitable.

Encouragement and constructive criticism

Empowerment means an individual must be supported and encouraged with assistance and motivation from other team members.

Acceptance from other team members

Our doctor is helping us a lot, he is not rude and he likes to teach also. Yes, when we refer a patient, he wants to know, who referred the patient, and then they explain. We must do this and this and this, when you refer a patient, when you say the diagnosis is this, how you have reached this diagnosis.

Resources (materials, money, supplies, time, and equipment) and support from superiors, peers and subordinates, including feedback about performance, guidance, problem-solving advice or hands-on assistance, are two of the four main components of Kanter’s organisational empowerment theory (Faulkner & Laschinger, 2008:215; Laschinger, 2008:323; Laschinger et al., 2001:261; Smith et al., 2010:1005-1006).

6.4.4 Internal resources

Internal resources are related to psychological empowerment as described in Spreitzer’s psychological empowerment theory.
Power to perform tasks according to experiences in the field

*It means that you are being capacitated and hence you have power to perform the duties that you are expected to perform.*

Job satisfaction

*We find, managing and provide quality care very satisfactory (job satisfaction) and I am saying this, as an operational manager.*

Confidence and commitment

*I think empowerment is having skills, when you are well trained and you have self-confidence to do the job and you can be able to work alone.*

*The interest to strive for more than you can do “Walk a mile for your clients”.*

Internal resources are related to psychological empowerment and this category related to competence (skillfully performing tasks) and impact (making a difference in the organisation) in Spreitzer’s psychological empowerment theory. Three subcategories were documented: power to perform tasks according to experience in the field, job satisfaction, and confidence and commitment.

Table 6.1 below provides a summary of the integrated data.
## Table 6.1 Summary of integrated data

<table>
<thead>
<tr>
<th>Themes/Concepts</th>
<th>Quantitative data (N = 182)</th>
<th>Qualitative data (N=100) (20 in-depth interviews and 80 open-ended questions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structural empowerment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Opportunity</strong></td>
<td>Mean 3.8</td>
<td>Standard deviation 0.90</td>
</tr>
<tr>
<td>Access to challenges to grow, rewards and professional development, opportunities to improve knowledge and skills</td>
<td></td>
<td>Incompetence (lack of knowledge and skills) due to ineffective training: “Knowledge and skills in a particular field of work … allowing one opportunities to further their studies and careers…. in order to equip oneself with the latest knowledge.” Training and clinical opportunities based on favouritism: “Only favourites are sent for training we should have equal opportunities to attend training.”</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Mean 3.2</td>
<td>Standard deviation 0.95</td>
</tr>
<tr>
<td>Knowledge of organisational decisions, policies and goals, as well as technical knowledge and expertise to be effective in the organisation</td>
<td></td>
<td>Information on changes, new policies and guidelines: “Information on changes new policies and guidelines.” Knowledge and skills is needed to render quality care to patients: “To equip a person with the necessary knowledge and skills to be able to improve quality of care patients are receiving.”</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td>Mean 3.0</td>
<td>Standard deviation 1.07</td>
</tr>
<tr>
<td>Feedback and guidance from superiors, peers and subordinates, including hands-on assistance and problem solving advice</td>
<td></td>
<td>Support/mentoring/guidance from management and trainers “Professional nurses only need mentoring and to be supported from management.” Feedback from managers and evaluation on performance: “Be given feedback and support.” “… on-going monitoring coupled with constructive criticism”</td>
</tr>
<tr>
<td>Themes/Concepts</td>
<td>Quantitative data (N = 182)</td>
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<td>----------------</td>
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<tr>
<td>Structural empowerment</td>
<td>Mean 2.6  Standard deviation 1.01</td>
<td>Human resources – availability of enough staff and a multidisciplinary team”  “What I can say, is that, what I have realised, NIMART, it’s a program that has been introduced to the nurses with a workload that we already had and it came out with its own workload, and you look at this workload, and the number of professional nurses, in there, that number never changed at all. The staff stays as it is and the paperwork is a lot, for one patient. When you initiate them, one patient for an hour, from five to an hour, their workload still stays behind, and so, it really drains us, professional nurses, on the nurses in the clinics and if the Government can make a point to increase staff, establishment.”  Excessive workload:  “Shortage of staff, workload and overloading of clients in the clinics.”  Other resources – availability of drugs, equipment and consulting rooms:  “Sometimes we will find that institutions don’t have enough machines, for example, to check haemoglobin for patients, your blood pressure machines.”  “You know me I would like to see medication not out of stock.”</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity of individual to access supplies, equipment and time to accomplish organisational goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal power</td>
<td>Power to perform tasks according to experience in the field:  “Empowerment for me means to give power and authority to make important decisions without first referring to medical doctor.”  Acceptance and recognition from other team members:  “The doctors are not yet open with the whole issue, that the nurses must initiate the ARVs.”  “Our doctor is helping us a lot, he is not rude and he likes to teach also.”</td>
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199
<table>
<thead>
<tr>
<th>Themes/Concepts</th>
<th>Quantitative data (N = 182)</th>
<th>Qualitative data (N=100) (20 in-depth interviews and 80 open-ended questions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural empowerment</td>
<td>Mean</td>
<td>Standard deviation</td>
</tr>
</tbody>
</table>
| **Informal Power**  
Network of alliances with sponsors, senior managers, peers and direct reports within and outside the organisation. | 3.3 | 1.02 | Acceptance from other team members.  
“The doctors are very good and are willing to teach us, and you are working harmonious with them and they also treat our patients very well and if they come it’s a learning phase for us, because if there is something that we don’t understand they come and show us and show us, how to treat this problem”  
“The doctors are not yet open with the whole issue, that the nurses must initiate the ARV’s”.  
Availability of a multidisciplinary team.  
“Ok according to me, I don’t see myself as taking the doctors work, because I believe doctors, physician, dietician, professional nurses, social workers, we have to be a health team in order to give a holistic approach, quality care to our patient” |
| **Total score**  
Moderate empowerment | 18.7 | | |

<table>
<thead>
<tr>
<th>Themes/concepts</th>
<th>Quantitative data (N = 182)</th>
<th>Qualitative data (N=100) (20 in-depth interviews and 80 open-ended questions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological empowerment</td>
<td>Mean</td>
<td>Standard deviation</td>
</tr>
</tbody>
</table>
| **Meaning**  
The fit between an individual’s beliefs, values and behaviour and requirements of a work role | 17.99 | 3.57 | Ability to render quality care which assists patients and saves lives:  
“We are fine managing and providing quality care and saving patients’ lives very satisfying (job satisfaction) and I am saying this, as an operational manager.”  
Positive psychological experiences:  
“Have self-confidence; be able to face challenges, given positive feedback and a word of appreciation.” |
| **Competence/self-efficacy**  
An individual’s belief in his/her capability to perform activities with skill. | 17.21 | 3.46 | Competency is described as an enabler or constraint to initiating ART:  
“Having the necessary skills and knowledge to be competent to perform the required tasks and duties and initiating ART.”  
“Self-doubt and feeling incompetent to do what is expected of me.” |
### Themes/concepts

<table>
<thead>
<tr>
<th>Psychological empowerment</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Categories and quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>16.57</td>
<td>3.99</td>
<td>Independence as a professional practitioner and power to perform tasks according to experience: “It would to be my desire, to see that our professional really start off with the programme to give the necessary inputs on how we can actually improve the programme.” “When person are given opportunities to explore, practice and give what they are capable of with slight supervision and support.”</td>
</tr>
<tr>
<td>Impact</td>
<td>15.71</td>
<td>4.36</td>
<td>Conducive working environment needed for empowerment: “Empowerment is to have an impact on the work environment and patients’ lives and being asked about your experience to improve the programme.”</td>
</tr>
</tbody>
</table>

### Understanding of empowerment (only qualitative data) (N= 100) – 20 in-depth interviews and 80 open-ended questions answered

<table>
<thead>
<tr>
<th>Categories</th>
<th>Subcategories</th>
<th>Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency</td>
<td>Knowledge and skills to render quality of care</td>
<td>“To equip people with skills so that they can deliver effective and efficient services.”</td>
</tr>
<tr>
<td></td>
<td>(effective and efficient service rendering)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independence as a professional practitioner</td>
<td>“To give power or authority to make important decisions.”</td>
</tr>
<tr>
<td></td>
<td>Improved knowledge and standard of education</td>
<td>“Empowerment is about being given skills &amp; knowledge and improving one standard of education.”</td>
</tr>
<tr>
<td>Availability of and equal access</td>
<td>Professional development, promotion</td>
<td>“Is where someone is been developed in a certain position.”</td>
</tr>
<tr>
<td>to opportunities</td>
<td></td>
<td>“Empowerment for me is like when there is a certain change on your work, some sort of promotion from your work.”</td>
</tr>
<tr>
<td>External resources</td>
<td>Sufficient staff</td>
<td>“Being provided with necessary resources eg human and material and on-going monitoring coupled with constructive criticism.”</td>
</tr>
<tr>
<td></td>
<td>Conducive working environment</td>
<td>“Empowerment is the ability to do my work, plus the working environment needs to be suitable.”</td>
</tr>
<tr>
<td></td>
<td>Encouragement, constructive criticism</td>
<td>“Empowerment means an individual must be supported and encouraged with assistance and motivation from other team members.”</td>
</tr>
</tbody>
</table>
### Understanding of empowerment (only qualitative data) (N= 100) – 20 in-depth interviews and 80 open questions answered

<table>
<thead>
<tr>
<th>Categories</th>
<th>Subcategories</th>
<th>Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal resources</td>
<td>Acceptance from other team members</td>
<td>“Our doctor is helping us a lot, he is not rude and he likes to teach also. Yes, when we refer a patient, he wants to know, who referred the patient, and then they explain. We must do this and this and this, when you refer a patient, when you say the diagnosis is this, how you have reached this diagnosis.”</td>
</tr>
<tr>
<td></td>
<td>Power to perform tasks according to experience in the field</td>
<td>“It means that you are being capacitated and hence you have power to perform the duties that you are expected to perform.”</td>
</tr>
<tr>
<td></td>
<td>Job satisfaction</td>
<td>“We find, managing and provide quality care very satisfactory (job satisfaction) and I am saying this, as an operational manager.”</td>
</tr>
<tr>
<td></td>
<td>Confidence and commitment</td>
<td>“I think empowerment is having skills, when you are well trained and you have self-confidence to do the job and you can be able to work alone.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“The interest to strive for more than you can do ‘Walk a mile for your clients’.”</td>
</tr>
</tbody>
</table>

#### 6.5 CONCLUSION

Literature and the qualitative data support the quantitative data on structural and psychological empowerment. The only contradiction is the high score for access to opportunities in the quantitative data, while neither the qualitative data nor the NIMART literature supports this. Questions under the subscale opportunity included challenging work and work that uses all the participant’s skills and knowledge. The scores for these two questions surpassed the question on opportunity to gain new skills and knowledge. Professional nurses’ understanding of empowerment covers aspects of both structural and psychological empowerment. Professional nurses consider themselves as structurally moderately empowered while psychological empowerment is high.
CHAPTER 7

FRAMEWORK DESCRIPTION, GUIDELINES AND EVALUATION OF THE FRAMEWORK

7.1 INTRODUCTION

In Chapter 6, triangulation and integration of the findings of the quantitative (Chapter 4) and qualitative data (Chapter 5) were discussed with reference to the relevant literature (Chapter 3). Synthesised data, Kanter’s structural empowerment theory, Spreitzer’s psychological empowerment theory and the WHO recommendations and principles for task shifting formed the foundation for the development of the framework for empowerment of professional nurses for NIMART in PHC facilities.

7.2 OVERVIEW OF THE FRAMEWORK

The framework serves as a reference for empowering professional nurses for NIMART in PHC facilities since new roles and tasks have been shifted to the professional nurses due to the shortage of medical practitioners and the burden of the HIV/AIDS epidemic in South Africa. Task shifting in this context will enable improved services and access of clients/patients to ART, as shown in Figure 7.1.
Figure 7.1  Framework to empower professional nurses in the context of NIMART in the North West Province
7.3 STRUCTURE OF THE FRAMEWORK

The structure of a framework is the overall arrangement of the elements (conceptual relationships) of the framework (Chinn & Kramer, 2011:191). The following criteria described by Chinn and Kramer (2011:195-196) were used for the discussion:

- purpose of the framework;
- assumptions of the framework;
- conceptual definition;
- relationship statements; and
- structure description.

After the discussion of the structure of the framework, the process, guidelines for operationalisation and evaluation of the framework are covered.

7.3.1 Purpose of the framework

The general purpose of a framework is important and should answer the question of why the framework was developed (Chinn & Kramer, 2011:180).

The purpose of this framework is to demonstrate how structural and psychological empowerment can enable professional nurses for their new role and tasks to initiate ART in PHC facilities.

7.3.2 Assumptions of the framework

The framework explicitly assumes that structural and psychological empowerment of professional nurses rendering NIMART will contribute to an enabling environment for HIV services, resulting in improved quality of care and effective task shifting.

The assumptions underlying the framework are derived from the empirical data of the literature review, quantitative and qualitative findings of this study, Kanter’s structural empowerment theory, Spreitzer’s psychological empowerment theory and the WHO recommendations and principles for task shifting and are reflected in the following statement:
South Africa will not be able to render services to PLWA and reach the 90-90-90 targets if tasks are not shifted to the professional nurses to form an integral part of HIV/AIDS service delivery. To deliver HIV/AIDS services, professional nurses will need to be equipped with the necessary knowledge and skills as well as an environment that will enable them to initiate ART.

7.3.3 Conceptual definition

The central concepts identified through the literature review and empirical data that were analysed and synthesised were empowerment, task shifting, NIMART and related professional practice.

Concept analysis of empowerment has been studied by several researchers (Febriana, 2011:177-181; Gibson, 1991:355-360; Hermansson & Märtensson, 2010; McCarthy & Freeman, 2008:69-73; Ryles, 1999:601-605). In this study, the theories of structural and psychological empowerment were used and applied.

7.3.3.1 Empowerment

Structural and psychological empowerment is discussed below.

i) Structural empowerment

Structural empowerment is a result of Kanter’s work in the 1970s and is recognised as distinct sources of structural (organisational) power (Wagner et al., 2010:449).

Due to the development of healthcare in the past three decades, there have been many challenges that have forced organisations and leaders to reconsider their strategies of operations. Kanter’s theory is one of the most used frameworks in nursing to guide practice in order to improve organisational efficacy. Laschinger tested and expanded Kanter’s theory to a model for empowerment (Laschinger et al., 2001:261; Smith et al., 2010:1006) with a focus on the impact of work environments in nursing on nurses’ empowerment for professional practice.

Kanter (1977:166, in Faulkner & Laschinger, 2008:215) defines power as the “ability to mobilize resources to get things done”. She continues that job characteristics shape the work behaviour and attitudes of employees that either restrict or support
work performance. She further argues that the influence of organisational structure is far more important than the workers’ personality traits when it comes to employees’ organisational behaviour (Cai & Zhou, 2009:398; Casey et al., 2010:25; Faulkner & Laschinger, 2008:215; Harwood et al., 2010:13; Laschinger, 2008:323; Ning et al., 2009).

Smith et al. (2010:1005) argue that the structure of power is related to having access to information, support, resources and opportunities to learn and grow in an organisation, as described by Kanter, to facilitate formal and informal power (Kanter, in Casey et al., 2010:23; Kanter, in Smith et al., 2010:1005-1006).

The above structures of power are described by Kanter as follows (Casey et al., 2010:23; Faulkner & Laschinger, 2008:215; Laschinger, 2008:323; Laschinger et al., 2001:261; Ning et al., 2009:398; Smith et al., 2010:1005-1006):

- **Information** means having knowledge of organisational decisions, policies and goals, as well as technical knowledge and expertise to carry out one’s job responsibilities and be effective in the organisation.
- **Support** includes problem-solving advice, feedback and guidance received from superiors, peers and subordinates.
- **Resources** refer to the necessary time, money and materials needed to get the job done effectively and the employees’ capacity to access this.
- **Opportunities** include mobility, growth and advancement in the organisation, as well as opportunities to increase knowledge, skills and professional development.

**ii) Psychological empowerment**

Spreitzer studied the interdisciplinary literature on empowerment, drawing on psychology, sociology, social work, and education. She concluded that the literature across these disciplines support the four dimensions of empowerment. These four dimensions were described by Conger and Kanungo (1988:476) and Thomas and Velthouse (1990:675), who were some of the initial scholars on psychological empowerment. Based on these results, Spreitzer continued to refine these four dimensions as follows (Spreitzer, 1995:1443; Spreitzer et al., 1997:681-682):
- **Meaning** involves a fit between the needs of one’s work role and one’s beliefs, values and behaviours.
- **Competence** refers to self-efficacy specific to one’s work, or a belief in one’s capability to perform work activities with skill.
- **Autonomy** (self-determination) is a sense of choice in initiating and regulating one’s actions. It reflects a sense of autonomy or choice over the initiation and continuation of work behaviour and processes (e.g., making decisions about work methods, pace and effort).
- **Impact** reflects whether one feels as though one is making a difference in the organisation.

Spreitzer argues that feeling a certain level of autonomy and effectiveness is needed to feel psychologically empowered and that choice does not capture these aspects of empowerment. All four dimensions of psychological empowerment are required to experience empowerment in the workplace (Spreitzer et al., 1997:682).

### 7.3.3.2 Task shifting

No concept analysis for task shifting could be found in the literature. Dawson et al. (2013:9) concluded in their systematic literature review that the tasks being shifted or shared between doctors, non-physician clinicians and nurses/midwives are predominately clinical tasks.

The WHO (2008:7) defines task shifting as the rational redistribution of tasks among health workforce teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health.

### 7.3.3.3 NIMART and related professional practice

A professional nurse is a person who has completed a program of basic, generalised nursing education and is authorised by the appropriate regulatory authority to practice nursing in his/her own country. Post-basic education is necessary for specialty or advanced nursing practice (SANC, 2012).
The Nursing Act (South Africa, 2005:25) defines a professional nurse as a “person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability for such practice.”

From the above definitions, it is clear that nursing practice requires specialist knowledge, skill and independent decision-making, and is contextual. Practice is regulated by the scope of practice according to each country’s legal ethical framework within the context of the specific country’s skill mix of health care workers, burden of disease and available human resources (WHO, 2001:9-10). Due to human resources constraints and changes in the burden of disease, professional nurses’ roles are expanded to improve health and health outcomes (WHO, 2001:10), as is the case in South Africa with the shifting of initiation of ART to PHC level where professional nurses are responsible for providing the service.

7.3.4 Relationship statements

Relationship statements are structural linkage between and among the concepts of the framework. The nature of the relationships may take several forms (Chinn & Kramer, 2011:190). Walker and Avant (1995:25) describe relational statements and non-relational statements, where a relational statement declares a relationship between concepts and a non-relational statement may be an existing statement or a definition. Statements can describe, explain or predict the nature of the relations between the concepts.

In this study relational, non-relational and theoretical statements were applied. These statements were derived and constructed from empirical data from the literature review, quantitative and qualitative findings of this study. The statements describe and explain the relevant relationships and gaps between the shifting of tasks (NIMART) to professional nurses without the necessary structural and psychological empowerment.

The relationship statement of task shifting was based on WHO recommendations and guidelines, and was incorporated in this study to illustrate the relationship between shifting tasks to professional nurses in the HIV context based on Kanter’s theory for structural and Spreitzer’s psychological empowerment.
For effective task shifting (NIMART), professional nurses need to be structurally and psychological empowered by having the power and relevant information to do what is expected from them, with the support of the managers and the health team, provided that the necessary resources are available to carry out their tasks and that they have been trained and mentored to obtain the new knowledge and skills for the task that have been shifted to them. Furthermore, they should be competent in what they do, have autonomy over their practice, have an impact in the organisation and the work should be meaningful for them to be psychologically empowered.

The systematic linkage of the concepts is illustrated in the diagram of the framework (see Figure 7.1).

Task shifting is necessitated by the high HIV/AIDS burden in South Africa and, due to a lack of medical practitioners, clinical tasks need to be shifted to professional nurses in PHC facilities in order to render HIV services to PLWA, including initiation of MART. Task shifting should happen within the legal framework of South Africa and should adhere to the WHO (2008:7) recommendations and guidelines for task shifting.

Professional nurses function within their professional scope of practice as defined by the Nursing Act (South Africa, 2005:25) and need a structurally and psychologically enabling environment that will empower them for their expanded practices to assume their new roles and tasks.

A structurally enabling environment, according to Kanter (Faulkner & Laschinger, 2008:215; Laschinger, 2008:323; Laschinger et al., 2001:261) include power (formal and informal) information (communication in this framework), support from managers, resources to be able to perform the tasks expected from them, and opportunities (training and mentoring in this framework). If these interrelated components are in place, it will empower professional nurses to render the HIV care expected from them.

Psychological empowerment, as described by Spreitzer (1995:1443), includes meaning, competence or self-efficacy, self-determination and impact, reflecting an active rather than a passive orientation to a work role.
Steward et al. (2009:27) describe the implications for practice related to structural and psychological empowerment as of critical importance to the organisation. They also refer to a relationship between empowerment and work effectiveness, patient care and staff retention. All these aspects are relevant for NIMART to retain skilled nurses and to improve ART coverage in South Africa by empowering professional nurses.

Structurally and psychologically empowered professional nurses are needed for effective task shifting to ensure quality of HIV care, including NIMART.

7.3.5 Structure description

7.3.5.1 Context of the framework

The context of the framework is the public health sector in South Africa where tasks (initiation of ART) are shifted from medical practitioners to professional nurses in the PHC setting (refer to Figure 7.1, dark aquamarine block). Professional nurses need to take on these new roles to ensure that the patients/clients who need ART have access to this lifesaving intervention. NIMART is implemented in the public health sector against the backdrop of the HIV/AIDS epidemic, within the South African legal framework and the professional nurses’ scope of practice, and should adhere to WHO guidelines and principles.

i) South African legal framework and scope of practice of professional nurses

The scope of practice of professional nurses is regulated by the Nursing Act (South Africa, 2005), while the Medicines and Related Substances Act (South Africa, 1965) licences professional nurses to acquire, use, possess, supply and dispense medicine.

The Nursing Act (South Africa, 2005:25) describes a professional nurse as a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed, and who is capable of assuming responsibility and accountability for such practice. The SANC recognises that, beyond general nurses/midwife practitioners, there is a need for nurse specialists/advanced practice nurses.
In the position paper by SANC on advanced practices, they recommended that there should be two, namely (SANC, 2012):

- **“Nurse Specialist:** This level requires **in-depth knowledge and expertise** in a specific practice area such as paediatric nursing. To become a nurse specialist would require a post-graduate diploma in the specific specialisation. This qualification will yield a professional registration with the Council as a nurse specialist (e.g. nurse specialist: paediatric nursing).”

- **“Advanced Nurse Specialist:** This level requires registration with the Council as nurse specialist as an entry requirement. The Advanced Nurse Specialist, in addition to in-depth clinical specialisation knowledge has to acquire broader **field dynamics at master’s** level e.g. strategic leadership, health service management, research and policy making. The qualification will yield no professional registration but can be logged as an additional qualification with the Nursing Council.”

The International Council of Nurses (2009) defines nurse practitioners as follows:

_A Nurse Practitioner/Advanced Practice Nurse is a registered nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A Master’s degree is recommended for entry level._

Their practice comprises the following:

- high degree of professional autonomy and independent practice;
- case management/own caseload;
- advanced health assessment, decision-making and diagnostic reasoning skills; and
- recognised first point of contact for clients.

The International Council of Nurses (2009) also recommends that there should be country-specific regulatory mechanisms in place that make provision for the right to
diagnose, authority to prescribe treatment including medication, and authority to refer clients to other professionals.

Professional nurses practicing in PHC facilities are performing these functions mentioned above by diagnosing and prescribing medication and treatment. Section 56 of the Nursing Act (South Africa, 2005) makes provision for professional nurses with additional qualifications to assess, diagnose and prescribe medication if they are registered with the SANC. Currently, the qualification recognised by the SANC is the Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care, as the new postgraduate qualification has not been implemented. Section 56 reads as follow:

56. (1) Despite the provisions of this Act or any other law, the Council may register a person who is registered in terms of section 31(1)(a), (b) or (c) to assess, diagnose, prescribe treatment, keep and supply medication for prescribed illnesses and health related conditions, if such person:

a) provides proof of completion of prescribed qualification and training;

b) pays the prescribed registration fee.

Although it states that proof of completion of prescribed qualification and training should be provided, in practice this is lacking as more than 40% of professional nurses working in PHC facilities do not have a Clinical Nursing Science, Health Assessment, Treatment and Care qualification. Cameron et al. (2012:99) found in a follow-up study of professional nurses who attended a NIMART course that 55% of professional nurses had the qualification in Clinical Nursing Science, Health Assessment, Treatment and Care. In this study, the percentage was even lower, with 45% of participants reporting that they had this qualification.

The Nursing Act (South Africa, 2005) also makes provision in section 56(6) that professional nurses working in the public sector can be authorised by the Director-General or medical practitioner to perform the same services as above in the absence of a medical practitioner or pharmacist, due to the shortage of medical practitioners:
(6) Despite the provisions of the above Act, the Medicines and Related Substances Act, 1965, the Pharmacy Act, 1974 (Act No. 53 of 1974), and the Health Professions Act, 1974 (Act No. 56 of 1974), a nurse who is in the service of–

- the national department;
- a provincial department of health;
- a municipality; or
- an organisation performing any health service designated by the Director-General after consultation with the South African Pharmacy Council referred to in section 2 of the Pharmacy Act, 1974, and who has been authorised by the Director-General, the head of such provincial department of health, the medical officer of health of such municipality or the medical practitioner in charge of such organisation, as the case may be, may in the course of such service perform with reference to –

(i) the physical examination of any person;
(ii) the diagnosing of any physical defect, illness or deficiency in any person; or
(iii) the keeping of prescribed medicines and their supply, administering or prescribing on the prescribed conditions;

any act which the said Director-General, head of provincial department of health, medical officer of health or medical practitioner, as the case may be, may, after consultation with the Council, determine in general or in a particular case or in cases of a particular nature, if the services of a medical practitioner or pharmacist, as the circumstances may require, are not available. Providing proof of completion of prescribed qualification and training.

The policy of the NDOH LU-POL-042016/01 (2016) on issuing authorisations for professional nurses to perform functions provided for in terms of section 56(6) of the Nursing Act, lists the following:

- an appropriate postgraduate qualification or suitable course accredited by SANC (new postgraduate qualification not yet implemented);
- Adult Primary Care (APC101) – all modules;
- IMCI; and
• other in-service training approved by the National Department of Health in consultation with provinces and municipalities

The postgraduate qualification is not specified and it is not clear if this will include physical examination skills, clinical decision making, diagnosing and management of clients/patients and pharmacology for drug management. Both APC101 and IMCI are algorithms for managing conditions in adults (APC101) and children under five (IMCI) and do not include physical examination skills or pharmacology. The possibility for the National Department of Health to decide on appropriate training leaves the door open for a similar situation regarding training as the current NIMART training.

The Medicines and Related Substances Act (South Africa, 1965) licenses professional nurses to acquire, use, possess or supply medicine and dispense medicines subject to the provisions made in the act.

Section 22A(5) of the Medicines and Related Substances Act (South Africa, 1965) states that Schedule 2, Schedule 3, Schedule 4, Schedule 5 or Schedule 6 substances shall not be sold by any person other than:

• a pharmacist, pharmacist intern or a pharmacist's assistant;

• a medical practitioner or dentist, who may-prescribe such substance, compound or dispense such substance only if he or she is the holder of a licence as contemplated in section 22C (1) (a);

• a veterinarian who may prescribe, compound or dispense such substance;

• a practitioner, a nurse or a person registered under the Health Professions Act, 1974, other than a medical practitioner or dentist, who may-prescribe only the Scheduled substances identified in the Schedule for that purpose, compound and dispense the Scheduled substances referred to in subparagraph (i) only if he or she is the holder of a licence contemplated in section 22C (1) (a).
Section 22 C of the Medicines and Related Substances Act refers to licensing of other health care workers, including nurses, to compound and dispense medicines, on the prescribed condition that the applicant has successfully completed a supplementary course determined by the South African Pharmacy Council after consultation with the Health Professions Council of South Africa, the Allied Health Professions Council of South Africa and the South African Nursing Council.

ii) **HIV management in PHC settings**

**Primary health care context**

South Africa’s health system consists of a large public sector, and a smaller growing private health care sector. The public health sector is responsible for serving 84% of the population and only an estimated 16% have private medical cover. There are three main types of health settings within the district, namely, clinics, community health centres and district hospitals. Community health centres and PHC clinics form the foundation of the public health system, which is the first line of contact for the clients/patients with the health care system. The next level of the public healthcare system is the district hospitals to which patients are referred (Jobson, 2015:3-4).

There are 3,507 public health clinics in South Africa offering free services to 54 million South Africans (National Department of Health, 2015b:9). The National Health Facilities Baseline Audit (National Department of Health, 2012:31) reported on a survey of 3,356 clinics and community health centres that 47% of the clinics had no visiting doctors and 84% had no input from pharmacists or post-basic pharmacy assistants.

North West has four districts with 390 clinics, including 37 community health centres and 11 district hospitals.

**Burden of disease**

South Africa has a quadruple burden of disease: communicable diseases (HIV/AIDS and TB), high maternal and child mortality, increase in non-communicable diseases, and high rates of violence, injuries and trauma (National Department of Health, 2016b:4).
Non-communicable diseases are reaching epidemic proportions worldwide due to lifestyle factors. Non-communicable diseases include cardiovascular conditions, some cancers, chronic respiratory conditions and type 2 diabetes. In South Africa, non-communicable diseases contribute to at least 33% of the disease burden (National Department of Health, 2015a:12).

Table 7.1 shows the 2015 UNAIDS estimations for South Africa regarding HIV and AIDS.

**Table 7.1 UNAIDS HIV/AIDS estimates for South Africa**

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of people living with HIV</td>
<td>7 000 000 [6 700 000 - 7 400 000]</td>
</tr>
<tr>
<td>Adults aged 15 to 49 prevalence rate</td>
<td>19.2% [18.4% - 20.0%]</td>
</tr>
<tr>
<td>Adults aged 15 and over living with HIV</td>
<td>6 700 000 [6 400 000 - 7 200 000]</td>
</tr>
<tr>
<td>Women aged 15 and over living with HIV</td>
<td>4 000 000 [3 800 000 - 4 300 000]</td>
</tr>
<tr>
<td>Children aged 0 to 14 living with HIV</td>
<td>240 000 [210 000 – 260 000]</td>
</tr>
<tr>
<td>Deaths due to AIDS</td>
<td>180 000 [150 000 – 220 000]</td>
</tr>
<tr>
<td>Orphans due to AIDS aged 0 to 17</td>
<td>2 100 000 [1 800 000 - 2 400 000]</td>
</tr>
</tbody>
</table>

Source: UNAIDS (2015)

According to annual reports from the National Department of Health, there were 3 103 902 clients on ART at the end of March 2015 (National Department of Health, 2015a:15). By the end of March 2016, this figure had increased to by 303 433 to 3 407 335 (National Department of Health, 2016:5). This still leaves more than three million people who are HIV-positive without treatment, while new UNAIDS guidelines state that, by 2020, 90% of HIV-positive clients should be on ART.

**Human resources for health**

Human resources are central to health care and there is ample evidence that health care worker numbers and quality of care are positively associated with improved immunisation coverage, successful PHC outreach, infant, child and maternal survival, impact on communicable diseases, and enhancing quality and length of life (National Department of Health, 2011b:13).

There are insufficient professional nurses and trained PHC nurses in the public health system, with an estimated critical gap of 22 121 professional nurses for 2015.
This is only estimated to decrease to 11 527 by 2020 (National Department of Health, 2011b:12). The critical gap of PHC nurses (these are nurses who have a specialist qualification in Clinical Nursing Science, Health Assessment, Treatment and Care) was 4 128 for 2015, estimated to decrease to 2 404 by 2020 (National Department of Health, 2011b:134).

**iii) WHO recommendations and principles for task shifting**

In chapter 3 the recommendations and principles for task shifting made by WHO were discussed in detail. A summary of the previous discussion is provided below.

The WHO (2008:7) defines task shifting as the rational redistribution of tasks among health workforce teams.

Task shifting is one method to strengthen and expand the health workforce to rapidly increase access to HIV services where there are shortages of health care workers in countries with a high HIV burden (WHO, 2008:2).

The recommendations and guidelines include consultation with relevant stakeholders, national endorsement and providing an enabling regulatory framework for task shifting (WHO, 2008:2). Quality assurance mechanisms, including standardised training, supportive supervision, assessment and certification, should be in place to ensure quality of care.

The National Department of Health (2011b:99) states that competencies and new scopes of practice for task sharing and task shifting need to be defined to ensure health professionals who can meet the future health needs of the population. Specialist nurses are needed for PHC services with increased clinical competencies and a revised scope of practice (National Department of Health, 2011b:94).

**NIMART training, mentoring and supervisory model**

The initial NIMART course consisted of 10 days’ theory training with mentoring after completion of the theory training. According to the FPD, this changed to five days’ training, including PALSA PLUS, with mentoring (Cameron et al., 2012:98). After the training, professional nurses are encouraged to work in facilities where they can receive weekly mentoring until they are confident to work more independently.
(Cameron, et al., 2012:98). Mentoring is done by local HIV doctors or nurse mentors working for one of the PEPFAR-funded partners and nurse mentors of provincial departments.

In 2011, the National Department of Health (2011a:7) developed a clinical mentorship manual for integrated services to assist mentors from the province, district and sub-district teams. This is shown in Figure 7.2.

![Clinical mentorship guidelines for integrated care and treatment services](image)

**Figure 7.2 Clinical mentorship guidelines for integrated care and treatment services**

These guidelines imply that didactic training in a specific field like NIMART should be followed up with clinical practice in this field, and that the clinicians will receive mentoring in the facility by an experienced clinical competent mentor that will assess the mentees until they are competent and can make independent clinical decisions (National Department of Health, 2011a:6-8).

Intensive support is recommended for the first month, with at least one face-to-face visit per week and fewer visits as the mentees develop the necessary knowledge and skills required, until they are deemed competent after evaluation of the core competencies in providing quality care and treatment (National Department of Health, 2011a:14-15).
The results of the current study indicated that 62.4% of participants had not received any mentoring after NIMART training. Mutiti (2016) states that, at the end of May 2016, 18 043 professional nurses were trained in NIMART. Of these, 4 515 (25%) had been mentored and 2 743 (15%) had been certified as competent. For North West, 976 were trained, 251 (25.7%) had received mentoring and 229 (23.5%) were certified as competent.

**Factors that create an enabling work environment**

For task shifting to be successful, an enabling environment is necessary. This depends on political and financial commitment, a functional health system, reorganisation of health teams, clear scopes of practice, recognition of professional nurses taking on new roles, regulatory frameworks, training and mentoring, and adequate infrastructure and resources (Crowley & Mayers, 2015; Davies et al., 2013).

With the implementation of task shifting according to WHO guidelines and recommendations, several challenges have been experienced. Training, mentoring and supervision of the health care workers to whom these tasks are shifted are essential to equip them with the necessary knowledge and skills (Crowley & Mayers, 2015).

Crowley and Stellenberg (2014) report that managerial and infrastructural support are vital components for ensuring quality services and, without adequate human resources and on-going support, the quality of care could be compromised.

In Ethiopia, the ART scale-up has been made possible through health system strengthening, case management support and patient information systems alongside task shifting. These are considered vital contributory interventions in effective ART scale-up (Assefa et al., 2010).

Barriers that were identified entail lack of human and other resources, support from managers, doctors and other team members, adequate training, mentoring and supervision, workload, and poor communication (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016:10-11; Makhado, 2014:95-96; Mathibe et al., 2015; Uwimana, Jackson, Hausler, & Zarowsky, 2012). Crowley and Mayers (2015)
discuss the importance of competency assessment of health care workers, quality assurance mechanisms that should be in place, accreditation systems, and revised/extended scope of practice. They also emphasise the importance of policy and regulation to ensure an enabling environment.

7.4 PROCESS DESCRIPTION OF FRAMEWORK

The process of the framework explains the functioning of the framework. The framework links the WHO recommendations and principles of task shifting with the practice of the professional nurses who need to be structurally and psychologically empowered for NIMART and related HIV services. Not one of aspects of empowerment has preference and all of these aspects are necessary for empowerment.

7.4.1 Task shifting process (NIMART)

The task shifting block (light aquamarine block in Figure 7.1) indicates that the tasks have been shifted to professional nurses (NIMART, in dark aquamarine rectangle). To be able to perform these new roles and tasks, the professional nurses (purple oval) need to be structurally empowered (top structure with five circles) in the light aquamarine box and psychologically empowered (bottom structure with four circles) in the light aquamarine. All of the components are necessary. Therefore professional nurses (purple oval) are linked to both structural empowerment (top structure with five circles) and psychological empowerment (bottom structure with four circles). These components are all necessary for empowerment and, if some of these are lacking, it acts as a barrier for initiation of ART by the professional nurses.

The work environment must be structurally and psychologically empowering to enable the professional nurses in PHC settings to initiate ART and to be competent and confident to perform all the tasks shifted to them.

7.4.2 Structural empowerment

The five concepts of structural empowerment are interrelated and each concept is discussed. Figure 7.3 illustrates the concepts of structural empowerment.
7.4.2.1 Power

Power (green circle in Figure 7.3) entails formal and informal power. Formal power is associated with decision-making, the visibility and significance of work-related activities within the institution, and the amount of flexibility that people have within their work this was discussed in detail in chapter 1 & 3. Formal power had the second lowest score on the structural empowerment scale in this study (mean 2.8, SD 1.09) and informal power the second highest (mean 3.3, SD 1.02). In the qualitative data, task shifting was emphasised with the absence of clear role delineation and recognition for the HIV care professional nurses render by initiating ART and following up these patients. Uwimana et al. (2012) found power struggles to be one of the organisational barriers for integration of TB and HIV services.
Nurses are often powerless relative to organisational administrators and medical staff (Manojlovich, 2007), and without power, nurses cannot be effective (Smith, 2014:135). Professional boundaries, dominance by doctors and power have been identified as issues influencing task shifting and resistance to task shifting (Callaghan et al., 2010; Crowley & Mayers, 2015; Dambisya & Martinhure, 2012). Therefore, it is important for role clarification to be done for the expanded practice of professional nurses initiating ART to ensure effectiveness of task shifting and quality of patient care (Crowley & Mayers, 2015; Shumbusho et al., 2009). It is essential that the significant role that professional nurses play in HIV care and initiation of ART is recognised.

Informal power is associated with relationships with peers and other team members. This was scored the second highest in this study (mean 3.3, SD 1.02). Acceptance from other team members was seen as one of the external resources needed to be empowered. It was envisage that doctors would support the professional nurses at clinic level by accepting telephone queries and providing feedback on referrals. Evidence in practice shows that, in certain cases this, is not happening, and doctors are perceived as failing nurses and are treating nurses without respect (Crowley & Mayers, 2015; Davies et al., 2013; Georgeu et al., 2012).

Where there are well-established teams, morale is higher and staff seem more resilient to the changes and overcoming barriers (Davies et al., 2013). One of the enabling factors for the implementation of NIMART in Limpopo was a visiting doctor with whom the professional nurses could discuss their clinical challenges and complicated patients (Mabelane et al., 2016).

7.4.2.2 Communication

Communication (purple circle in Figure 7.3) was used in this framework in the place of information in Kanter’s structural empowerment theory, as it was a main category that emerged in the quantitative data. Information consists of effective communication on policies and guidelines, and was the aspect with the third highest score in this study (mean 3.2, SD 0.95). Communication is referred to as information by Kanter and is described as an internal resource needed to be empowered. Jooste (1997:35) states that it is clear “that to empower nurses the necessary information
must be provided to them regarding, policies, and organisational plans for the future.” Policies are not always available in PHC clinics, and new developments and changes in guidelines are not communicated with the clinics and the personnel in the clinics.

To ensure continuity of care and quality of services, changes to policies, extensions or changes in clinical care guidelines should be communicated to all stakeholders (Crowley & Stellenberg, 2014; Kaposhi et al., 2014). Crowley and Stellenberg (2014) reported in their study, that only 10% of the clinics had updated policies and guidelines available. Availability of protocols and guidelines was reported as an enabling factor in this study. Makhado (2014:101-102) emphasises that the following aspects are important for integration of HIV and TB services: guidelines need to be made available in the facilities; there should be good communication between the implementers, programme managers, coordinators and supervisors, and “changes need to be communicated to the implementers’ way beforehand not just in the implementation phase.”

It is clear that the availability of policies and guidelines in clinics is essential for successful implementation of NIMART, and that effective communication ensures effective implementation and a positive attitude.

7.4.2.3 Support

Support (pink circle in Figure 7.3) includes clinical supervision and guidance from managers, as well as assistance when needed. It was rated as 4 out of 6 (mean 3.0, SD 1.07) in this study. Mentoring or guidance from management and trainers was seen as an enabling factor to the implementation of NIMART

Initiation of ART was initially only done by doctors. This changed in 2010 because of the shortage of medical practitioners in the public sector and the high number of PLWA who needed ART. Initiation of ART was shifted to professional nurses in PHC facilities (task shifting) in order to meet the demand. Professional nurses should be trained to gain the knowledge and skills needed, mentored to practise until they are competent, and supported by managers and other members of the health team for their new roles and tasks.
Evidence from the literature confirms that managerial and clinical support creates an enabling environment. The absence of support acts as a constraint to the implementation of NIMART and could compromise the quality of care (Crowley & Stellenberg, 2014; Mabelane et al., 2016; Nyasulu et al., 2013:235).

Clinical support is needed to discuss or refer complicated patients to medical practitioners and to ensure that care and prescribing standards are met (Assefa et al., 2010:80-81; Miles et al., 2007:557). Lack of health system resources, support and ineffective guidance from managers (Crowley & Mayers, 2015) hinder the implementation of NIMART.

7.4.2.4 Resources

Resources (yellow circle in Figure 7.3) were scored the lowest in this study (mean 2.6, SD 1.01) and are described as an internal resource needed by professional nurses to be empowered. Resources that should be available are human resources, with a realistic workload to be able to manage patients and complete the necessary documentation and the ability to acquire temporary help when needed. Other resources are availability of drugs, equipment and infrastructure with the necessary space to render the services.

Human resources are a big challenge as there are not enough medical practitioners or professional nurses in the public health sector, with critical gap in trained PHC nurses of 4 128 for 2015 (National Department of Health, 2011b:134).

Nurses at clinic level are over-stretched due to a high percentage of professional nursing posts vacant and the number of patients that need to be seen per day (Crowley & Mayers, 2015; Stein et al., 2008). The amount of paperwork to be done increases this burden even more (Uebel et al., 2013). There is a need for support staff to alleviate the burden on the professional nurses, consisting of administrative clerks and data capturers to allow more time for the clinical work (Davies et al., 2013).

Lack of infrastructure, with limited working space as well as unavailability of drugs, equipment and stationery, was point out as a constraining factor to the implementation of NIMART and needs to be addressed for effective implementation.
of NIMART and effective task shifting (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016:10; Mathibe et al., 2015).

Makhado (2014:96-98) identified human resources one of the main barriers to the implementation of NIMART and adherence to ART treatment. Barriers regarding human resource emphasised by the participants in this study were: time pressure, heavy workload, shortage of staff, and overall the organisational environment. Literature confirms that these aspects and other health system challenges influence effective task shifting (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016:10; Mathibe et al., 2015).

7.4.2.5 Training and mentoring

Training and mentoring was used in this framework instead of opportunity as in Kanter’s theory. This was changed as training and mentoring was a huge gap. Training and mentoring (blue circle in Figure 7.3) was the subscale with the highest score in this study (mean 3.8, SD 0.90) and consists of training and mentoring, challenging work, and tasks that use all the skills and knowledge of a person. This contradicted the qualitative data and the literature (possible reasons for this contradiction were discussed in Chapter 6). Qualitative data emphasised training and mentoring, knowledge, skills and competence to apply these skills as enabling factors to initiate NIMART, but incompetence due to a lack of knowledge and skill as well as ineffective training was a barrier for implementation.

Training to acquire the knowledge and skills is crucial to perform the task being shifted to the professional nurses, as not all professional nurses rendering NIMART services have a clinical qualification (Cameron et al., 2012:99) and this is not part of the pre-service training. One of the recommendations from the WHO (2008:4) is also that in service training should take place as well as that the training should be standardised and accredited. Bedelu et al. (2007) reported that it is possible to run ART programmes with professional nurses after receiving appropriate training. This was also possible in Botswana (Miles et al., 2007:556-557).

Training must be followed up with mentoring to ensure that professional nurses apply the knowledge that they acquired and practise the skills to reach competence and confidence. This is one of the challenges in practice, as there are not enough
competent mentors and mentoring is mostly done by NGOs supporting the implementation of NIMART (Davies et al., 2013).

Mentoring and training forms an integral part of implementation of NIMART and task shifting. Human resource constraints and the gaps in the pre-service training need to be addressed (Crowley & Mayers, 2015; Mathibe et al., 2015; Uwimana et al., 2012).

7.4.3 Psychological empowerment

Psychological empowerment consists of four concepts that need to present to be psychologically empowered (Spreitzer et al., 1997:681-682). These concepts are discussed in this section. Psychological empowerment scores in this study were higher than in studies previously done in South Africa with a mean of 67.48, and other studies done in nursing. Figure 7.4 illustrates the concepts of psychological empowerment.

![Figure 7.4 Concepts of psychological empowerment](image)

7.4.3.1 Competence

Competence (blue circle in Figure 7.4) was scored the second highest, with a mean of mean of 17.21, and includes: confidence in one’s ability to do the job, mastering
the skills necessary for the job and being self-assured about one’s capabilities to perform work activities. In the quantitative data, incompetence was seen as a barrier to initiating ART. Professional nurses need to have the knowledge and skills to feel confident and self-motivated to initiate ART. Positive psychological experiences reported by the participants were self-motivation and confidence. These were seen as enabling factors for NIMART.

Spreitzer et al. (1997:682) state that people have to believe that they can do the job – if they lack confidence, they will feel inadequate.

Capacity building interventions for professional nurses are often neglected due to need, which undermines the confidence of professional nurses to initiate ART (Davies et al., 2013; Davies & Pinto, 2015; Nyasulu et al., 2013:235).

Skills and knowledge form part of both psychological and structural empowerment.

7.4.3.2 Meaning

Meaning (gold circle in diagram 7.4), with a mean of 17.99, was scored the highest of the sub-constructs under psychological empowerment. The following items form part of this concept: the work is important, job activities are personally meaningful, and meaningful work. Ability to render quality care which assists patients and saves lives is the only subcategory in the quantitative data that relates to this component.

Meaning is what drives people in their work and, if there is conflict between their value system and their work activities, they will feel disempowered (Spreitzer et al., 1997:681).

Professional nurses see their work as meaningful as they save lives and play a key role in the recovery of their patients (Crowley & Mayers, 2015; Davies et al., 2013; Georgeu et al., 2012). They have also expressed satisfaction and accomplishment in initiating patients on ART, and even persuade their colleagues to undertake NIMART training (Davies et al., 2013; Mabelane et al., 2016:12).
7.4.3.3 Impact

Impact (red circle in Figure 7.4) in Spreitzer's (1996:484) theory focuses mostly on impact on the working environment, and included impact on one’s department and control over what happens in one’s department. This sub-construct was scored the lowest, with a mean of 15.71. Professional nurses perceive that they do not have much influence on the working environment. Impact in the qualitative data was seen as the impact that the participants had on patients by providing lifesaving treatment and the improvement of patients on ART.

Professional nurses can now initiate ART and no longer have to wait for doctors to initiate patients. As a result, they are meeting patients’ needs, which contributes to improvement in the health of patients and saving lives (Crowley & Mayers, 2015; Georgeu et al., 2012).

7.4.3.4 Autonomy

Autonomy (green circle in Figure 7.4), with a mean of 16.57, refers to participants’ autonomy in doing their work, deciding how to do their work and opportunity for independence in their work. Professional nurses have to follow protocols and guidelines, with allocated quotas and services to render that leave them without control over their work (Kinkel et al., 2012; Mathibe et al., 2015; Uebel et al., 2013).

Power to perform tasks according to experience and independence as a professional was accentuated in the qualitative data under participants’ understanding of empowerment. This can be linked to Kuokkanen and Leino-Kilpi’s (2001:276) description of autonomy, as one of the qualities of an empowered nurse is that they practise independently.

Power to practise more autonomously is one of the characteristics of a profession. To have control over one’s practice is referred to as professional autonomy (Manojlovich, 2007:261).
7.4.4 Role of empowered professional nurse in framework

Figure 7.5 Professional nurse

A professional nurse (purple oval in Figure 7.5) is a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed, and who is capable of assuming responsibility and accountability for such practice (South Africa, 2005:25). Professional nurses and their scope of practice were discussed in detail in section 7.3.3.3.

Professional nurses need to be structurally and psychological empowered to render NIMART services.

7.5 GUIDELINES FOR THE OPERATIONALISATION OF THE FRAMEWORK

In this section, the guidelines for the operationalisation of the framework are described for task shifting and the structural and psychological empowerment needed by professional nurses to ensure quality HIV services. This should happen within the recommendations and guidelines for task shifting (WHO, 2008:3-5).

Task shifting should be adapted for the context of the specific country where it is implemented and should be task sharing, not task piling on one cadre of health care workers. Task shifting should empower the group to whom these tasks are shifted to ensure quality of care. In this framework, initiation of NIMART is shifted to professional nurses to ensure PLWA can access ART.
7.5.1 Task shifting

During task shifting, a rational redistribution of tasks among health workforce teams is done. Specific tasks are moved from highly qualified health workers to health workers with shorter training and fewer qualifications (WHO, 2008:7).

7.5.1.1 Aims and objective of task shifting

The aim of task shifting is to shift tasks (usually clinical tasks), where appropriate, to health care workers with shorter training in order to make more efficient use of the available human resources for health with regard to the HIV epidemic.

7.5.1.2 Strategies and actions of task shifting

- Identify the health care workers to whom these tasks are going to be shifted.
- Identify the tasks that need to be shifted in the specific programme or health service.
- Continue support from health care workers (medical practitioners) from whom these tasks have been shifted for the professional nurses who will perform these tasks.
- Adapt the scope of practice of professional nurses to be authorised to render NIMART and practise within the legal framework of the country.

7.5.2 Structural empowerment

When task shifting is needed to be able to render services to clients/patients, the professional nurses (health care workers) taking over the responsibility for these tasks must be structurally empowered to do so.

7.5.2.1 Aims and objectives of structural empowerment

The aim of structural empowerment is to ensure an enabling work environment for professional nurses by addressing the factors related to structural empowerment.

7.5.2.2 Strategies and actions of for structural empowerment

- Clarify the new roles of medical practitioners and professional nurses for HIV services (NIMART) in PHC settings to prevent duplication.
• Facilitate teamwork and support from medical practitioners and other staff in PHC settings.
• Clarify remuneration for professional nurses taking on new roles and responsibilities.
• Share the policies and guidelines guiding the task shifting and implementation with the professional nurses.
• Provide clinical supervision (medical practitioners) on new clinical roles, as well as support from managers, to make sure that the professional nurses are competent to render services.
• Provide human resources to enable professional nurses to do what is expected from them regarding HIV services.
• Ensure availability of drugs and equipment that are necessary for providing NIMART.
• Ensure training and mentoring of professional nurses on ART to attain the knowledge and skills to be competent practitioners.

7.5.3 Psychological empowerment

The aim of psychological empowerment is to ensure an enabling work environment for the professional nurses by addressing the factors related to psychological empowerment.

7.5.3.1 Aims and objective of for psychological empowerment

The aim of psychological empowerment is to ensure an enabling work environment for professional nurses by addressing the factors related to psychological empowerment.

7.5.3.2 Strategies and actions of for psychological empowerment

• Ensure training and mentoring on ART for professional nurses to attain the knowledge and skills support until they are competent to initiate ART.
• Reassess workload so that the professional nurses’ work can be meaningful, not only about pushing queues.
• Involve professional nurses in decision-making and changes concerning their practice to enhance autonomy and self-determination.
• Recognise the contributions (impact) professional nurses are making in delivering NIMART services.

7.6 EVALUATION OF THE FRAMEWORK

Critical reflection of the framework is needed to evaluate how adequate the framework is in relation to its purpose. The guidelines proposed by Chinn and Kramer (2011:196-205) were applied and related to the clarity, simplicity, generality, accessibility and importance of the framework. Evaluation of the framework was done by four evaluators whose expertise was as follows:

• academic with extensive PHC (including HIV management) practice experience (evaluator 1);
• public health specialist with widespread experience in HIV management (evaluator 2);
• professional practice expert (evaluator 3); and
• academic with framework development experience (evaluator 4).

7.6.1 Clarity

The clarity of the framework was evaluated by the researcher and experts in the field for semantic clarity (meaning) and structural clarity (concepts and relation to each other) as well as consistency of both these aspects (Chinn & Kramer, 2011:198-201).

7.6.2 Simplicity

Simplicity reflects on the number of concepts and their interrelationships. These should be kept to the minimum (Chinn & Kramer, 2011: 201-202).

7.6.3 Generality

Generality refers to the breadth of scope of the framework and its application to a broad group of situations (Chinn & Kramer, 2011:202-203). To reflect on the generality of the framework, experts in the fields were used during evaluation.
7.6.4 Accessibility

Accessibility speaks to the attainability of the framework and the degree to which empiric indicators of the concepts can be identified by others in the field (Chinn & Kramer, 2011:203-204).

7.6.5 Importance of the framework

Importance of the framework is described in terms of its theoretical and clinical significance, with reference to the practice of nurses in PHC, specifically in initiating ART.

Evaluators 1 and 2, who have extensive HIV experience, did not recommend any changes to the framework. Feedback from evaluators 3 and 4 feedback were group together as they preferred a meeting to discuss suggested changes to streamline the framework, including shifting some of the discussion to Chapter 3 (literature) to shorten this chapter. Modifications were made to incorporate their recommendations into the framework. Table 7.2 summarises the feedback of the evaluators with adjustments made.
<table>
<thead>
<tr>
<th>Aspect for reflection</th>
<th>Feedback</th>
<th>Adjustments</th>
</tr>
</thead>
</table>
| **Semantic clarity** | **Evaluator 1:** The framework and the theoretical and practical application are clear. The background gives in-depth insight about the meaning of the framework.  
**Evaluator 2:** Language used is easily understood and concepts are well defined.  
**Evaluator 3 & 4:** Language is understandable and concepts are well defined. Recommend that the concepts communication, and training and mentoring change to the concepts used in Kanter’s theory. | After discussion with supervisors it was decided to keep the two concepts as is to reflect the data and uniqueness of this framework. |
| **Semantic consistency** | **Evaluator 1:** The framework is clear with reference to the concepts and relation to each other.  
**Evaluator 2:** Semantically consistent.  
**Evaluator 3 & 4:** Recommend that the concepts communication, and training and mentoring be changed to information and opportunities to keep semantic consistency with Kanter’s theory. | After discussion with supervisors it was decided to keep the two concepts as is to reflect the data and uniqueness of this framework. |
| **Structural clarity** | **Evaluator 1:** Framework is clear and understandable.  
**Evaluator 2:** It is clear and depicts the context well. Anybody working in the HIV would understand the framework immediately.  
**Evaluator 3 & 4:** Framework and context is clear. |  |
| **Structural consistency** | **Evaluator 1:** Structurally consistent.  
**Evaluator 2:** Yes.  
**Evaluator 3 & 4:** Structurally consistent. |  |
| **Simplicity** | **Evaluator 1:** No, removal of any concepts as such action can lead to vagueness and would influence the clarity of the framework.  
**Evaluator 2:** The framework is straightforward and clear  
**Evaluator 3 & 4:** Recommended that task shifting should be replaced with NIMART and medical practitioner should be removed. Psychological empowerment is part of data and study adds this to framework. | Task shifting was replaced by NIMART and medical practitioner was deleted from the framework. Psychological component added to framework. |
<table>
<thead>
<tr>
<th>Aspect for reflection</th>
<th>Feedback</th>
<th>Adjustments</th>
</tr>
</thead>
</table>
| Simplicity of relationships in the framework | **Evaluator 1:** The framework is clear with reference to the concepts and relation to each other.  
**Evaluator 2:** The relationships on paper are simple. This differs due to the individual players on the ground  
**Evaluators 3 & 4:** Relationships are clear but can be simplified by deleting medical practitioner and replacing task shifting with NIMART | Task shifting was replaced by NIMART and medical practitioner was deleted from the framework. |
| **GENERALITY** | | |
| Scope of experiences | **Evaluator 1:** The framework can be generalised in all NIMART PHC service delivery points as it is clear and user-friendly. The explanation of the framework specifies the pitfalls with regard to task shifting of ART to professional nurses and assisted the researcher to formulate recommendations, which can be used to ensure high quality and streamlined ART services at PHC level.  
**Evaluator 2:** Specific to the context of NIMART but could be utilised for a number of task shifting exercises.  
**Evaluators 3 & 4:** Specific to NIMART but applicable to other task shifting areas where professional nurses are taking over tasks from medical practitioners. | |
| Width of scope | **Evaluator 1:** Can be generalised.  
**Evaluator 2:** Can be applied in other programmes.  
**Evaluators 3 & 4:** Can be applied in other nursing fields. | |
| Range of the framework | **Evaluator 1:** The framework can be generalised in all PHC services.  
**Evaluator 2:** Can be applied more broadly in PHC.  
**Evaluators 3 & 4:** Can be applied more broadly in other fields of nursing rendering services on PHC level. | |
| **ACCESSIBILITY** | | |
| Concepts grounded in empirically identified occurrences | **Evaluator 1:** Highly assessable and some of the concepts can be used as indicators to evaluate the quality of ART services rendered at PHC level.  
**Evaluator 2:** Purpose of framework can be attained.  
**Evaluators 3 & 4:** Purpose of framework can be achieved. | |
<table>
<thead>
<tr>
<th>Aspect for reflection</th>
<th>Feedback</th>
<th>Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance for nursing practice</td>
<td><strong>Evaluator 1:</strong> Definite new knowledge generation on utilisation of empowerment to enhance ART service delivery in poorly resourced countries. Task shifting cannot be effective if dealt with as in the current situation. The legal implications are explained well and it is essential that the National Department of Health and SANC to take note of issues rose.  <strong>Evaluator 2:</strong> Yes for primary care nursing.  <strong>Evaluators 3 &amp; 4:</strong> New knowledge in the field of NIMART and task shifting.</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td><strong>Evaluator 1:</strong> Yes.  <strong>Evaluator 2:</strong> Yes.  <strong>Evaluator 3 &amp; 4:</strong> Yes.</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td><strong>Evaluator 1:</strong> Definite new knowledge generation on utilisation of empowerment.  <strong>Evaluator 2:</strong> Yes to adapt pre-service training.  <strong>Evaluators 3 &amp; 4:</strong> Implication for training of professional nurses to render services for HIV/AIDS patients</td>
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</table>

### 7.7 SUMMARY

In this chapter, the framework and guidelines for operationalisation were discussed. Evaluation of the framework included experts in the field of HIV and public health professional practice, and academics with framework development experience. Minor adjustments were made to incorporate proposed changes to the framework. In Chapter 8, the overview of the study, conclusions and limitations are described, along with recommendations for policy, practice, research and education.
CHAPTER 8

OVERVIEW, LIMITATIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

Chapter 7 described the framework and guidelines for operationalisation of the framework, and the evaluation of the framework by experts and peer reviewers. Chapter 8 gives an overview of the study and the methodology processes, and discusses the contributions made to nursing science. The conclusion, limitations and recommendations for practice, education, research and policy are also presented.

8.2 PURPOSE OF THE STUDY

The overall aim of this convergent parallel mixed methods study was to develop a framework to empower professional nurses for NIMART in PHC facilities in North West Province by reaching the following objectives:

- Objective 1: To explore and describe the concepts of task-shifting, NIMART, structural and psychological empowerment on nurses according to the literature review.
- Objective 2: To explore and describe the structural and psychological empowerment of professional nurses in the PHC facilities in North West.
- Objective 3: To explore and describe the professional nurses’ experiences of NIMART in the PHC facilities in North West.
- Objective 4: To explore and describe what professional nurses need to empower them for NIMART in the PHC facilities in North West.
- Objective 5: To explore and describe the understanding of empowerment of the professional nurses working in PHC facilities in North West.
- Objective 6: To develop a framework to empower professional nurses for NIMART in the PHC facilities in North West.
- Objective 7: To have the framework evaluated by peers and experts in the field of NIMART and adapt where necessary.

Qualitative and quantitative data were collected simultaneously. Where a participant was part of the interviews (qualitative data), the interview was conducted before

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handing out the questionnaire to the participant. This was done to obtain the participants’ own understanding of empowerment as the questionnaires were on structural and psychological empowerment. Qualitative and quantitative data were integrated in Chapter 6 of this study and presented in Table 6.1.

8.3 RESEARCH DESIGN AND METHODS

A convergent parallel mixed methods design was selected for this study. The motivation for selecting a mixed methods research design was to explore and describe the structural and psychological empowerment of professional nurses in the PHC facilities in North West to establish their perception of empowerment. Qualitative data collected explored and described professional nurses’ experiences of NIMART to explore what they needed to be empowered in the context of NIMART in PHC facilities. It was also necessary to explore the professional nurses’ understanding of empowerment to be able to develop the framework. To meet objective one, a literature review examined qualitative and quantitative research for the integration of the framework to empower professional nurses for NIMART in PHC facilities in North West.

8.3.1 Phase 1: Literature review and empirical research

During phase one, the literature review and the empirical research were conducted, with emphasis on the WHO recommendations and guidelines regarding task shifting, NIMART and empowerment.

Objective 1: Literature review

Task shifting is seen by the WHO (2008:7) as a viable strategy to increase access to service rendered by professional nurses. Sanne et al. (2010:33) found that NIMART was not inferior to services rendered by medical practitioners. The literature on NIMART revealed that there are certain factors that act as either constraints or enablers in initiating ART by professional nurses. These factors include shortage of staff, training and mentoring, policy, and regulatory framework (Cohen et al., 2009; Emdin & Millson, 2012; Fatti et al., 2010; Green et al., 2014; Kaposhi et al., 2014; Monyatsi et al., 2012).
The concept of empowerment was explored and described. The two theories that were identified, namely, Kanter’s (structural) and Spreitzer’s (psychological) empowerment theories, were selected and formed the basis of the theoretical framework for this study (sections 3.5.1 and 3.5.2).

**Objective 2: Quantitative data**

The quantitative part of the research was achieved through the two empowerment questionnaires – structural (CWEQ-II) and psychological (PEQ) – to explore and describe the structural and psychological empowerment of professional nurses.

Representative sampling of the health care facilities was done to include all four districts of North West. Power analysis was determined with the assistance of a statistician and was used to determine the sample size with an expected response rate of 50% and at a 95% confidence level. A sample of 320 participants constituted an acceptable sample with a margin of error set at 5%. Three hundred and twenty questionnaires were handed out and 182 were returned (n = 182). Reliability and validity of questionnaires have been confirmed by international studies on empowerment (Gilbert et al., 2010:343; Knol & Van Linge, 2008:362; Laschinger, 2008:325) and indicate acceptable levels of reliability. The questionnaires were piloted to ensure the participants understood the questions.

Background information regarding training and mentoring, perceived knowledge and competence, as well as number of patients seen per day, was obtained through a background questionnaire. This information was necessary for this study as the literature identified certain constraints in initiating ART by professional nurses. Data analysis was done with the assistance of a statistician using SAS software.

**Objectives 3, 4 and 5: Qualitative data**

In-depth face-to-face interviews were utilised for collection of qualitative data from professional nurses and managers. Four open-ended questions were included in the background information questionnaire, on professional nurses’ understanding of empowerment, what they think is necessary to empower them to initiate ART, and reasons/factors that influence professional nurses to initiate ART or not.
Purposive sampling was used to select the qualitative sample and included 15 professional nurses and five managers in the clinics (n = 20). Open-ended questions of the questionnaires (n = 80) were also coded. Data saturation was obtained and confirmed by an independent coder. Data were analysed by applying Tesch’s method of data analysis, as described by Creswell (2009:186, 2014:195), to generate themes, categories and subcategories. Trustworthiness was established by applying Lincoln and Guba’s (1985:289-331; Polit & Beck, 2012:539-585) criteria of credibility, confirmability, dependability, transferability and authenticity.

8.3.2 Phase 2: Development of the framework

Objective 6: Development of a framework to empower professional nurses for NIMART in the PHC facilities in North West

The findings of Kanter’s and Spreitzer’s theories were adapted and used to develop the framework. Kanter’s structural empowerment theory (information, support, resources and opportunities) and Spreitzer’s psychological empowerment theory (meaning, competency, autonomy and impact), as well as WHO recommendations and principles for task shifting, formed the foundation for the development of the framework.

The quantitative and qualitative data (Chapter 6) were applied to contextualise NIMART within the context of task shifting for empowerment.

The following guidelines of Chinn and Kramer (2011:156-181), recommended for framework (theory) development and description, were used for the framework:

- purpose of the framework;
- identifying and defining concepts;
- identifying assumptions;
- clarifying the context within which the framework is placed;
- designing relationship statements; and
- structure description.
8.3.3 Phases 3: Evaluation of the framework

Critical reflection of the framework was needed to evaluate how adequate the framework is in relation to its purpose, adhering to the following guidelines: clarity, simplicity, generality, accessibility and importance of the framework (Chinn & Kramer, 2011:196-205).

Objective 7: To have the framework evaluated by peers and experts in the field of NIMART and adapt where necessary

As this framework was developed to guide the implementation of NIMART, the following experts in the field of HIV/AIDS were asked to evaluate the framework: two nurse academics, 1 Public Health Specialist with vast clinical experience in the HIV field, and one professional nurse with years of experience in implementing NIMART in the public sector in PHC facilities. Guidelines for the evaluation of the framework were provided to evaluators.

8.4 CONCLUSIONS OF THE STUDY

Conclusions were drawn from the integrated data, consisting of the quantitative and qualitative data, on the empowerment of professional nurses, their experiences in initiating ART and their understanding of empowerment. Information obtained through the literature study that formed part of the framework development was also included. Conclusions for each of these phases are discussed further down.

8.4.1 Conclusions of phase 1

The background information questionnaire explored the training of professional nurses in HIV/AIDS, perceived knowledge on HIV/AIDS and ART, as well as the professional nurses’ workload. Lack of training and mentoring was identified (section 4.3.2.3), with competency levels still low in certain aspects of HIV care as illustrated in Table 4.8. Initiating children on ART and follow-up of children were particularly low, with 137 of the 182 participants (n=182) considering themselves not yet competent in initiating children on ART. Workload was a concern as 55% of the 172 participants who answered this question saw more than the 30 patients per day
recommended by the WHO, with 30% of them reporting that they saw more than 40 patients per day as illustrated in Table 4.9.

Structural empowerment information obtained through the CWEQ-II revealed that the professional nurses perceived that they were only moderately empowered. Mean scores, standard deviations and Cronbach’s alphas were presented in Table 4.12. The lowest score obtained was resources (mean 2.6). This was confirmed in the qualitative data and literature. There was a lack of human resources and equipment to perform tasks, as well as infrastructure challenges. Formal power (mean 2.6) was scored the second lowest with a lack in flexibility and visibility in the work they did with no recognition or rewards for innovation or work well done. The lowest score for an item in a subscale (formal power) was rewards for innovation on the job, with a mean of 2.23, which is considered as poor (objective 2).

Psychological empowerment information was attained through the PEQ. Meaning obtained the highest score, with a mean of 17.99, and impact obtained the lowest score with a mean of 15.7. Meaning was reported in the qualitative data as saving patients’ lives. Professional nurses perceived that their influence on their work environment was limited, while they are doing important work.

Objectives 3, 4 and 5 were answered by the qualitative data. For objective 3, relating to the experiences of NIMART by professional nurses in the PHC facilities, two main categories were identified: enablers of NIMART with five subcategories, and barriers to NIMART with three subcategories. This was represented in Table 5.4 and was one of the main themes. Two of the subcategories emerged in the both categories (enablers and barriers to initiating ART): either knowledge, skills and competency is present, or there is incompetency and lack of knowledge and skill. The second subcategory that emerged as both enabler and barrier was positive (enabler) or negative (barrier) psychological experiences.

Factors related to management and organisational processes were identified as the most significant aspect needed by professional nurses to empower them for NIMART (objective 4). Three categories materialised in this theme (represented in Table 5.5), entailing availability of resources to perform their tasks (with three subcategories), information and communication from managers and other team members (with two
subcategories), and role clarification because of task shifting (with two subcategories). In the category of information, the subcategories that were identified included information on changes, new policies and guidelines, and feedback from managers and evaluation of performance, support and guidance. Both of these correlate with the literature (Crowley & Mayers, 2015; Davies et al., 2013; Makhado, 2014:102).

In objective 5, regarding the professional nurses’ understanding of empowerment, four categories emerged, consisting of competence, availability, equal access to opportunities, and external and internal resources (see Table 5.6).

The subcategories that represented the professional nurses’ understanding of empowerment included knowledge and skills to render quality of care, independence as professionals, improved standard of education (competence), and professional development and promotion (availability and equal access to opportunities). The other subcategories incorporated conducive working environment, sufficient staff, encouragement, constructive criticism and acceptance by other team members (external resources), power to perform tasks according to experience in the field, confidence, and commitment and job satisfaction (internal resources).

The understanding of empowerment by professional nurses contained concepts from both structural and psychological empowerment, though the two theories use different terminology. Competence in psychological empowerment is described under opportunities in structural empowerment. Availability and equal access to opportunities form part of opportunities under structural empowerment. External resources fall under resources in structural empowerment and internal resources fall under meaning and autonomy in psychological empowerment.

In the triangulation and integration of the literature, quantitative and qualitative data (Table 6.1), the researcher concluded that the findings of this study are confirmed by the literature (Crowley & Mayers, 2015; Davies et al., 2013; Mabelane et al., 2016; Makhado, 2014:96; Smith et al., 2016:328). The two sets of data also supported the findings. The only contradiction was the high score for access to opportunities in the quantitative data. The contradiction might be due to the questions asked under the subscale, as the one question was about gaining new skills and knowledge,
where 54% of the participants reported that they had access to opportunities to gain new skills and knowledge. The other two questions were related to challenging work and work that used all their knowledge and skills, where 70% of participants perceived that their work required all their skills and knowledge. This might be due to the fact that professional nurses see NIMART as challenging.

8.4.2 Conclusions of phase 2

Objective 6 was to develop a framework to empower professional nurses for NIMART in PHC facilities in North West. The guidelines provided by Chinn and Kramer (2011:156-181) were applied in the development of the framework (Figure 7.1). The framework includes the concepts of structural and psychological empowerment, NIMART (task shifting) within the context of the legal framework of South Africa, and the scope of practice. The WHO recommendations and guidelines should guide the process of task shifting. The relationships of the concepts and structure of the framework as well as the assumptions were discussed in sections 7.3.2, 7.3.4 and 7.3.5. After the development, the framework was evaluated in phase three.

8.4.3 Conclusions of phase 3

Evaluation of the framework by peers was described in section 7.6. The guidelines proposed by Chinn and Kramer (2011:196-205), were utilised for the evaluation. A summary of the evaluation is presented in Table 8.1 with the recommendations of evaluators and adjustments made to the framework (objective 7).
### Table 8.1 Summary of the evaluation of the framework

<table>
<thead>
<tr>
<th>Aspect for reflection</th>
<th>Feedback</th>
<th>Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLARITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic clarity</td>
<td>Language is understandable and concepts well defined. Recommended that the concepts communication (information) and training and mentoring (opportunity) change to the concepts used in Kanter’s theory.</td>
<td>After discussion with supervisors, it was decided to keep the two concepts as they reflect the data and uniqueness of this framework.</td>
</tr>
<tr>
<td>Semantic consistency</td>
<td>The framework is clear with reference to the concepts and relation to each other. Recommended that the concepts communication and training and mentoring should be changed to information and opportunities to keep semantic consistency with Kanter’s theory.</td>
<td>After discussion with supervisors, it was decided to keep the two concepts as they reflect the data and uniqueness of this framework.</td>
</tr>
<tr>
<td>Structural clarity</td>
<td>It is clear and depicts the context well. Anybody working in the HIV would understand the framework immediately.</td>
<td>No adjustments needed.</td>
</tr>
<tr>
<td>Structural consistency</td>
<td>Structurally consistent.</td>
<td>No adjustments needed.</td>
</tr>
<tr>
<td><strong>SIMPLICITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplicity of structural components</td>
<td>Recommended that task shifting be replaced with NIMART and medical practitioner be removed. Psychological empowerment is part of data and study – add this to framework.</td>
<td>Task shifting was replaced by NIMART and medical practitioner was deleted from the framework. Psychological empowerment component added to the framework.</td>
</tr>
<tr>
<td>Simplicity of relationships in the framework</td>
<td>Relationships are clear but can be simplified by deleting medical practitioner and replacing task shifting with NIMART.</td>
<td>Task shifting was replaced by NIMART and medical practitioner was deleted from the framework.</td>
</tr>
<tr>
<td><strong>GENERALITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope of experiences</td>
<td>The framework can be generalised in all NIMART PHC service delivery points as it is clear and user-friendly. The explanation of the framework specifies the pitfalls with regard to task shifting of ART to professional nurses and assisted the researcher to formulate recommendations which can be used to ensure high quality and streamline ART services at PHC level. It is specific to NIMART but applicable to other task shifting areas where professional nurses are taking over tasks from medical practitioners.</td>
<td>No adjustments needed. Included feedback in recommendations.</td>
</tr>
<tr>
<td>Width of scope</td>
<td>Can be applied in other nursing fields.</td>
<td>No adjustments needed.</td>
</tr>
<tr>
<td>Range of the framework</td>
<td>Can be applied in other fields of nursing rendering services on PHC level.</td>
<td>No adjustments needed.</td>
</tr>
</tbody>
</table>
Adjustments were made to the framework to include psychological empowerment. Task shifting was replaced by NIMART and medical practitioner was removed. The interrelationships between the professional nurse and structural and psychological empowerment, as well as the interrelationships between the concepts of structural and psychological empowerment, were indicated. Guidelines for the operationalisation of the framework were discussed in chapter 7 section 7.5.

8.5 LIMITATIONS OF STUDY

The researcher encountered specific limitations in respect of the study:

- The background information, CWEQ-II and PEQ questionnaires used in the study took longer to complete than anticipated, which might have resulted in participant fatigue.
- The CWEQ-II uses a five-point Likert scale, while there are both a five- and seven-point Likert scale available for the PEQ. The South African studies that were reviewed used the seven-point Likert scale, while many of the international
studies used the five-point Likert scale. This limited the comparison with the international research.

- The research was only conducted in one province and other provinces might have different experiences related to NIMART.
- Although the questionnaires were handed out and collected the following day where participants were not able to complete them during the scheduled time, the response rate was only 57%.

8.6 RECOMMENDATIONS

The following recommendations regarding initiation of ART by professional nurses are proposed based on the findings of this research.

8.6.1 Recommendations for practice

In terms of recommendations for practice, professional nurses need to be empowered to render quality HIV services, including initiation of ART, through the following:

- In-service training and assessment should be done before tasks are shifted (ART initiation) to the professional nurses to make sure that they have the skills and knowledge needed to perform the new tasks and to determine the level of mentoring and supervision needed in practice for patient safety and quality of service.
- In-service training on initiation of children on ART and follow-up of children needs to be prioritised for all NIMART trained staff to save the lives of children under five years of age.
- Workloads need to be researched and levels of service need to be determined and adjusted to ensure that there is enough time to complete all the necessary clinical and administrative tasks.
- All essential equipment that is necessary to complete clinical assessment of patients should be available in each examination room.
- Remuneration packages need to be adjusted as the nurses’ scope of practice is extended.
- Regular audits of files of patients on ART initiated by professional nurses need to be done for quality assurance, feedback and corrective measures for quality improvement.
- Support from HIV experts, medical practitioners and pharmacist should be available to assist professional nurses when needed for initiating ART.

8.6.2 Recommendations for education

Recommendations for nursing education are:

- Pre-service training must include HIV management and students should be exposed to initiation of ART during their clinical practice in the PHC clinics.
- Pre-service training should include clinical skills to enable professional nurses to conduct clinical assessment of patients.
- Specialisation for management of chronic medical conditions, including HIV and TB, should be considered. Patients living with HIV/AIDS often also have other chronic conditions that influence the management of HIV/AIDS and contribute to drug interactions.
- Training involving aspects of tasks that have been shifted to professional nurses must involve specialist clinical nurses or medical practitioners.

8.6.3 Recommendations for research

The following recommendations are proposed for research:

- Further research is needed regarding empowerment of professional nurses in South Africa and the impact on work outcomes, for example, job satisfaction, intent to leave and burnout.
- Experiences of professional nurses concerning NIMART need to be explored in other provinces to compare their experiences.
- Evaluation of the framework in practice is recommended.
- Research is needed on task shifting in the context of HIV in South Africa to ensure an effective team approach.
8.6.4 Recommendations for policy

The following recommendations regarding policy are put forward:

- Task shifting activities according to the WHO recommendations and guidelines for task shifting should be accepted in policy for the South African context.
- The SANC has to finalise the prescribed qualification and training referred to in section 56 of the Nursing Act that will allow professional nurses to assess, diagnose and treat patients, as they are currently doing so without the necessary training.
- Recognition of nurse specialists and advanced nurse practitioners with the necessary adjustment to extend their scope of practice and remuneration packages should be implemented to keep clinical professional nurses in practice.
- If changes are planned that involve nurses and their practice, broader consultation with the nurses should be done, including clinical professional nurses and managers from PHC facilities, nursing departments at universities and colleges, the Democratic Nursing Organisation of South Africa, SANC and other relevant stakeholders.
- Professional nurses hold autonomy over the content of their practice and education. This implies that nurses should be involved when training materials like the NIMART course are developed so that clinical nurses and nurse academics are involved in the development.
- Role clarification between the different professional health care workers is necessary as professional nurses perform tasks that belong to the scope of practice of both medical practitioners and pharmacists.

8.7 CONTRIBUTION OF THE STUDY

The significance of this research is that contributes to new knowledge generation as well as addressing challenges in the implementation of NIMART by utilising empowerment frameworks to enhance ART service delivery in poorly-resourced countries.
8.8 CONCLUSION

A framework to empower professional nurses for NIMART in PHC facilities in the North West Province was developed and described. This was done by exploring and describing structural and psychological empowerment of professional nurses, their experiences of NIMART, what they needed to be empowered and their understanding of empowerment. The empowerment theories of Kanter (structural) and Spreitzer (psychological) were applied and adjusted in the development of the framework to reflect the findings of this research study. Recommendations and guidelines by the WHO on task shifting form part of the context of the framework on empowerment of professional nurses for NIMART. The research findings and integration were described in this chapter and the challenges with task shifting were emphasised.

Adaptions made to the framework to include the feedback of the peer reviewers were indicated and guidelines for the operationalisation of the framework were discussed in Chapter 7. Guidelines for the operationalisation of the framework for task shifting, structural and psychological empowerment were given in Chapter 7 and not repeated in this chapter.

The researcher concludes that empowerment of professional nurses is necessary for effective task shifting in the initiation of ART by professional nurses and to ensure quality of patient care.


PEPFAR see President’s Emergency Plan for AIDS Relief


UNAIDS see Joint United Nations Programme on HIV/AIDS.


UNICEF see United Nations Children’s Fund.


ANNEXURE A

MEDUNSA RESEARCH & ETHICS COMMITTEE CLEARANCE

CERTIFICATE
UNIVERSITY OF LIMPOPO  
Medunsa Campus

MEDUNSA RESEARCH & ETHICS COMMITTEE

CLEARANCE CERTIFICATE

MEETING:  02/2012

PROJECT NUMBER:  MREC/1982012. PG

PROJECT:

Title:  Guidelines for improving professional nurses involved in initiated management of anti-retroviral therapy in north west province

Researcher:  Mrs S Nauds
Supervisor:  Prof F van Aremark
Co-supervisor:  Dr Y Rabunga
Department:  Nursing Sciences
School:  Health Care Sciences
Degree:  PHD in Nursing Sciences

DECISION OF THE COMMITTEE:

MREC approved the project.

DATE:  06 March 2012

PROF S CHERMA
CHAIRPERSON MREC

Federal Wide Assurance (FWA) Number:  FWA000026-413
Institutional Review Board (IRB) Number:  IRE0000122

Note:
- Should any deviation be contemplated from the research procedures as approved, the researcher shall re-submit this protocol to the Committee.
- The budget for the research will be considered separately from this protocol. Please quote the protocol number in all enquiries.
ANNEXURE B

CHANGE OF TITLE PERMISSION
19 April 2017

Prof E von Aswegen  
Head of Department: Nursing Sciences  
MELDUNSA  
0204

Dear Prof van Aswegen

Change of Title: PhD (Nursing Sciences) - S Naude.

PGC at their meeting held on 30 March 2017 APPROVED changing of the title of the thesis for the mentioned candidate to “Framework to empower professional Nurses for nurse initiated management of anti-retroviral therapy North West Province”

Yours sincerely,

Prof L Hay  
Chairperson: PGC

Cc: [Name S. Mogale]
ANNEXURE C

NORTH WEST POLICY, PLANNING, RESEARCH MONITORING AND EVALUATION: RESEARCH APPROVAL
To: Ms S. Naudé

From: Policy, Planning, Research, Monitoring & Evaluation

Subject: Research Approval – Guidelines to Empower professional nurses for nurse initiated Management of Anti-Reverse therapy North West Province.

Purpose

To inform Ms S. Naudé that permission to undertake the above mentioned study has been granted by the North West Department of Health. The researcher is expected to issue this letter as proof that the Department has granted approval to the district or health facilities that form part of the study.

Arrangements in advance with managers at district level or facilities shall be facilitated by the researcher and the department expects to receive the final research report upon completion.

Kindest regards

[Signature]

Date

Director, Policy, Planning, Research, Monitoring & Evaluation

Ms B Radlhuyse

Healthy Living for All
NURSING WORK EMPOWERMENT SCALE
Request Form

I request permission to copy the Nursing Work Empowerment Scale as developed by Dr. G. Chandler and Dr. Heather K. Spence Laschinger. Upon completion of the research, I will provide Dr. Laschinger with a brief summary of the results, including information related to the use of the Nursing Work Empowerment Scale used in my study.

Questionnaires Requested:
Conditions of Work Effectiveness-I (includes JAS and ORS): Yes
Conditions of Work Effectiveness-II (includes JAS-II and ORS-II): Yes
Job Activity Scale (JAS) only: Yes
Organizational Relationship Scale (ORS) only: Yes
Organizational Development Opinionnaire or Manager Activity Scale: Yes
Other Instruments: Yes

Please complete the following information:
Date: 4 August 2012
Name: Susan Naude
Title: Empowerment of professional nurses for scaling up nurse initiated antiretroviral therapy.
University/Organization: University of Limpopo (Medunsa Campus) South Africa
Address: 656 Biotite Street, Elardus Park
Pretoria. South Africa. 0181
Phone: +27 (0) 824476279
E-mail: smnaude@telkomsa.net

Description of Study: Mixed method study that will include professional nurses from primary care clinics designated to render antiretroviral therapy (ART) to patients and managers of the clinics. Questionnaire will be used to measure structural empowerment. In depth interviews will be done with nurses who are already initiating ART

Permission is hereby granted to copy and use the Nursing Work Empowerment Scale.
Date: August 08, 2012

Signature: [Signature]

Dr. Heather K. Spence Laschinger, Professor
School of Nursing, University of Western Ontario
London, Ontario, Canada N6A 5C1
Tel: 519-661-4065 Fax: 519-661-3410
E-mail: hkl@uwo.ca
ANNEXURE E

ENGLISH CONSENT FORM (UNIVERSITY OF LIMPOPO MEDUNSA CAMPUS)
CONSENT FORM

Name of Study

Framework to empower professional nurses for Nurse Initiated Management of Anti-retroviral Therapy (NIMART) in the North West Province

I have read the information on heard the aims and objectives of the proposed study and was provided the opportunity to ask questions and given adequate time to rethink the issue. The aim and objectives of the study are sufficiently clear to me. I have not been pressurized to participate in any way.

I know that sound recordings will be taken of me. I am aware that this material may be used in scientific publications which will be electronically available throughout the world. I consent to this provided that my name and is not revealed.

I understand that participation in this Study is completely voluntary and that I may withdraw from it at any time and without supplying reasons.

I know that this Study has been approved by the Medunsa Research Ethics Committee (MREC), University of Limpopo (Medunsa Campus) / North West Department of Health. I am fully aware that the results of this Study will be used for scientific purposes and may be published.

I agree to this, provided my privacy is guaranteed.

I hereby give consent to participate in this Study

............................................................  ............................................................

Name of participant  Signature of participant

Place.  Date.  Witness
ANNEXURE F

BACKGROUND INFORMATION QUESTIONNAIRE
Background information Questionnaire

Introduction:
This questionnaire is to be filled out by individual health care provider

Please note: Where applicable just CIRCLE the appropriate answer. Thank you!

A Background

Q1. Please indicate your age group: ______ years

Q2. Please tick the qualifications that you are registered with SANC.

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Yes</th>
<th>Year completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurse</td>
<td></td>
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<tr>
<td>Registered Midwife</td>
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<tr>
<td>Registered Community Health Nurse</td>
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<tr>
<td>Registered Psychiatric Nurse</td>
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<tr>
<td>Registered Paediatric Nurse</td>
<td></td>
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</tr>
<tr>
<td>Clinical Nursing Science Health Assessment Treatment and Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispensing course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: Specify</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II. TRAINING IN HIV/AIDS

Q3. Have you ever had any HIV/AIDS training? Please indicate with a x

<table>
<thead>
<tr>
<th>Yes</th>
<th>If yes please go to question 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>If no please go to question 5</td>
</tr>
</tbody>
</table>
Q4. Please indicate in what subject areas you have been trained?

<table>
<thead>
<tr>
<th>HIV related field</th>
<th>Duration of theory training</th>
<th>Duration of practical training</th>
<th>Mentoring and supervision after training</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Anti-retroviral therapy (NIMART)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b Clinical management of HIV/AIDS for nurses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c Integrate Management of Childhood illnesses. Provision of ART in children</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d Comprehensive paediatric HIV care and treatment initiative (South to South)</td>
<td></td>
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<tr>
<td>e Prevention of Mother to Child Transmission (PMTCT)</td>
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<td>f PALSA PLUS</td>
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</tr>
<tr>
<td>g HIV testing counselling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h Adherence counselling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i Please specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q5. Over all, how would you rate your HIV/AIDS and ART knowledge level?

<table>
<thead>
<tr>
<th>HIV/AIDS</th>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q6. For each of the following areas related to HIV, how would you rate you present knowledge and skill.

<table>
<thead>
<tr>
<th>HIV related field</th>
<th>Competent</th>
<th>Not yet competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a HIV testing and counselling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b Performing and interpreting rapid HIV tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c Initial ART counselling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d Clinical assessment of patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e WHO staging of HIV/AIDS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f Diagnosis of Opportunistic Infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g Treatment of Opportunistic Infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h Initiation of antiretroviral therapy (ART) in adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i Follow up of adults on ART</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j Initiation of antiretroviral therapy (ART) in children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k Follow up of children on ART</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l Collection samples for laboratory tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m Interpretation of laboratory results: CD4+ count, Viral load Hb and FBC (full blood count) Liver function test or renal function tests</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q7. For which of the following HIV related fields do you perceive a need for training?

(Please tick where applicable)

<table>
<thead>
<tr>
<th>HIV related field</th>
<th>Need for training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>a Initiation of Anti-Retroviral Therapy (adults)</td>
<td></td>
</tr>
<tr>
<td>b Follow up of adults on ART</td>
<td></td>
</tr>
<tr>
<td>c Adherence counselling</td>
<td></td>
</tr>
<tr>
<td>d Management of opportunistic infections</td>
<td></td>
</tr>
<tr>
<td>e Initiation of Anti-Retroviral Therapy (paediatric)</td>
<td></td>
</tr>
<tr>
<td>f Follow up of children on ART</td>
<td></td>
</tr>
<tr>
<td>g Interpretation of CD 4, viral load and other laboratory tests</td>
<td></td>
</tr>
<tr>
<td>h Other ____________________________</td>
<td></td>
</tr>
</tbody>
</table>

Q8. From the above list (Q9, a-h), choose 4 most important areas where you would like additional training.

(Rank them in order of importance, starting with the most important using the corresponding letter, A to I)

1.  
2.  
3.  
4.  

III PROVISION OF HIV/AIDS CARE SERVICES.

Q9. For how long have you been providing HIV/AIDS care? _______ months _______ years.

Q10. On average, state the number of patients you as a health worker care for as follows:

a) Number of patients that you, as an individual health worker, care for on an average clinic day: ________
b) Number of patients with HIV/AIDS that you, as an individual health worker, care for on an average clinic day: __________

c) Of the above number in (b), how many patients are on ART __________

d) How many patients do you, as an individual health worker, initiate on ARV’s in 1 (one) week? ______

Q11. Please explain what you understand under empowerment.

Q12. Please explain what do you think is necessary to empower professional nurses to initiate ART.

Q13 Please explain the reasons/factors that influence PN to initiate anti-retroviral therapy.

Q14 Please explain the reasons/factors that influence PN not initiate anti-retroviral therapy.
ANNEXURE G

CONDITIONS OF WORK EFFECTIVENESS QUESTIONNAIRE – II

STRUCTURAL EMPOWERMENT QUESTIONNAIRE
CONDITIONS OF WORK EFFECTIVENESS QUESTIONNAIRE – II

PLEASE ANSWER EACH QUESTION IN EACH GROUP.

**HOW MUCH OF EACH KIND OF OPPORTUNITY DO YOU HAVE IN YOUR PRESENT JOB?**

<table>
<thead>
<tr>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1. Challenging work</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. The chance to gain new skills and knowledge on the job.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Tasks that use all of your own skills and knowledge.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**HOW MUCH ACCESS TO INFORMATION DO YOU HAVE IN YOUR PRESENT JOB?**

<table>
<thead>
<tr>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1. The current state of the clinic.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. The values of top management.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. The goals of top management.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**HOW MUCH ACCESS TO SUPPORT DO YOU HAVE IN YOUR PRESENT JOB?**

<table>
<thead>
<tr>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1. Specific information about things you do well.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Specific comments about things you could improve.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Helpful hints or problem solving advice.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
### HOW MUCH ACCESS TO RESOURCES DO YOU HAVE IN YOUR PRESENT JOB?

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Time available to do necessary paperwork.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Time available to accomplish job requirements.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> Acquiring temporary help when needed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### IN MY WORK SETTING/JOB:

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> The rewards for innovation on the job are</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> The amount of flexibility in my job is</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> The amount of visibility of my work-related activities within the institution is</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### HOW MUCH OPPORTUNITY DO YOU HAVE FOR THESE ACTIVITIES IN YOUR PRESENT JOB?

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Collaborating on patient care with physicians.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Being sought out by peers for help with problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> Being sought out by managers for help with problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall, my current work environment empowers me to</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accomplish my work in an effective manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall, I consider my workplace to be an empowering</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANNEXURE H

PSYCHOLOGICAL EMPOWERMENT QUESTIONNAIRE
### PSYCHOLOGICAL EMPOWERMENT INSTRUMENT (PEQ)

Listed below are a number of self-orientations that people may have in regard to their work role. Using the following scale, please indicate the extent to which you agree or disagree that each one describes your self-orientation.

**Please indicate your choice with a x**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very strongly Disagree</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Very strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am confident about my ability to do my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The work that I do is important to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I have significant autonomy in determining how I do my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>My impact on what happens in my department is large.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>My job activities are personally meaningful to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I have a great deal of control over what happens in my department.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I can decide on my own how to go about doing my own work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I really care about what I do on my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>My job is well within the scope of my abilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I have considerable opportunity for independence and freedom in how I do my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I have mastered the skills necessary for my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>My opinion counts in departmental decision-making.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The work I do is meaningful to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I have significant influence over what happens in my department.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I am self-assured about my capabilities to perform my work activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I have a chance to use personal initiative in carrying out my work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INTERVIEW SCHEDULE FOR THE STUDY

FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY IN NORTH WEST PROVINCE

Date:   Interviewers name:

Interviewer Number:

PARTICIPANTS DEMOGRAPHIC DATA

Age:   Region:

Clinic:

1. IF YOU ARE INITIATING ART TELL ME ABOUT YOUR EXPERIENCES WITH INITIATING ARV.

Dialogue   Field notes

2. IF YOU ARE NOT INITIATING ART CAN YOU PLEASE EXPLAIN TO ME WHY NOT?

Dialogue   Field notes
3. TELL ME WHAT YOU THINK YOU NEED TO BE EMPOWERED FOR INITIATING AND MANAGING ANTIRETROVIRAL THERAPY (ART).

Dialogue

Field notes

4. PLEASE EXPLAIN TO ME WHAT YOU UNDERSTAND UNDER THE TERM EMPOWERMENT.

Dialogue

Field notes
ANNEXURE J

TRANSCRIBED INTERVIEW
<table>
<thead>
<tr>
<th>Line No.</th>
<th>Person</th>
<th>Dialogue</th>
<th>Field notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>Good afternoon, Madam.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>P</td>
<td>Afternoon.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>Thank you for being willing to be interviewed, uhm, you said you are trained but not initiating currently. <strong>Can you explain to me why you are not initiating?</strong></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>P</td>
<td>I am not initiating, because most of the time, I don’t get a chance the problem is it’s always busy where I am working with the chronics and the minors so when I am ready to go, there is no one who is working on this side so, because I am trying to avoid the patients staying too long in the queue, I just continue with my work where I am designated.</td>
<td>Participant is hesitant to answer</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
<td>Ok so you’re designated to chronics and that’s what you take care off and the wellness Clinic is on the other side.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>P</td>
<td>Yes, the wellness Clinic is on the other side and sometimes, if you want to go, because I have never initiated before, I must be with someone who did it before, but due to shortage of staff, sometimes some are sick or some are off, I don’t get a chance.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I</td>
<td>So after you training, you actually say, you never had a chance to work in the wellness Clinic.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>P</td>
<td>After training, I never had a chance to work at the wellness Clinic.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>Uhm, can I ask you. <strong>Did you ever request to work there?</strong></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>P</td>
<td>Yes, I have requested about four times, but due to the problems, I</td>
<td>She sounds upset about this</td>
</tr>
<tr>
<td>Line</td>
<td>Role</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I</td>
<td>identified, I didn’t get a chance.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>P</td>
<td>Ok so you actually saying, uhm, if I ask you the people working in the wellness Clinic are they primary health care trained?</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I</td>
<td>Can’t they release you?</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>P</td>
<td>Yes, two of them are primary health care trained.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I</td>
<td>It seems there is more behind this and she do not want to share this</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>P</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I</td>
<td>Ok so it’s a logistic problem that you need to work with somebody that’s initiating for a time and then when you requesting there is either not a person to release you or there is only one person that is working that side that can’t work this side.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>P</td>
<td>Most of the days, that I requested those people were not on duty, it was only one and she could not work this side, but I can’t go that side alone.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I</td>
<td>So are there other reasons, why you are not initiating, except for not being able to go there and people not that you are not in the wellness Clinic.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>P</td>
<td>No, I am interested to know more about HIV as it’s the problem that is of concern in South Africa so I am more interested in working that side.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I</td>
<td>So initially, they were part of the chronic Clinic and when they started the wellness Clinic, they took them to that Clinic.</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>P</td>
<td>So, you actually want to work with HIV patients and initiating ART.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>P</td>
<td>Yes, I do, because firstly there were down referrals, so I was ART of that, I was most of the time helping them until they we started to initiate, then went, going that side, so I couldn’t see more of them.</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I</td>
<td>Yes, they were part of chronics, because it was only done referrals</td>
<td></td>
</tr>
</tbody>
</table>
and they were on treatment and they were on treatment for more than six months so they were not more side effects or any other complications.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>23</strong></td>
<td><strong>I</strong></td>
<td>Ok Madam, can I ask you, is there a lot of challenges around NIMART, but still Nurses are continuing doing it. <strong>Why do you think Nurses are still continuing doing NIMART?</strong></td>
</tr>
<tr>
<td><strong>24</strong></td>
<td><strong>P</strong></td>
<td>Because, they want to Nurses as far as I know, are people who like to help other people and to make sure that they are in good health, so, because we have shortage of Doctors in our sub-district, we feel that we must be able to help them lower their side effects can interpret their blood results and yah, all the stuff so Nurses are always there.</td>
</tr>
<tr>
<td><strong>25</strong></td>
<td><strong>I</strong></td>
<td>Ok so if I hear you correctly, it’s about rendering the services to the patient although the Doctors are not enough to do that.</td>
</tr>
<tr>
<td><strong>26</strong></td>
<td><strong>P</strong></td>
<td>Yes, providing quality care and encouraging mostly encouraging the patients on how to take medication and the compliancy and adherence.</td>
</tr>
<tr>
<td><strong>27</strong></td>
<td><strong>I</strong></td>
<td>Ok so, you mentioned the word quality care, what’s the quality care about for you.</td>
</tr>
<tr>
<td><strong>28</strong></td>
<td><strong>P</strong></td>
<td>Being able to help the clients, having the correct equipment’s, medication, staff all that will make the patient to comply, that will make the patient to get medication on time are they loving it here for disability and accessibility.</td>
</tr>
<tr>
<td><strong>29</strong></td>
<td><strong>I</strong></td>
<td>Can you please explain to me the relationship with the Doctors, because I understand you have a Doctor visiting, who is seeing the clients? <strong>What is your relationship with this Doctor?</strong></td>
</tr>
</tbody>
</table>
It’s a very good relationship, except sometimes the Doctor don’t come, he put the patients, the Doctor is having other commitments, she is going to the courses or the meetings, then the patient will stay here until 11h00 o clock, when we call the Doctor, she will just say, I won’t be able to come, book, them for next week again, the Doctor is not here.

Ok and if you refer patients to him or her, is there a good relations a good feedback.

Definitely, if the Doctor is here, we get very good feedback everything is done accordingly.

Ok so your happy with the relationship.

I think, I need only involvement, if I can be involved, then I will see where am I lacking, what more do I need to be trained for like when coming to interpretation of results, I am not very good at that, so I think it’s the most important thing, that I need for now for the regiments. I don’t think it will be a problem, if you are involved and so on, on a weekly or daily basis, I don’t think it will be a problem.

Ok and for other Nurses not you specifically now, but other Nurses. What do you think they need to be empowered to initiate?

I think other Nurses must also go for NIMART training, so that they can be able to come and initiate also, they will know, what do I know, where do I lack, what must I
| 39 | I | Do you think there are other things that you need any other things except training? |
| 40 | P | No, I think its only involvement, if I can be fully participating, and then there is nothing else. |
| 41 | I | No, I mean the other Nurses, do you think, they need anything else except training, do you think all the other things that’s needed to initiate it’s there? |
| 42 | P | With other Nurses, I think that passion for their work, I don’t think there will be a problem, if you come to work, knowing that they joint to do 123 they are going to help people, then we won’t have a problem. |
| 43 | I | Ok please tell me. What do you understand under empowerment, what does empowerment mean for you? |
| 44 | P | I think empowerment is having skills, when you are well trained and you have self-confidence to do the job, you have a proper knowledge and you can be able to work alone, not necessarily alone, you can deal with the problem as it comes. |
| 45 | I | Ok anything else regarding that empowerment anything else. |
| 46 | P | No. |
| 47 | I | Is there anything else that you want to add regarding NIMART for Nurses, anything else that you can think of, anything else that you maybe need support in anything else that is relevant for you? |
| 48 | P | I think, if we have, we are fully |
staffed, fully equipped, everything will go smoothly, we won’t have a problem with patients, taking the patients away or telling them to come the following day, which will cause them to default and also change our attitude towards patients or change our attitudes towards HIV itself, know HIV, can happen to anyone and being affected or infected so won’t have a problem.

| 49 | I | Ok you refer to equipment, what equipment do you need to be able to do that? |
| 50 | P | Necessary, I am meaning the medication, because it is the most important thing, if you don’t have the medication and let’s say you skip for two weeks or a week, you will be having a problem. |
| 51 | I | Do you sometimes run out of medication? |
| 52 | P | We once run out of medication, but it was only for two days, we never had a problem with medication up to so far. |
| 53 | I | So the medication is there. |
| 54 | P | Yes. |
| 55 | I | Ok is there anything else you want to add, Madam? |
| 56 | P | No. |
| 57 | I | Not? |
| 58 | P | Yes. |
| 59 | I | Anything else that you think is relevant? |
| 60 | P | No. |
| 61 | I | Thank you so much for your time, thank you. |
| 62 | P | Thank you. |
ANNEXURE K

PROTOCOL TO CODER
Thank you for agreeing to assist me with the data analysis and coding of the qualitative data collected in this study.

The data you receiving include 20 interviews with professional nurses including 4 managers and pertains to the study titled: Framework to empower professional nurses for nurse initiated management of anti-retroviral therapy North West Province.

The objectives of the study are:

1. To explore and describe the concepts NIMART, task shifting structural and psychological empowerment. (Literature review)
2. To explore and describe the structural and psychological empowerment of PNS in the PHC facilities in the North West Province. (Quantitative data)
3. To explore and describe the PNS working in PHC facilities in the North West Province understanding of empowerment. (Qualitative data)
4. To explore and describe the PNS experiences of NIMART in the PHC facilities in the North West Province. (Qualitative data)
5. To explore and describe what PNS’s need to empower them for NIMART, in the PHC facilities in the North West Province. (Qualitative data)
6. To develop a framework to empower PNS for NIMART in the PHC facilities in the North West Province.
7. To evaluate the framework by peers and experts in the field of NIMART and adapt where necessary
ANNEXURE L

QUALITATIVE RESEARCH CODER REPORT
RESEARCH DATA ANALYSIS REPORT

FOR: Susan Naudé (200818354)
DATE: 6 February 2015

STUDY: FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY NORTH WEST PROVINCE

INDEPENDENT CODER: Annatjie van der Wath

Method:
Tesch’s process of coding, as described in Creswell (2009:186), was used for analysis of the qualitative data.

The six steps included the following; organisation and preparation for data for analysis, read and re-read the data to get the general idea of what is said, organising, categorising and labelling data into categories and name the categories, description of themes for analysis, presentation of the description and themes in the study and interpretation and communication of the meaning of the data.

Saturation of data was achieved related to the major themes – The researcher conducted 16 interviews with professional nurses and 4 with managers in facilities
Qualitative Data Analysis

This serves to confirm that Annatjie van der Wath has co-coded the following qualitative data: 16 interviews for the study:

FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY NORTH WEST PROVINCE

I declare that the candidate and I have reached consensus on the major themes and sub/ categories as reflected in the findings during a consensus discussion.

Annatjie van der Wath (M Cur, PhD) annavdw@mweb.co.za
ANNEXURE M

LETTER TO PEER REVIEWERS OF THE FRAMEWORK
TO

PEER REVIEWERS

RE: THE EVALUATION OF A FRAMEWORK FOR THE PHD STUDY

Title: FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY NORTH WEST PROVINCE

Dear

Thank you for agreeing to participate in the evaluation of the

Framework to empower professional nurses for nurse initiated management of anti-retroviral therapy North West Province

Included are

- Chapter 7 that describes the framework
- Tool for peer-review

The evaluation of the framework is directed by the guidelines in Chinn and Kramer (2011:197-205) and should answer the following questions; how clear is the framework, how simple is the framework, generality of the framework, how accessible is the framework and how important is the framework for practice, education and research

Thank you for your willingness to assist with the evaluation of the framework.

Susan Naude
Student number
Sefako Makgatho University
ANNEXURE N

EVALUATION OF THE FRAMEWORK TOOL
EVALUATION OF THE FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY NORTH WEST PROVINCE

Please evaluate this framework according to the criteria below:

<table>
<thead>
<tr>
<th>Aspect for reflection</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLARITY</strong></td>
<td></td>
</tr>
<tr>
<td>Semantic clarity</td>
<td>How clear are the meanings in the framework?</td>
</tr>
<tr>
<td>Semantic consistency</td>
<td>How consistent is the purpose of framework in relation to the other components?</td>
</tr>
<tr>
<td>Structural clarity</td>
<td>How understandable is the diagram representing the framework?</td>
</tr>
<tr>
<td>Structural consistency</td>
<td>Do the concepts consistently provide a structural diagram?</td>
</tr>
<tr>
<td><strong>SIMPLICITY</strong></td>
<td></td>
</tr>
<tr>
<td>Simplicity of structural components</td>
<td>Is the number of elements and concepts minimal</td>
</tr>
<tr>
<td>Simplicity of relationships in the model</td>
<td>How simple are the relationships within the framework</td>
</tr>
<tr>
<td><strong>GENERALITY</strong></td>
<td></td>
</tr>
<tr>
<td>Scope of experiences</td>
<td>How specific is the framework</td>
</tr>
<tr>
<td>Width of scope</td>
<td>Can the framework be applied to other situations</td>
</tr>
<tr>
<td>Range of the framework</td>
<td>Is the framework only applicable in limited situations</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------</td>
</tr>
</tbody>
</table>

**ACCESSIBILITY**

<table>
<thead>
<tr>
<th>Concepts grounded in empirically identified occurrences</th>
<th>Can the purpose of the framework be attained</th>
</tr>
</thead>
</table>

**IMPORTANCE**

<table>
<thead>
<tr>
<th>Importance for nursing practice</th>
<th>Does the framework create understanding for nursing?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does this framework have practical value?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research</th>
<th>Can the framework influence nursing research?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Can the framework influence nursing education?</td>
</tr>
<tr>
<td></td>
<td>Does the framework add value to nursing education?</td>
</tr>
</tbody>
</table>
ANNEXURE O

LETTER FROM LANGUAGE EDITOR
I, SE Louw, hereby declare that the thesis FRAMEWORK TO EMPOWER PROFESSIONAL NURSES FOR NURSE INITIATED MANAGEMENT OF ANTI-RETROVIRAL THERAPY NORTH WEST PROVINCE, by SM Naudé, with the exception of verbatim quotes, has been professionally language edited by me.

For any further queries, my information may be obtained through Ms Naudé or her study supervisors.

SE Louw  2017-11-24
Susanna Elizabeth Louw  Date