

Nurse educators' perceptions on the
incorporation of NIMART into an
undergraduate nursing programme in
North West Province

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ACRONYMS LIST

ART:	Antiretroviral Treatment
DoH:	Department of Health
HIV:	Human Immune Deficiency Virus
LTFU:	Lost to Follow Up
NEI:	Institution of Higher Learning
NE:	Nurse Educator
NIMART:	Nurse Initiated and Managed Antiretroviral Treatment
NWP:	North West Province
PHC:	Primary Healthcare
PLWHA:	People living with HIV/AIDS
SA:	South Africa
WHO:	World Health Organization

DEDICATION

I dedicate this study to my parents, Masello Pauline Bonokoane and Freddy Limited Bonokoane, whom, despite poverty, wished that I be educated in order for me to be a responsible member of the society.

I also dedicate this study to saving lives of all People living with HIV/AIDS through innovative research that can facilitate guidance to all Nursing Education Institutions in the world.

DECLARATION

I KS Bonokoane declare that this research study information is new, and was conducted with the assistance of my research supervisors. There has been no part of this information published in the past by other authors. There is acknowledgement of the literature used in this research study, and all sources referenced.

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ABSTRACT

Introduction and background

South Africa (SA) has the largest ART programme, which underperforms in terms of initiating People Living with HIV/AIDS (PLWHA) on Antiretroviral Treatment (ART). Lack of ART leads to high rates of morbidity and mortality among PLWHA. According to UNAIDS, the 90 90 90 strategy focuses on reaching 90% of PLWHA knowing their HIV status, 90% of those knowing their status being initiated on ART and 90% of those on ART achieving viral suppression. South Africa is underperforming in terms of the second 90%, as only 74% of PLWHA are on ART and HIV- related deaths persist. To restrain this gap, literature recommends the incorporation of a Nurse Initiated and Managed Antiretroviral Treatment (NIMART) course in the undergraduate nursing programme, to capacitate new nurses to manage PLWHA immediately after completion of their training. However, the NIMART course is still not incorporated and there is a dearth information about this topic in the North West Province (NWP).

Aim: The aim of this study was to explore and describe Nurse Educator's (NE) perceptions regarding the incorporation of the NIMART course within the undergraduate nursing programme in NWP.

Methods: There was a phenomenography qualitative research design followed. The use of a virtual platform was to recruit and interview nurse educators in this study. The study maintained trustworthiness and ethical principles throughout.

Results: Four themes emerged in this study namely: Incorporation of NIMART course into the undergraduate programme is a good idea; NIMART course to be a module on its own; Challenges experienced without the NIMART course; Challenges, which might hinder NIMART incorporation into the undergraduate nursing programme.

Conclusions: This study concluded that the incorporation of NIMART course at undergraduate nursing programme is a good idea that required stakeholder collaboration and non-human resources.

Key words: Course; Incorporation; NIMART; Nurse Educator, Perception

SECTION A: OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Nurse initiated and managed Antiretroviral Treatment (NIMART) is a five days post basic course offered to registered professional nurses as a recommendation from the World Health Organization, as a task shifting strategy to include the responsibility of enrolling people living with HIV (PLWHA) on Antiretroviral treatment (ART) to nurses (NDoH,2016:6). Since 2004, the responsibility of initiating PLWHA on ART was with doctors, as they were the only ones receiving training to manage PLWHA (NDoH, 2016:11). However, research which was conducted highlighted the effectiveness of NIMART when offered to student nurses during their undergraduate nursing programme , as they continue to manage these patients and reduce the waiting periods as there is shortage of doctors in some areas in the province (Mngqibisa *et al.* , 2017:156). Therefore, this study focuses on nurse educators' perceptions regarding incorporation of the NIMART course within the undergraduate nursing programme in North West Province, as they are responsible to review the undergraduate nursing programme curriculum.

This section outlined the background, problem statement, study objectives, significance of the study and synopsis of research methodology, trustworthiness and ethical considerations.

1.2 BACKGROUND OF THE STUDY

Globally, Human Immunodeficiency Virus (HIV) leads to high rates of mortality among infected people (UNAIDS, 2022:1). According to the United Nations on HIV/AIDS UNAIDS (2022:1) global statistics; 38.4 million people were living with HIV by the end of the year 2021, while 28.7 million were accessing Antiretroviral treatment (ARV). Although 28.7 million people are accessing ARVs, an estimated 9.4 million are not accessing ARVs, there are newly infected people with HIV and increasing mortality compared to 2017 statics report (UNAIDS, 2022:4). According to UNAIDS (2022:4), by the end of 2021, 1.5 million people became newly infected with HIV and 650 000 people died from acquired immune deficiency illnesses. Human Immunodeficiency Virus (HIV) is a global pandemic that affects any age group. From the above statistics, 36.7 million people living with HIV (PLWHA) are adults and 1.7 million PLWHA are children aged less than 15 years (UNAIDS, 2022:1).

According to UNAIDS (2022:5), the Middle East and North Africa have the lowest statistics of PLWHA compared to Western and Central Europe and North America. Despite these low numbers of PLWHA in Middle East and North Africa, their initiation rate of PLWHA on ART is poor compared to the other mentioned regions. Inevitably, by the end of 2018, the Eastern and Southern Africa regions were the leading regions, globally, contributing to increased number of

PLWHA, as there were 20.6 million PLWHA, and only 16.2 million people accessing ART UNAIDS (2022:5). The total number of deaths from Eastern and Southern Africa regions was an estimated 280 000 deaths reported by the end of 2021, due to poor linkage of PLWHA on ART (UNAIDS, 2022:5).

In South Africa (SA), the World Health Organization's (WHO) demographic and socioeconomic data, in line with the 90- 90- 90 progress report, indicated 94% (7 032 814) of PLWHA knew their status and 74% (5 549 989) of PLWHA were accessing ART, while 67% (5 052 165) of PLWHA were virally suppressed (WHO, 2022:1). It is evident from the cited statistics that without initiating all PLWHA on ART, the viral suppression indicator becomes adversely affected. Furthermore, data suggests that SA has an estimate of 1 482 825 people not accessing ART, and these people are in danger of morbidity and mortality (WHO, 2022:1). Based on the global statistics described, the majority of regions worldwide do not reach 100% ART coverage among PLWHA and consequently, increase their risk to morbidity and mortality (UNAIDS, 2022:5). Among other studies, Weiser *et al.* (2017:2) identified healthcare providers as barriers to the initiation of ART amongst PLWHA, since 29% of healthcare providers are incompetent in the following of ART guidelines and therefore delay ART among PLWHA.

In responding to the HIV/AIDS pandemic, WHO (2016:3) recommended the "treat all" approach. The "treat all" approach means that all PLWHA must access ART, in order to bring many countries one-step closer to ending the HIV pandemic. In addition, all people accessing ART will stay alive and healthy, and the HIV transmission will reduce once the "treat all" recommendations are adhered to (WHO, 2016:3). Following WHO recommendations, many countries, including British Columbia (BC-CfE, 2019:4) and European countries (EUACS, 2019:9), adopted the use of ARV therapy, the CD4 cell count and the HIV-1 RNA viral load test to monitor PLWHA on ART. Subsequently, Sub Saharan Africa, Ethiopia (Federal Ministry of Health, 2017:58), Kenya (Ministry of Health, 2018:47), and South Africa (NDoH, 2019:15) adopted the WHO recommendation to ART and CD4 count and HIV-1RNA viral load to monitor PLWHA.

To expand access to ART among PLWHA, Nurse Initiated and Managed Antiretroviral Treatment (NIMART) course implementation took place in all levels of the healthcare system in the majority of African countries, as a complement to the task shifting strategy recommended by the World Health Organization (Zuber *et al.* , 2014:10). The purpose of the NIMART course was to incorporate registered professional nurses, preferably those with Primary Healthcare (PHC) qualification, to scale up ART among PLWHA, as doctors only (NDoH, 2016:6) previously performed the responsibility of initiating PLWHA. The implementation of the NIMART course also aimed to reduce the high burden of the hospital system with PLWHA and for those patients who have to travel long distances to the hospital, since there will be increased access to ART services

and the addressing of the shortage of healthcare workers by empowering nurses to work at HIV points after they are NIMART trained (NDoH, 2016:7).

In South Africa (SA), Primary Healthcare (PHC) nurses are healthcare professionals with an additional diploma in clinical nursing, health assessment, treatment and care, and registered with the South African Nursing Council (SANC), in accordance with regulation R48, as legal practitioners to prevent, diagnose and treat illnesses in all patients at primary healthcare facilities (SANC 2005:1). Following the former President Jacob Zuma's announcement on World AIDS Day on 1 December 2009, nurses trained on NIMART in SA were expected to initiate ART on PLWHA in order to expand access to ART services (Cameron *et al.* , 2012:98). However, the NIMART course provided to PHC nurses still faces challenges (NDoH, 2016:11). During that period, only 711 PHC nurses were NIMART competent in KwaZulu Natal Province and other PHC nurses from other provinces were not NIMART trained (NDoH, 2016:11). Due to the shortage of PHC nurses, the NIMART course became inclusive of all professional nurses licenced to prescribe and dispense other medicines as a strategy to curb the gap in the healthcare system (NDoH, 2016:6). Zubert *et al.* (2014:10) reported that countries implementing NIMART include Botswana, Ethiopia, Kenya, Malawi, Mozambique, Uganda and Zambia (Zuber *et al.* , 2014:1). In addition, South Africa (SA) introduced the NIMART course in 2010 in order to expand access to ART among PLWHA (NDoH, 2016:6).

Irrespective of the introduction of the NIMART course, there is a shortage of nurses trained, which exacerbate poor provision of HIV services to PLWHA, and acts as a barrier to initiate ART (Cameron *et al.* , 2012:98). According to Jones and Cameron (2017:841), one of the exacerbating factors leading to shortage of NIMART trained nurses is the intensity of the workload entailed in the course. NIMART mentees are required to fulfil mentoring sessions with a mentor and complete 80 cases on their Portfolio of Evidence (POE). Due to this requirements within a three months period including increased workload at clinics, only 13% of nurses completed their Portfolio of Evidence (POE) and 8% received a certificate after NIMART training (Jones and Cameron 2017:841). Visser *et al.* (2018: 4) reported that although NIMART trained nurses become adherent to prescribed guidelines when managing patients on ART, they experience increased workload at primary health care facilities that provide HIV care therefore leading to compromised care to PLWHA. According to Visser *et al.* (2018:5), addressing the shortage of NIMART trained nurses will lead to improved service delivery among PLWHA.

A study conducted by Mngqibisa *et al.* (2017:156) investigated if there was a difference in individual academic level characteristics when offered the NIMART course and found that, student nurses and post basic nursing students have low baseline knowledge regarding NIMART, but this improves after attending the course. Similarly, new graduate nurses, according to Modeste and Adejumo (2015:80) also have limited knowledge of managing PLWHA, which includes medication

side effects, pathophysiology of HIV and interpretation of blood results among others. However, if awarded an opportunity to undergo training, student nurses displayed the necessary knowledge in Managing PLWHA (Mngqibisa *et al.* , 2017:156). Furthermore, a survey study conducted in 15 countries by Zuber *et al.* (2014:11) recommended pre-service training of NIMART at undergraduate level as it will be a great, cost effective strategy that could help in implementing NIMART and support the task shifting strategy recommended by the World Health Organization (WHO). Naidoo *et al.* (2017:9) concur with Zuber *et al.* (2014:11) in that the experiences of undergraduate nursing students who have completed a four-year HIV integrated curriculum throughout the training were positive and they demonstrate confidence and improved knowledge in managing PLWHA. Studies conducted indicate that the NIMART course is effective when offered to student nurses and does not depend on student academic level characteristics (Mngqibisa *et al.* , 2017:156 & Zuber *et al.* , 2014:11).

Nurse Initiated and Managed Antiretroviral Treatment course is only offered to professional nurses and PHC nurses in SA, thus nursing students complete their undergraduate programme without basic knowledge on how to initiate PLWHA on ART. As a result, new graduate nurses often lack competencies for managing PLWHA on ART on completion of their current nursing education curriculum (Modeste & Adejumo, 2015:346). Although there is existing evidence supporting the effectiveness of NIMART and HIV-based curriculum, in that it can enhance students' knowledge to manage PLWHA (Mngqibisa *et al.* , 2017:156 and Naidoo *et al.* , 2017:9), the current undergraduate student nurse's programme still does not include the NIMART course (Lekhuleni *et al.* , 2015:55). According to Warren *et al.* (2018:119), without HIV integrated curriculum being offered to students, they will possess little knowledge in basic HIV screening, prevention and management.

The expectation is that nurse educators in South Africa will participate in curriculum development and review based on the programme outcomes for undergraduate student nurses (SANC, 2014:2). For this reason, the researcher explored and described the perceptions of the Nurse Educators (NE) regarding incorporation of Nurse Initiated Management of Antiretroviral Treatment (NIMART) course within the undergraduate nursing programme in the North West Province (NWP) to expand HIV services to PLWHA.

1.3 PROBLEM STATEMENT

Determinations to roll out the NIMART course to PHC nurses and subsequently to all professional nurses, as a strategy to curb ART initiation gap in SA (NDoH, 2016:6) have been prominent, however, there are still 1 482 825 people not accessing Antiretroviral Treatment (ART), which is a high number that may lead to high morbidity and mortality (WHO, 2022:1). According to Cameron *et al.*, (2012:98), the shortage of NIMART trained nurses is one of the reasons that

aggravates the provision of healthcare service delivery and acts as a barrier to initiate ART among PLWHA. Despite, Mngqibisa et al. (2017:156) Modeste and Adejumo (2015:346), Naidoo et al. (2017:9) and Lekhuleni et al. (2015:55) highlighting the effectiveness of the NIMART course and HIV-based curriculum towards the competencies and knowledge of student nurses in managing PLWHA during their undergraduate nursing programme, the NIMART course is still not offered within the undergraduate nursing programme. Consequently, student nurses complete their undergraduate nursing programme without knowledge and skills to manage PLWHA and this exacerbates the shortage of NIMART trained nurses at local clinics. Additionally, there is a dearth of information pertaining to NIMART course inclusion within undergraduate nursing programmes in NWP. Based on these assertions, the researcher explored and described nurse educator's perceptions regarding incorporation of NIMART in the undergraduate nursing programme within Nursing Education Institutions (NEI) in NWP, since they play a role in curriculum development and review (SANC, 2014:2).

1.4 CONCEPTUAL DEFINITIONS

1.4.1 Nurse educator

The SANC (2014:1) defines a nurse educator as a professional nurse with an additional qualification in nursing education, registered with SANC. In this study, a nurse educator is a professional nurse with an additional qualification in nursing education, registered with SANC ,employed in an institution of higher learning to train student nurses and may or may not be on NIMART course .

NDoH (2016:6) refers to Nurse Initiated and Managed Antiretroviral Treatment (NIMART) as a five-day training course, followed by six months of mentoring, introduced to scale up professional nurses with a role of treating PLWHA. In this study, NIMART refers to a HIV course offered to professional nurses at primary healthcare institutions.

1.4.2 Course

A course is a series of projects, the combined objectives of which contribute to a common overall objective of the institution sector or country level (Mokoka & Mothiba, 2013: 3). In this study, a course refers to combined planned activities of an institution of higher learning in rolling out nursing education such as NIMART to the nursing student; this includes the institution of higher learning undergraduate programme.

1.4.3 Incorporation

Cambridge University's press online dictionary (2020:1), defines incorporation as the act of including something as part of something larger. In the context of this study, incorporation refers to inclusion of NIMART course within an existing undergraduate nursing programme.

1.5 RESEARCH QUESTION

What are the perceptions of Nurse Educators regarding incorporation of Nurse Initiated and Managed Antiretroviral Treatment within the undergraduate nursing course in North West Province?

1.6 RESEARCH AIM AND OBJECTIVES

1.6.1 Research aim

The aim of the paper was to explore and describe nurse educator's perceptions regarding the incorporation of Nurse Initiated and Managed Antiretroviral Treatment course within the undergraduate nursing programme in North West Province, to come up with new information.

1.6.2 Research objective

To explore and describe nurse educators' perception regarding the incorporation of Nurse Initiated and Managed Antiretroviral Treatment course within the undergraduate nursing programme, North West Province.

1.7 STUDY DESIGN

According to Bryman and Bell (2014:382), research design is a framework for the collection and analysis of data and reflects priority given to a range of dimensions of the research process. Conversely, Polit and Beck (2017:1300) define research design as an overall plan to address the research question and specifications for enhancing the study integrity. The advantage of using research designs in health science research is that they assist the researcher to gain access to participants, to comply with the ethics, and to collect and analyse data (Brink et al. , 2018:104). In this study, the use of a phenomenography qualitative research design was to answer the research question, which ultimately fulfilled the overall study aim and objectives.

Phenomenography research design

Phenomenography is a qualitative research design that explores different ways people perceive experience, conceptualise and understand phenomenon in their world by using descriptive data (Rands and Gansemer-Topf, 2016:1). Phenomenography was developed around 1970 from an

educational framework, to improve learning outcomes of individuals after understating different ways they perceive, conceptualise and experience learning, thereby designing assessment tools for evaluating programmes or interventions in education to ultimately modify and address student learning (Rands & Gansemer-Topf, 2016:1). The use of phenomenography in this study was because it accommodates issues affecting the education framework and assists in exploring and describing nurse educators' perceptions regarding incorporation of the NIMART course in an undergraduate nursing programme, which leads to registration with SANC as a professional nurse.

1.8 RESEARCH METHOD

Research methodology refers to procedures that postulate how the researcher must study that necessary to acquire new knowledge (Botma *et al.* , 2016:41). According to Bryman and Bell (2017: 383), research methods denote technique used for collecting data. Moreover, qualitative research methods refers to a broad range of research designs used to study phenomena (Brick *et al.* , 2018:104), and this method is used in situations where little is known about a topic or the situation is poorly understood (Botma *et al.* , 2016:182). Research methods involve one or more instruments to collect data, such as focus group interviews, surveys, interview schedules and interpretation of documents (Bryman and Bell, 2014:383). The goal of qualitative research is to understand rather than predict (Brick, 2018:104). This study used a qualitative research method because it is a unique method that emphasises rather than quantify words in the collection and analysis of data. The advantages of using a qualitative research method is that it is flexible and capable of adjusting new information during the process of data collection and ultimately assist in decision making (Polit and Beck, 2017:819). Furthermore, qualitative research methods assisted the researcher to understand the meaning individuals or groups attributed to a society or human practice (Creswell, 2014:32), when exploring and describing nurse educator's perceptions regarding incorporation of the NIMART course within the undergraduate nursing programme, which leads to registration with SANC as a professional nurse.

1.8.1 Study context

Study context or setting refers to the physical location and conditions in which data collection takes place (Polit and Beck, 2017:1304). According to Creswell (2014:234), qualitative research is a method that tends to collect data in a natural setting, where participants experience issues in order to get in-depth descriptions about the phenomena. The setting of this study was the NEI offering undergraduate nursing programmes in North West Province. The selection of nursing education institutions was because that is where nurse educators are situated and participate in the development and design of the undergraduate nursing programmes curriculum. Furthermore, there is a dearth of research about this phenomenon within the NEI in North West Province. The

NEI in which this study was conducted, comprised of a university and a nursing college. The university has three sub campuses, two of which are in Potchefstroom and Mafikeng in the North West Province (NWP), considered because they offer nursing education training. The multi-campus university has an approximate intake of 72 994 students, and part of that is 6473 students from Faculty of Health Sciences (NWU, 2021), which includes approximately 447 nursing students. The one university campus is 203.6 kilometres away from the other campuses, in a different district of the NWP. One of the faculties within the university is Health Sciences, in which is based the School of Nursing. The School of Nursing has approximately 35 nurse educators responsible for the teaching and training of undergraduate nursing students.

The nursing college, conversely, has two campuses, managed by one principal and two campus heads for each. The approximate intake for the nursing college is 90 students a year and approximately 911 students across study levels, as outlined by the college Admissions department. According to the two college administrators, there are approximately 58 nurse educators in the two colleges.

1.8.2 Population and sampling

1.8.2.1 Population

According to Polit and Beck (2017:249), population is the total combination of cases in which the researcher is interested. The population of this study was nurse educators, with additional qualifications in nursing education, and full time employees of the NEI offering nursing education and training.

1.8.2.2 Sampling

According to Polit and Beck (2017:484), sampling is a process of selecting a portion of a population, which is comprehensive of cases for the study. The advantage of the sampling process is that it ensures that resources and time are manageable when collecting data to limit constraints (Gerrish & Lethlean, 2015:173). In this study, non-probability sampling, was utilised to select participants.

1.8.2.2 Sampling technique

Sampling technique is a formal plan specifying a sample method, sample size and procedure for recruiting study participants (Polit & Beck, 2017:1302). In this study, the researcher utilised purposive sampling to select nurse educators at the respective NEI. Nurse educators in this study were selected, because they are knowledgeable and have rich information regarding the incorporation of the NIMART course within the undergraduate nursing programme.

1.8.2.3 Sampling size

In this study, sample size was determined by data saturation, when no new information was revealed after twelve participants being interviewed (Creswell, 2014:296).

1.8.2.3.1 Inclusion criteria

The study included nurse educators registered with the South African Nursing Council (SANC) and employed within an accredited NEI. One of the responsibilities of the nurse educators was facilitation of teaching and learning of student nurses. Nurse educators selected, included those who had an additional qualification in nursing education and were full time employees of the accredited NEI.

1.8.2.3.2 Exclusion criteria

Excluded, were nurses working at a NEI who did not possess an additional qualification in nursing education. Justification for this exclusion was that SANC does not recognise nurses who do not possess an additional qualification in nursing education as members to practise nursing education.

1.9 RECRUITMENT OF PARTICIPANTS

The study recruited nurse educators from two selected NEIs in North West Province. In this study, the gatekeepers were the directors of the School of Nursing within the university and the campus head of the selected nursing college. The researcher wrote a letter to the university and the college requesting the gatekeeper's access to the nurse educators. According to Singh and Wassenaar (2016:42), a gatekeeper is someone who controls access into the organisational space, information and personnel. There were two preceptors identified to act as mediators on each campus of the university, while at the nursing colleges one newly appointed lecturer served the purpose of the mediator role. The researcher shared the recruitment material with the mediators using Zoom application, 30 days in advance, to allow the recruitment of more participants. The mediators were also orientated on the nature of the study, with the recruitment material (Annexure C) placed on the noticeboards of main entrances for all the nurse educators to see. The researcher also requested the school director and campus heads to announce the researcher's interview request during staff meetings. The prospective participants had seven days to make a decision to participate in the study following receipt of the informed consent. The researcher's contact numbers were included in the recruitment material for nurse educators in case they needed the researcher to clarify any questions. The nurse educators interested in the study consulted the independent persons, who in this study were the secretaries of the selected NEIs. The secretaries firstly contacted the researcher to make appointments with individual

participants. Following recruitment, the researcher obtained the informed consent from nurse educators, signed online through use of Zoom application in the absence of the researcher. The researcher then verified the informed consent before proceeding with data collected.

1.10 PROCESS OF OBTAINING INFORMED CONSENT

The researcher explained the study's objectives, the nature, and any other information to the participants using simplified English. The researcher answered clarity-seeking questions from participants for better understanding before participating in this study. Nurse educators were aware that participating in the study was voluntary and that there was no coercion to take part. The participants had the study's approval letter, from the Health Research Ethics Committee (HREC) of the North West University, presented to them to guarantee the conducting of the study would be on stipulated principles and guidelines of the research committee, such as maintaining their safety, confidentiality and respect throughout the study, among others. Additionally, there was an explanation of the expectation of nurse educators during participation on the study (Annexure A and Annexure C). The researcher was solely responsible for explaining and obtaining informed consent from 12 participants using the tool in Annexure A.

1.11 DATA COLLECTION

Creswell (2014:239) describes data collection in qualitative research as a process that involves collection of information through unstructured or semi-structured interviews, observation, document analysis or use of audio-visual materials. In this study, the researcher collected data using unstructured individual interviews, making use of open-ended questions. According to Polit and Beck (2017:495), open-ended questions allow people to answer questions in their own words in a narrative fashion. In this study, audio-visual platforms, such as zoom application for data collection, was to comply with COVID-19 regulations as stipulated in NEI guidelines, to limit the spread of Corona virus infections (NWU, 2020:5). Before the interview began, participants met in a private room or their office with a sign on the door indicating 'Do not disturb' to limit interruptions during the interview session. There had to be a seat and table within the private room or office for comfort throughout the interview, as well as their laptop or smartphone device readily connected to the internet prior to the interview. Additionally, participants had the option of choosing where and when they would prefer to join the virtual interview within the period of June and July 2022.

1.11.1 Data collection tool

The researcher used an interview guide as a tool for data collection. According to Menzies *et al.* (2016:125), an interview guide refers to a list of questions the researcher uses during an interview. The advantage of an interview guide is that it helps the researcher focus and organise a great line of thinking and questioning during data collection (Menzies *et al.* , 2016:125). In this study,

the conducting of the unstructured individual interviews were with one central open-ended research question, reviewed by experienced research supervisors. In addition, the researcher also used three additional questions for probing and seeking clarity from participants (See data collection tool attached in Annexure A).

1.11.1.1 Development of data collection tool

The researcher developed an interview guide consisting of questions used to probe for further information from the participants. Open-ended questions were used to stimulate and enable the participants to describe their perceptions regarding incorporation of the NIMART course at an undergraduate nursing programme (See Annexure A).

1.11.1.2 Data collection process

The researcher used unstructured individual interviews to collect data. Bryman and Bell (2014:225) explain unstructured interviews as a brief set of prompts to deal with a range of topics that need follow-ups from the interviewee while addressing just one research question. In this study, the research question was “*What are your perceptions regarding incorporation of NIMART course into an undergraduate nursing programme?*” The advantage of unstructured interviews is that participants can respond freely to the research question and prompts (Bryman & Bell, 2014:225). There was a further probe into the questions from the interview guide. The recording of the interview was through use of a Zoom virtual application, with permission from the participants. The researcher also took field notes to record key messages and non-verbal communication displayed by the participants, including how they expressed their emotions throughout the interview session. COVID-19 Standard Operating Procedures at NEI explain the responsibilities of staff, students and visitors, which include maintaining social distancing of at least 1.5 meters apart (NWU, 2020:4), hence this study used a virtual platform for data collection.

1.12 DATA ANALYSIS

Data analysis used Clarke and Brown’s six-phase guide of thematic analysis, which is a useful framework. According to Maguira and Delahunt (2017:1), there are six steps for conducting thematic data analysis as described in Clarke and Brown’s six-phase guide.

The application of the six steps was as follows:

- Step 1: The researcher will firstly become familiar with data. In this study, the researcher repeatedly read the transcribed data about perceptions of nurse educators.
- Step 2: The researcher will generate initial codes of data. This means the researcher reduced the transcribed data into small chunks, which focused on answering the research. Small codes were generated along with the co-coder.

- Step 3: The researcher searches for themes. In this study, the researcher searched for patterns of data that captured something interesting and significant about the research question. Afterwards, the researcher examined the codes generated in Step 2 and tailored them into themes after agreeing and consulting with the co-coder.
- Step 4: There is the review of themes. The researcher in this step reviewed, modified and developed primary themes from those searched in Step 2 to check if they made sense and whether the transcribed data supported them. At this stage, the researcher gathered the data relevant to each theme to verify if there was support. Member checking with participants occurred the day after interviews by discussing verbatim-transcribed data.
- Step 5: The researcher defines. In this study, the researcher defined themes by doing final refinements of the themes and developed applicable sub-themes, including how the sub-themes related to the main themes.
- Step 6: The researcher compiles the findings. The researcher found the thematic data analysis was a suitable analysis technique to analyse perceptions of nurse educators regarding incorporation of NIMART in an undergraduate nursing course.

1.13 TRUSTWORTHINESS

This study is trustworthy because it adhered to the five indicators for assessing trustworthiness in a qualitative study, based on Lincoln and Guba's framework of 1985, namely Credibility, transferability, dependability and confirmability and authenticity (Polit & Beck et. al., 2018:110).

1.13.1 Credibility

In qualitative research, credibility relates to internal validity, whereby the researcher determines if the study findings and conclusion represents true reality of participants and assesses the extent to which categories represent human experiences that occurred (Polit & Beck et al., 2017:110). This includes the researcher taking findings to participants for confirmation, congruence, validation and approval (Kumar, 2011:333). To establish credibility of the study findings, the researcher applied prolonged engagement strategy (Polit & Beck, 2017:986). Through prolonged engagement, the researcher invested enough time during data collection in order to follow up on unclear participant's statements through use of probing questions, to get better understanding of the participants meaning. Additionally, the researcher recorded the interviews through use of Zoom visual application to check for relevance and congruence in the transcribed data, so that the data truly represented the participants' voices. There was member checking used, whereby the researcher gave feedback to participants to check if the researcher's interpretation represented their reality, and to clear any errors.

1.13.2 Dependability

Polit and Beck (2017:982) describe dependability as the stability of data over time and condition. Dependability requires a peer to conduct an audit of the researcher's findings by following the same research procedures and determine if the results are acceptable and dependable (Brink et al. , 2018:111). Similarly, Kumar (2011:334) explains that dependability is concerned with whether other researchers should conduct similar study, using the same processes and place, and find similar results, which are dependable. In this study, the achieving of dependability was through sharing research procedures used during data collection and interpretation to the external auditors, which was the research co-coder. Additionally, the entire transcribed data and virtual records containing participant's voices was made available to the research co-coder so that they could verify and determine there was no data missing, or the researcher was not misguided, and finally determine if the findings were acceptable and consistent.

1.13.3 Transferability

Transferability refers to the degree to which the results of qualitative research can be generalised and transferred to other settings (Kumar, 2011:349). Similarly, Polit and Beck (2017:983) explain transferability as the extent to which there can be a transfer of the study findings, or they are applicable in other groups or settings. In qualitative research, the researcher only gives a "thick descriptions" which is sufficient descriptive data so that the consumer can determine if the study findings are applicable in their settings (Polit and Beck (2017:983). In order to ensure transferability of the findings, the researcher only provided thick descriptions so that someone else could determine if the findings were applicable to their context (Brink et al. 2018:111).

1.13.4 Confirmability

Confirmability in qualitative research refers to a determination to warrant that the study findings, conclusion and recommendation have the support of real data (Brink, 2018:111). According to Kumar (2011:332), confirmability refers to the degree to which results obtained through qualitative research are confirmable, which is similar to reliability in quantitative research (Kumar, 2011:332). In this study, the achieving of confirmability was by submitting transcribed information and audio recordings to the study's research supervisors and co-coder, as this assisted in the verification of the paper findings.

1.13.5 Authenticity

According to Polit and Beck (2017: 983), authenticity is the extent to which the researcher shows a range of realities, which include the feelings and tone of participants' lives as they are lived. A text has authenticity when it invites readers to an imagination through feelings about the experience of other person's life being described and develops a more intense sensitivity and understanding for the reader regarding the issues being described (Polit & Beck, 2017:983). In

this study, the achieving of authenticity was by transcribing everything the participants shared, including field notes, which contained participant's emotions and behavioural change throughout the interview. During data interpretation, participants' emotions were included to give the reader more insight and understanding about the information shared.

1.14 ETHICAL CONSIDERATIONS

According to the NDoH (2015:02), ethics in health research ensures the conducting of the research is justified, with the highest ethical norms and standards, and tailored with appropriate human needs in South Africa. In this study, there were Health Research Ethics Committee (HREC) guidelines from North West University applied for, and complied with to ascertain that the researcher took into consideration respect, equity, informed consent, confidentiality non-maleficence, including all other related principles, throughout the study. North West University (HREC) approved this study with reference number: NWU-00297-21-S1. There were goodwill permissions also acquired from all NEI and Department of Health.

1.15 DIVISION OF SECTIONS

SECTION A: Overview of the study

SECTION B: Incorporation of the NIMART course within the undergraduate nursing programme: Nurse Educators' perceptions, North West Province (Health SA Gesondheid Journal)

SECTION C: Conclusion, limitations, and recommendations

1.16 CONCLUSION

Section 1 provided an overview of the study, which included the study background, problem statement, purpose, population, sampling and as well as a brief methodology. Additionally, Section 1 also discussed trustworthiness measures and ethical considerations. The next section is the manuscript.

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SECTION B (MANUSCRIPT GUIDELINE)

Submission status	open
Word limit	7000 words (<u>excluding</u> the abstract, tables, figures, graphs, and references)
Abstract	maximum: 250 words requires structural headings: Background, Aim, Setting, Methods, Results, Conclusion and Contribution
Main text	requires structural headings, refer to the full structure 'Ethical considerations' is a sub-section in the manuscript and must include: <ul style="list-style-type: none"> • Name of the ethical review committee • Study approval number • Manner of consent (written, oral) for human participants • Description of measures taken to maintain the confidentiality of data • If the study was not human or animal research or the study was determined to be non-human subjects research or exempt, the authors must provide a statement with those details in this section.
References	40 or less, adhere to the Harvard referencing style
Tables, figures and graphs	7 or less, adhere to the Illustrations requirements found in the AOSIS House style guide
Formatting requirements	apply the guidelines located on the Formatting requirements page and the AOSIS house style guide
Compulsory supplementary file(s)	the Authorship, disclosure statements, copyright, and license agreement form, Ethical Clearance/Waiver Documentation and any other relevant form applicable to your submission
Ethical clearance/waiver documentation	evidence of ethical clearance for the study, such as the study approval letter or certificate from the Institutional Review Board (IRB), a waiver from the IRB et cetera

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Original Research Article full structure

Title: The article's full title should contain a maximum of 95 characters (including spaces).

Abstract: The abstract, written in English, should be no longer than 250 words and must be written in the past tense. The abstract should give a succinct account of the objectives, methods, results and significance of the matter. The structured abstract for an Original Research article should consist of seven paragraphs labelled Background, Aim, Setting, Methods, Results, Conclusion and Contribution.

- **Background:** Summarise the social value (importance, relevance) and scientific value (knowledge gap) that your study addresses.
- **Aim:** State the overall aim of the study.
- **Setting:** State the setting for the study.
- **Methods:** Clearly express the basic design of the study, and name or briefly describe the methods used without going into excessive detail.
- **Results:** State the main findings.
- **Conclusion:** State your conclusion and any key implications or recommendations.
- **Contribution:** Concise statement of the primary contribution of your manuscript.

Do not cite references and do not use abbreviations excessively in the abstract.

Introduction: The introduction must contain your argument for the social and scientific value of the study, as well as the aim and objectives:

- **Social value:** The first part of the introduction should make a clear and logical argument for the importance or relevance of the study. Your argument should be supported by the use of evidence from the literature.
- **Scientific value:** The second part of the introduction should make a clear and logical argument for the originality of the study. This should include a summary of what is already known about the research question or specific topic and should clarify the knowledge gap that this study will address. Your argument should be supported by the use of evidence from the literature.
- **Conceptual framework:** In some research articles it will also be important to describe the underlying theoretical basis for the research and how these theories are linked together in a conceptual framework. The theoretical evidence used to construct the conceptual framework should be referenced from the literature.
- **Aim and objectives:** The introduction should conclude with a clear summary of the aim and objectives of this study.

Research methods and design: This must address the following:

- **Study design:** An outline of the type of study design.
- **Setting:** A description of the setting for the study; for example, the type of community from which the participants came or the nature of the health system and services in which the study is conducted.
- **Study population and sampling strategy:** Describe the study population and any inclusion or exclusion criteria. Describe the intended sample size and your sample size calculation or justification. Describe the sampling strategy used. Describe in practical terms how this was implemented.
- **Intervention (if appropriate):** If there were intervention and comparison groups, describe the intervention in detail and what happened to the comparison groups.

- **Data collection:** Define the data collection tools that were used and their validity. Describe in practical terms how data were collected and any key issues involved, e.g. language barriers.
- **Data analysis:** Describe how data were captured, checked and cleaned. Describe the analysis process, for example, the statistical tests used or steps followed in qualitative data analysis.
- **Ethical considerations:** Approval must have been obtained for all studies from the author's institution or other relevant ethics committee and the institution's name and permit numbers should be stated here.

Results: Present the results of your study in a logical sequence that addresses the aim and objectives of your study. Use tables and figures as required to present your findings. Use quotations as required to establish your interpretation of qualitative data. All units should conform to the **SI convention** and be abbreviated accordingly. Metric units and their international symbols are used throughout, as is the decimal point (not the decimal comma).

[For Qualitative Research - Measures of Trustworthiness]

Measures of Trustworthiness: This refers to the findings of the study being based on the discovery of human experience as it was experienced and observed by the participants. The following are the criteria of trustworthiness, credibility, transferability, dependability and confirmability to be discussed.

[For Quantitative Research - Reliability and Validity]

Reliability: Reliability is the extent to which an experiment, test, or any measuring procedure yields the same result with repeated trials. Without the agreement of independent observers able to replicate research procedures or the ability to use research tools and procedures that yield consistent measurements, researchers would be unable to satisfactorily draw conclusions, formulate theories or make claims about the ability to generalise their research.

Validity: Validity refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. While reliability is concerned with the accuracy of the actual measuring instrument or procedure, validity is concerned with the study's success at measuring what the researchers set out to measure. Researchers should be concerned with both external and internal validity. External validity refers to the extent to which the results of a study are generalisable or transferable. Internal validity refers to:

- The rigor with which the study was conducted (e.g. the study's design, the care taken to conduct measurements and decisions concerning what was and was not measured).
- The extent to which the designers of a study have taken into account alternative explanations for any causal relationships they explore.

Discussion: The discussion section should address the following four elements:

- Key findings: Summarise the key findings without reiterating details of the results.
- Discussion of key findings: Explain how the key findings relate to previous research or to existing knowledge, practice or policy.
- Strengths and limitations: Describe the strengths and limitations of your methods and what the reader should take into account when interpreting your results.
- Implications or recommendations: State the implications of your study or recommendations for future research (questions that remain unanswered), policy or practice. Make sure that the recommendations flow directly from your findings.

Conclusion: Provide a brief conclusion that summarises the results and their meaning or significance in relation to each objective of the study.

Acknowledgements: Those who contributed to the work but do not meet our authorship criteria should be listed in the Acknowledgments with a description of the contribution. Authors are responsible for ensuring that anyone named in the Acknowledgments agrees to be named. Refer to the acknowledgement structure guide on our *Formatting Requirements* page.

Also provide the following, each under their own heading:

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SECTION B (MANUSCRIPT)

Title: Incorporation of the NIMART course within the undergraduate nursing programme: Nurse Educators' perceptions in North West Province

Abstract

Background: According to the 90-90-90 strategy, the focus is on 90% of People Living with HIV (PLWHA) knowing their HIV status, initiated on Antiretroviral Treatment (ART), and achieving viral suppression. The challenge is that only 74% of PLWHA are on ART, and HIV mortality still occurs. Literature recommends the incorporation of a Nurse Initiated Managed Antiretroviral Treatment (NIMART) course in undergraduate nursing programme to capacitate new nurses to manage PLWHA immediately after completion of their training. However, the NIMART course is still not incorporated, and there is dearth of information on this topic in North West Province (NWP).

Aim: To explore and describe Nurse Educator's (NE) perceptions regarding the incorporation of NIMART course within the undergraduate nursing programme in (NWP).

Methods: Phenomenography qualitative research design followed. Twelve nurse educators underwent purposive selection, and individual interviews. The research co-coder verified findings of this study. There were ethical considerations and trustworthiness maintained throughout the study.

Results: Four main themes emerged in this paper-depicting student, community and Nursing Education Institutions (NEI) benefits and challenges associated with NIMART course incorporation within the undergraduate nursing programme.

Conclusion: This paper concluded that NIMART course incorporation in the undergraduate nursing programme is a good and relevant idea which require human and non-human resources..

Contribution: The paper contributed new knowledge on how NE perceive the NIMART course incorporation within the undergraduate nursing programme in NWP.

Key words: Course; Incorporation; NIMART; Nurse Educator

Introduction

Human Immune Deficiency Virus (HIV) is still the deadliest infection among human beings to date, despite the use of Antiretroviral Treatment (ART) (Cunha *et al.* , 2021:1 & WHO, 2022). According to World Health Organization's (WHO, 2022) global summary report, there were 38.4 million People Living with HIV (PLWHA), 1.5 million new HIV infections and 65000 deaths by end of

2021. In an attempt to minimise the infection rates and control mortality from HIV, the Joint United Nations Programme on HIV/AIDS (UNAIDS) introduced the 90-90-90 strategy during the 20th International AIDS Conference held in Australia (UNAIDS, 2017:8). The strategy states that by 2020, 90% of PLWHA should know their status, 90% of PLWHA initiated on ART and 90% of people on ART virally suppressed (UNAIDS, 2017:8). According to O'Byrne(2021:7), without more healthcare workers to increase access to HIV healthcare services, healthcare facilities will remain strained (O'Byrne *et al.* , 2021:7). Before the UNAIDS strategy, there was a shortage of four million healthcare workers in sub-Saharan Africa, Asia and America (WHO 2008:6).

To decentralise HIV healthcare services among PLWHA, South Africa (SA) adopted the WHO's 2008 Task Shifting Strategy and introduced Nurse Initiated Management of ART (NIMART) course to increase ART coverage (DoH, 2016:6). The introduction of the NIMART course was to include nurses in the management of PLWHA, as this task was doctor driven since 2004 (DoH, 2016:6). There has been great support for Task shifting as a key strategy to improve access to HIV care services (O'Byrne *et al.* , 2021:7). Furthermore, O'Byrne *et al.* (2021:7) emphasised task shifting from doctors to nurses as a feasible way to increase access to HIV services, such as Pre-Exposure Prophylaxis (PrEP) to high-risk populations. Despite the introduction of the Task Shifting strategy, South Africa remains the epicentre for HIV, in which there is a serious gap in initiating all PLWHA on ART (UNAIDS, 2021:2). Data collected from both the private and public sectors indicate that as of March 2021, South Africa was at 93-73-88 in terms of performance against the UNAIDS 90-90-90 target across its population (SANAC,2021:7). Regardless of SA having the largest ART programme globally, much work still needs to be done to reach the second 90 target.

Since the inception of the NIMART course in South Africa, it is only for Professional Nurses (PN) registered with the South African Nursing council (SANC) (DoH, 2016:9). Mngqibisa *et al.* (2017:156) maintains that NIMART can be effective when offered to student nurses during training in undergraduate programmes to curb human resource constraints at facilities and increase ART access. This is further emphasised by Warren *et al.* (2018:119), who argues that failure to integrate NIMART into the undergraduate nursing programme may leave students with lack of knowledge in basic HIV screening, prevention, and management of patients. Furthermore, student nurses reportedly lacked the knowledge and skills to manage PLWHA on completion of the undergraduate programme (Modeste & Adejumo, 2015:346). Conversely, the study conducted in Kwazulu-Natal affirmed the overall improvement of knowledge in all HIV aspects when student nurses and PNs undertake the NIMART course (Mngqibisa *et al.* , 2017: 156). The recommendation is for the incorporation of the NIMART course within the undergraduate nursing programmes following its positive benefits (Zuber *et al.* , 2014:520 and Lekhuleni *et al.* , 2015:1).

Several Nursing Education Institutions (NEI) in Africa have been at various stages of planning a nation-wide sustainable curriculum for nursing and midwifery programmes (Nyoni & Botma, 2020:6). However, for the past 10 years, nursing and midwifery curriculum in South Africa still excludes information on NIMART. Moreover, there is a dearth of literature in North West Province (NWP) regarding incorporation of the NIMART course within the undergraduate nursing programme. (NWP). In SA, nurse educators are responsible for designing and reviewing the nursing curriculum based on the programme outcomes for undergraduate programmes as outlined by SANC (SANC, 2014:2). Therefore, this paper explored and described the perceptions of nurse educators regarding incorporation of the NIMART course within the undergraduate nursing programme (diploma or degree), which leads to registration as a professional nurse with SANC in North West Province, South Africa.

Research methods and design

The paper utilised qualitative, phenomenography research design. Phenomenography is a qualitative research design that explores different ways people perceive, experience, conceptualise, and understand phenomenon in their world by using descriptive data (Rands & Gansemer-Topf, 2016:1). Phenomenography research design was appropriate in this paper as it allowed the researcher to explore and describe NE perceptions regarding the incorporation of the NIMART course within the undergraduate nursing programme.

Study Setting

The study took place at two NEIs (university and college) in NWP SA, which offers nursing education and training. The NEIs referred to in this paper have two sub-campuses each. Two campuses are in Ngaka Modiri Molema district and two are in Dr Kenneth Kaunda district. The two NEIs are 179 km apart. One principal and two campus heads manage the two colleges, while the university has school directors in each campus.

Population and sampling

The population of this paper was all NEs from Nursing Education Institutions (NEIs) in North West Province.

This paper utilised non-probability sampling, which is a type of sampling that uses human judgement to make some members of the population more likely for selection than are others. (Bryman & Bell, 2017:380). Purposive sampling selected NEs at the respective NEIs. Nurse educators teaching undergraduate nursing programme, having additional qualification in nursing education, as well as registered with SANC were included in the study.

Excluded were part-time nurse practitioners such as preceptors and clinical accompanists as they spend less time with students and do not often form part of the undergraduate curriculum committee members within the NEI.

Data collection

In this paper, there were unstructured individual interviews conducted using one central open-ended research question and probing questions. Probing was for clarity seeking and for stimulating participants for more information. Data recording was through Microsoft Teams application and transcribed. According to Menzies *et al.* (2016:125), an interview guide refers to a list of questions the researcher uses during an interview. There were the following questions asked:

- What are your perceptions regarding incorporation of Nurse Initiated and Managed Antiretroviral Treatment course in the undergraduate nursing programme in NWP?
- Additional guiding questions throughout the interview
- Are the current nursing students receiving NIMART incorporated training in their Nursing course curriculum in your Institution?
- Where in the curriculum should this NIMART ideally be included, if feasible?
- What might be the pre-requisites for implementing NIMART?

Data analysis

Thematic data analysis analysed the data. Thematic data analysis involves detecting themes and patterns, which emerge from participants and are central to credible research, because it is a flexible method for data analysis in qualitative research; its application can also be in other kinds of learning (Maguire & Delahunt, 2017:1).

Maguira and Delahunt's (2017: 4) six-phase guide to conduct thematic data analysis, which is a useful framework for conducting data analysis, is as follows:

Step 1: The researcher firstly becomes familiar with data: Through repeated reading of the transcribed, verbatim data about perceptions of NEs regarding incorporation of the NIMART course in the undergraduate nursing curriculum in order to get a sense of the information provided, thus becoming familiar.

Step 2: the researcher generated initial codes of data: the researcher reduced the transcribed data into small sections, which focused on answering the research question.

Step 3: *the researcher searched for themes*: the researcher searched for patterns of data, which captured something interesting and significant about the research question. Afterwards, the researcher examined the codes generated in step 2 and fit them together into themes.

Step 4: *review of themes*: the researcher reviewed, modified and developed primary themes from those searched in step 2 to check if they made sense, and if the transcribed data supported them. At this stage, the researcher gathered the data relevant to each theme to verify its support.

Step 5: *the researcher defined themes*: the researcher did final refinements and developed sub-themes that were still available, including how these sub-themes related to the main themes

Step 6: *the researcher wrote the findings*: thematic data analysis was utilised to write-up findings, which answered the research question.

Ethical Considerations

The North-West University Health Research Ethics Committee (NWU-HREC) granted ethical approval (ethics number: NWU-00297-21-S1). Participants were made aware that participating was voluntary and that they could withdraw from participating anytime without explaining themselves.

Results

This paper results were obtainable after data saturation was reached following 12 participants interviews. Table 1 illustrates the four main themes and their sub-themes that emerged in this paper.

Table 1: Themes and Subthemes

Theme	Sub-themes
1. Incorporation of NIMART course into the undergraduate programme is a good idea and initiative	1.1 Benefits to: 1.1.1 Student nurses 1.1.2 Community 1.1.3 Nursing Education Institutions (NEI)
2. NIMART course to be a module on its own	2.1 NIMART course to be recognised as a module 2.2 Stakeholder collaboration to recognise NIMART course as a speciality
3. Challenges experienced without the NIMART course in the undergraduate nursing programme	3.1 Knowledge Gap 3.2 Poor patient management 3.4 Cost of training nurses on completion of undergraduate programme

4. Challenges, which might hinder NIMART incorporation into the undergraduate nursing programme	4.1 Curriculum overload
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Theme 1: Incorporation of NIMART course into the undergraduate programme is a good idea and initiative

This is the first theme that emerged from this paper and it highlighted the importance of incorporating NIMART into the undergraduate nursing programme. The following sub-themes emerged, benefits to the students, community and NEI.

Sub-theme: 1.1.1 Student Nurses

In this paper, the majority of participants affirmed that incorporation of the NIMART course would allow students to acquire more knowledge, skills and confidence to manage People Living with HIV (PLWHA). The participants expressed the following:

'The students will be competent in NIMART and when are competent it will increase their confidence in managing people with HIV or those who need NIMART services so competency and confidence of the students.' (PC)

Another participant said:

'If you are NIMART trained before you even go to the clinics or before you go to practise I think you will have a better understanding and you will be able to work more sufficiently in practise.' (PE)

To further support that the NIMART course benefits students, another participant expressed:

"If somebody is empowered they are confident in what they are doing because they know exactly what they have been taught. They are knowledgeable so if you are knowledgeable you got all the information you got the skill then you are confident and then you can deliver quality care to the patient." (PJ)

Students would have clinical competency in managing PLWHA, and this was echoed as follows:

'When they go to practise, they will be able to take the history comprehensively whereby again they will be able to use WHO staging criteria... they will be able to assess aah opportunistic infections aah manage them in time... management of STI's at an early stage is very important and early diagnosis and management of opportunistic infections is very important. students will be knowledgeable will start initiation of adults and children because... acquire skills necessarily to monitor patients from NIMART including the management of kidney failure,... they will acquire skills from counselling and adherence of clients on NIMART again they will be knowledgeable on a pre and post counselling. They will also be knowledgeable on the monitoring of clients including children, monitor for the viral loads and checking the CD4 count.' (PH)

'I think it's very important if I was a student and it was part of the course, I would have much large understanding of ARV and how it works.' (PE)

Other participants mentioned that when undergraduate nursing students complete the NIMART integrated training they will share the information learned with professional nurses already in practice:

'So they will be able to share that knowledge with other nurses after they have been trained on management and treatment of HIV, STI and Tuberculosis.' (PB)

Sub-theme 1.1.2: Benefits to the community

Several participants in this paper indicated that the community would benefit with the NIMART course incorporated into the undergraduate nursing programme through the supermarket approach, whereby everything is one stop shop, meaning all their complaints would be treated in one consulting room thus saving them time.

'Because when the clients go to the facilities remember with the primary healthcare approach it is that it should be a supermarket approach then it means that when a client enters a consulting room this client will receive everything that needs to be on him and on his way out as he leaves the consulting room everything will be done to this client.' (PI)

There would be no need for patients to be referred to other facilities and travel long distances to access HIV services, as transport issues would be solved since people do not have money to be travelling around. This was explained as follows:

"Everything will be one stop shopping you are coming for your hypertension medication then professional nurses trained in NIMART would be able to take care of you for your HIV treatment regime and also it means it will save the society like the community a lot of money, time and what "yeah" all that' Community will benefit in the sense that whenever the nurse is placed, then we know that the nurse will holistically be able to take care of the patient because we have challenges of patients having to travel long distance to access health care that is still a challenge,"(PL)

Another participant explained the benefits to the community as follows:

'There will be no need to refer them to someone else they can be able to help the patients there,...some of the patients are not on treatment because they have so many challenges around that fact you say to the patients okay go to such clinic or come back on such a date so that you can be seen by someone who is been trained for this specific course and then the patients doesn't pitch up based on so many challenges. one of it being maybe they don't have transport to come to the clinic for that so if one is a professional nurse trained in NIMART the patient can get that treatment right at that first consultation.' (PG)

'It will mean that now our whole community will receive treatment in time they won't just go disappear without any type of trace becausethey experience challenges one of it being financial challenges maybe the patient have to catch a taxi to go to the clinic now they are there you telling them to come back again they don't have money for that.' (PG)

Community mortality statistics will reduce, as patients will start on treatment early, thereby reducing Lost to Follow up (LTFU) rate exacerbated by patients' financial challenges to reach the facilities offering NIMART services.

"Obviously the patients will be started early on the treatment by the people who know and just reducing the stats and mortality... of people living with HIV." (PF)

Subtheme 1.1.3: Benefits to the Nursing Education Institutions

In this paper, some participants indicated the NEIs would benefit from positive feedback from the community regarding the NIMART services rendered by new graduate nurses trained in NIMART.

"Our community, our people, our patients will come back and say we really thank the institution for the people they trained who are well cooked and have relevant qualifications and experience when coming to NIMART.... it will benefit a lot of people it will benefit the students, institution, community, patients their families and so on." (PC)

Another benefit was that students who receive NIMART incorporated training would have a market advantage compared to those not trained, thereby putting the NEI on the map.

"If this kind of students comes out with that competency, it means the student themselves will be marketable, it puts our institution into the map again without being really selfish." (PK)

Furthermore, participants expressed their readiness and interest to incorporate the NIMART course should the NEI endorse such an innovation:

"I am saying when we revise it, like this 3-year Diploma one when we revise it, we are definitely going to do this, it will be good if we incorporated it, we will incorporate it." (PF)

'I agree 100% that NIMART must be incorporated.' (PC)

Theme 2: NIMART course to be a module on its own

The recommendation was that the NIMART course be a module on its own, and the following sub-themes emerged:

Sub-theme 2.1: NIMART course recognised as a module

In this paper, some participants explained there was a need to recognise HIV and AIDS as a killer that is harmful to society. Therefore, when incorporated into the undergraduate programme, the NIMART course should be a module on its own with its own NQF level, module notional hours, module credits and not encapsulated within modules such as general nursing science or community nursing.

'I am saying it should be a module on its own its should not be put under other module like let us say general nursing science or community nursing science it must be on its own with its own NQF level' (PC). 'I am suggesting that it should have 12 credits and we know that 12 credits need at least 120 notional hours so this will be a full module were students will be given theory and in class given assignments, texts, examinations.' (PC)

Subtheme 2.2: Stakeholder collaboration to recognise NIMART course as a speciality

Participants indicated the important need for stakeholder collaboration to take HIV and AIDS management in cognisance, and regard it as a speciality since it is a public health concern.

'I say collaboration for an example SANC as a regulatory body can also take into consideration the HIV & AIDS management together the Department of Higher Education and Training (DHET), Department of Health (DoH), South African Nursing Council (SANC) and nursing education institutions. They should come together to recognise NIMART course as a speciality... because it's a public health crisis.' (PD)

Theme 3: Challenges experienced when there is no incorporation of the NIMART course into the undergraduate nursing programme

Three subthemes emerged as follows: knowledge gap regarding NIMART, poor patient management and cost of training nurses on NIMART post training.

Participants in this paper explained that it is fruitless for more student nurses to graduate in large numbers from different NEIs without being knowledgeable on NIMART. Often new graduate nurses lack the knowledge to manage PLWHA, and such incompetency contributes towards patient mismanagement.

'Nursing students graduate from different institutions in large numbers and to me it is fruitless for them to graduate without more insight of proper management of patients living with HIV & AIDS.' (PD)

'If you are not NIMART trained you cannot initiate the patient...it means they will have to wait for the doctor just like when it was done previously which will waste patient time.' (PA)

'Books used within the institution of higher learning are old and lack NIMART information. My experience is that ey... NIMART trained nurse's focus into the current HIV/AIDS management.' (PK)

Participants indicated that if newly qualified nurses were not NIMART trained, there is a possibility they may lack the skills to manage PLWHA, particularly pregnant women. In addition, the delayed incorporation of the NIMART course has led to mortality among PLWHA.

The following participant said:

'Most of professional nurses often manage pregnant HIV positive women poorly because they do not have proper knowledge on how to treat those patients.' (PB)

'Well the study on incorporation of NIMART course into undergraduate programme come late when a lot of people have already died because of not receiving care from people who have relevant experience and qualification but something can still be done we cannot just folds' hands.' (PC)

It is expensive to offer the NIMART course post-undergraduate qualification, as accommodation and meals have to be booked for a week for participants to attend. These nurses have to attend the training during the clinic working time leading to staff shortages and poor service delivery.

'If our students can be trained while they are still doing nursing, kere (am saying) it will be less expensive as compared to when they are trained while they are registered nurses. Number one this training takes a week if I am not mistaken and by that time accommodation and meals have to be booked for those professional nurses.' (PB)

'Okay because we have shortage of staff and when for example 2 professional nurses for that particular week are on NIMART training it means patients will not be attended too... mortality and mobility rates increase due to shortage of staff.' (PB)

Theme 4: Challenges that might hinder NIMART course incorporation into the undergraduate nursing programme.

Participants shared few challenges that might hinder incorporation of NIMART course into undergraduate programme. The two subthemes below give emphasis to this main theme.

Some participants in this paper felt that the curriculum was overloaded.

'This new programme, the R171 there is too much content so I don't know how will they be able to just incorporate it ... in first year these students are doing maybe 5 system if I am talking about the biological science within a limited time.'(PA)

This R171 the new curriculum iyhooo! Is a headache on its own so maybe when we are already settled in terms of this new curriculum maybe yeah we can start introducing something else. The period has been cut off from 4 years to 3 years so accommodating something else I don't think is going to be easy' (PG).

The following was in support of a loaded curriculum:

'So it is a tedious process and I don't think it will be something that will be done like tomorrow it will take a while given the fact that we are just starting with a new curriculum.' (PI)

Measures of Trustworthiness

Trustworthiness refers to the effort to signal openness, relevance, thoughtfulness in data collection and analysis, epistemology and methodological correspondence, including the researcher's self-understanding about the findings (Brink *et al.* , 2018:110). Utilised was Lincoln and Guba's framework of 1985, which explains application of credibility, transferability, dependability and confirmability to ascertain trustworthiness (Beck *et al.* , 2018:110). To establish

credibility, the researcher applied prolonged engagement strategy (Polit & Beck, 2017:986) and recorded the interview, through use of Microsoft teams virtual application, to check for relevance and congruence in the data being transcribed, so that the data truly represents the participants' voice. The achieving of dependability was by making transcribed data and virtual records containing participant's voices available to the research supervisors, to verify and determine there was no data missing nor the researcher misguided, and finally determine if the findings were acceptable and consistent. The researcher gave sufficient thick descriptions of descriptive data so that the consumer could determine if the paper findings are applicable in their settings to ascertain transferability of the findings (Polit and Beck, 2019:983). Confirmability was by submitting transcribed information and virtual records for co-coding, as this assisted in the verification of findings and ascertained the findings, conclusion and recommendations truly represented what the researcher transcribed.

Discussion

Participants in this paper explained the NIMART course incorporation in the undergraduate nursing programme was a good idea and initiative, which would benefit student nurses, the community and NEIs. Findings are consistent with those of Ngcobo and Mchunu (2019:1), which states that employers, students and healthcare recipients may all benefit immensely from HIV and AIDS curriculum when offered during the pre-service training. Another important finding of this paper was that the NIMART course would also prepare students to manage PLWHA post completion of their undergraduate nursing programme. The research study by Warren *et al.* (2018:119) also found that the incorporation of the NIMART course within the undergraduate nursing programme benefits students, as they would have acquired knowledge and skills regarding HIV and AIDS. This paper also emphasises that the incorporation is necessary because the HIV statistics among PLWHA is high, and HIV is seen in all aspects of nursing care whether psychiatry or midwifery and should be treated as a chronic disease. As such, the incorporation of the NIMART course is imperative in the curriculum to meet societal needs of the community and address shortage of NIMART nurses. Similarly, Mboweni and Makhado (2020:1) also mentioned the need to advance NIMART training and implementation through the standardisation of NIMART curriculum, introduction of pre-service NIMART training in institutions of higher learning, and addressing staff shortages. In addition, the study of Rossini *et al.* (2021:659), on nursing curriculum, explained the need to pursue the design of flexible training paths that consider the need of students and promotion of social activities. However, NIMART course is not presented within the undergraduate nursing programme, and HIV needs to be recognised as a killer, which destroys society.

Participants indicated the NIMART course would benefit students in terms of knowledge, skills and confidence needed for them to render HIV and AIDS services among PLWHA. Among these

benefits, participants reported students would be able to take comprehensive history, diagnose patients early, use the WHO's clinical staging criteria, assess opportunistic infections, manage sexually transmitted infections (STI's) at an early stage, manage kidney failure, monitor patients' viral loads and CD4 count, and be able to provide pre- and post-counselling. Ngcobo and Mchunu (2019:1), Lekhuleni *et al.* (2015:1) and Zuber *et al.* (2014:520) support the findings that incorporation of the NIMART course in the undergraduate programme increases knowledge, confidence, skills and positive attitudes of new graduate nurses in managing PLWHA. Additionally, findings revealed students would be able to share the knowledge acquired with the professional nurses who are already working at the facilities for improved service delivery. Ngcobo and Mchunu (2019:8) and Naidoo (2017:9) support the finding that students who have undergone an HIV and AIDS programme are empowered and able to share such knowledge with PN who have never had exposure to such curriculum and are in the field. Furthermore, if the student nurses are NIMART trained, they will be prepared for practice in future post-graduation, thereby being able to work sufficiently without supervision, even when placed alone in rural areas. However, Ngcobo and Mchunu (2019:7) indicated that in SA, the majority of nursing students graduate without essential HIV and AIDS training required for them to perform their work successfully after graduating.

Participants in this paper stated the NIMART course incorporation in the undergraduate nursing programme would benefit the community by addressing the challenges they encounter to access HIV/AIDS healthcare services. There may be some elimination of communities' financial problems in that they could access treatment at their nearby facility without the need for them to transfer to facilities where there is someone with NIMART skill. New graduate nurses will offer holistic care by applying the supermarket approach whereby the treating of HIV and AIDS, including other chronic conditions, will be on the same day in one consulting room. This finding is supported by Mngibisa *et al.* (2017:153) who stated that barriers such as poverty and the inability to travel long distances to access healthcare facilities, add to the critical need to decentralise HIV and AIDS care to primary healthcare settings; hence, NIMART incorporation at undergraduate programme is imperative to address these barriers. As patients will receive treatment in one consulting room, the waiting time at facilities will reduce. However, due to the shortage of nurses trained in the NIMART course, existing NIMART nurses feel overwhelmed with the increased workload, as the number of PLWHA is high at facilities and they have a lengthy wait before their turn to receive HIV services (Moronda, 2021:72) and (Mboweni & Makhado (2020:7). Furthermore, the mortality rate and HIV statistic may reduce when there is incorporation of the NIMART course, as patients will receive their ART treatment early without encountering financial challenges perpetuated by catching a taxi to the clinic. The financial challenges have contributed to patients being lost to follow up (LTFU), as the clinic will send them home, with another date to return to the facility. Mboweni and Makhado (2020:7) support the findings of this paper that

effective NIMART training will facilitate improved health outcomes, of PLWHA by linking them on ART, retaining them on ART to reduce LTFU, and relieve pressure on NIMART nurses, thereby reducing mortality and increasing life expectancy. In addition, Maronda (2021:2) highlighted the need for community outreach teams to reach areas far from the clinics to reduce transportation costs for the patients and the number of patient being LTFU.

Participants reported that, NEI might have a market advantage for their student nurses' post-graduation, because they will be NIMART trained compared to NEIs not offering it. Nursing education institutions will also receive positive feedback from the community for having trained, qualified, and experienced nurse graduates who can offer HIV services at their facilities. Moreover, this paper's findings highlighted that many nurse educators within the NEI are interested and willing to study and incorporate the NIMART course within the undergraduate nursing programme. Ngcobo and Mchunu (2019:9) agree that NEs should undergo HIV and AIDS training in order to impart knowledge of this subject to their nursing students successfully. In addition, Mboweni and Makhado's (2020:4) study highlighted that participants wished the NIMART course could be offered within nursing colleges and universities so that they can learn how to manage TB/HIV patients before joining the Department of Health.

Participants in this paper accentuated the vital need for HIV/AIDS to be firstly, recognised as a killer that is destroying our society. Given the adverse impact of HIV, participants indicated a need for the NIMART course to have its own NQF level, module hours and to have the recognition as a module on its own. In this paper, participants explained that, stakeholder collaboration amongst DHET, DoH, SAQA, SANC and nursing education institutions is important to recognise HIV and AIDS management as a speciality. Similarly, Mboweni and Makhado (2020:10) recommended that national DoH, nursing departments from institutions of higher learning, regional training centres, SANC, developmental partners, and other relevant stakeholders, should adopt a standardised NIMART training curriculum. According to Warren *et al.* (2018:119), HIV specialty training is valuable and serves an important role for students committed to work in an HIV specialty setting. In addition, there could be strategic incorporation of HIV into the nursing profession curriculum, and faculty are willing to add the HIV course content when there are course materials and curriculum consultation provided (Warren *et al.* , 2018:119). Findings in this paper revealed the NIMART course should have 12 credits and 120 national module hours, including its own NQF level.

Challenges experienced when there is no incorporation of NIMART into the undergraduate nursing programme

According to findings in this paper, the NIMART course offered post-graduation leads to shortages of staff at the facilities; for example, when two professional nurses go for weeks of NIMART training, the facility becomes short staffed. Due to this shortage of staff PLWHA are left vulnerable

and some return home without having ART initiated on the same day. This practise conflicts the NDoH's (2021:20) guideline recommendations on initiating PLWHA same day on ART if there are no clinical contraindications. Another cost that emerged was that the NIMART course, when offered on completion of the undergraduate nursing programme, is more expensive than when in the undergraduate nursing programme, reason being that accommodation and meals have to be booked for weeks during the NIMART training and it is expensive. Jones and Cameron (2017:842) stated the process of NIMART mentoring is costly and require amounts of time and investment on important resources post-graduation.

Furthermore, the NIMART incorporation study came late, after many people had already died. HIV was first diagnosed in the 1980s, it is now 2022, and we are still talking about it, so this paper is important. The study of Mboweni and Makhado (2020:6) explained that new graduate student nurses are often frustrated post-graduation because of lack of knowledge of the NIMART course and often refer patients to other facilities. However, Visser *et al.* (2018:5) clarified that addressing deficiency of NIMART trained nurses is central to improved service delivery among PLWHA.

Challenges, which might hinder NIMART incorporation into the undergraduate nursing programme

In this paper, the participants explained that NIMART incorporation at undergraduate nursing programme was not feasible due to the current curriculum overload. According to the findings, the R171 programme already has too much course content. Participants also indicated that incorporating the NIMART course into the undergraduate nursing programme could require lot of time as it is going to be a tedious process and a headache. The other challenge was that with the new curriculum in place, there has been a reduction in the duration to complete the programme in colleges, from four to three years, which makes the content too much. Additionally, without stakeholder support to capacitate NEI equally there will be a challenge to incorporate the NIMART course as the university employees are outdated with HIV/AIDS information and not invited to HIV conferences for capacitation. Jones and Cameron (2017:841) also indicated the NIMART course has too much content and completion is difficult post-graduation, as only 13% of nurses complete their Portfolio of Evidence (POE) and 8% receive certificates after NIMART course completion. Furthermore, it is imperative to strengthen NIMART training and explore barriers influencing the implementation for improved patient health outcomes (Mboweni & Makhado, 2019:6).

Strengths and limitations

The limitations of this paper were that during data collection, participants in one NEI could not all avail themselves for interviews, therefore only 12 participants from the selected NEIs took part in the study. The researcher is of the opinion that maybe the findings could have been different had the participants from the other NEI had participated. Network challenges and electricity power

outages restricted some participants from taking part in the interviews at agreed times. As such, the recommendation is for more research on this topic.

Recommendations

This paper recommends that experts in NIMART should train nurse educators so that they are able to train the undergraduate nursing students for knowledge transfer. Nursing Education Institutions will also need a curriculum committee to plan the incorporation of NIMART into the undergraduate programme, including relevant credits. Apart from training nurse educators, participants also recommended there should be NIMART updated guidelines available on different technological platforms for easy access. The NIMART guideline will keep nurse educators up to date with relevant information to teach their students.

Another recommendation was for access to medication to show the students during teaching and learning. Also for computer laptops and WIFI access for students to be able to search for information regarding the NIMART course. In addition, there is a need for continuous professional development in terms of HIV/AIDS training for nurse educators in order for them to remain updated with information and teach updated contemporary information.

The South African Nursing Council (SANC), Department of Health (DoH), South African Qualification Authority (SAQA), Nursing Education Institutions (NEIs) and non-governmental research organisations need to collaborate and give support to the NEIs on implementation of updated NIMART training and guidelines. This paper also recommended that the NIMART course have the recognition as a module on its own. Lastly, the ideal level for incorporating NIMART should be 2nd or 3rd year depending on whether the students have done anatomy, physiology, pharmacology, Ethics and English modules for them to understand the concepts taught in NIMART course.

Conclusion

This paper concludes that incorporation of the NIMART course into the undergraduate nursing programme is a good idea, which could benefit the student nurses, the communities and the NEIs. Nurse educators endorse the NIMART course incorporation in that it will increase student knowledge and skills to manage PLWHA in healthcare facilities, including those in rural villages, and address patient financial challenges. When the NIMART course is incorporated, new graduate nurses will immediately render HIV management services among PLWHA and curb the shortage crisis of NIMART nurses within healthcare facilities. However, the incorporation of the NIMART course faces anticipated challenges, such as current nursing programme curriculum overload and lack of stakeholder buy-in. In addition, pre-requisites, such as human and non-human resources, are necessary for a successful incorporation.

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Competing interest

The authors declare they are no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Author contributions

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Data availability

The data supporting these findings is available from the authors upon request.

Disclaimer

The views and opinions expressed and submitted in this article are those of the authors and they do not intend to communicate the official position of the institution or affiliation of authors.

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SECTION C: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

3.1 INTRODUCTION

The study consists of Section A, the overview of the study, Section B, the manuscript, and Section C, which is the conclusion, discusses the limitations and recommendations of the whole study. The recommendations focuses on nursing education, nursing practise and future research.

3.2. CONCLUSION OF THE STUDY

The study followed the qualitative phenomenography design, which was to explore and describe the perceptions of NEs regarding the incorporation of the NIMART course within the undergraduate programme. Data collection occurred virtually from 12 participants within NEI. There were semi-structured individual interviews conducted, and four themes identified, namely:

- 1) Incorporation of the NIMART course into the undergraduate programme is a good idea and initiative.
- 2) NIMART course to be a module on its own.
- 3) Challenges experienced without the NIMART course in the undergraduate nursing programme.
- 4) Challenges, which might hinder NIMART incorporation into the undergraduate nursing programme.

The detailed discussion of these themes was alongside the sub-themes in Section B. Additionally, an independent research co-coder verified the findings, to ascertain trustworthiness as described in Section B. North West University HREC guideline were adhered to in the conducting this study.

3.3 RECOMMENDATIONS

3.3.1 Nursing education

Nursing education institutions' management, government stakeholders and non-nursing participants need considering as participants for future studies. There is a need for the Department of Health (DoH), South African Nursing Council (SANC), South African Qualification Authority (SAQA), Nursing Education Institutions (NEI) and research organisations, such as Aurum Institute, to collaborate and give support to the NEIs to incorporate the NIMART course into the undergraduate programme and recognise HIV and AIDS as a speciality. Warren *et al.* (2018:119) documented that it would benefit student nurses if HIV/AIDS were a speciality and incorporated into the curriculum. The collaboration among stakeholders will ensure that nursing education regulatory authorities draft plans for contemporary undergraduate nursing curriculum, which includes the NIMART course. District supporting partners, such as the Aurum Institute,

should therefore provide continuous training and updated HIV/AIDS guidelines to enable the teaching of contemporary information to their undergraduate nursing students.

3.3.2 Nursing practice

The study recommends that nursing students receive a Portfolio of Evidence (POE), which stipulates all the NIMART competencies needed to pass the undergraduate nursing programme. There should also be a memorandum of understanding between the university and NEI to create a conducive environment for student nurses during their practice placement. Professional nurses, who are NIMART trained at practice, should provide mentorship to the undergraduate nursing students in order to assist them during their NIMART POE completion. Non-governmental organisations, such as the Aurum Institute and other HIV organisations, must liaise with the NEI, to provide NIMART practise material, such as ARV, HIV rapid test, dosing charts and ART guidelines, so that students are familiar with the content taught when they are at practice.

3.3.3 Pre-requisites for incorporating NIMART course

This paper recommends that the following pre-requisites be available when NIMART course is to be incorporated within the undergraduate nursing programme namely: Human resources, Non-human resources, Information technology, Stakeholder collaboration, and pre-module requirement, Plan for continuous development.

3.3.3.1 Human resources

Expert in NIMART who is passionate must firstly train nurse educators in order for them to be able to train the undergraduate nursing students for knowledge transfer. Nursing education institutions need a curriculum committee in terms of planning how they are going to incorporate NIMART course within the undergraduate nursing programme.

3.3.3.2 Non-human resources

This study recommends the availability of NIMART updated guidelines, white boards, portfolio of evidence and a place or space to deliver theory for this NIMART course. Updated guidelines will keep nurse educators up to date with relevant information to teach their students. Access to medication to show the students during teaching and learning was also recommended.

3.3.3.3 Information technology (IT)

In this study, computer laps and WIFI access for students to be able to search for information regarding NIMART course were recommended.

3.3.3.4 Pre-module requirements

NIMART course firstly need to be recognised as a module on its own. NIMART course must have 12 module credits, 120 national module hours including its own NQF level. For student to enrol in NIMART course they must have firstly done the following modules: Ethos and professional practice (EPP), Pharmacology, Anatomy, Physiology and English module called (AGLE). This modules will enable student nurses to comprehend HIV terms used, information about ARV and how they work including the importance of patient confidentiality.

3.3.3.5 Plan for continuous development

There is a need for continuous development in terms of HIV and AIDS training so that nurse educators can be updated with contemporary information.

3.3.3.6 The level at which NIMART incorporation should incorporated

The recommendation for the level at which NIMART course should be incorporated within the nursing programme is not completely clear as participants had different suggestions. Of the 12 participants in this study three (3) suggested NIMART to be incorporated at 2nd year level, three (3) other participants suggested 3rd year level, Two (2) suggested 4th year level, two (2) suggested that it be incorporated with IMCI module and one(1) participant suggested from 1st to fourth year level. Reasons were that student would have done anatomy, physiology and pharmacology at 2nd year level. However, other participants stated that at first year level it would not be feasible as the students are still fresh and they are having overloaded content in 1st year. This study given the above rationale recommend the incorporation of NIMART at 2nd or 3rd year provided that student have completed the pre-module requirement as explained in 3.3.3.4.

3.3.4 Research

The study recommends the conducting of similar research at different provinces with larger sample size. Also recommended is that quantitative and mixed method research are to be able to quantify the results in future. Additionally, research funders, such as National Research Foundation (NRF), DoH and other sponsors, should consider the prioritisation of research studies focusing on NIMART course incorporation within the undergraduate nursing programme.

3.4 LIMITATIONS

The limitation of this study was that during recruitment, one NEI did not yield many participants. Due to this limitation, the researcher anticipates these study findings may have been different; however, literature supporting some of the paper findings was evident. Additionally, network

challenges restricted some participants from volunteering after hours, as they did not have internet coverage in their homes. As such, the recommendation is for more research in this topic.

3.5 CONCLUSION

Based on these study findings, nurse educators fully support the incorporation of the NIMART course in the undergraduate nursing programme and showed willingness to undergo NIMART course training to transfer the knowledge gained to students. The NIMART course may benefit the student nurses in terms of HIV and AIDS management knowledge and skills; student confidence may also increase due to this competency. Communities may also benefit enormously, as there will be the elimination of their financial problem of the cost of transport, as there will be no need to refer PLWHA to healthcare facilities offering NIMART services. Lastly, NEIs may benefit, as educators may impart the knowledge gained to students to enhance HIV care at facilities post-graduation. Also, Ngcobo and Mchunu (2019:1), Lekhuleni *et al.* (2015:1), Mngqibisa *et al.* (2017: 156) and Zuber *et al.* (2014:520) agreed that the incorporation of NIMART and an HIV/AIDS based course at NEIs within the undergraduate nursing programme could benefit students, communities and the NEIs, as discussed in Section B.

However, one needs to anticipate challenges in the incorporation of the NIMART course. As such, stakeholder collaboration, human and non-human resources, as discussed in Section B, need to be in place for NIMART incorporation to become a reality.

3.6 REFERENCES

Lekhuleni, M.E., Kgole, J.C. and Mbombi, M.O., 2015. Knowledge of student nurses in nurse initiated and management of antiretroviral therapy at the University of Limpopo, South Africa: TB, HIV/AIDS and other diseases. *African Journal for Physical Health Education, Recreation and Dance*, 21(Supplement 1): 53-61.

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Zuber, A., McCarthy, C.F., Verani, A.R., Msidi, E. and Johnson, C., 2014. A survey of nurse-initiated and-managed antiretroviral therapy (NIMART) in practice, education, policy, and regulation in east, central, and southern Africa. *Journal of the Association of Nurses in AIDS Care*, 25(6), pp.520-531.

ANNEXURE A: DATA COLLECTION TOOL/INTERVIEW SCHEDULE

The study will utilise one central research question and three additional guiding questions as an interview guide for data collection, which are:

Main research question:

1. What are your perceptions regarding incorporation of Nurse Initiated and Managed Antiretroviral Treatment into the undergraduate nursing course in North West Province?

Additional guiding questions throughout the interview

2. Are the current nursing students receiving NIMART incorporated training in their Nursing course curriculum in your institution of higher learning?
3. Where in the curriculum should this NIMART ideally be included if feasible?
4. What might be the pre-requisites for implementing NIMART?

ANNEXURE B: INFORMED CONSENT



HREC Stamp

INFORMED CONSENT DOCUMENTATION FOR NURSE EDUCATORS WITHIN AN INSTITUTION OF HIGHER LEARNING

TITLE OF THE RESEARCH STUDY

Exploring nurse educators' perceptions regarding incorporation of NIMART within the undergraduate nursing course, North West Province

ETHICS REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR : Dr. J.M. Sebaeng & Prof. S.S. Moloko-Phiri

POST GRADUATE STUDENT : Mr. K.S. Bonokoane

ADDRESS : North West University
Mafikeng
Mmabatho Unit 5
2790

CONTACT NUMBER : 0767622092

EMAIL : Kabelo.bonokoane@gmail.com

This is an invitation for you to take part in a **research study** that forms part of my research for Masters in Community Nursing.

Please take some time to read the information presented here, which will explain the details of this study. Please ask the researcher or person explaining the research to you any questions about any part of this study that you do not fully understand. It is important you are fully satisfied that you clearly understand what this research is about and how you might be involved. In addition, your participation is **voluntary** and you are free to say

no to participation. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part now.

The Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU) Mafikeng Campus has approved this study, the conducting of which will be according to the ethical guidelines and principles of Ethics in Health Research: Principles, Processes and Structures (DoH, 2015) and other international ethical guidelines applicable to this study. It might be necessary for the ethics committee members or other relevant people to inspect the research records.

What is this research study all about?

The study aims to explore and describe Nurse Educators' (NE) perceptions regarding incorporation of the NIMART into the undergraduate nursing programme. The study will be conducted in selected Higher Learning institutions (HLI) offering nursing education in North West Province (NWP).

Why have you been invited to participate?

- Your invitation to be part of this research is because you are a nurse educator who has previously been exposed to an undergraduate nursing course and currently teaching it. In addition, your selection is because you have experience in working with People Living with HIV (PLWHA) and might share fruitful knowledge on your perceptions regarding incorporation of the NIMART into an undergraduate nursing course.
- You will not be able to take part in this research if you do not voluntarily sign this consent form.

What will be expected of you?

Participants will be expected to voluntarily answer the research question (What are the perceptions of NE regarding incorporation of the NIMART in the undergraduate nursing course?). The responsibility of the researcher will be to interview the participants (NE) through use of the study question approved by scientific review and HREC.

Will you gain anything from taking part in this research?

- By participating in this study, you will not be paid money or given any incentives of any sort; however, the overall gain of the study is that once it is conducted, it will be published for the participants to use in furthering their knowledge about the perception of NE regarding incorporation of NIMART in the undergraduate nursing course. HLI, policymakers and nursing regulatory bodies, such as SANC, might also benefit from the study when by utilising the study finding when they want to amend undergraduate nursing course curriculum

Are there risks involved in you taking part in this research and what will be done to prevent them?

- There are more gains for you in joining this study as there are no risks currently known when you participate. The study's aim is only to explore and describe the

perceptions of NE regarding incorporation of the NIMART in the undergraduate nursing curriculum without involving any human experiments.

How will we protect your confidentiality and who will see your findings?

➤ Your results will be kept confidential by avoiding the use of personal information during the interview. Only the researcher and study supervisor will be able to look at your findings. Findings will be kept safe by storing hard copies in locked cupboards in the researcher's office and electronic data will be password protected. As soon as data has been transcribed, it will be deleted from the recorders. Data will be stored for a period of five years.

What will happen with the findings or samples?

➤ There will be publishing of the findings of this study in a selected peer-reviewed journal. The published article will uphold the principle of privacy and confidentiality throughout the publication process to ascertain anonymity.

How will you know about the results of this research?

➤ We will give you the results of this research when requested by the participants and publish them on a peer-reviewed journal.

Will you receive payment to take part in this study, and are there any costs for you?

There is no remuneration or any costs involved for you, if you take part in this study.

Is there anything else that you should know or do?

➤ You can contact Mr Kabelo Bonokoane on 076 762 2092 if you have any further questions or any problems.

➤ You can also contact the Health Research Ethics Committee via Mrs. Carolien van Zyl on 018 299 1206 or carolien.vanzyl@nwu.ac.za if you have any concerns not answered about the research or if you have complaints about the research.

➤ You will receive a copy of this information and consent form for your own purposes.

Declaration by participant

By signing below I, , agree to take part in the research study titled Exploring Nurse Educators perceptions regarding incorporation of the NIMART into the undergraduate nursing course.

I declare that:

- I have read this information/it was explained to me by a trusted person in a language with which I am fluent and comfortable
- The research was clearly explained to me
- I have had a chance to ask questions to both the person obtaining the consent from me, as well as the researcher, and all my questions have been answered
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part
- I may choose to leave the study at any time and will not be handled in a negative way if I do
- I may be asked to leave the study before it has finished, if the researcher feels it is in the best interest, or if I do not follow the study plan, as agreed to

Signed at (*place*) On (*date*) 20....

.....
Signature of participant

.....
Signature of witness

Declaration by person obtaining consent

I, Kabelo Stephen Bonokoane, declare that:

- I clearly and in detail explained the information in this document to Nurse Educators
- I did not use an interpreter
- I encouraged participants to ask questions and took adequate time to answer them
- I am satisfied that participants adequately understands all aspects of the research, as discussed above
- I gave time to discuss it with others if he/she wished to do so

Signed at (*place*) On (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I, *K.S. Bonokoane* declare that:

- I explained the information in this document to the participant
- I did not use an interpreter
- I encouraged participant to ask questions and took adequate time to answer them
- The informed consent was obtained by an independent person
- I am satisfied that participants adequately understood all aspects of the research, as described above.
- I am satisfied that he/she had time to discuss it with others if he/she wished to do so.

Signed at (*place*) On (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

ANNEXURE C: RECRUITMENT MATERIAL

INVITATION TO PARTICIPATE IN A RESEARCH STUDY

Research Topic:

Nurse educators' perceptions regarding incorporation of NIMART within the undergraduate nursing programme, North West Province

Why is this study needed?

DATE: 2021

The study may contribute new information to the body of nursing knowledge on perceptions of nurse educators regarding incorporation of Nurse Initiated and Managed Ante Retroviral Treatment at undergraduate course. Curriculum committee members might use this information to update undergraduate nursing course curriculum.

Who can participate?

Professional nurses with additional qualification in nursing education (diploma/degree) and are registered with the South African Nursing Council (SANC). They must voluntarily be willing to participate in the study.

What is expected of participants?

1. To voluntarily sign a research informed consent to participate
2. Be willing to answer the research question (What are the perceptions of Nurse Educators regarding incorporation of Nurse Initiated and Managed Ante Retroviral Treatment at undergraduate nursing course in North West province?)

Risk and Precautions

There are no known risks for participating in the study, the researcher will comply with the COVID-19 regulations to prevent the spread of the virus throughout the study.

Benefits of the study

Participants will gain knowledge on how collectively nurse educators perceive NIMART incorporation at undergraduate nursing course. They will have sufficient knowledge which will allow them to propose future curriculum needs for undergraduate nursing course.

Researcher Principal: Dr J.M. Sebaeng & Prof Moloko- Phiri

Researcher: Mr Bonokoane

Contact the researcher on
0767622092/0839448597/0727831843
Email: Kabelo.bonokoane@gmail.com



ANNEXURE D: STANDARD NWU CONFIDENTIALITY AGREEMENT



CONFIDENTIALITY UNDERTAKING

Entered into between:

Co – Coder

I, the undersigned

Prof / Dr / Mr / Ms _____

Identity Number: _____

Address: _____

Hereby undertake in favor of the **NORTH-WEST UNIVERSITY**, a public higher education institution established in terms of the Higher Education Act No. 101 of 1997

Address: Office of the Institutional Registrar, Building C1, 53 Borchard Street, Potchefstroom, 2520

(Hereinafter the “NWU”)

1 Interpretation and definitions

1.1 In this undertaking, unless inconsistent with, or otherwise indicated by the context:

1.1.1 “Confidential Information” shall include all information that is confidential in its nature or marked as confidential and shall include any existing and new information obtained by me after the Commencement Date, including but not be limited in its interpretation to, research data, information concerning research participants, all secret knowledge, technical information and specifications, manufacturing techniques, designs, diagrams, instruction manuals, blueprints, electronic artwork, samples, devices, demonstrations, formulae, know-how, intellectual property, information concerning materials, marketing and business information generally, financial information that may include remuneration detail, pay slips, information relating to human capital and employment contract, employment conditions, ledgers, income and expenditures and other materials of whatever description in which the NWU has an interest in being kept confidential; and

1.1.2 “Commencement Date” means the date of signature of this undertaking by myself.

1.2 The headings of clauses are intended for convenience only and shall not affect the interpretation of this undertaking.

2 Preamble

2.1 In performing certain duties requested by the NWU, I will have access to certain Confidential Information provided by the NWU in order to perform the said duties and I agree that it must be kept confidential.

2.2 The NWU has agreed to disclose certain of this Confidential Information and other information to me subject to me agreeing to the terms of confidentiality set out herein.

3 Title to the Confidential Information

I hereby acknowledge that all right, title and interest in and to the Confidential Information vests in the NWU and that I will have no claim of any nature in and to the Confidential Information.

4 Period of confidentiality

The provisions of this undertaking shall begin on the Commencement Date and remain in force indefinitely.

5 Non-disclosure and undertakings

I undertake:

5.1 to maintain the confidentiality of any Confidential Information to which I shall be allowed access by the NWU, whether before or after the Commencement Date of this undertaking. I will not divulge or permit to be divulged to any person any aspect of such Confidential Information otherwise than may be allowed in terms of this undertaking;

5.2 to take all such steps as may be necessary to prevent the Confidential Information falling into the hands of an unauthorised third party;

5.3 not to make use of any of the Confidential Information in the development, manufacture, marketing and/or sale of any goods;

5.4 not to use any research data for publication purposes;

5.5 not to use or disclose or attempt to use or disclose the Confidential Information for any purpose other than performing research purposes only and includes questionnaires, interviews with participants, data gathering, data analysis and personal information of participants/research subjects;

5.6 not to use or attempt to use the Confidential Information in any manner which will cause or be likely to cause injury or loss to a research participant or the NWU; and

5.7 that all documentation furnished to me by the NWU pursuant to this undertaking will remain the property of the NWU and upon the request of the NWU will be returned to the NWU. I shall not make copies of any such documentation without the prior written consent of the NWU.

6 Exception

The above undertakings by myself shall not apply to Confidential Information which I am compelled to disclose in terms of a court order.

7 Jurisdiction

This undertaking shall be governed by South African law be subject to the jurisdiction of South African courts in respect of any dispute flowing from this undertaking.

8 Whole agreement

8.1 This document constitutes the whole of this undertaking to the exclusion of all else.

8.2 No amendment, alteration, addition, variation or consensual cancellation of this undertaking will be valid unless in writing and signed by me and the NWU.

Dated at Potchefstroom this _____ 20____

Witnesses:

1

2

(Signatures of witnesses)

.....

(Signature)

ANNEXURE E: ETHICS APPROVAL LETTER OF STUDY



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 086 016 9698
Web: <http://www.nwu.ac.za/>

North-West University Health Research Ethics Committee (NWU-HREC)

Tel: 018 299-1206
Email: Ethics-HRECA@nwu.ac.za (for human studies)

1 April 2022

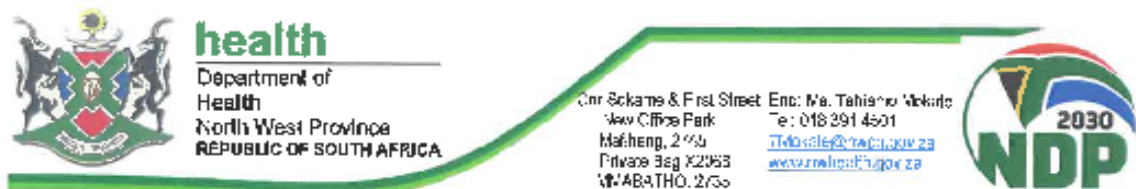
ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North-West University Health Research Ethics Committee (NWU-HREC) on 01/04/2022, the NWU-HREC hereby approves your study as indicated below. This implies that the NWU-HREC grants its permission that, provided the general conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Nurse educators' perceptions regarding incorporation of NIMART within the undergraduate nursing programme in North West Province			
Principal Investigator/Study Supervisor/Researcher: Dr JM Sebaeng			
Student: KS Bonokoane - 22304460			
Ethics number:	N W U - 0 0 2 9 7 - 2 1 - A 1		
	Institution	Study Number	Year Status
Status:	S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation		
Application Type: Single study	Risk:	Minimal	
Commencement date: 01/04/2022			
Expiry date: 30/04/2023			
Approval of the study is provided for a year, after which continuation of the study is dependent on receipt and review of an annual monitoring report and the concomitant issuing of a letter of continuation. A monitoring report is due at the end of April annually until completion of the study.			

General conditions:
<i>While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:</i>
<ul style="list-style-type: none">• <i>The principal investigator/study supervisor/researcher must report in the prescribed format to the NWU-HREC:</i><ul style="list-style-type: none">- <i>Annually on the monitoring of the study, whereby a letter of continuation will be provided annually, and upon completion of the study; and</i>- <i>without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.</i>• <i>The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the principal investigator/study supervisor/researcher must apply for approval of these amendments at the NWU-HREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.</i>• <i>Annually a number of studies may be randomly selected for active monitoring.</i>• <i>The date of approval indicates the first date that the study may be started.</i>• <i>In the interest of ethical responsibility, the NWU-HREC reserves the right to:</i><ul style="list-style-type: none">- <i>request access to any information or data at any time during the course or after completion of the study;</i>- <i>to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;</i>

ANNEXURE F: RESEARCH APPROVAL LETTER FORM DEPARTMENT OF HEALTH



RESEARCH, MONITORING AND EVALUATION DIRECTORATE

Name of researcher: **Mr K.S. Bonokoane**
North West University

Physical Address
 (Work/ Institution) **25 Cassim, street Potchefstroom**
North West University

HEAD OF DEPARTMENT
2022-02-24
NORTH WEST DEPARTMENT OF HEALTH <small>PRIVATE BAG 2164, MABATHO, 2730</small>

Subject: **Research Approval Letter – Perceptions of nurse educators on Incorporating NIMART into the undergraduate nursing programme, North West Province.**

This letter serves to inform the Researcher that permission to undertake the above mentioned study has been granted by the North West Department of Health. The Researcher must arrange in advance a meeting with the District Chief Director and District Director to introduce their research team/members on the proposed research to be undertaken. Further to the above the researcher must produce this letter to the District and chosen facilities as proof that the research was approved by the NWDoH.

This letter of permission should be signed and a copy returned to the Department. By signing, the Researcher agrees, binds him/herself and undertakes to furnish the Department with an electronic copy of the final research report. Alternatively, the Researcher can also provide the Department with electronic summary highlighting recommendations that will assist the Department in its planning to improve some of its services where possible. Through this the Researcher will not only contribute to the academic body of knowledge but also contributes towards the bettering of health care services and thus the overall health of citizens in the North West Province.

Below are the contact details of Office of the Chief Director and District Director of Dr. Kenneth Kaunda and Ngaka Modiri Molema districts.

ANNEXURE G: GOODWILL PERMISSION LETTER FROM NORTH WEST NURSING COLLEGES, MAFIKENG AND KLERKSDORP CAMPUS



neaitn
Department of
Health
North West Province
REPUBLIC OF SOUTH AFRICA

Civ Sekame & First Street
Second Floor Office: 266
New Office park
Mafikeng, 2745
Private Bag X2088
MMABATHO
2735

Enq. Mr. Tebogo Mmutle
Tel: (018) 391 4210
Cell: 076 044 3307
Fax: 018 392 6710
Fax 2E: 086 403 6816
TMmutle@nwpg.gov.za
www.nwhealth.gov.za



DIRECTORATE: NURSING EDUCATION AND NURSING PRACTICE

08 MARCH 2022

MR K.S BONOKOANE
25 CASSIM STREET
POTCHEFSTROOM

Dear Mr. Bonokoane

RESEARCHER GOODWILL PERMISSION LETTER – TO ACCESS NORTH WEST COLLEGE OF NURSING (MAFIKENG AND KLERKSDORP CAMPUS) FOR RESEARCH STUDY

This serves to give the researcher goodwill permission to access North West College of Nursing (Mafikeng and Klerksdorp Campus) for data collection in line with permission letter issued by North West Department of Health Research, Monitoring and Evaluation Directorate.

The researched must communicate with the respective campus management to make arrangements prior to visiting the campuses at the following details:

1. North West College of Nursing – Mafikeng Campus
Mrs. N Mkhokheli
Acting Campus Head
NMkhokheli@nwpg.gov.za
Tel: 018 391 0600

2. North West College of Nursing Campus - Klerksdorp Campus
Mrs. N. Sedumedi
Campus Head
NSedumedi@nwpg.gov.za
Tel: 018 406 8600

Yours sincerely



MRS. EVELYN NKHUMANE
DIRECTOR: NURSING EDUCATION AND PRACTICE

08/03/2020
DATE

ANNEXURE H: GOODWILL PERMISSION LETTER FROM NORTH WEST UNIVERSITY MAFIKENG CAMPUS



Private Bag X2046, Mmabatho
South Africa 2735

Tel: 018 389-1111/2222
Web: <http://www.nwu.ac.za>

School of Nursing Science
Tel: 0183892364
Email: 12895105@nwu.ac.za

North West University (Mafikeng)
Private Bag X 2046
Mafikeng
2745

03 February 2022

To: Mr Kabelo Stephen Bonokoane

RE: REQUEST FOR PERMISSION TO CONDUCT A STUDY AT NORTH WEST UNIVERSITY – SCHOOL OF NURSING: MC & PC

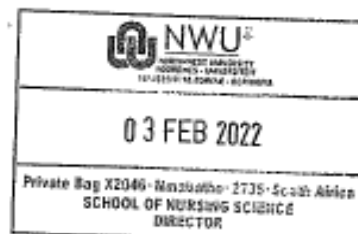
The purpose of this letter is to grant goodwill permission to conduct a study at the North West University on "Nurse educators' perceptions regarding incorporation of NIMART within the undergraduate nursing programme in North West Province" based on the Study Ethics Reference: NWU-00297 -21 S1). Disruption of teaching and learning should be avoided at the time of data collection. It is also requested that the findings of the study be shared with the university to contribute to future positive teaching and learning environment.

Best wishes for the study.

Thank you.

A handwritten signature in black ink, appearing to read 'M Metsipane', is written over a light blue horizontal line.

Dr M Metsipane
Director School of Nursing Science



ANNEXURE I: GOODWILL PERMISSION LETTER FROM NORTHWEST UNIVERSITY POTCHEFSTROOM CAMPUS



25 Cassim street
Mohading
Potchefstroom
2531
14-February-2022

North West province
Department of health
Dr Albert Luthuli rd.
Mmabatho
2790

Dear: NWPG research director

Request for goodwill permission

This letter serves as a humble request to obtain permission from North West provincial department of Health research director in order to access Nursing Institution of Higher Learning (IHL) for my research. The following are the details of my study:

Researcher name & surname: Mr Kabelo Stephen Bonokoane

Study Supervisor: Dr J Sebaeng

Co-supervisor: Prof SS Moloko-Phiri

Study Ethics reference: NWU-00297-21-S1

Study title: Nurse educators' perceptions regarding incorporation of NIMART within the undergraduate nursing programme in North-West Province

Methodology: The study will be utilising Qualitative research to describe (NE) perceptions

Research design: Phenomenography research design will be utilised to

Study setting: Institution of higher learning offering nursing education training (Universities and colleges)

Population: Nurse Educators (NE) were selected as they form part of the undergraduate nursing student curriculum

Sampling: Non-probability sampling through purposive sampling technique will be used and the sample size determined by data saturation

Data collection: Data will be collected using unstructured individual interview virtually

Data collection tool: An interview guide will be used to collect data through use of virtual Zoom application.

Trustworthiness: Will be based on Lincoln and Guba framework of 1985, namely: Credibility, transferability, dependability and confirmability and authenticity (Beck et.al 2018:110) and Kumar (2011:171)).

Ethical considerations: The study will apply the principle of respect, autonomy, confidentiality and non-maleficence among other ethical principles to conduct this study

Study risk: Minimal as the study is conducted online during this period of the corona pandemic.

For more information about the study contact the researcher on

Email: Kabelo.bonokoane@gmail.com

Tel: 076762209

Yours



School of nursing deputy director

Approved (Permission granted)

Yes X , NO

Signature: ..



Digitally signed by Dr E Bornman
DN: cn=Dr E Bornman, o=NWU,
ou=Deputy Director School of
Nursing,
email=Elsabe.Bornman@nwu.ac.za,
c=ZA
Date: 2022.02.08 13:42:23 +02'00'

ANNEXURE J: RESEARCH INTERVIEW EXAMPLE

Interview transcription

Participant B

Date: 25-May-2022

Interviewer: Okay now the first question will be what are your perceptions regarding incorporations of NIMART at undergraduate nursing programme in North West?

Participant B: Okay I think that will be relevant sir because this NIMART training is about HIV & AIDS as well as tuberculosis management and those are the conditions that are still considered as major public or they are one of the conditions that are still killing our patients, so it will be relevant if nurses at undergraduate programme are taught NIMART so that when they complete their training they will be able to appropriately manage HIV, STI and TB patients.

Interviewer: Okay noted Mem.

Interviewer: Ok

Interviewer: Aaah... do you maybe want to tell us more about umm your perception regarding incorporation of NIMART course at undergraduate nursing programme?

Participant B: Okay if they can be trained while they are still studying nursing they will have more knowledge, more information that will assist them in managing those patients, akere (*I am saying*) even while they are still students we do place them at clinics so that information will be helpful because will assist in reducing mortality and mobility rates that are related in those conditions.

Interviewer: Okay noted Mem, thank you for answering that question aah are there any other benefits that are out there which can benefit our students especially when NIMART it is incorporated? I heard you mentioning that they will be able to manage HIV and TB appropriately and when they are placed also will be able to manage patients appropriately are there any other benefits? if maybe our students graduate having being trained on NIMART elsewhere?

Participant B: The other benefit is that they will be able to help the nurses who are already at the field. They will share this knowledge and again besides the management part, I have seen many patients dying because of TB and HIV and AIDS. So I think they will assist in reduction of mortality rate and they will also assist in reduction of infant mortality rate because most of professional nurses mismanagement pregnant women, pregnant HIV positive women because they do not have proper knowledge on how to treat those patients. So they will be able to share that knowledge after they have been trained.

Interviewer: Okay aah just a follow up question on that I heard you clearly when you said these student once their completed they will be able to share the knowledge to other health workers as they don't have proper knowledge to manage people living with HIV aah what kind of knowledge do you think those students will then be able to assist with particularly.

Participant B: Okay management and treatment of HIV aah gate keng (what is it?) HIV, STI and tuberculosis. Because during NIMART training they will be educated on how to properly manage those patients at the clinics I believe there are professional nurses who are not yet trained and I think training is not that feasible because of shortage of stuff.

Interviewer: Okay

Participant B: Hence I am explaining our students will be able to share the knowledge that they will acquire from the college.

Interviewer: Thank you very much well unpacked and it also answered my follow up question and I already had another one but at least you have covered it as well. Okay before we move to next additional question of this interview. Are there anymore comments from your side regarding the first question eeh on your perceptions regarding incorporation of NIMART at undergraduate nursing course? Are there any other comments from you?

Participant B: Okay hence in the beginning I said this training is really relevant and it will play a vital role, it will also contribute to or it is relevant let me put it that way and the other reason is that as the college when we develop the curriculum it has to meet the societal need so whatever that we teach our student should benefit the community or the society hence I am saying this training is relevant. The other thing I want to emphasis is before we can teach this NIMART training as lectures will also need to be educated or will also need to be trained before we can train our students.

Interviewer: Okay when you are trained as lectures aah before this NIMART can be incorporated how will that benefit you?

Participant B: I will be able to effectively facilitate the programme because I will be knowledgeable or kere (I am saying) I will be imparting valuable information to students so that they can be agent of change when they are placed at clinical facilities and on accomplishing of their training.

Interviewer: Okay alright that is noted Mem and thank you very much for that in-depth information however do you mind answering aah the next research additional questions?

Participant B: Okay

Interviewer: Is eeh is NIMART incorporated at your current institution of higher learning?

Participant B: Mmmh Sorry come again.

Interviewer: Is NIMART course incorporated within your current undergraduate nursing student curriculum at the institution where you work?

Participant B: No. It is not yet incorporated.

Interviewer: Okay so now in case it might be incorporated where in the curriculum should this NIMART ideally being incorporated?

Participant B: I think from 2nd year.

Interviewer: Okay

Participant B: Because aah when student are at 2nd year level I think they will understand better for example, they have done the anatomy and physiology. And during first year we also teach them pharmacology and because NIMART is about management of HIV, Tuberculosis and STI patients. Pharmacology will assist them with the drugs that they should use in those patients.

Interviewer: Okay thanks

Participant B: And they will also know about drug interaction and drug contra indication.

Interviewer: Okay no thanks for that input Mem on that question. I have a follow up question as well on this one to say, you said it should be incorporated in 2nd year going forward do you mind aah telling us exactly why you then exclude the first year your reason for first years to be excluded?

Participant B: Okay at first year we don't teach them pharmacology so when we teach them about HIV drugs at 1st year they won't understand because they are not yet doing a pharmacology module and pharmacology is about how drugs are being absorbed how they are distributed in the body and so on.

Interviewer: Okay is that all from your side Mem?

Participant B: Yes Sir

Interviewer: Okay no thank you very much my last question would be, what might be the prerequisites or maybe the resources needed for implementing this NIMART? I heard you already mentioned that nurse educators need to be trained as well so that as they are the ones who are able to cascade this knowledge to the students so what are other prerequisites or resources?

Participant B: Okay I think apart from training of educators we will only need the updated guidelines , the updated NIMART guidelines then that will be all after we have being trained.

Interviewer: Okay any other resources?

Participant B: Okay that will be all training of nursing educators as well as the policies that will assist us during our teaching like updated guidelines.

Interviewer: Okay and policies neh.

Participant B: Yes

Interviewer: Alright so just lastly on that one aah how do you think this guidelines NIMART guidelines and policies would assist you as nurse educators and undergraduate nursing students?

Participant B: Okay as I have already mentioned whatever that we do in our curriculum should benefit the community so we need updated guidelines so that we can refer to them so that we can teach our students what is being done at clinical facilities.

Participant B: I don't know if making sense.

Interviewer: Okay maybe you can give us example?

Participant B: We need guidelines to refer to so that we can give our students quality NIMART training.

Interviewer: Okay thank you very much Mem that was our last question of the research interview and thank you for answering all the questions we had today aah just before we close this interview are the any other comments or aah that are you have regarding some of the questions that we spoke about if any?

Participant B: Okay I just want to emphasize this point NIMART training will be very relevant because our student will be capacitated with knowledge of how to treat HIV patients so kere (I am saying) I will be personally happy if that training will be incorporated in our curriculum it is needed.

Interviewer: Okay that is well unpacked Mem we hope everybody might contribute proper knowledge which will also guide curriculum developers and nursing regularities bodies as far as they review other policies. And thank you very much again for taking part in this study.

Participant B: And other things Sir sorry for bringing this information while you are about to close.

Interviewer: No don't worry. You are welcome to share much.

Participant B: If our students can be trained while they are still doing nursing here (I am saying) it will be less expensive as compared to when they are trained while they are registered nurses. Number one this training takes a week if I am not mistaken and by that time accommodation and meals have to be booked for those professional nurses. But here they will be using their training period.

Interviewer: Yes

Participant B: Yes Sir

Interviewer: That is a very critical point there you mentioned NIMART is expensive because as people have graduated already they go for training they have to go for 5 days and they have to be accommodated also brought meals so that means do you think it will then be cheaper if it is incorporated while they are doing their undergraduate nursing course?

Participant B: Yes it will be cheaper and the other thing Sir is that we are experiencing shortage of staff so if that particular clinic is training two professional nurses at the time what will happen to the patients?

Interviewer: Can you emphasize on what will happen on these patients aah what exactly do you mean what will happen to the patients?

Participant B: Okay because we have shortage of staff and when for example 2 professional nurses for that particular week are on NIMART training it means patients will not be attended to.

Interviewer: Okay that will lead to shortage of staff at the facilities?

Participant B: Yes shortage of staff at the facility, medication prodigal hazard increase mortality and mobility rates due to shortage of staff.

Interviewer: Okay I hear Mem are there any other additional comments because I hear you have so much information as I am asking this question?

Participant B: No Sir I am okay.

Interviewer: Okay are you sure?

Participant B: Yes I am fine Sir

Interviewer: Okay thank you very much for your fruitful information I am happy that you had those additions with very serious points and as a researcher would really like to thank you very much for your contribution at the body of knowledge.

Participant B: Okay thank you Sir.

Interviewer: Have a lovely day.

ANNEXURE K: PROOFREADING AND LANGUAGE EDITOR CERTIFICATE

Gill Smithies

Proofreading & Language Editing Services

59, Lewis Drive, Amanzimtoti, 4126, Kwazulu Natal

Cell: 071 352 5410 E-mail: moramist@vodamail.co.za

Work Certificate

To	Mr. K. S. Bonokoane
Address	Faculty of Health Sciences, School of Nursing Science, North West University, Private Bag X6001, Potchefstroom.
Date	24/112022
Subject	Dissertation: Nurse educators' perceptions regarding incorporation of NIMART within the undergraduate Nursing Programme, North West Province
Ref	GS/KSB/01 Stephen

I, Gill Smithies, certify that I have proofed the following for language, grammar and style, and made recommendations,

Dissertation: Nurse educators' perceptions regarding incorporation of NIMART within the undergraduate Nursing Programme, North West Province, by K.S. Bonokoane,

to the standard as required by NWU, Potchefstroom Campus.

Gill SmithiesZ