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PARTICIPATORY ACTION RESEARCH TO IMPLEMENT A MODEL OF COLLABORATION BETWEEN ALLOPATHIC AND TRADITIONAL HEALTH PRACTITIONERS IN THE MANAGEMENT OF HIV/AIDS AND TB

By

Bongane Charles Majola

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Supervisor: Prof RN Ngunyulu

Co-supervisor: Dr VM Bhana-Pema

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DEDICATION

I dedicate this research report to, My Almighty God, who gave me the strength and wisdom to complete the study.

Furthermore, I also dedicate it to,

My wife and three daughters for allowing me to pursue this study and for their generous support throughout the study period.

To my mother and siblings for their support and prayers, which carried me throughout the study.

The dedication extends to my church members who continually prayed for my success.

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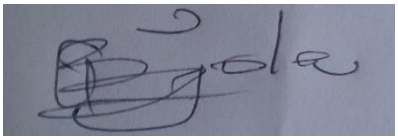
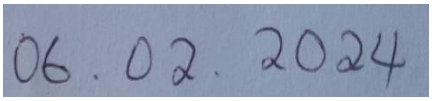
- The executive committee of Gert Sibande traditional healers for participating in the study.
- The Chief Executive Officer and Nursing Service Manager of the local hospital for granting me permission to conduct the study.
- The editor, Nikki Sutherland who edited my work.
- Professor Nemutandani, the primary developer of the model.

DECLARATION

Student number: 10672207

I, **Bongane Charles Majola**, declare that my study titled, '**Participatory Action Research to implement of a model of collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB** is my own work and that all sources that have been used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted for any other degree at any other institution.





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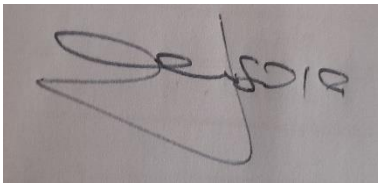

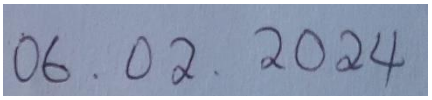

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ABSTRACT

Introduction: A collaborative healthcare system is needed to meet the cultural health needs of population groups. South Africa is overwhelmed with people from diverse cultural backgrounds leading an increased demand to consult both allopathic and traditional health practitioners as consumers of healthcare use both services. Studies indicated that about 80% of Africans first attempt to self-diagnose and treat or seek help from traditional health practitioners before formal consultation with allopathic health practitioners. The researcher has realised that there is a lack of collaboration between allopathic and traditional health practitioners in the management of patients living with HIV/AIDS and TB in the Gert Sibande District, Mpumalanga, South Africa. The lack of collaboration occurs despite the recommendation outlined in the African National Congress Health Plan, which indicated that traditional healing would be an integral and recognised part of healthcare in South Africa.

Aims: The study aimed to validate, adjust, and implement Nemutandani's adjusted model for collaboration and evaluate the extent to which the model was useful to Gert Sibande District.

Methodology: A Participatory Action Research (PAR) design was used. The study was conducted in four phases, and the four steps of participatory action research acted as a lens: identification of needs, planning, implementation, and evaluation. The activities of each step were guided by the phases of the Replicating Effective Program (REP) framework: preconditions, pre-implementation, implementation, and evaluation.

The population of interest for phase one, two and four were stakeholders who were experience in managing patients living with HIV/AIDS and TB, and had the power to facilitate change in the community. For phase three population were patients living with HIV/AIDS and TB, and healthcare providers who were directly working with patients suffering from HIV/AIDS and TB. Maximum variations purposive sampling was used to select stakeholders. Thirteen stakeholders signed informed consent to participate in the study for phase one, two, and four. For phase three ten patients and three program champions from each of the two selected clinics signed consent to participate and participated in the study. Two Nominal Group Technique (NGT) workshops were conducted to collect data for phases one and two. In phase one, the need for implementing Nemutandani's collaborative model was identified and the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa, was identified, and in phase two, Nemutandani's collaborative model was adjusted to meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. Inductive content analysis was used to analyse data for phases one and two. The outcome of phase one was the identified the need for implementing

Nemutandani's adjusted collaborative model and the content of the model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

The outcome of phase two was Nemutandani's adjusted collaborative model. In phase three, the adjusted model was implemented in two clinics in the Gert Sibande District, Mpumalanga Province, South Africa. The implementation of Nemutandani's adjusted collaborative model lasted for two months, and the third month was used for the evaluation of the extent to which the model was useful to Gert Sibande District, Mpumalanga Province, South Africa. A Likert scale was formulated to collect data from the stakeholders regarding the extent to which Nemutandani's adjusted collaborative model was useful to Gert Sibande District, Mpumalanga Province, South Africa.

Study findings: The findings revealed that in the Gert Sibande District, Mpumalanga Province, South Africa, implementation of Nemutandani's adjusted collaborative was needed. Both traditional and allopathic health practitioners were willing to work together and learn from each other. Since the beginning of Nemutandani's adjusted collaborative model implementation, people living with HIV/AIDS and TB honoured their appointments and were happy about the initiative. A need for further training was identified.

Conclusion: The study concludes that collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB is an effective way that can improve treatment adherence. Collaboration creates clear lines of communication between traditional and allopathic healthcare practitioners, and minimised the misunderstanding between the two healthcare providers treating the same patient.

Keywords: Allopathic, allopathic health practitioner, collaboration, implementation, model, participatory action research, traditional, and traditional health practitioner.

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LIST OF ACRONYMS

AHP/s	Allopathic Health Practitioner/s
AIDS	Acquired Immunodeficiency Syndrome
ARV/s	Anti-retroviral/s
CCMDD	Centralised Chronic Medicines Dispensing and Distribution
CEO	Chief Executive Officer
DOT	Direct Observed Therapy
HIV	Human Immunodeficiency Virus
ICT	Information Communication Technology
n.p.	No page number
NGT	Nominal Group Technique
NMC	Nursing and Midwifery Council
PAR	Participatory Action Research
PHC	Primary Health Care
PhD	Doctor of Philosophy
PMTCT	Prevention of Mother to Child Transmission
REP	Replicating Effective Programs
RSA	Republic of South Africa
SAMRC	South African Medical Research Council
TB	Tuberculosis
THP/THPs	Traditional Healthcare Practitioner/s
U.S.	United States
UNAIDS	The Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

CONTENTS

CHAPTER ONE: OVERVIEW OF THE STUDY

1.1. Introduction And Background

Healthcare systems worldwide are overwhelmed with people from diverse cultural backgrounds. Healthcare choices are influenced by a person's cultural values, beliefs, and practices (Tukuitonga, 2018:5). According to Van Rooyen, Pretorius, Tembani, and Ten-Ham-Baloyi (2017:291), there is an need to consult both allopathic and traditional healthcare practitioners as healthcare consumers use both services. As a result, a collaborative healthcare system is necessary to meet the cultural health needs of population groups (Audet, Ngobeni & Wagner 2017:1). As an occupational health nurse working at a public hospital in Gert Sibande District, South Africa, attending different meetings and reviews and a committee member of pharmaco-vigilance and quality assurance, the researcher observed that there is a high rate of non-compliance to treatment among patients living with HIV/AIDS and TB in Gert Sibande District, Mpumalanga Province, South Africa. The non-compliance was linked to a lack of collaboration between allopathic and traditional healthcare practitioners in the management of HIV/AIDS and TB.

The lack of implementation of collaborative models in healthcare provision remains a concern globally (Van Rooyen et al. 2017:298). Audet, Hamilton, Hughart and Salato (2015:1) and Moshabela, Zuma, and Gaede (2016:1) indicated that sub-Saharan African traditional healers and traditional birth attendants act as patients' first line of treatment, and this often results in delayed, interrupted, or abandoned diagnoses and therapy. Davis, Blouws, Aboyade, Gibson, and De Jong (2014:42) stated that many South African first attempt to self-diagnose and treat or seek help from traditional health practitioners before formal consultation with allopathic health practitioners. The lack of collaboration occurs despite the recommendation outlined in the African National Congress Health Plan, which indicated that traditional healing would be an integral and recognised part of healthcare in South Africa (RSA, 1994:321). The Traditional Health Practitioners Act, Act 22 of 2007, was promulgated to enable THPs to be part of the healthcare multi-disciplinary team (RSA, 2008:5).

The healthcare model currently used in South Africa is mainly based on allopathic medicine, whereas alternative healthcare models are disregarded. These situation leads to a lack of collaboration between allopathic and traditional health practitioners when providing healthcare in South Africa. Nemutandani, Hendricks, and Mulaudzi (2016:2) mentioned that studies have been conducted that recommended collaboration between the two healthcare practitioners, however, there is limited evidence to show how this has been implemented. It was also recommended that there should be a referral system between the two healthcare providers. Cross referral of patients demands cooperation between the two healthcare systems (Nkosi & Sibiya 2018:120). According to Van Rooyen et al.

(2015:7), a mutual referral is only achievable in a climate where people respect one another's uniqueness and competency.

Currently, in the Gert Sibande District, Mpumalanga Province, South Africa, patients living with HIV/AIDS, who do not qualify for the Centralised Chronic Medicines Dispensing and Distribution (CCMDD) program, are expected to take their ARV treatments at the designated clinics and hospitals. The CCMDD program allows the collection of treatments from their convenient pickup points. Patients are continuously advised that they must adhere to taking treatments at the same time every day (Meyer, Schellack, Stokes, Lancaster, et al. 2017:1)**.** Trimble and Rajaraman (2017:1) indicated that patients are further advised not to mix the ARVs with any other type of treatment including traditional medications. Van Rooyen et al. (2015:6) mentioned that the traditional healers were concerned that the mixing of traditional and Western medicine could delay the healing process or nullify the healing process and cause complications and, thus, warned their patients about it. This was confirmed by Van Rooyen et al. (2017:291) who indicated that traditional health practitioners expect patients living with HIV/AIDS to use their traditional medication without mixing with any other medications including allopathic medications, which results in default of ARV treatments**.** There is no communication between allopathic healthcare practitioners taking care of patients living with HIV/AIDS and traditional healthcare practitioners, who are the patients' preferred first-line consultants. This lack of communication leads to patient conflict who use both healthcare services (Campbell-Hall, Petersen, Bhana, Mjadu, Hosegood et al. 2010:611)**.**

Despite the advice given at the clinics and the hospitals in Gert Sibande District Mpumalanga Province, South Africa, about 50% of patients living with HIV/AIDS and TB use both allopathic and traditional health practitioners (Majola, Ngunyulu and Bhana, 2017:46). This was confirmed in the study that the researcher conducted during a master's degree, which revealed the use of traditional medication as one of the contributory factors of default in taking ARV treatment (Majola, Ngunyulu and Bhana, 2017:46). According to national guidelines for the Prevention of Mother to Child Transmission (PMTCT), HIV infected individuals require lifelong treatment, HIV patients need to visit their healthcare centre for monitoring to make sure that the HIV is kept under control **(**RSA, 2019:39). This study is a continuation from masters to PhD, intending to implement a model of collaboration between allopathic and traditional health practitioners in Gert Sibande District, Mpumalanga Province, South Africa, to prevent the default of treatment by patients living with HIV/AIDS and TB. The lack of collaboration between allopathic and traditional health practitioners delays patients who receive treatments from traditional healers to seek medical attention (Audet et al. 2015:1).

Van Rooyen et al. (2017:1) indicated that a growing demand exists to use both groups of healthcare practitioners to strengthen healthcare delivery, as both healthcare practitioners are working with the

patients. According to The Constitution of South Africa, people have the right to access healthcare services of their choice (RSA, 1996:95). Maduka, Ejimkaraonye, Shadrack and Umeoduagu (2015:335) and Nkosi and Sibiya (2018:120) added that in sub-Saharan Africa, the use of multiple health systems is common, especially among people living with HIV/AIDS. The use of traditional healing medicine continues to grow despite the evolution of modern medicine (Maduka et al. 2015:335 and Nkosi & Sibiya 2018:120). Therefore, strategies to strengthen collaboration between the allopathic and traditional healthcare practitioners were proposed, however, the implementation of the strategies in different countries remains a challenge (Krah, de Kruijf & Ragno 2018:158).

Boateng, Danso-Appiah, Turkson and Tersbol (2016:1) and Maduka et al. (2015:334) indicated that about 80% of the population in African countries use traditional health practitioners to meet their primary healthcare needs. In Nigeria, various forms of alternative medical therapy exist, such as traditional birth attendance, traditional bone setting, herbal treatments and traditional eye medication, mostly in rural areas, as they are deeply rooted in culture, but a collaboration of the two-health system is not yet in practice (Maduka et al. 2015:335). In South Africa, the number of people living with HIV/AIDs remains high. According to Avert (2018:1), HIV/AIDS statistics in the year 2017, South Africa had 270 000 new HIV infections, 110 000 people died due to HIV-related diseases, and 7.2 million people are living with HIV. Statistics South Africa 2021 indicated that the total number of persons in South Africa living with HIV increased from an estimated 3,8 million in 2022 to 8,2 million by 2021 (RSA, 2021:15). For year 2021, it was estimated that 13,7% of the total population is HIV positive (RSA, 2021:15). On the other hand, Audet et al. (2015:1) reiterated that patients perceive traditional health practitioners as an alternative to inadequate health services. Beliefs and health-seeking behaviour are the inseparable domain of culture, and any type of illness, including HIV/AIDS and TB, is not free from the periphery of cultural constriction (Trimble & Rajaraman, 2017:9).

Furthermore, Davids, Blouws, Aboyade, Gibson, and De Jong (2014:12) and Trimble and Rajaraman (2017:9) indicated that many people afflicted with HIV and associated opportunist infections, readily consult traditional health practitioners and use medicinal plants, despite easy access to biomedical care. Shere-Wolfe, Tilburt, D'Adamo, Berman, and Chesney (2013:1) reiterated that a large percentage of patients living with HIV/AIDS use complementary and alternative medicine to fight against the disease. The types of traditional, complementary, and alternative medications used by patients living with HIV are mainly African traditional medications and over-the-counter supplements (Nlooto 2015:7; James, Wardle, Steel & Adams 2018:11)**.** Trimble and Rajaraman. (2017:9) stated that the integration of THPs and AHPs may help to address some of the challenges in healthcare, like the default of treatment. The lack of collaboration between AHPs and THPs undermines patients' safety and healthcare outcomes (James et al. 2018:11).

In response to this need, many researchers globally, conducted research and developed models which advocate for collaboration between the two health systems to improve the quality of care, but the implementation remains a challenge. Nair and Adetayo (2019:1) indicated that today's healthcare model has persistent challenges with cultural competency, and diverse populations require personalised approaches to meet their healthcare needs. Papadopoulos, Tilki, and Taylor (1995:1) developed a model of cultural competence in nursing and further suggested that this model should be used for curriculum development and to guide research practice. The reason for Papadolopoulus et al. (1995:1) to develop this model was the realisation that understanding health and illness has to be considered, not only in terms of biological factors but also in terms of social and cultural determinants.

Sorketti, Zuraida, and Habil (2010:71) also suggested that in Sudan, there should be a collaboration between the traditional healers and the psychiatrists to combat harmful practices employed by the traditional healers when providing care to patients living with mental illness. Sorketti et al. (2010:71) suggested the need for the above collaboration as they realised that in Sudan, there is no regulation of traditional healers; consequently, many cases of patient abuse have been reported. The findings of the study conducted in Tanzania on the experiences of initiating collaboration between the Western and the traditional health systems revealed that many African countries accept collaboration between the two systems, but the problem is how to initiate collaboration between the two health systems which differ in theory of disease causation and management (Kayombo, Uiso, Mbwambo, Mahunnah, Moshi et al. 2007:1). Nemutandani et al. (2016:141) developed a model of collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB patients in the Vhembe District, Limpopo Province**,** and this model was not yet implemented**.** The researcher aimed to validate, adjust, implement and evaluate Nemutandani's adjusted collaborative model at Gert Sibande District, Mpumalanga Province, South Africa.

Description of Nemutandani et al. (2016) collaborative model

The study aimed at developing a model of collaboration between allopathic and traditional health practitioners in managing HIV/AIDS and TB patients in the Vhembe District, Limpopo Province. The research study was participatory in nature. It was conducted in three phases after the agreement made by stakeholders during consultative meetings. The study findings confirmed that collaboration between the healthcare systems was long overdue, but also created an opportunity to build a relationship between the allopathic and traditional health systems to address challenges of patient secrecy, treatment overdose and defaulting of ARVs. The stakeholders further explored how they can work together in the fight against HIV/AIDS and TB. The suitable approach decided was the change of mindset through the decolonisation process.

1.2. Problem Statement

As an occupational health nurse working at a public hospital in Gert Sibande District, Mpumalanga Province, South Africa attending different meetings and reviews and a committee member of pharmaco-vigilance and quality assurance, the researcher realised that there is a high rate of non-compliance to treatment among patients living with HIV/AIDS and TB in Gert Sibande District, South Africa. The non-compliance was linked to a lack of collaboration between allopathic and traditional healthcare practitioners in the management of HIV/AIDS and TB. This was confirmed by a study done by Majola et al. (2017:46), which revealed the use of traditional medication as one of the contributory factors of default in taking ARV treatment. The results of the study indicated that 98.46% of people eligible to take ARVs default from care (Majola et al. 2017:46). These led to a high rate of opportunistic infections and increased morbidity and mortality rate related to HIV/AIDS and TB diseases.

Krah et al. (2018:157) stated that THPs and AHPs health systems should be integrated, to expand and reach out to people with health needs and improve the healthcare outcomes in Africa. The management of patients living with HIV/AIDS and TB in the Gert Sibande District, Mpumalanga Province, South Africa, was not collaborative. However, the lack of collaboration between AHPs and THPs caused conflict among patients who preferred THPs as their first line of treatment, and that delayed them in seeking medical attention (Audet et al. 2015:1). Summerton (2006:21), cited in Van Rooyen et al. (2015:6) mentioned that traditional health practitioners tend to refer patients to a western health facility as a last resort, when the patient is in the final stage of illness, with a minimal chance of survival.

Researchers worldwide, including South Africa, responded to the lack of collaboration, and developed strategies, guidelines, and models to enforce collaboration between traditional and allopathic healthcare providers (Nkosi & Sibiya 2018:120). Ngunyulu, Mulaudzi, and Peu (2012:47) developed a model to incorporate indigenous postnatal care practices into the midwifery healthcare system. However, this model has not yet been implemented. Van Rooyen et al. (2015:1) also recommended the facilitation of professional collaboration between traditional and allopathic health practitioners to address staff shortages and complement healthcare delivery. Nkhwashu, Mulaudzi and Masoga (2016:101), also developed a model of convergence and engagement between African indigenous health and the biomedical system regarding tuberculosis treatment, but the model has not yet been implemented. Nemutandani et al. (2016:141) developed a model for collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB, and it was not implemented, hence, the study aimed at validating, adjusting, implementing, and evaluating a model of collaboration between allopathic and traditional health practitioners developed by Nemutandani et al. (2016:141). The starting point was to present the model of collaboration between allopathic and

traditional health practitioners to the Gert Sibande District, Mpumalanga Province, South Africa' stakeholders to allow them to decide on the content of the model that was relevant in their context and to validate, adjust, implement, and evaluate the model of collaboration between allopathic and traditional healthcare practitioners in the management of HIV/AIDS and TB.

1.3. Aim of the Study

The study aimed to implement Nemutandani's adjusted collaborative model and evaluate the extent to which it was beneficial to the Gert Sibande District, Mpumalanga Province, South Africa.

1.4. Research Questions and Objectives

1.4.1 The research questions

The research questions for the study were:

- What is the need for Nemutandani's collaborative model implementation in the management of HIV/AIDS and TB? What is the effective model content that meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa?
- How will Nemutandani's collaborative model be adjusted to effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa?
- How will Nemutandani's adjusted collaborative model be implemented?
- To what extent was Nemutandani's adjusted collaborative model useful to the Gert Sibande District, Mpumalanga Province, South Africa?

1.4.2 The research objectives

- To validate Nemutandani's collaborative model by identifying a need for the model implementation in the management of HIV/AIDS and TB and to identify the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa.
- To adjust Nemutandani's collaborative model, by reviewing the core elements of Nemutandani's collaborative model.
- To implement Nemutandani's adjusted collaborative model.
- To evaluate the extent to which Nemutandani's adjusted collaborative model was useful to the selected district.

1.5. Clarification of Concepts

Allopathic A scientific and empirical medical approach that sees disease as a natural phenomenon subject to investigation by scientific methods (Busia & Kasilo, 2010:41). For this study, it means a medical approach in the management of HIV/AIDS and TB in the selected healthcare setting in the Gert Sibande District, Mpumalanga Province, South Africa.

Allopathic healthcare practitioners are individuals trained in scientific Western medicine and their training is supported/endorsed by law (Van Rooyen et al. 2015:2). In this study, the term was used for medical doctors and nurses stationed in the selected healthcare setting in the Gert Sibande District, Mpumalanga Province, South Africa.

Collaboration is the process of working together in a climate where the parties acknowledge, respect, and appreciate one another's roles and provide mutual assistance to help attain a common goal (UNAIDS 2000:34). In this study, it means working together with allopathic and traditional health practitioners in the management of HIV/AIDS and TB. This collaboration assisted the researcher to work together with Gert Sibande District, Mpumalanga Province, South Africa' stakeholders to come up with Nemutandani's adjusted collaborative model.

Implementation means putting a plan into action or carrying out or putting it into practical effect (White, Suchowierska & Campbell 2004:4). In this study, the selected program champions, with the support from stakeholders, implemented Nemutandani's adjusted collaborative model. Stakeholders were allocated to the different implementation sites (two clinics in the Gert Sibande District, Mpumalanga Province, South Africa) to mentor the training and the implementation process conducted by the program champions and to give them booster training where needed.

Model A copy, replica, or analogy that differs from the real thing in some way, wherein parts of a model correspond to the parts of the theory (Nemutandani, et al. 2016:15). In this study, a model refers to a system to follow to enhance collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB.

Participatory action research focuses on personal and social change, and its main aim is to ensure active involvement and political action of the community members and the researchers (Freire 1973), as cited in Chilisa (2012:235). For this study, the researcher worked in conjunction with the stakeholders to validate, adjust, and implement Nemutandani's adjusted collaborative model and evaluate the extent to which it was useful to the Gert Sibande District, Mpumalanga Province, South Africa.

Traditional means following or belonging to the ways of behaving or beliefs that have been established for a long time (Mothibe & Sibanda 2019:1). For this study, it means a traditional approach in the management of HIV/AIDS and TB in the selected healthcare setting in the Gert Sibande District, Mpumalanga Province, South Africa.

Traditional healthcare Practitioners are individuals who specialise in different forms of treatment, such as herbalism, spiritualism, and religion and address ailments from spiritual sources (Audet 2015:1). In this study, this term was used to describe the traditional healers stationed in the selected healthcare setting in the Gert Sibande District, Mpumalanga Province, South Africa.

1.6. Significance of the Study

Implementation of Nemutandani's adjusted collaborative model between AHPs and THPs systems in the management of HIV/AIDS and TB was significant to patients, to both the allopathic and traditional healthcare practitioners and to clinical practice:

To patients

Collaboration between AHPs and THPs might allow patients to access the healthcare of their choice. Patients might use both services freely without being stigmatised. The rights and needs of the patients might be respected irrespective of their condition. People might be allowed to exercise their own beliefs, as no one owns a patient. As a result, the number of patients who default from care might be decreased as their choice of treatment will be respected. Collaboration between the two healthcare systems might promote efficient use of health services, as patients who needed referral between the two healthcare practitioners would be referred. The conflict caused by the lack of collaboration between the two healthcare systems to patients who prefer THPs as their first line of treatment might be resolved, and that might further minimise the delay in seeking medical help.

To allopathic and traditional healthcare practitioners

Collaboration might make it easy for both healthcare practitioners to follow up on all patients because they could be able to give each other reports about the patients. Van Rooyen et al. (2015:9) suggested a collaboration between the two health systems in terms of change of attitude, communication, and capacity building due to the existence of context-specific issues and diseases such as multiple and

extreme drug-resistant HIV/AIDS, TB and lifestyle diseases. Furthermore, it might create clear lines of communication between traditional and allopathic healthcare practitioners, thus minimising the misunderstanding between the two healthcare providers treating the same patient. Moreover, clear lines of communication might strengthen the referral system, and that would make it easy to trace patients who defaulted from taking HIV/AIDS and TB treatment. Both healthcare practitioners are committed to working together and that might be beneficial to both patients and the healthcare system. In South Africa, the plural healthcare systems offer a multiplicity of options for their healthcare seekers, and it is in the best interest of South Africans that their healthcare providers function together in harmony to best serve the people first before serving their profession and their trades (Moshabela et al. 2016:85). There might be acceptance of THPs and their practices by AHPs and initiation of a mutual relationship between the two parties. The training was conducted for traditional health practitioners by the program champions about the signs and symptoms of HIV/AIDS and TB, and the importance of advising patients on adherence to treatment. Collaboration between the two health systems might improve their relationship and narrow the gap between them.

To clinical practice

Patients defaulting from care might be tracked down easily, leading to decreased morbidity and mortality related to HIV/AIDS and TB, and healthcare outcomes might improve. Nemutandani's adjusted collaborative model might further act as a guideline to ensure that all patients have access to quality and safe healthcare, potentially reducing complications arising from overdosing or defaulting medications prescribed by either healthcare practitioner.

1.7. Paradigm Perspective

A paradigm is a set of beliefs used to view the social world and give a guide on how to do our actions as well as a social scientific study (Rehman & Alharthi 2016:57). A participatory action research paradigm was used, which is one of the characteristics of a transformative worldview. The critical theory that falls under a transformative worldview was used. The reason for choosing the critical theory as a paradigm for this study was because it is transformative and aims to not merely explain or understand society, but to change it. The critical theory requires the investigator to engage the subjects in dialogue to bring about a change in their outlook on the social system that keeps them deprived of social needs (Rehman & Alharthi 2016:57 and Bothma, Greeff, Mulaudzi & Wright 2010:43). This worldview allows the researcher to use a collaborative approach and engage the subjects in formulating questions, data collection, and analysis. This collaborative approach may lead to the transformation of social systems built on injustice and discrimination. Guided by the critical worldview, the stakeholders worked collaboratively to share their views regarding the implementation of Nemutandani's model of collaboration between allopathic and the traditional healthcare

practitioners in the management of HIV/AIDs and TB and to identify the content of the model that effectively meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

1.7.1. Ontological Assumptions

Ontological relates to the nature of our belief about reality and its characteristics. Researchers' multiple forms (multiple realities) of evidence from different individual perspectives and experiences are explored (Carnaghan 2018:1). In this research study, the researcher worked together with the stakeholder to validate, adjust, implement Nemutandani's adjusted collaborative model, and evaluate the extent to which the adjusted collaborative model was useful to Gert Sibande District, Mpumalanga Province, South Africa. The expected outcome was the implementation of Nemutandani's adjusted collaborative model, which was relevant to the Gert Sibande District context, into their health system which gave patients living with HIV/AIDS and TB freedom of choice when it comes to healthcare services.

1.7.2. Epistemological Assumptions

The researcher worked together with the stakeholders throughout the research process. Subjective evidence was assembled based on individualised views from research conducted in the field (Carnaghan 2018:2). Humans are known for their independent nature and uniqueness, and the knowledge gained in this study would assist both AHPs and THPs with the ability to work collaboratively in the management of patients living with HIV/AIDS and TB.

1.7.3. Methodological Assumptions

This study utilised participatory action research design, which promotes critical consciousness which exhibits itself in political and practical action to promote change (Kagan, Burton & Siddique 2012:6). The reason for choosing this design was that it enhanced the researcher to work together with the stakeholders of the Gert Sibande District in identifying the need for the implementation of Nemutandani's collaborative model and the content of the model that effectively meet the health needs of the Gert Sibande District, to adjust, implement and evaluate the extent of which Nemutandani's adjusted collaborative model was relevant to them. Another reason for choosing this design was the belief that all people must be equal participants in society, meaning they must have equal opportunities to share in all societal goods and services (Swartz & Nyamnjoh 2018:3).

1.8. Conceptual Framework

The replicating effective programs (REP) framework for healthcare interventions was used as a guide during model implementation. The REP framework was suitable for the study because it is community-based and allows opportunities for flexibility in terms of local customizing (Kilbourne, Neumann, Pincus, Bauer, & Stall 2007:2). It consists of four phases:

1.8.1. Pre-conditions

Phase one: To validate Nemutandani's collaborative model, the researcher identified and established a mutual and trusting relationship with the stakeholders and formed a research team. The researcher presented Nemutandani's collaborative model to the stakeholders, and a consensus was reached on the need for the collaborative model implementation and the content of Nemutandani's collaborative model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

1.8.2. Pre-implementation

Phase two: To adjust Nemutandani's collaborative model by reviewing the core elements of the model.

1.8.3. Implementation

Phase three: To implement Nemutandani's adjusted collaborative model. The researcher conducted training of the stakeholders, the identified program champions for Nemutandani's adjusted collaborative model implementation, and the healthcare providers on how to implement Nemutandani's adjusted collaborative model in the Gert Sibande District, Mpumalanga Province, South Africa. Technical assistance to the implementation sites was given based on identified needs. The implementation of Nemutandani's adjusted collaborative model lasted for a duration of two months, and findings have shown that the model effectively meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

1.8.4. Evaluation

Phase four: The third month of the implementation phase was used for the evaluation of the usefulness of the adjusted and implemented Nemutandani's collaborative model. Reliable feedback

from the stakeholders was used as a way of collecting data in response to the question. A Likert scale was used by the stakeholders to evaluate the extent to which the model is useful to the Gert Sibande District, Mpumalanga Province, South Africa.

1.9. Research Design and Methods

A participatory action research design was used. The study was conducted in four phases, and the four steps of participatory action research acted as a lens: identification of needs, planning, implementation, and evaluation. The activities of each step were guided by the phases of the REP framework. The four phases of the REP framework are preconditions, pre-implementation, implementation, and evaluation. In Table 1.1, the researcher provides an overview of what each phase entails.

Table 0.1 Summary of the Four Phases of the Research

Phase 1	Identification of needs/pre-conditions	**Objective:** To validate the model, by identifying a need for model implementation and to identify the content of Nemutandani's collaborative model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. **Design**: A participatory action research design was used. **Setting:** The Gert Sibande District, Mpumalanga Province, South Africa, municipality boardroom. **Population:** Stakeholders who were decision-makers. **Sampling:** Maximum variations purposive sampling were used to select stakeholders. **Data collection technique:** Nominal Group Technique was used to collect data for phase one. **Key questions:** What is the need for Nemutandani's collaborative model implementation? What is the effective model content that meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa? **Data analysis:** Inductive content analysis. **The outcome for phase one:** The stakeholders identified and reached a consensus on the need for Nemutandani's model implementation, and the

		content of Nemutandani's collaborative model that effectively meets the health needs of The Gert Sibande District, Mpumalanga Province, South Africa.
Phase 2	Planning/pre-implementations	**Objective:** To adjust Nemutandani's collaborative model, by reviewing the core elements of the model. **Design:** A participatory action research design was used. **Setting: The** Gert Sibande District, Mpumalanga Province, South Africa, municipality boardroom. **Population:** Stakeholders who are decision-makers. **Sampling:** Maximum variation purposive sampling was used to select stakeholders. **Data collection technique:** Nominal Group Technique (NGT). **Key question:** How will Nemutandani's collaborative model be adjusted? **Data analysis:** Inductive content analysis. **The outcome for phase 2:** Nemutandani's adjusted collaborative model.
Phase 3:	Implementation	**Objective:** To implement Nemutandani's adjusted collaborative model. **Setting:** Two clinics in the Gert Sibande District, Mpumalanga Province, South Africa. **Key question:** How will Nemutandani's adjusted collaborative model be implemented? And how will the program champions be supported during model implementation? **Steps used to implement the adjusted model at the Gert Sibande District local clinics:** The first three steps of the implementation process by Damschroder, Aron, Keith, Kirsh, Alexander, and Lowery (2009:10) were used to implement the model: Planning, engaging, and executing. **Step 1:** Planning **Step 2**: Engaging **Step 3:** Executing .

Phase 4	Evaluation	**Objective:** To evaluate the extent to which Nemutandani's adjusted collaborative model was useful to the selected district. **Key question:** To what extent was Nemutandani's adjusted collaborative model useful to the Gert Sibande District, Mpumalanga Province, South Africa? **Method:** The Likert scale was used to evaluate the usefulness of the adjusted collaborative model in the Gert Sibande District, Mpumalanga Province, South Africa. **The outcome of phase four:** The usefulness of Nemutandani's adjusted collaborative model in the Gert Sibande District, Mpumalanga Province, South Africa, is determined. Further adjustment of the model is to be done when a need is identified.

1.10. Measures to Ensure Trustworthiness

The four criteria considered to ensure trustworthiness in qualitative research by Lincoln and Cuba's framework (1985) were used:

1.10.1. Credibility

Credibility refers to how congruent are the findings with reality (Stahl & King, 2020:26). Credibility correspond roughly with the positivist concept of internal validity (Gunawan, 2015:4). Credibility can be promoted through the various processes of triangulation (Stahl & King, 2020:26). Triangulation means using several sources of information or procedure from the field to repeatedly establish identifiable patterns (Stahl & King, 2020:26). Stahl and King (2020:6) mentioned multiple forms of triangulation and these includes*: Data triangulation, Investigator triangulation, theoretical triangulation and environmental triangulation.* To ensure credibility, the inclusion criteria for stakeholders were those that have experience and knowledge in practice. Stakeholders who participated in this study had a minimum of six years and a maximum of 30 years of experience in the field.

The option to refuse participation was provided to stakeholders to ensure individuals that were willing to participate. All stakeholders who participated in this study signed informed consent. The nominal group technique (NGT) was used as a method of data collection during phases one and two. Two

days (8 hours each) were allocated for NGT workshops, the first day for phase one and the second day for phase two. The researcher negotiated ground rules with the stakeholders. The nominal group technique allowed all the stakeholders to speak their minds. During the data collection process, the researcher started by identifying stakeholders and establishing a mutual and trusting relationship with them. Before the NGT workshop, those who gave informed consent to participate in the study received an electronic copy of the seven components of Nemutandani' s collaborative model, so that they could familiarise themselves with the content of the model in preparation for the two workshops. To introduce himself as a co-researcher during the workshop, the researcher used the dominant languages used at Gert Sibande District, Mpumalanga Province, South Africa, namely, Zulu, Swazi, English and Afrikaans, as he could understand and speak to them fluently, and this helped to create a relaxed and comfortable environment for all the stakeholders. To ensure credibility of the research findings member checking was used and stakeholders were also allowed to verifiy the researcher's interpretation of the study findings

1.10.2. Transferability

Transferability is the extent to which the study findings could apply to other contexts, situations, times, to another context (Treharne & Riggs 2015:58). The researcher gave a detailed description of the research process: context, setting, population, sample criteria and size, research design and method of data collection and analysis and methods, and the study report was detailed and specific. To support this, Korstjens and Moser (2018:121) indicated that a researcher facilitates transferability judgement by a potential user through the thick description. The thick description of the research study assists the reader to be able to recognise if there are enough similarities between the two situations and able to infer that the results of the research would be similar or the same in their situation.

1.10.3. Dependability

Dependability refers to the consistency and reliability of the research findings and the degree to which research procedures are documented (Korstjens & Moser 2018:121). It is an evaluation of the quality of the integrated processes of data collection, data analysis and theory generation. The researcher used the nominal group technique to collect data, and all steps that were followed during data collection and analysis were clearly outlined and documented. The researcher ensured that processes within the research were documented at length to allow someone outside to follow, audit, and critique the research process or future investigators to repeat the work (Moon, Brewer, Januchowski-Hartley, Adams & Blackman, 2016:3). The researcher used his supervisors as they are

having extensive experience in qualitative research to check the research plan and the implementation of the plan. The researcher allowed an external expert researcher to review and examine Nemutandani's adjusted collaborative model. To create an audit trail, the researcher ensured that the research report is complete and accurate. Study findings were evaluated by the stakeholders to ensure that what is reported is exactly what transpired during data collection (Anney 2014: 278).

1.10.4. Confirmability

Confirmability refers to the degree to which the results can be confirmed by other researchers (Korstjens & Moser 2018:121). Confirmability also guarantees that the findings, conclusion, and recommendations are supported by the data and that there is an internal agreement between the researcher's interpretation and the actual evidence (Babbie & Mouton 2001:278). To achieve confirmability, the researcher kept an audit trail and raw data such as a workshop guide, recorded discussions, written field notes, survey results, the analysed data and process notes. The researcher gave details of the data collection process, data analysis, and the interpretation of the data. To achieve confirmability, the researcher demonstrated that the results are linked to a conclusion in a way that can be followed and as a process be replicated (Moon et al. 2016:4). The researcher ensured that data and interpretations of the findings are not figments of the researchers' imaginations, but clearly derived from the data collected. Findings were based on stakeholders' responses, rather than the characteristics and preferences of the researcher.

1.11. Ethical Considerations

Approvals (Protocol nymber:160/2020) were obtained from the Research Ethics Committee of the Faculty of Health Sciences of the University of Pretoria, as well as from the provincial, district and hospital authorities. Informed consent was obtained by the acceptance of the Participant Information Leaflet. The ethical principles that the researcher and the adhered to were the following:

1.11.1. Beneficence and Non-maleficence

Beneficence imposes a duty to minimise harm and maximise benefits to ensure that those who participate in the study do not suffer harm and discomfort (Parveen & Showkat 2017:2). The researcher ensured that the information given did not work against the stakeholders, patients and the program champions. The researcher explained to potential stakeholders, patients and program champions, that the study anonymity would not be possible as there would be one stakeholder representative from each category, except for patients, program champions and THPs as two

representatives were selected from them. The purpose of the study was to implement Nemutandani's adjusted model of collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB. The benefits of conducting the research were explained to the potential stakeholders, patients and program champions, and it involved the following: Collaboration between the two health systems might create clear lines of communication between traditional and allopathic healthcare practitioners, thus minimising the misunderstanding between the two health providers treating the same patient. Besides, clear lines of communication it might strengthen the referral system that would make it easy to trace patients who defaulted from taking HIV/AIDS and TB treatment. Training will be conducted for traditional healthcare practitioners by allopathic healthcare practitioners about the signs and symptoms of HIV/AIDS and TB, and the importance of patient's adherence to treatment. Patients might use both services freely without being stigmatised, and that might decrease the number of defaulters. The adjusted collaborative model might further act as a guideline to ensure that all patients have access to quality and safe healthcare, thus complications related to default and /or overdose of medications from both groups of health practitioners might be reduced.

Potential stakeholders, patients and the program champions were informed that no payments will be received for taking part in the study. However, any cost that they may have to pay in the study will be paid back to them. Potential stakeholders, patients and program champions were informed that the decision to take part in this study is theirs. They were informed that they have a right not to take part if they don't want to and can stop at any time during the study without giving a reason. Potential stakeholders were informed that refusal to take part in this study will not affect them in any way.

To ensure non-maleficence safety and protection of potential stakeholders, patients and the program champions were promoted to maintain confidentiality. In this research study anonymity was not going to be possible as ten stakeholders attended a face-to-face workshop, three of them were in a virtual meeting, and we were able to see each other. The stakeholders' answers were linked to a code number and were referred to in that way in the data or any population report. All records from this study were regarded as confidential. Results would be published in medical journals or presented at conferences in such a way that it is not possible for people to know who participated in the study.

The records from their participation might be reviewed by people responsible for ensuring that research is done properly, including members of the Research Ethics Committee. All of these people were required to keep their identities confidential. Otherwise, records that identify them would be available only to people working on the study, unless they gave permission for other people to see the records.

All hard copy information would be kept in a locked cupboard at the researcher's office and the University of Pretoria for a minimum of ten years, and only the research team would have access to this information.

1.11.2. Respect for Human Dignity

Respect for human dignity demands that stakeholders, patients and the program champions voluntarily participate and are provided adequate information on the study as well as the possible consequences of disclosure (Parveen & Showkat 2017:3)**.** The respect for people incorporates two basic principles; firstly, that stakeholders, patients and the champions are treated autonomously and secondly that the vulnerable be protected (de Villiers 2010: 264). The researcher communicated the research report and ensured that identities of the stakeholders, patients and champions are not linked to their responses, and this was done to ensure anonymity and protection of vulnerable stakeholders. All data and obtained information were treated as confidential. The Potential stakeholders, patients and the program champions were given full information about the study so that individuals could understand the information and make voluntary decisions. The person's right to refuse participation and the researcher's responsibilities were explained to prospective stakeholders, patients and champions of the program. The researcher also explained that they may stop at any time without stating reasons and that their withdrawal involved no penalty or loss of benefits. All stakeholders, patients and the program champions were treated as autonomous agents. Potential stakeholders, the patients and the program champions were advised to contact the researcher or supervisor should they have any queries.

1.11.3. Justice

The principle of justice includes stakeholders, patients and program champions' rights to fair treatment and the right to privacy and risk-benefit assessment (Parveen & Showkat (2017:3). This principle includes stakeholders, patients, and champions' rights to the fair distribution of benefits and burdens to them, the right to privacy, and confidentiality. Stakeholders, patients, champions of the program were selected based on the research requirement, not on their vulnerability. All potential stakeholders, patients and program champions were treated with respect and dignity, and persons with diminished autonomy were protected. They were all treated by in a non-prejudicial manner and emphasized the fact that they could withdraw from the study at any time (Polit & Beck 2012:173).

The researcher ensured not to be more intrusive than needed and the selection of the stakeholders, patients and program champions were based on the requirements of the conducted research study. Informed consent was used for the purpose it was given. The stakeholders, patients and program champions' privacy was maintained throughout the study.

1.12. Organisation of the Thesis

Chapter One:	Overview of the Study.
Chapter Two:	Research design and methods.
Chapter Three:	Presentation and discussion of findings for the validation of Nemutandani's Collaborative model.
Chapter Four:	Presentation and discussion of findings for the adjustment of Nemutandani's Collaborative model.
Chapter Five:	Implementation of Nemutandani's adjusted collaborative model.
Chapter Six:	Evaluation of Nemutandani's adjusted collaborative model.
Chapter Seven:	Conclusions, Limitations and Recommendations.

1.13. Summary

Chapter One presented the overview of the study, the introduction and background information, and the problem statement that led to the development of the study. This is followed by a discussion of research questions, aims and objectives, clarification of concepts, significance, the paradigm perspective and conceptual framework, research methodology, measures to ensure trustworthiness and ethical consideration that guided the study. Thereafter, a brief outline of how the study was organised was presented; Chapter Two: the research methodology; Chapter Three: presentation and discussion of findings for the validation of Nemutandani's collaborative model; Chapter Four: Presentation and discussion of the findings for the adjustment of Nemutandani's collaborative model; Chapter Five: Implementation of Nemutandani's adjusted collaborative model; Chapter Six: Evaluation of Nemutandani's adjusted collaborative model; Chapter Seven: Conclusions, limitations and recommendations.

CHAPTER 2: RESEARCH DESIGN AND METHODS

2.1. Introduction

The first chapter addressed the overview of the study, which included the introduction and background information, and the problem statement that led to the development of the study. This was followed by a discussion of research questions, aims and objectives, clarification of concepts, significance, the paradigm perspective and conceptual framework, research methodology, measures to ensure trustworthiness and ethical consideration that guided the study. In this chapter, the methodology used to conduct the study will be discussed in detail.

2.2. Phase One: Pre-conditions/Identification of Needs

Need identification is the first step of participatory action research (PAR) (Nelson 2017:4) and is the same as pre-conditions which is phase one of the REP framework.

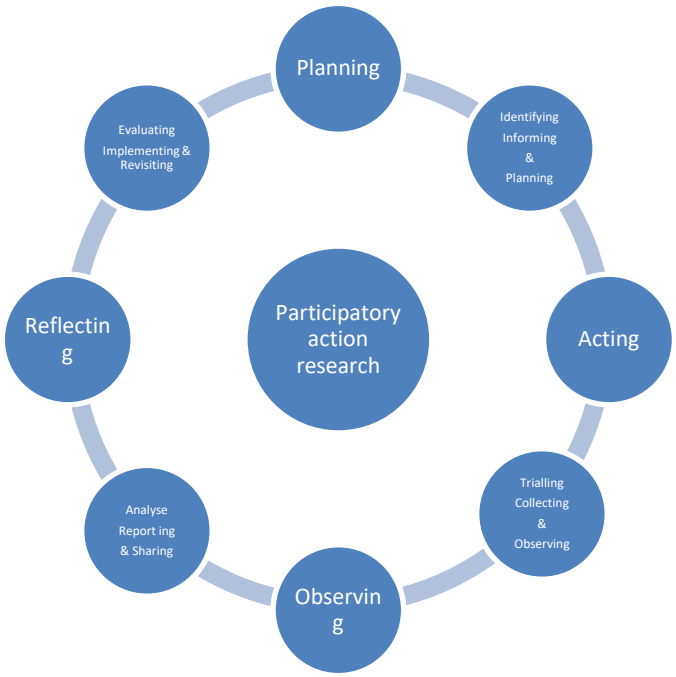
The objectives of phase one were: to validate Nemutandani's collaborative model, by identifying a need for the model implementation and identifying the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District.

The guiding questions were: What is the need for Nemutandani's collaborative model implementation? What is the content of Nemutandani's collaborative model that could effectively meet the health needs of the Gert Sibande District?

2.2.1. Research Design

A participatory action research (PAR) design was used. According to Nelson (2017:4), in his study titled *Participatory action research: A literature review, working paper,* defined participatory action research as a participatory process concerned with developing practical knowledge in the pursuit of worthwhile human purposes. PAR seeks to bring together actions and reflections, theory, and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people (Nelson 2017:4). The reason for choosing this type of design was that PAR is a qualitative approach to inquiry that builds capacity, focuses on community development, empowerment, access, social justice and participation; is democratic, equitable, liberating and life-enhancing, providing agency and giving voice to those in society who are marginalised from power and resources (Nelson 2017:4). PAR encourages equal involvement from researchers and participants in the research process, and power is shared between all team members (Watters, Comeau & Restall 2010:5).

The study was conducted in four phases, and the four steps of participatory action research acted as a lens: identification of needs, planning, implementation, and evaluation. The four phases of the REP framework are: preconditions; pre-implementation; implementation and evaluation. Chapter 1, item 1.8**,** provides a brief discussion of what each phase of the REP framework entails. The REP framework for healthcare interventions was used as a guide during model implementation (Kilbourne et al. 2007:2). REP framework provided a roadmap for implementing the adjusted collaborative model through a combination of intervention: packaging, training, technical assistance, and other strategies to maximise the chances for sustaining the intervention. The research design for phases one, two, three and four is the same.



Figue 2.2 The cycle of Participatory action research

THE RESEARCH METHODOLOGY

Walliman (2011:1), in the study titled *Research Methods: The Basics*, indicated that research methods refer to the strategies, processes or techniques used in the collection of data or evidence for analysis to uncover new information or to create a better understanding of a topic. Critical theory was used as a paradigm for this study because it is transformative and its aim is not merely to explain or understand society, but to change it. The critical theory requires the investigator to engage the subjects in dialogue to bring about a change in their outlook on the social system that keeps them deprived of social needs.

The researcher engaged with the stakeholders who were decision-makers to validate, adjust, and implement Nemutandani's adjusted collaborative model and to evaluate the extent to which the model was useful to the Gert Sibande District, Mpumalanga Province, South Africa.

2.2.1.1. Research Setting

According to Majid (2018:3), in the study titled *Research Fundamentals: Study Design, Population and Sample Size* mentioned that research study setting is regarded as an important component of a research study as the nature, context, environment, and logistics of the study setting may influence how the research study is carried out. The population of the interest group determined the setting for data collection. The study was conducted in the Gert Sibande District, Mpumalanga Province, South Africa and this district has seven sub-districts: Albert Luthuli, Dipaleseng, Govan Mbeki, Lekwa, Mkhondo, Msukaligwa and Pixley Ka Seme. During 2015 and 2016 the district had a population of 1 086 881, with a population density of 34.1 people per square kilometre. This district has a high burden of HIV/AIDS and TB. During 2016 and 2017, South African statistics indicated that HIV infection among women between the ages of 15 – 24 was at 43% and for men of the same age at 17% (RSA, 2017). In 2019 statistics SA indicated that around 70 000 people in the Mpumalanga province live with HIV, which is 15.4% of the population (RSA, 2019). In the Gert Sibande District, Mpumalanga Province, South Africa the leading cause of death due to HIV/AIDS among adults aged 15 – 49 years in 2015/2016 was 25.6% and 17.2% due to TB. A municipality boardroom was used as a setting for data collection for phases one, two and four as it was central and convenient to all stakeholders in terms of distance, relaxed and free from distractions, and having a round table that accommodates twenty-two chairs. This allowed the stakeholders to identify a need for Nemutandani's collaborative model implementation, to identify the content of Nemutandani's collaborative model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa and to evaluate the extent to which Nemutandani's collaborative model is useful to Gert Sibande District, Mpumalanga Province, South Africa. The study setting for phases one, two and four is the same.

2.2.1.2. The Study Population

The Population is defined by Shukla (2020, n.p.), in his study titled *Concept of Population and Sample,* as a set of all the units which possess variable characteristics under study and for which the findings of the research can be generalised. The population of interest for a study comprised of the individuals, dyads, groups, organisations, or other entities one seeks to understand and to whom or to which the study results may be generalised or transferred and is the principal group about which the research

is concerned (Casteel & Bridier 2021:340). A homogenous population is a population where all its units are identical in terms of certain characteristics, and if those units are different, it is called a heterogeneous population (Shukla 2020, n.p).

For this study, a heterogeneous population was used. The population consisted of stakeholders who had experience in managing cases living with HIV/AIDS and TB and those that had powers to influence change in the Gert Sibande District, Mpumalanga Province, South Africa, and these includes the Directors of nursing services because they have powers to influence changes in the policies, District chairperson of the traditional healers, as they are responsible for controlling the work of traditional health practitioners, THPs representatives, they are the first line consultants for patients living with HIV/AIDS and TB, Medical practitioners responsible for patients living with HIV and AIDs and TB, Project managers of HIV and AIDs unit, Primary healthcare nurses, community-based workers, responsible for the provision of care to patients living with HIV/AIDs and TB, political representatives as they are vocal in terms of effecting changes in communities, patients' representatives, as they are at the centre of healthcare and the lay counsellors, as they are responsible for HIV counselling and testing. The population for phases one, two and four is the same.

2.2.1.3. Sampling and Sample Size

Sampling

A sample is any subset of a population representing all the types of elements of the population (Shukla 2020, n.p.). According to Ashirwadam (2014:1), in the study titled *Communication Research Methods of Data Analysis*, sampling is concerned with the selection of a subset of individuals from within a statistical population to estimate the characteristics of the whole population. Sampling is the selection of specific data sources from which data is collected to address the research objectives (Gentles, Charles, Ploeg & McKibbon, 2015:1775). In this study, maximum variations of purposive or judgemental sampling were used. Shaheen, Pradhan and Ranajee (2019:30), in their study titled *Sampling in Qualitative Research,* stated that maximum variation sampling yields detailed descriptions of each case which are useful for capturing uniqueness, and the shared patterns that differentiate cases from each other.

Purposeful sampling captures the central themes that span across a large sample (Shaheen et al. 2019:30), This selection criterion is about purposefully selecting individuals with a wide range of variations on the dimension of interest (Ames, Glenton & Lewin 2019:2). Purposive sampling is the intentional selection of a participant because of the characteristics and qualities the individual possesses (Casteel & Bridier 2021:350). This sampling method ensures that people with diverse

backgrounds are represented in the sample. It might also involve deliberate attempts to include people with different viewpoints about a phenomenon (Ames et al. 2019:2). Maximum variation sampling was used because it yields: a high-quality, detailed description of each case, which are useful for documenting uniqueness, and an important pattern that cut across cases (Benoot, Hannes & Bilsen 2016:5).

A letter was written to the management of the institutions to assist with the selection of possible stakeholders that would participate in the study. Those who met the inclusion criteria and were willing to take part signed an informed consent form and returned it to the researcher. Inclusion criteria were allopathic and traditional healthcare practitioners with a minimum of three years of experience in the field and different stakeholders who were decision-makers and had powers to influence change in the community, and who gave informed consent to participate in the study. Sampling for phases one, two and four is the same.

Sample size

In qualitative studies, non-numerical forms of data are collected, and the requirements for sample size are less numerically based (Casteel & Bridier 2021). Omona (2013:175), in the study *Sampling in Qualitative Research: Improving the Quality of Research Outcomes in Higher Education*, mentioned that the sample size should not be too small that it is difficult to achieve saturation, and at the same time sample size should not be too large that it is difficult to make deep, case-oriented analysis (Omona 2013:175). This is supported by Gentles et al. (2015:1782) in their study titled *Sampling in qualitative research: Insights from an overview of the methods literature,* as they stated that the commonly proposed criterion for determining when the sufficient size has been reached in qualitative research is data saturation. In this study, the size of the sample was determined by the willingness of the identified stakeholders to participate in the study. The sample of the study included thirteen stakeholders; a Director of nursing services (n=1), a Chairperson of the traditional leaders (n=1), a THP representative (n=3), a Medical practitioner (n=1), a Project manager of HIV and AIDs unit (n=1), a Primary healthcare nurse (n=1), a community-based worker (n=1), a political representative (n=1), patients' representatives (n=2), and a lay counsellor (n=1). Refer to Table 2.1 for the description of stakeholders who participated in the study. The sample size for phases one, two and four is the same.

Table 0.1 Description of Stakeholders Who Participated in Phase One of the Study

Stakeholders Number	Sex	Age (In years)	Type of work	Experience (in years)
S1	F	52	Politician	10
S2	M	45	Medical Practitioner	7
S3	F	56	Project manager of HIV and AIDS	20
S4	M	40	THP District chairperson	9
S5	M	62	THP	30
S6	M	53	THP	23
S7	F	58	Director of nursing services	16
S8	F	48	Community-based worker	11
S9	M	54	THP	13
S10	F	48	PHC REP. (AHP)	6
S11	F	50	Lay counsellor	12
S12	F	55	Patient	(15 years living with HIV)
S13	M	48	Patient	(12 years living with HIV & 4 months living with TB)

S=Stakeholder

2.2.1.4. Data Collection

Data collection is defined by Kabir (2016:202), in the study titled *Methods of Data Collection* as a process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes. Qualitative data are mostly non-numerical and usually descriptive or nominal in nature (Kabir 2016:202). The Nominal group technique (NGT) was used as a method of data collection during phases one and two of the research study. The reason for choosing the nominal group technique was that it allows all the members to speak their minds, and it enables the stakeholders to reach a consensus on the outcome of the research project (Wallace, Worrall, Rose, Le Dorze, Cruise, et al. 2017, n.p.). NGT is a structured variation of a small group discussion to reach a consensus (U.S. Department of Health and Human Services, 2018 n.p.). NGT is a set of structured procedures for gathering information from a group face-to-face, to make decisions, determine priorities, and solve problems systematically, to obtain a consensus and an agreement on an issue (Muridan, Rasul,

Yasin, Abd, Rauf, et al. 2019:211). Wiggins, Colby, Moret, McElrone, Olfert, et al. (2020:346) defined NGT as a small group discussion used to gain consensus through the prioritisation of ideas and suggestions. The advantages of NGT, as stated by Wiggins et al. (2020:346), include the generation of more ideas than what may typically be generated, and that it encourages full participation from all stakeholders.

Two days (8 hours each) were allocated for the NGT workshops, the first day for phase one and the second day for phase two. In this study, NGT enabled the stakeholders to identify and reach a consensus on the need for implementing Nemutandani's collaborative model and on the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District. The outcome of phase one was the identified need for Nemutandani's collaborative model implementation and the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. The data collection process for phases one and two is the same.

Data collection process

In this phase, the researcher started by identifying the stakeholders and establishing a mutual and trusting relationship. Before the workshop, stakeholders who gave informed consent to participate in the study received an electronic copy of the seven components of Nemutandani's collaborative model, so that they could familiarise themselves with the content in preparation for the workshops. Ten stakeholders came physically to the workshop, and only three of them joined the discussion virtually. The general reasons that were given by the three stakeholders to join virtually included saving time and possible costs and according to them their offices were convenient enough to hold virtual meetings. On the day of the workshop, the researcher introduced himself and welcomed and thanked the stakeholders for honouring the invitation and making themselves available for the workshop. To introduce himself as a co-researcher during the workshop, the researcher used the dominant languages used at Gert Sibande District, Mpumalanga Province, South Africa, namely: Zulu, Swazi, English and Afrikaans, as he could understand and speak fluently to them, and this helped to create a relaxed and comfortable environment for all the stakeholders. This further created a platform for the stakeholders to agree on the ground rules, group dynamics, sitting preferences, transcribing, and recording during the meeting sessions as part of pre-session preparation.

The researcher encouraged the self-introduction of the stakeholders, confirmed consent, and assured them that confidentiality would be maintained throughout the study. After the introduction and remarks by the researcher, stakeholders were informed that they were free to open the workshop as per their preferred religion and beliefs. AHPs opened the workshop with a prayer, and THPs performed rituals

and opening ceremonies to inform the ancestors about the workshops. A collection of data using a nominal group technique requires a direct participant's involvement and is non-hierarchical in nature, thus ensuring a democratic, valuing experience on the part of the participant (Lennon, Glasper & Carpenter 2019:1).

The researcher introduced the purpose of the workshop, and the stakeholders responded to the following research questions: What is the need for Nemutandani's collaborative model implementation? Which content of Nemutandani's collaborative model could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa? For the stakeholders to be able to answer the research questions, the researcher presented Nemutandani's collaborative model. The workshop process was recorded as permitted by the stakeholders to capture data during the NGT workshops. The researcher used Dale-Olsen and Finseraas (2019:4) steps of the NGT, which are: the silent generation of ideas by everyone, round-robin recording of ideas, structured and time-limited discussion of ideas (clarification of ideas) and selection and ranking of ideas (voting).

Silent Idea Generation: The first round of the group discussion was the silent generation and the round-robin. The researcher explained the purpose of the meeting and the value of stakeholders' contributions to it (Dale-Olsen & Finseraas, 2019:5). The researcher introduced the technique and presented the questions to the group of stakeholders (Keir & van Albedyll 2007:1) Individuals were asked to silently reflect on the questions and to write their responses (Keir & van Albedyll 2007:1). The researcher gave a background of Nemutandani' s collaborative model and then presented the seven components of the model. In this step, the stakeholders silently generated ideas and wrote them down (McDonald, Bammer & Deane, 2009:64). The stakeholders were given about 20 minutes of the time at the beginning of the meeting to reflect and silently record their ideas about the need for Nemutandani's collaborative model implementation and the content of the model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

Round-robin: In this step, group members engage in a round-robin feedback session to concisely record each idea (McDonald et al. 2009:64). The researcher started from one end of the room and asked each stakeholder to provide the best idea from their list which they generated (Abdullah & Islam 2011:83). One stakeholder at a time was requested to state a single idea in response to the need identification question and the content of the model, and it was done roundly (McMillan, King & Tully 2016:656). Dale-Olsen and Finseraas (2019:5) indicated that in the round-robin stage, each person is called upon to give feedback on one problem they identified. In this stage, the researcher asked for responses from each stakeholder in a round-robin fashion and recorded all ideas in a flip chart that was visible to the entire group. The round-robin time was set for recording ideas only, not for

discussions. Stakeholders were given enough, and equal opportunity to respond to the questions. The researcher made sure that stakeholders wait for their turn before they could respond. There was no time limitation, much time was given until such time when no more inputs were coming in, as that was a sign of data saturation. No discussion was done at this stage. All inputs or ideas were recorded in a flip chart, and permission was requested from the stakeholders to use a voice recorder during the workshop process to prevent the loss of data (McMillan et al. 2016:656). The process continued until all ideas were recorded. All stakeholders indicated that there was a need for implementing Nemutandani's model of collaboration and the list of the suitable content of Nemutandani's collaborative model was developed. Once the need was identified, the next round followed. The second round of the group discussion was the clarification and voting for the responses received from stakeholders for the two questions of phase one.

Clarification of ideas: In this step, each recorded idea was discussed to obtain clarification and evaluation (McDonald et al. 2009:64). The purpose of this step was to clarify the meaning of all ideas (Abdullah & Islam 2011:84). This involved taking one idea at a time and clarifying it before voting. The researcher read aloud all the items listed on the flip chart to ensure that what was on the chart was communicated fully and clearly to all the stakeholders (Dale-Olsen & Finseraas 2019:5). In this stage, the stakeholders discussed the listed ideas for clarification of their meanings, but not to change the idea or to add them (Keir & van Albedyll 2007:1). The researcher helped them with the rewording where necessary and was written in a flip chart, putting a capital letter against each other (Keir & van Albedyll 2007:3). Similar responses were grouped together based on their agreement (McMillan et al. 2016:656). Any questions asked were written on the flip chart, and stakeholders clarified what their item meant (Dale-Olsen & Finseraas 2019:5). If stakeholders expressed a lack of understanding, the researcher explained the topic more comprehensively (Dale-Olsen & Finseraas 2019:5). Each round was concluded by the researcher summarising dialogue with all stakeholders. The stakeholders collectively decided to exclude, include, or alter data where necessary. Every point regarding the need for implementing Nemutandani's collaborative model and the effective content that meet the needs of the Gert Sibande District was discussed to ensure that everybody understood to make an informed decision when voting on the content (McMillan et al. 2016:656).

Voting: Voting is regarded as a time to ask each of the stakeholders to identify the most important ideas from the master list and rate them accordingly (Abdullah & Islam 2011:84). In this step, stakeholders voted privately on the ranking of the ideas and the group decision was made based on these rankings (McDonald et al. 2009:64). The researcher ensured that stakeholders voted for their preferences, not to agree to every idea listed. Even though the planned time for phase one voting was 20 minutes, the actual voting time for the phase took up to 23 minutes**.** In this stage stakeholders selected the top ideas through a voting process (Keir & van Albedyll 2007:1). They voted for the best

ideas, and no one ever said whose ideas were used, but no one minded either, or and all stakeholders got the credit. A ranking sheet (Annexure C) was provided to the stakeholders, and they were requested to select their preferences on the identified need to implement Nemutandani's collaborative model and the core elements of the model that could effectively meet the health needs of the Gert Sibande District. Scores of each idea were summed up and presented to the group for discussion. Inputs that rated higher scores were listed in order of priority and a consensus to include them in the content of the model was reached. A final summary session was convened, and stakeholders were given feedback on the results of the voting. The rounds continued until data saturation of ideas was reached (Wallace et al. 2017 n.p.). The outcome of phase one was the identified needs for Nemutandani's collaborative model (Table 3.5) and the content of Nemutandani's collaborative model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa (Table 3.4).

2.3. Phase Two: Planning/Pre-implementation

Objectives of phase two were: To adjust Nemutandani's collaborative model, by reviewing the core elements of the model.

The guiding question was: How will the core elements of Nemutandani's collaborative model identified in phase one be adjusted to meet Gert Sibande District, Mpumalanga Province, South Africa's health needs?

2.3.1. Reviewing of the Core Elements

The research design, setting, population, sampling and sample size and data collection method for reviewing the core elements of Nemutandani's collaborative model are the same as in phase one.

2.3.2. Data Collection

The same data collection process used in phase one was used in phase two of the research study.

Data collection process

Day two of the NGT workshop focused on adjusting Nemutandani's collaborative model by reviewing the core elements of the model. The stakeholders responded to the following question: *How will the core elements of Nemutandani's collaborative model identified in phase one be adjusted for Gert Sibande District, Mpumalanga Province, South Africa health needs?* NGT is used to assist stakeholders in the pooling of their knowledge and, particularly, their judgement to arrive at decisions

that are acknowledged by stakeholders as being a genuine product of the group dialogue process (McDonald et al. 2009:64). The purpose of the session which was to adjust Nemutandani's model of collaboration was communicated to the stakeholders well before assembling for the second NGT session. To start the second day workshop, the researcher followed the same introduction process used in phase one. For the stakeholders to be able to answer the research questions, the researcher presented the core elements of Nemutandani's collaborative model that were identified in phase one. The second workshop process was also recorded, using a voice recorder as per permission from the stakeholders to capture data during the NGT workshops. The NGT rounds continued until when consensus was reached regarding the core elements of Nemutandani's adjusted collaborative model that could effectively meet the health needs of the Gert Sibande District. The consensus was achieved when there were no further comments or suggestions for corrections from any of the stakeholders (Sondergaard, Ertmann, Reventlow, Lykke, 2018:4).

Silent idea generation: The researcher opened the session by enunciating the purpose of convening the session, and stated the issue in a form of a question for which the session was convened (Abdullah & Islam 2011:83). The core elements of Nemutandani's collaborative model that was agreed upon in phase one was presented by the researcher. The researcher presented and answered all questions raised by stakeholders to ensure that the core elements of the collaborative model is understood by all of them, as they were expected to be knowledgeable about the issue at hand (Abdullah & Islam 2011:83). The researcher gave each stakeholder a piece of paper to review each core elements of Nemutandani's collaborative model. They were informed that they should think silently and write their answers on the piece of paper. The researcher indicated that at this stage they are just going to think and write their answers silently, and 20 minutes were given for them to finish that task. The actual time used at this stage was 25 minutes. When they were all finished, they then moved to the second step which is the round-robin.

Round-robin: In the round-robin stage, the researcher requested stakeholders to bring forward their ideas regarding reviewing the core elements of Nemutandani's collaborative model. Stakeholders were requested to speak aloud as the discussion was to be audiotaped as per their permission from to ensure that no information was missed. All ideas from the stakeholders were listed on a flip chart and later clarified and decided based on the outcomes (Dale-Olsen & Finseraas 2019:5). Each stakeholder was requested to give one idea at a time in response to the core elements of Nemutandani's collaborative model, and it was done roundly (McMillan et al. 2016:656). All ideas were recorded in a flip chart that was visible to the entire group. No discussions were done during the round-robin as it was only a recording of ideas. All stakeholders were given enough, and equal opportunity to respond to the review of the core elements of Nemutandani's collaborative model. The stakeholders were also requested to await their turn before responding. Time was not limited, and

much time was given until such time when there were no more inputs coming in, as that was a sign of data saturation. Permission was requested from the stakeholders to use a voice recorder to prevent loss of data (McMillan et al. 2016:656). The process continued until all ideas were recorded.

Clarification of ideas: Ideas regarding the core elements of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa were listed in a flip chart and discussed one by one to ensure its suitability in Gert Sibande District health needs. The purpose was to clarify each listed idea to ensure that all stakeholders are knowledgeable about the issue at hand. This step was repeated until all ideas were clear and understandable to every stakeholder. The researcher facilitated this process to ensure that the stakeholders reached a consensus on the content of Nemutandani's collaborative model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. The researcher took the listed ideas and read them out aloud, one at a time, checking that everyone understood what the statement of each meant (Keir & van Albedyll 2007:3). The stakeholders together decided to take in or out some of the ideas until such time that consensus was reached regarding the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa.

Voting: In this step, stakeholders voted for their preference on the reviewed core elements of each of the seven components of Nemutandani's collaborative model. The researcher ensured that stakeholders voted for their preferred core elements, not agreeing to every core element listed during the review. Voting for suitable core elements for phase two took up to 25 minutes. During this stage, stakeholders selected the top ideas through a voting process. The researcher encouraged the stakeholders to vote for the best core elements and not to be influenced by others' ideas.
A ranking sheet (Annexure C) was provided to the stakeholders, and they were requested to select their preferences on the reviewed core elements of Nemutandani's collaborative model. Scores of each core element were summed up and presented to the stakeholders for discussion. Inputs that rated higher scores were listed down in order of priority and consensus on Nemutandani's adjusted collaborative model was reached. A final summary session was convened, and stakeholders were given feedback on the results of the voting. Nothing was taken out from Nemutandani's collaborative model, but new ideas that were added are listed in Chapter Four. The list of added ideas is in chapter 4, item 4.8. The outcome of phase two was a draft of Nemutandani's adjusted collaborative model that could effectively meet the health needs of the Gert Sibande District. Table 4.2 represents the core elements and components of Nemutandani's adjusted collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. Figure 4.6 shows Nemutandani's adjusted collaborative model.

2.3.3. Data Analysis

Data analysis is defined by Ashirwadam (2014:1), in the study titled *Communication research methods of data analysis*, as a method of putting facts and figures to solve a research problem. Data analysis in qualitative research is an iterative and complex process that focuses on bringing out tacit meanings that people attach to their actions and responses related to a phenomenon (Ravindran 2019:40). Qualitative data analysis includes coding, categorising, and generation of themes. Coding is referred to as connecting the raw data with theoretical terms (Busetto, Wick & Gumbinger 2020:4). Busetto et al. (2020:4) stated that in a more practical sense coding makes data sortable. Qualitative data analysis is described by Flick (2014:5) as the classification and interpretation of linguistic or visual material to make statements about implicit and explicit dimensions and structures of meaning-making in the material and what is represented in it. For this study, inductive content analysis was used. Content analysis refers to the process of categorising verbal or behavioural data to classify, summarise, and tabulate the data. Qualitative content analysis can be used in both inductive and deductive ways (Roller 2019n.p.).

Inductive content data analysis is defined as a systematic reduction of content, analysed with special attention to the context in which it was created to identify themes and extract meaningful interpretations of data (Roller 2019n.p.). An analysis is a process of reducing large amounts of collected data to make sense of them. The data analysis process moves the researcher from describing the phenomenon to conceptualisation and abstraction of themes without losing the voice of the participants which are represented by the findings (Ravindran 2019:40). The findings of phases one and two were analysed using inductive content analysis (Elo, Kaariainen, Kanste, Polkki, Utriainen et al. 2014:1). Inductive content analysis was used to gain an in-depth understanding of the core elements of Nemutandani's adjusted collaborative model.

The researcher transcribed data from audiotapes, informal observation and field notes and ensured that the transcripts are accurate. Transcripts of phases one and two were read by the stakeholders to acquire an overall understanding of the content related to the aim and objectives of the study; the transcripts were repeatedly read and discussed with the stakeholders to achieve a sense of the whole; the transcripts were read again (word-for-word) while writing notes and headings in the margin; the process was repeated and subcategories grouped as categories; each category was named by using content-characteristic words; the lists of categories were grouped as themes to reduce the number of categories, provide means of describing the phenomenon, increase understanding and to generate knowledge; and lastly, the abstraction process was repeated as far as possible. The units within the

core elements were identified and organised into content codes, sub-categories, categories, and themes (Wallace et al. 2017:14).

The outcome of phase one indicated that there is a need for implementing Nemutandani's collaborative model, and the suitable content of the model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa was identified. The outcome of phase two was a draft of Nemutandani's adjusted collaborative model (Figure 4.6) that will be implemented in phase three of the research study. Nemutandani's adjusted collaborative model was finalised for distribution. The findings of phase one will be discussed in full in chapter three, and the findings of phase two will be discussed in chapter four of the research study.

2.3.3.1 Pilot testing

It refers to the ability to test the intervention on a small scale in the organisation, and to be able to reverse or undo the implementation if warranted (Damschroder et al. 2009:6). In this study pilot testing was done to test the feasibility of the research study and allowed stakeholders to build experience and expertise, and time to reflect upon and test the intervention, and the usability testing promoted adaptation of the intervention. Those who participated on the pilot testing did not participate on the real study. The outcome of the pilot testing indicated that Nemutandani's adjusted collaborative model effectively meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa and no further adjustment of the model was done. It was indicated that adjustment of the model will only be done at a later stage when a need is identified.

2.3.3.2 The Researcher's Role During Data Analysis

The researcher ensured to be true to the stakeholders as it is their voices that needed to be heard, not his own, so that they could be interpreted and reported on for others to read and learn from (Busetto et al. 2020:4). The researcher was very critical against his personal views and guarded against them. During data analysis, the researcher recorded data, identified codes, and reduced them to categories (Fink 2000, n.p). The categories were further reduced to themes**.**

2.4. Phase Three: Implementation

Objectives of phase three were: To implement Nemutandani's adjusted collaborative model.
Implementation is the third step of PAR. The guiding questions were: *how will Nemutandani's adjusted collaborative model be implemented? And how will the program champions be supported during model implementation?*

2.4.1. Setting

Two clinics from the Gert Sibande District, Mpumalanga Province, South Africa that met the set criteria were used as a setting for data collection. In the Gert Sibande District, eight district hospitals, one regional hospital, 18 community health centres and 57 clinics provide public health services. The inclusion criteria for this study were clinics in the Gert Sibande District, Mpumalanga Province, South Africa with the highest number of patients living with HIV/AIDS and TB.

2.4.2. Population

The population of interest were patients living with HIV/AIDS and TB who used the selected two clinics as their point of care. *Inclusion criteria:* The inclusion criteria for the patients were those living with HIV/AIDS and TB, using the two selected clinics under study, and the programme champions were both THPs and AHPs working directly with patients living with HIV/AIDS and TB, and who gave consent to participate in the study. *Exclusion criteria:* Patients who were not living with HIV/AIDS and TB, who were not using the selected clinics as their point of care, and those that did not give informed consent to participate in the study were excluded. THPs and AHPs healthcare providers not working from the selected clinics and who did not consent to participate were excluded from the study.

2.4.3. Sampling and Sample Size

The same sampling criteria used in phases one and two of the study were used to select patients to participate in the implementation of Nemutandani's adjusted collaborative model. Potential patients to participate in the study were fully informed about the research study and the risks as well as the benefits of participating in the study. (NMC 2015) A total of 20 patients signed informed consent to participate in the implementation of Nemutandani's adjusted collaborative model. In clinic A, ten patients, four males and six females participated in the research study, and for clinic B, ten patients participated, five males and five females. Stakeholders who were from the two selected clinics assisted in identifying potential staff members who can facilitate the implementation process of Nemutandani's adjusted collaborative model at the two selected clinics. The identified staff members from each of the two clinics who were willing to participate signed informed consent and those staff members were regarded as programme champions for the implementation of Nemutandani's adjusted collaborative model. The programme champions who signed informed consent to participate in the implementation process were three from each clinic. For each of the two clinics, the program champions included: An operational manager, a nurse working directly with patients living with HIV/AIDS and TB, and one THPs representative.

2.4.4. Inclusion and Exclusion Criteria

For the patients: Inclusion criteria were those living with HIV/AIDS and TB who used the selected two clinics as their point of care and signed informed consent to participate.

For the programme champions: The inclusion criteria for the program champions were both allopathic and traditional healthcare providers who were hands-on in providing healthcare to patients living with HIV/AIDS and TB and who gave informed consent to participate in the research study.

2.4.5. Gaining Access to the Selected Clinics

Approvals were obtained from the Research Ethics Committee of the Faculty of Health Sciences of the University of Pretoria (Research Ethics Number:160/2020), as well as the Mpumalanga Province Research Committee and the Gert Sibande Health District Authorities. Before the actual research study, the researcher held a meeting with the PHC manager for Gert Sibande District, Mpumalanga Province, South Africa to ask permission to access the two clinics identified as implementation sites. The PHC manager wrote formal notices to the operational managers of the two selected clinics, informing them about the research study to be conducted. In each of those clinics, the researcher presented the approval letters to conduct the study and requested permission from the managers of the selected clinics to present the research study, especially the seven components of Nemutandani's adjusted collaborative model to the staff members. The seven components of the model are: *the mindset and attitude change, Respect and patients' rights and responsibility, Openness and truthfulness, HIV/AIDS and TB, Training and transfer of skills, collaboration and teamwork, and the joint review, management and sharing of information.* The researcher was further granted permission to conduct the study at the selected clinics by both operational managers and dates for the presentations scheduled. The researcher fully explained the nature of the research study and the research process to the potential programme champions in each of the two clinics identified as implementation sites. Those willing to participate signed informed consent for participation. A total number of six programme champions, three in each clinic, signed informed consent to participate in the study. In each of the clinics (A & B), an operational manager, a nurse working directly with patients living with HIV/AIDS and TB, and one THP representative signed informed consent to participate in the implementation process of Nemutandani's adjusted collaborative model.

2.4.6. Summary of the Implementation Process

To implement the adjusted collaborative model, the researcher used the Consolidated Framework for Implementation Research (CFIR) by Damschroder et al. (2009). The CFIR by Damschroder et al. (2009) has five major domains which are: the intervention characteristics, inner and outer setting, individuals involved and the process by which implementation is accomplished. The first three steps by Damschroder et al. (2009): planning, engaging, and executing was used during the implementation process.

Planning

Planning is defined by Jeseviciute-Ufartiene (2014:177), in the study titled *Importance of planning in managing developing organizations,* as one of the organisation's management functions that outlines activities to be done in the future predetermined goals. Planning means deciding in advance what, when, where why and how is to be done, and who shall do it (Jeseviciute-Ufartiene 2014:177). Planning is the process of setting goals and choosing the means to achieve those goals (Ogolo 2019, n.p). According to Ogolo (2019, n.p), Plans are predetermined courses of action made in the present to guide future implementation towards the goals of the organisation. Three months were set aside to implement Nemutandani's adjusted collaborative model. The actual implementation of Nemutandani's adjusted collaborative model lasted for two months, and the third month was used for evaluation. The implementation of Nemutandani's adjusted collaborative model took place in September and October 2021, and November 2021 was used for evaluation of the extent to which Nemutandani's adjusted collaborative model was useful to the Gert Sibande District, Mpumalanga Province, South Africa.

The World Health Organization (2014:17) indicated that the research sites, the timeline for the research activities and the procedure for data collection must be established. Gligorovski (2017 n.p), in the study titled, *Overview of the implementation models of changes and their utilization in Macedonia companies*, indicated that to stay competitive means implementing changes constantly whenever they occur. The guiding questions were: *how will Nemutandani's adjusted collaborative model be implemented? And how will the program champions be supported during model implementation?* The implementation sites for Nemutandani's adjusted collaborative model were two clinics in the Gert Sibande District, Mpumalanga Province, South Africa with a high number of patients living with HIV/AIDS and TB. Both clinics already have existing clinic committees with different stakeholders that meet quarterly to discuss various clinic-related issues. The clinic committees were made aware of the research study to be conducted.

The plan for implementing Nemutandani's adjusted collaborative model was the following was guided by the following: stakeholders' needs and perspectives; strategies to be used fit the selected clinics; appropriate style, imagery and metaphors used for delivering information and education; appropriate communication channels are used, and progress is monitored and evaluated. The implementation process was planned in such a way that no disturbances in the normal clinic routine would occur. The seven components of Nemutandani's adjusted collaborative model were displayed in the waiting areas and all consulting rooms of the selected clinics so that everyone became familiar with them. Banners with the seven components were used to reinforce the new practice under study. Continuous health education and awareness of the implementation of the adjusted collaborative model were done every day in the morning before assuming duties. The progress of the implementation process was planned to be monitored and evaluated by the researcher weekly until the end of the implementation process.

A one-day orientation meeting was held by the researcher and the identified program champions who signed consent to participate. Nemutandani's adjusted collaborative model was distributed through orientation meetings, which was helpful in the preparation of the THPs and the AHPs to initiate a collaborative working relationship. The orientation meetings lasted about two hours in each of the selected clinics. During these meetings, the stakeholders orientated the program champions on the content of Nemutandani's adjusted collaborative model and trained them to be trainers of trainees to ensure that everyone gets information on the use of the new seven components of Nemutandani's collaborative model. The content of the orientation meeting included detailed information about the research study, and more attention was on the seven components of Nemutandani's adjusted collaborative model to be implemented.

Engaging

The programme champions were allocated the role of training all staff members in their respective clinics about Nemutandani's adjusted collaborative model and its implementation. To support this Musgrove, Elinger, Elinger & Fitzer (2014 n.p.), in their study titled *Examining the Influence of Strategic Quality Profit Emphases on Employee Engagement and Service Climate,* stated that organisational productivity is determined by employees' efforts and engagement. Robertson-Smith & Markwick (2009:1), in their study titled *Employee Engagement: A Review of Current Thinking, Institute for Employment Studies,* mentioned that engagement is pivotal to successful commercial and business performance, and it can affect employees' attitudes, absence and turnover levels. Osborne and Hammoud (2017:50) mentioned that interpersonal behaviours affect productivity. The champions were both THPs and AHPs healthcare providers working directly with patients living with HIV/AIDS and TB. The content of Nemutandani's adjusted collaborative model was used during training, and

more attention was on the seven components of the model. The researcher facilitated the implementation of Nemutandani's adjusted collaborative model in both clinics and booster training were given to programme champions when a need was identified.

Executing

Implementation is defined by Peters, Adam, Alonge & Agyepong (2013:2), in their study, titled *Implementation Research: What it is and How to Do it,* as a method to enhance the adoption of a clinical intervention such as the use of job aids, provider education, or audit procedures. Implementing a project includes the process of conducting and monitoring the proposed activities, as well as updating and revising the research plan accordingly as conditions dictate (WHO, 2014:117). The outcome of phase one indicated that there is a need for implementing Nemutandani's collaborative model and the core elements of the model that could effectively meet the health needs of Gert Sibande District were identified. The outcome of phase two was Nemutandani's adjusted collaborative model to be implemented in phase three of the research study. Community awareness, training of staff on those selected clinics, and training and transfer of skills among the stakeholders were done to ensure the smooth running of the implementation process. The programme champions, with support from the stakeholders, implemented Nemutandani's adjusted collaborative model for two months, which were in September and October 2021.

Stakeholders ensured that information about the use of Nemutandani's adjusted collaborative model reaches everyone. Components of Nemutandani's adjusted collaborative model were displayed in the waiting area, consulting rooms and all clinical areas. These components were written in English, Afrikaans, Zulu, and Swazi, as those languages are the prominent ones used in Gert Sibande District. The list of traditional healers who are practising legally was requested from the province through the district manager to ensure that the proper referral is done as per patient preference. Some of the allopathic healthcare practitioners were initially resistant to the use of Nemutandani's adjusted collaborative model, but the implementation process, coupled with continuous education continued until most of the staff members saw the need for collaboration. The researcher facilitated the implementation of Nemutandani's adjusted collaborative model in both clinics. The stakeholders advised on maintaining the core elements of Nemutandani's adjusted collaborative model and analysed and solved serious problems. No Challenges were experienced during implementation. The Implementation of Nemutandani's adjusted collaborative model will be discussed in detail in Chapter 5.

2.5. Phase Four: Evalutation

The objective of phase four was: To determine the extent to which Nemutandani's adjusted collaborative model is useful to the Gert Sibande District, Mpumalanga Province, South Africa.

Evaluation is the fourth step of PAR. The guiding question for the evaluation phase was: *To what extent was Nemutandani's adjusted collaborative model useful to the Gert Sibande District*, *Mpumalanga Province, South Africa?*

2.5.1. Setting

The setting for the evaluation process is the same as the setting for phases one and two of the research study.

2.5.2. Population and Sample

All thirteen stakeholders who participated in phases one and two of the research study participated in the evaluation process.

2.5.3. Summary of the Evaluation of the Process

The third month (November 2021) of the implementation phase was used for the evaluation of the usefulness of Nemutandani's adjusted collaborative model implementation. The evaluation of the usefulness of Nemutandani's adjusted collaborative model in the Gert Sibande District, Mpumalanga Province, South Africa lasted for one month, which was November 2021. Reliable feedback from the patients and programme champions was used as a way of collecting data in response to the question.

Nemutandani's adjusted collaborative model was critically evaluated by the stakeholders for the extent to which it was useful to the Gert Sibande District, Mpumalanga Province, South Africa. The seven components of Nemutandani's adjusted collaborative model were used to formulate the Likert scale questionnaires that were used by the stakeholders to evaluate the usefulness of the adjusted collaborative. A four-point Likert scale was developed to evaluate the extent to which Nemutandani's adjusted collaborative model was useful in the Gert Sibande District, Mpumalanga Province, South Africa. The four-point Likert scale included: Strongly agree=1, agree=2, disagree=3 and strongly disagree=4. Consensus on the usefulness of Nemutandani's adjusted collaborative model was reached by the stakeholders after they were satisfied that the model meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

2.5.4. Data Collection Process

2.5.4.1. The Evaluation of Nemutandani's Adjusted Collaborative Model

To evaluate the usefulness of Nemutandani's adjusted collaborative model, the stakeholders used the four-point Likert scale in which 1=strongly agree, 2=agree, 3=disagree and 4= strongly disagree. The Likert scale questionnaires (Annexure B) were formulated using the seven components of Nemutandani's adjusted collaborative model. The Likert scale questionnaires were composed in the predominant local languages used in the Gert Sibande District, which are Zulu, Swazi, Afrikaans, and English, depending on the level of education of the stakeholders. Table 2.2 represents the Likert scale used to evaluate the usefulness of Nemutandani's adjusted collaborative model by the stakeholders.

Table 0.2 Likert scale Used to Evaluate the Usefulness of Nemutandani's Collaborative Model

Components of the adjusted collaborative model	**Strongly agree (1)**	**Agree (2)**	**Disagree (3)**	**Strongly disagree (4)**	**Rationale for strongly agree or strongly disagree**
Component 1: Mindset and attitude change					
No health system is better than the other.					
Both allopathic and traditional health systems complement each other.					
Patients are allowed to practice and exercise their beliefs, as no one owns a patient.					
Communication between the two health systems.					
Mutual understanding of both systems and demystifying myths, misconceptions, and stereotypes.					
Component 2: Openness and truthfulness					
Sharing their experiences and further reaching out to each other.					

Commitment to work together maintained					
Full disclosure of how each system operates and modes of treatments					
Component 3: Respect and patients' rights, responsibility					
Respect of patients' choices when it comes to consultation on either of the two health systems.					
Patients allowed to exercise their rights and responsibility.					
Acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two parties.					
Patients won't be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that lead patients to hide truth to the detriment of their condition.					
Component 4: Training and transfer of skills					
THPs will be trained on the signs and symptoms of HIV/AIDS and TB.					
Accepting each other attitudes will be promoted by training both parties.					
The relationship and narrowing of the gap between the two health					

systems will be improved by team building.					
Both parties to be oriented to the other system to address attitudes and perceptions and to refer as required to the other system.					
Component 5: HIV/AIDS and TB					
A human being is a complex matter which cannot be predicted. Patients living with HIV/AIDS and TB condition have rights that need to be respected.					
Patients living with HIV/AIDS and TB consult to both AHPs and THPs interchangeably for the same conditions.					
They are both influenced by their beliefs and prevailing circumstances, and they decide not to disclose.					
The implementation of the model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers.					
THPs will be trained on the identification of symptoms of either disease or referral for medical treatments. Motivation and treatment support will be given to					

patients to foster treatment adherence.					
Component 6: Collaboration and Teamwork					
Cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment.					
All patients consulting with AHPs with the belief of THPs will be referred to recognised THPs trained in HIV/AIDS and TB.					
Screening, referral, support, and community education.					
Component 7: Joint review, management and sharing of information					
THPs will be part of a larger pool of community health workers supporting and promoting compliance with DOT and ARV treatment.					
Clear lines of communication between THPs and AHPs and patients will be cross-referred between the two parties for further management.					
Parties will hold regular meetings, give feedback, and do case studies/presentations to teach each other.					

2.6. Summary

Chapter Two discussed the research design and method of the research study. The four phases for conducting the research study were discussed. The next chapter discussed phase one of the research study: model validation by identifying the need for model implementation and the content of the model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa.

CHAPTER 3: PRESENTATION AND DISCUSSION OF THE FINDINGS FOR PHASE ONE

3.1. Introduction

In the previous chapter, the methodology of the research study was discussed. This chapter focused on phase one of the study – Model validation. This chapter aimed to validate Nemutandani's collaborative model by identifying the need for model implementation and the content of the model that effectively meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

3.2. Objectives

The objectives of phase one were to validate Nemutandani's collaborative model, by identifying a need for the model implementation and to identify the content of the collaborative model that effectively meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

3.3. Methodology

The research design, method, setting, population, sampling criteria and sample size was discussed in detail in chapter two of the research study.

3.4. Demographic Characteristics of Stakeholders

A total of thirteen stakeholders participated in phase one of the research study. The stakeholders that have participated are presented in Table 2.1. The stakeholders who participated were a representation of the population of interest with diverse backgrounds. THPs included in this study were those performing divine healing, throwing of bones and ancestral channelling, and traditional healing. Female stakeholders who participated in the study were more than the male stakeholders. Seven females and six males participated in the research study. The age group of the stakeholders was between 40 and 62 years. All stakeholders had a minimum of six years of experience in their field of work, and the maximum experience was 30 years.

3.5. Data Collection Method

The Nominal group technique (NGT) was used as a method of data collection during phase one of the study. Phases of the nominal group technique for phase one were discussed in the methodology chapter, chapter 2.

3.5.1. Advantages and Disadvantages of NGT

Advantages

Nelson, Jayanthi, Brittain and Epstein 2002; de Ruyter,1996; Brahm and Kleiner, 1996, as cited by Dang (2015:6), indicated that NGT has the following advantages:

- It generates a greater number of ideas than other group processes.
- It generates more creative ideas than other group processes.
- Results interpretation is easy.
- It creates a greater sense of accomplishment for members.
- It requires minimum resources, meaning it is cost-effective.
- The comparatively efficient use of time.

Disadvantages

De Ruyter 1996; Brahm & Kleiner 1996, as cited by Dang (2015:6), indicated that the disadvantages of NGT include:

- A limited number of topics and issues can be covered.
- Limitation of ideas to the meeting itself.
- The need for stakeholders to feel comfortable with and remain within a very structured group process.
- The lack of anonymity may limit stakeholders' willingness to express their views.
- The necessity for all members to be capable of, and comfortable with, expressing their ideas in writing and then communicating them verbally to the group.
- The time commitment required from stakeholders, and the necessity for them to attend specific locations at a given time, may limit the participants' number.
- The lack of generalisability of the results to the wider population is due to the specific characteristics of the stakeholders.
- The limited nature of the data often requires a follow-up survey or other quantitative methodology before making final decisions about an issue.

3.5.2. Preparation for the NGT Workshop

Information is given prior to the workshops.

All stakeholders who signed consent to participate were involved in setting the convenient dates for the workshop. One week prior to the workshop dates, an electronic copy with the seven components of Nemutandani's collaborative model written in three dominant languages in the Gert Sibande District, Mpumalanga Province, South Africa which were English, Afrikaans, Swazi, and Zulu, was sent to the stakeholders electronically so that they could familiarise themselves with the content of the model.

All stakeholders were given instructions about the nominal group technique a week before the workshop to familiarise themselves with the NGT technique. Table 3.1 represents the instructions given to stakeholders regarding the nominal group technique process.

Table 0.1 Instructions for Performing the NGT for Phase One

Phases	Activities
Phase 1: Presentation of key Questions	**Research questions** • What is the need for Nemutandani's collaborative model implementation? What is the effective model content that meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa?
Phase 2: Silent generation	• A group of 13 stakeholders will be formed with a flip chart and a pen to record ideas. • A piece paper and a pen will be handed over to each stakeholder. • Without any discussion during the silent stage, the stakeholders will be requested to silently write down all the core elements of the seven components of Nemutandani's collaborative model that they think can meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.
Phase 3: Round-robin	• In this phase, stakeholders will write their ideas on the flip chart without comments or discussion until all ideas are exhausted. No comments or discussions will be allowed during the round-robin phase to prevent some stakeholders from advocating their ideas and influencing other members to buy into their ideas. • Similar ideas will be grouped.

Phase 4: Clarification of ideas	• All unclear ideas will be clarified and discussed by all stakeholders until everything is understandable. • All ideas will be grouped, edited, and named into themes, without discarding any item. • The researcher will make a list of those themes and attach letters A, B, C and so on these themes in order of popularity on the flip chart.
Phase 5: Voting	• Stakeholders will write down all themes with the letters on the paper, based on the list of themes and rank their top 5. • The stakeholder will award 5 points to their top item, 4 to their second and so forth. • The papers will then be collected by the researcher for data analysis.

The workshop rooms.

A municipality boardroom was prepared to conduct the workshop as it was central and convenient to all stakeholders in terms of distance, relaxed and free from distractions, consisting of a round table that can accommodate 22 chairs.

Opening statement

The researcher first explained the purpose of the meeting and the value of stakeholders' contributions to it (Dale-Olsen & Finseraas 2019:5). Secondly, the researcher introduced the technique and presented the questions to the group of stakeholders (Keir & van Albedyll 2007:1) Individuals were asked to silently reflect on the questions and write their responses (Keir & van Albedyll 2007:1). Lastly, the background of Nemutandani' s collaborative model with its seven components were presented.

3.5.3. The Process of Nominal Group Technique for Phase One

The nominal group technique refers to a structured variation of a small-group discussion to reach a consensus (U.S. Department of Health and Human Services, 2018 n.p). The NGT information is gathered by asking individuals to respond to questions posed by a moderator and then asking participants to prioritise the ideas or suggestions of all group members. In this study, questions were posed by the researcher. The NGT process has five phases, namely the presentation of the key questions to the stakeholders; silent generation; round-robin; clarification of ideas and voting. In phase one of the study, the stakeholders responded to the following questions: *What is the need for Nemutandani's collaborative model implementation? What is the effective model content that meets the health needs of the Gert Sibande District*, *Mpumalanga Province, South Africa?* Figure 3.1 represents the NGT process on needs identification, and Figure 3.2 represents the process followed

to determine the effective content of Nemutandani's collaborative model that meets the health needs of Gert Sibande District, Mpumalanga Province, South Africa.

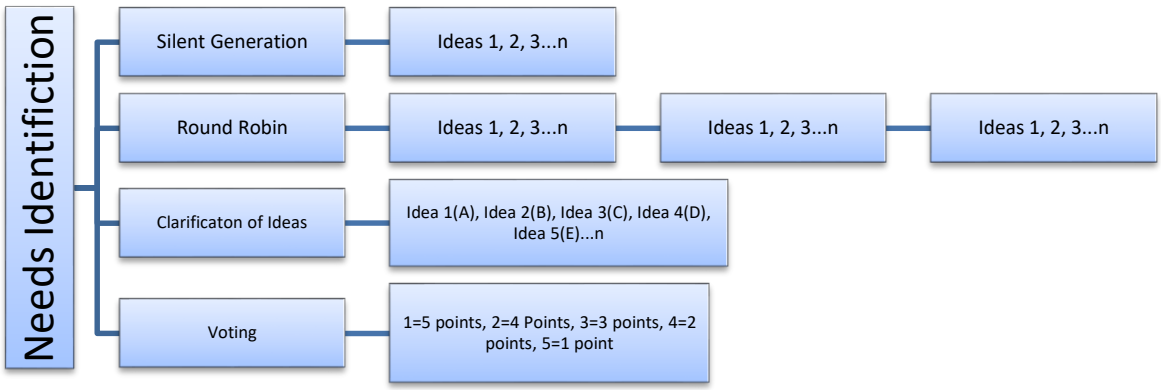


Figure 0.1 NGT Process on Need Identification

The need for Nemutandani's collaborative model implementation

The first question of phase one: What is the need for Nemutandani's collaborative model implementation*?* All 13 stakeholders *(n=100%)* supported the need for Nemutandani's collaborative model implementation. Table 3.2 represent the results of the NGT process on need identification.

Table 0.2 The Results of the NGT Process on Need Identification

Research Question	Votes received on need identification	Total score	Percentage
What is the need for Nemutandani's collaborative model implementation?	1+1+1+1+1+1+1+1+1+1+1+1+1	65	100%

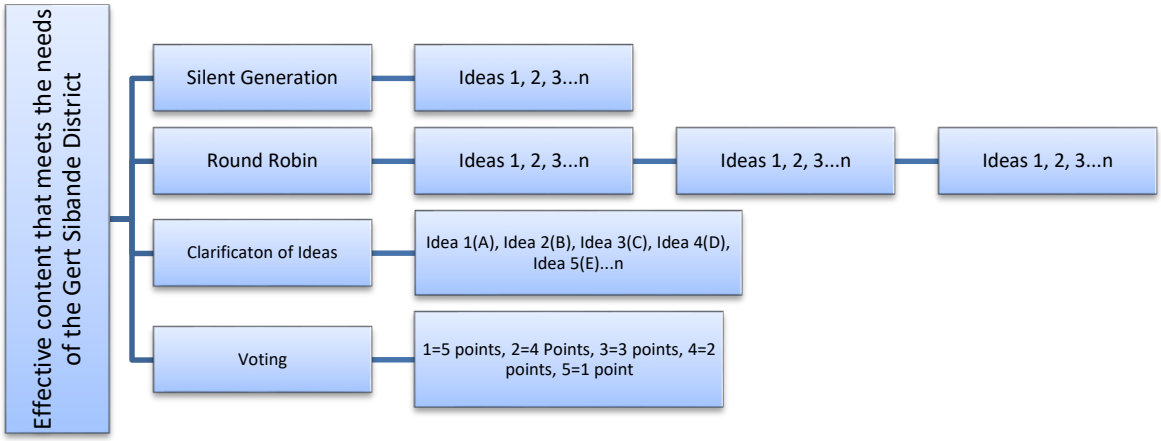


Figure 0.2 NGT Process on the Effective Content that Meet Health Needs of Gert Sibande

Effective content of Nemutandani's collaborative model that effectively meets the health needs of the Gert Sibande District.

The second question of phase one: *What is the effective model content that meets the health needs of the Gert Sibande district, Mpumalanga Province, South Africa?* On the effective content of Nemutandani's collaborative model, all 13 stakeholders (n=100%) supported the need for mindset and attitude change; Respect and patients' rights, responsibility (n=98.5%); Openness and truthfulness (97%); HIV/AIDS and TB (95%); Training and transfer of skills (94%); Collaboration and teamwork (92%) and the joint review, management and sharing of information (89%). Table 3.3 represents the results of the NGT process on needs identification.

Table 0.3 Results NGT for Phase One: Effective Content That Meets the Health Needs of Gert Sibande District

Component & core-elements	Votes received	Total Scores (points)	Percentage	Ranking
Mindset and attitude change: • No health system is better than the other. • Both allopathic and traditional health	1+1+1+1+1+1+1+1+1+1+1+1+1	65	100%	1

systems complement each other. • Patients are allowed to practice and exercise their beliefs, as no one owns a patient. • Communication between the two health systems				
Respect and patients' rights, and responsibility: • Respect for patients' choices when it comes to consultation on either of the two health systems. • Patients allowed to exercise their rights and responsibilities. • Acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two parties.	1+1+1+1+1+1+1+1+1+1+1+1+2	64	98.5%	2
Openness and truthfulness: • Sharing their experiences and further reaching out to each other.	1+1+1+1+1+1+1+1+1+1+1+2+2	63	97%	3

• Commitment to work together maintained.				
HIV/AIDS and TB: • A human being is a complex matter which cannot be predicted. • Patients living with HIV/AIDS and TB consult both AHPs and THPs interchangeably for the same conditions. • They are both influenced by their beliefs and prevailing circumstances, and they decide not to disclose. • Patients living with HIV/AIDS and TB condition have rights that need to be respected. • The implementation of the model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers.	1+1+1+1+1+1+1+1+1+1+2+2+2	62	95%	4
Training and transfer of skills:				

• THPs will be trained on the signs and symptoms of HIV/AIDS and TB. • Accepting each other attitudes will be promoted by training both parties. • The relationship and narrowing of the gap between the two.	1+1+1+1+1+1+1+1+1+1+2+2+2	61	94%	5
Collaboration and teamwork: • Cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. • All patients consulting with AHPs with the belief of THPs will be referred to recognised THPs trained in HIV/AIDS.	1+1+1+1+1+1+1+1+2+2+2+2+2	60	92%	6
Joint review, management and sharing of information: THPs will be part of a larger pool of community health workers supporting and	1+1+1+1+1+1+2+2+2+2+2+2+2	58	89%	7

promoting compliance with DOT and ARV treatment. Clear lines of communication between THPs and AHPs and patients will be cross-referred between the two parties for further management.				

3.6. Data Management

All data collected was kept together in a safe place and only the researcher had access to it. Data was stored in such a way that retrieval of it at a later stage was easy and efficient. Physical data like notes, tape recordings and transcripts were kept in a lockable filing cabinet in the researcher's office. Data was stored according to the study measure topics, as outlined in the study protocol. The collected data was further organised by categories to ensure effective and efficient usage (Yin 2018:199). All data collected had a backup. To maintain confidentiality, the researcher ensured that the names of stakeholders were not attached to the collected data. Data management for phases one, two, three and four were the same.

3.7. Data Analysis

Data analysis is the process of reducing large amounts of collected data to make sense of them (Kawulich 2005:97). Ashirwadam (2014:1) defines data analysis as a method of putting facts and figures together to solve a research problem. Qualitative data analysis is a process of fitting data together, making the invisible obvious, linking, and attributing consequences to antecedents, conjecture and verification, correction and modification, and suggestion and defence (Polit & Beck 2012:184). Data analysis in qualitative research examines words rather than numbers (Polit & Beck 2012:184). (Kawulich 2004:97), indicated that during data analysis, data is organised, reduced through summarisation and categorisation, and patterns and themes in the data are identified and linked. Qualitative data analysis can be divided into three main stages, and these include the reduction of the text, the exploration of the text, and the integration of the exploration (Akinyode & Khan 2018:166). Akinyode and Khan (2018:166) further indicated that there are a variety of ways through which data analysis can be conducted. Transcripts from the first workshop were read to acquire an overall understanding of the content related to the study's aim. The transcripts were read again word

by word while writing notes and headings in the margin. This process was done repeatedly, and subcategories were identified and grouped as categories; the list of categories was further grouped to form themes.

3.8. Findings and Discussion of Phase One of the Study

Two themes were identified in phase one of the study: the need identification and the effective content of Nemutandani's collaborative mode that meets the health needs of Gert Sibande District, Mpumalanga Province, South Africa. The themes were divided into four categories, and the categories were further divided into eight subcategories.

3.8.1. Theme One: Need Identification

Theme one validated Nemutandani's collaborative model by identifying the need for model implementation and identifying the content of the model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. The findings of the study revealed that there is a need for THPs and AHPs to work together. Stakeholders indicated that many lives were lost due to non-collaboration between the two health systems. Two categories and four subcategories were identified under this theme. The presentation of theme one, categories and subcategories will be in conjunction with representative quotes from the stakeholders. Figure 3.3 represents theme one, categories and subcategories for phase one.

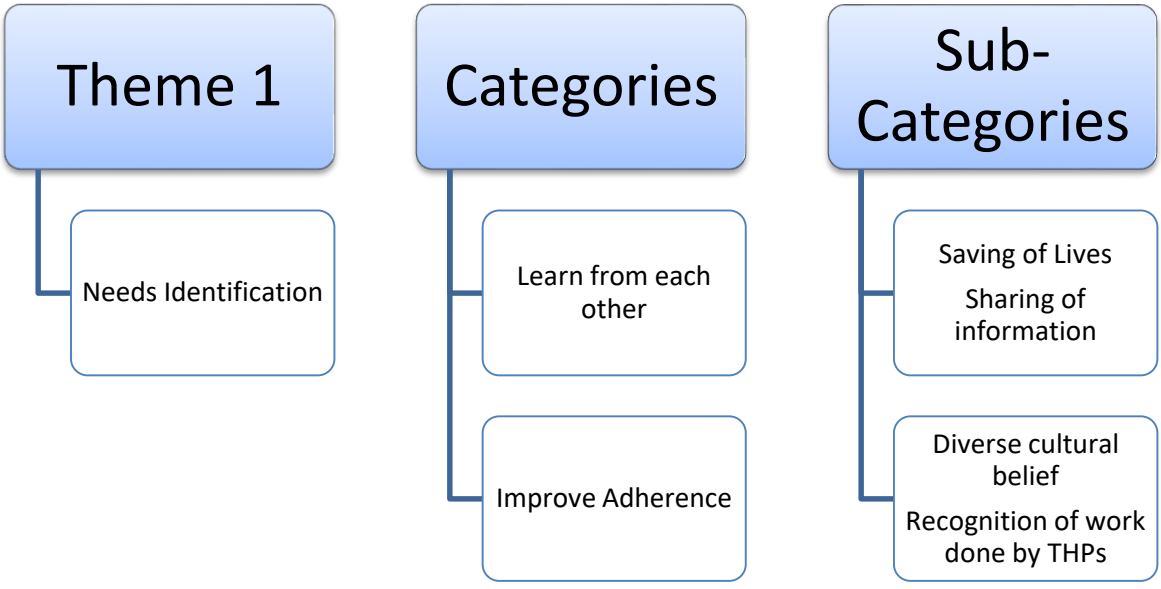


Figure 0.3 Theme One, categories and Subcategories

3.8.1.1. Category One: Learn from each other

The stakeholders confirmed that there was a need for THPs and AHPs to work together, rather than fighting each other to be able to learn from each other. The stakeholders mentioned that allopathic medicine is not the only medicine to treat health problems, as traditional medicine in South Africa has been used by humankind for the treatment of human diseases long before the introduction of Western medicine. During the analysis and interpretation of data from the stakeholders' first workshop, two sub-categories emerged:

Saving of lives

Stakeholders identified the need for traditional and allopathic health practitioners to work together to save lives. The findings of the study indicated that the non-collaboration between the two health systems has caused a lot of challenges leading to high morbidity and mortality rate. The stakeholders indicated that to win the battle of saving lives THPs need to work together with AHPs.

'There is really a need for us to work together as we are actually failing to win the battle of saving lives if we are working in isolation.'

'There is a need because of the high rate of non-compliance influenced by the non-collaboration between the two health systems.'

'This non-collaboration led to a waste of government resources like human and financial resources as many lives are lost irrespective of allocated resources.'

'Government try by all means to provide needed resources which are not used as expected and that is a waste.'

The quotes show that there is a real need for the two health systems to work together, to be able to learn from each other, and save lives. In South Africa, allopathic medicine is not the only medicine to treat health problems, as clinicians deal with patients from different cultural backgrounds. Traditional medicine in South Africa has been used by humankind for the treatment of human diseases long before the introduction of Western medicine, and to date, it serves the health needs of most of the world's population. Traditional medicine is proven to be effective in treating both chronic diseases and psychological problems, especially those associated with stress that originates from social isolation, anxiety, or loss of self-esteem. This is supported by (Mothibe & Sibanda 2019:2) in the study titled *African Traditional Medicine: South African Perspectives,* where they indicated that African traditional medicine is said to be one of the oldest and most diverse of all medicinal systems, even though they are poorly recorded.

Zingela, van Wyk and Pietersen (2018:147), in the study titled *Use of Traditional and Alternative Healers by Psychiatric Patients: A Descriptive Study in Urban South Africa,* stated that those who use traditional or alternative medications do not always inform their clinicians. The widespread use of traditional or alternative healthcare by patients in South Africa requires clinicians to become knowledgeable about this to better serve the people they treat (Zingela et al. 2018:147). Zingela et al. (2018:147) further indicate that if a health practitioner is uninformed about the use of traditional or alternative medicines, it may impede medical treatment or even negatively affect allopathic intervention. Van Rooyen et al. (2015:1), in their study *Allopathic and Traditional Health Practitioners' Collaboration,* mentioned that mutual understanding between allopathic and traditional healthcare practitioners is considered crucial to ensure effective collaboration between the two health systems. Drain and Sanders (2020:39), in their study titled *A collaboration system model for planning and evaluating participatory design project,* stated that understanding the complexity of collaboration is vital in planning and evaluating the implementation of the model. Quality in healthcare is the extent to which an organisation meets its client's needs and expectations (Nemutandani et al. 2016:6).

Sharing of information

Stakeholders mentioned that if the two health systems could work together, undermining each other could end. They further indicated that sharing information would promote mutual understanding between the healthcare providers.

'I think learning from each other will help us to accept each other. We will then know that if a patient is HIV positive, how should we come in as traditional healers with our treatments.'

'If both parties can work together, they will be able to understand each other better, and this will also help the patient to understand health status, rather than being confused by the conflict between us as healthcare providers.'

These quotes revealed that there is a need for both traditional and allopathic health practitioners to share information. Sharing of information can prevent/eradicate the confusion experienced by patients due to conflict between the two healthcare providers. There are challenges regarding sharing of information about the patient, as these two health systems differ substantially in their approach to ill health. AHPs approach ill health from the perspective of **what** caused it and **how**, whereas THPs deals with **who** caused it and **why**. Another challenge is that most allopathic health practitioners have a negative attitude towards traditional healers, and their arguments are on the unscientific method and the unhygienic practices used by THPs to treat patients.

Another factor that led to the negative attitude towards traditional practitioners was their delay in referring patients who need medical attention. According to AHPs, THPs only refer patients when they are in their final stages of illness, with minimal chances of successful treatment intervention. This is supported by Mutola, Pemunta and Ngo (2021:1), in the study titled *Utilization of Traditional Medicine and its Integration into the healthcare System In Qokolweni, South Africa, Prospects For Enhanced Universal Health Coverage,* where they stated that those who oppose integration between the two health systems argue that traditional knowledge and practices are shrouded in secrecy and could therefore not be easily disseminated (Mutola et al. 2021:3). The allopathic health system is characterised by the application of scientific knowledge and technology to health and the healing process and the traditional health system on the other hand, relies exclusively on observational and practical experience handed down from generation to generation verbally or in writing (Van Rooyen et al. 2015:1). Mutola et al. (2021:1) mentioned that THPs were said not to be only secretive about the source of their knowledge but also their prescription. THPs are dependent on knowledge handed down from generation to generation of healers through verbal instructions, and most of them lack documentation of their products resulting in vague doses (Mutola et al. 2021:3). Van Rooyen et al. (2015:7) in the study titled *Allopathic and Traditional Health Practitioners' Collaboration,* argued that the need to clarify confidentiality issues first, before allopathic health practitioners may feel free to share patients' information with traditional healers should be taken into consideration.

3.8.1.2. Category Two: Improve adherence to ARV treatment

The stakeholders indicated that the high rate of defaulting HIV/AIDS and TB treatments in the Gert Sibande District, Mpumalanga Province, South Africa is related to non-collaboration between the two healthcare providers in the management of those conditions. The study findings also revealed that implementing Nemutandani's collaborative model could improve adherence to treatments as patients will be allowed to exercise their rights when it comes to their healthcare needs.

Diverse cultural beliefs

The stakeholders indicated that people living in South Africa have diverse cultural backgrounds, which influence their healthcare needs. The long-term nature of HIV/AIDS and TB illnesses was mentioned as leading to treatment fatigue in patients living with those conditions. Stakeholders further indicated that most South Africans consult traditional health practitioners before consulting with allopathic health providers.

'This model implementation is needed, and the reason why I am saying that is because we have a high rate of HIV/AIDS and TB in Gert Sibande District, and we were once number two following the

KwaZulu Natal. Both illnesses have a long-term illness and what I have noticed is that people get treatment fatigue, and end up trying to use traditional medications that they believe can be the solution.'

'Implementation of this model will be a very good step as health seeking behaviour of people is mostly influenced by their cultural background'

These quotes reveal that health-seeking behaviour of individuals is mostly influenced by their cultural beliefs. A need to allow patients to exercise their rights when it comes to choosing healthcare providers of their choice was identified. There is a growing pattern of using both health systems by people moving from one sector of the healthcare system to the other, in search of diagnosis, healing or other services, or using both health systems simultaneously, and this has been going on for years. This was supported by Moshabela (2012:26) in the study titled *Understanding Patterns of Health Systems Utilization Among People Living with HIV/AIDS Attending Rural HIV Services,* where it was argued that health-seeking behaviour and a choice whether to consult on allopathic or traditional healer is a complex process, and is determined by the chronicity and severity of the disease, attribution of causation of ill-health to supernatural sources, and as a preventive measure against possible ill-health. Van Rooyen et al. (2015:2), in the study titled *Allopathic and Traditional Health Practitioners' Collaboration* indicated that professional collaboration between the two health systems, where both systems can complement each other is desirable.

People consult to THPs because they are easily accessible, and they offer trusted and confidential services (Van Rooyen et al. 2015:3). Latif (2010:1) in their study titled *Integration of African Traditional Health Practitioners and Medicine into the healthcare Management System in The Province of Limpopo,* indicated that an estimated 80% of South Africans consult with traditional healers before consulting to allopathic medicine. Adams et al. (2009:793) indicated that, globally and in South Africa, there is an increased interest and demand for the use of both traditional and allopathic practitioners. Failure to recognise the traditional health system can result in dangerous situations, including toxic drug-herb interactions, a failure to administer the most effective treatment and cases delay treatment and even abandonment of treatments (Van Rooyen et al. 2015:2). Mutual understanding is crucial for effective collaboration between traditional and allopathic health practitioners. A change of cultural viewpoints, mindset, and mutual respect for different cultures is needed to create space for collaboration (Torri 2011:47). Collaboration between the two health systems is needed as both types of healthcare providers are operating within the same communities, and their respective practices may have a detrimental effect on the other's practice to the benefits or disadvantage of the consumer of health service (Van Rooyen et al. 2015:2).

Recognition of work performed by THPs.

Stakeholders indicated to be very happy about the initiative to collaborate the two health systems, especially the THPs as this is something they were long waiting for.

'I am very happy about this discussion. We thank the doctors who have recognised the need for allopathic and traditional health practitioners to work together. There is really a great need for us to work together.'

'We as traditional healers feel like we are being undermined by medical doctors as they call us witch doctors. This makes our contribution to be regarded as unnecessary. If allopathic health practitioners see a need to work in collaboration with us, we are very happy.'

'Traditional healing is not new, it was there even before the arrival of the western medication, and many lives were being saved using the traditional medications.'

'We as traditional practitioners will be very happy to work together with the allopathic health practitioners, and our plea is for them to accept us and our beliefs as most Africans believe in traditional healing.'

These quotes revealed that traditional health practitioners were happy that the Department of Health has started to recognise the work done by them and all the contributions they made as THPs, which were disregarded all these years. Traditional healing is not new, as it was used to save lives even before the arrival of allopathic medications. Many African people make use of both allopathic and traditional health systems interchangeably, and traditional healers have been found to be more accessible and affordable as compared to allopathic medicine. The most important reason for continued reliance on traditional medicine is its cultural reliance on the community it serves, making it capable of meeting their psychological and social needs.

Mothibe and Sibanda (2019:1), in the study titled *African Traditional Medicine: South African Perspective, Traditional and Complementary Medicine*, argued that African traditional medicine has been used by African populations for the treatment of diseases long before the advent of orthodox medicine and continues to carry a part of the burden of health for most of the population. Gandugate, Naidoo and Nlooto (2016:1), in their study titled *Collaboration with an Integration of African Traditional Healers into The South African Healthcare System,* stated that traditional medicine remained an important component of health services, despite a high rate of modernisation. In African countries, the use of traditional medicine has become an essential part of people's culture, and traditional

healers play a paramount role (Gandugate et al. 2016:2). Mutola et al. (2021:1) in the study titled *Utilization of Traditional Medicine and its Integration into the healthcare System in Qokolweni, South Africa; Prospects For Enhanced Universal Health Coverage,* stated that a large body of evidence indicates that 60% of the population in Sub-Saharan Africa lives in rural areas where conventional medical facilities are in short supply and traditional medicines and healers are widely utilised in the prevention and treatment of diseases in most African countries.

A study done in Zambia indicated that as high as 88% of respondents expressed a preference for visiting traditional healers when sick, for patients with AIDS symptoms in Malawi, South Africa, Uganda, and Zimbabwe, and as the main source of healthcare for mental illness in Uganda (Mutola et al. 2021:1). Traditional medicine encapsulates a myriad of health practices, approaches, knowledge, and beliefs in South Africa (Mutola et al. 2021:1). Chronic illness can in some cases create dissatisfaction with allopathic medicine, making the more personalised care provided by traditional healthcare practitioners look more attractive (Pace 2012:18). Mutola et al. (2021:1) further indicated that despite available evidence showing that traditional medicines are widely used, generally in Africa and particularly in South Africa, traditional healers have not been incorporated into the mainstream health system in South Africa.

Table 0.4 Needs Identification

IDENTIFIED NEEDS BY BOTH TRADITIONAL AND ALLOPATHIC HEALTHCARE PRACTITIONERS	
Traditional healthcare practitioners	**Allopathic healthcare practitioners**
Traditional health practitioners indicated that there is a need for the implementation of Nemutandani's collaborative model due to the following: ➢ Our patients are experiencing a lot of problems due to the non-collaboration between the two health systems. ➢ THPs encounter problems if we need to refer our clients who are weak to the hospital so that they can boost with a drip before we can give them our traditional medications, as some of our medications cannot be administered to a very weak client. ➢ Traditional health practitioners know the importance of adherence to HIV/AIDS and TB treatments, and we also encourage our	Allopathic health practitioners indicated that implementation of the model is needed due to the following: ➢ Patients should be allowed to exercise their rights of consulting to healthcare providers of their own choice. ➢ Healthcare providers stop judging patients for using healthcare providers of their own choice, as is one of their rights. ➢ The current health system is not enough, as there is still a high rate of non-compliance to treatment from patients living with HIV/AIDS and TB. ➢ Gert Sibande District, Mpumalanga Province, South Africa has a high rate of HIV/AIDS and TB, and non-collaboration of

clients to continue taking treatments that they received from clinics. ➢ Working together will be highly appreciated as in a human body there are things that need medical intervention and some need traditional intervention. ➢ THPs have different specialists, as no one can do everything, but they refer to other traditional practitioners based on the need of a client. ➢ THPs feel like they are being undermined by AHPs as they call them witch doctors, so working together will eliminate such misinterpretations. ➢ Patients sometimes present with spiritual issues like animals (izilwane) that cannot be seen nor treated by a medical doctor, but only to find that for THPs they will be able to recognise it even before throwing their bones and be able to intervene accordingly. ➢ It is advisable that people with 'izilwane' should start from THPs before going to AHPs, to start addressing the spiritual issue first before they can give injections at the hospital, as if things can be done the other way round patient can complicate and even lose their lives sometimes. ➢ THPs do render healthcare services many people successfully, but as they are still not accepted, they do their work with a fear that they might be blamed for anything that can goes wrong with their client. ➢ Patients do not belong to anyone and have rights to consult with the healthcare practitioner of their choice. ➢ As healthcare providers we should stop undermining each other but try to focus on how we can complement each other for lives to be saved.	the two health systems is one of the contributory factors. ➢ Both treatments are of a long-term duration, even though TB is taken for specific number of months but is still long-term, and the long duration led to treatment fatigue. ➢ There is increased number of losses to follow-up and defaulters in Gert Sibande District, Mpumalanga Province, South Africa despite the resources provided by the government to ensure accessibility of HIV/AIDS and TB treatments to all. ➢ The reason ascribed to high defaulters' rate are treatment fatigue, stigma and poverty, and cultural beliefs. ➢ Another challenge is late presentation for treatments of both diseases, which mostly due to non-collaboration between the two health systems. ➢ It is often alleged that most patients seek treatments from THPs before medical treatments. ➢ The mode of taking traditional medicine varies from medical treatments, and might lead to conflict, and thus causing patients to abandon medical treatments in favor of traditional medicine. ➢ Government always provides resources to fight against these diseases, but it ends up being a waste as consumers do not comply. ➢ We need to be very ambitious and set targets if we want to achieve the 2030 goals of and HIV free generation, as if we continue like this, we will not reach the stated goals. ➢ AHPs acknowledged that there is a lot that we need to learn from each other, as lack of knowledge of how these two systems works is disastrous to health program.

➢ It was indicated that the failure to recognise contributions made by THPs in healthcare makes it difficult to work together. ➢ Some people just need psychological healing to be healed physically, denying them their rights to access healthcare of their choice can lead to complications. ➢ People are accused of consulting to THPs, meaning that they are deprived in exercising their rights of using healthcare providers of choices. ➢ If people can be allowed to exercise their rights to freedom of choice when it comes to healthcare, more lives can be saved. ➢ Long time ago there were no doctors and hospitals, and people were using traditional medicines for their health problems. ➢ THPs indicated that they really see a need to learn from each other, and they are more than willing to learn from AHPs. ➢ THPs further indicated that working together will also help both systems to take rational decisions. ➢ Traditional healers also mentioned that they always advice their clients not to confuse ill-health with 'idlozi.' If you are sick, you are sick, and no one can start initiation skill being very ill.	➢ There is a need to strengthen collaboration between THPs and AHPs in the management of HIV/AIDS and TB. ➢ Patients' reaction to treatments is linked to their social and cultural behaviour, so is important to allow them freedom of choice. ➢ Traditional forms of care have persisted despite all the advances in scientific medicine. ➢ We should also keep in mind that human beings from the beginning had a method of coping with illnesses and diseases in the community, and that should not be taken for granted. ➢ The way how our health system operate currently is not benefiting consumers instead it is frustrating them.

3.8.2. Theme Two: Suitable Content of the Model

The study findings revealed that all stakeholders accepted the seven components of Nemutandani's' collaborative model as they were. A few additions were made by some of the stakeholders to the core elements of the seven components, and those additions were accepted by all stakeholders**.** Two categories and four subcategories were identified under this theme. Figure 3.4. represents theme two, categories and subcategories.

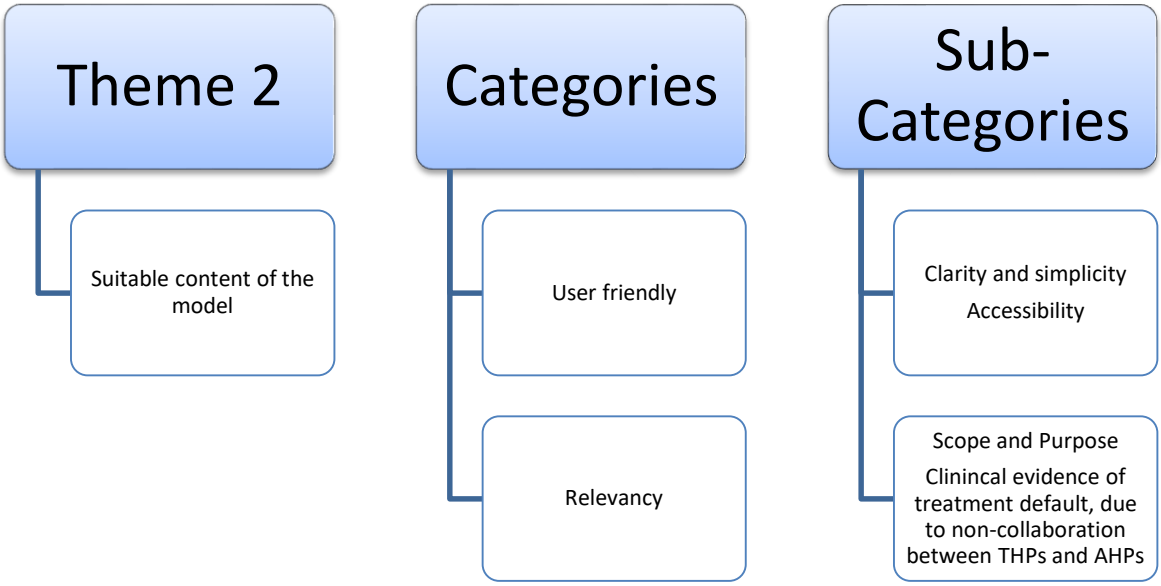


Figure 0.4 Theme Two, categories and Subcategories

3.8.2.1. Category One: User friendly

The findings of the study revealed that Nemutandani's collaborative model is clear and simple. Stakeholders indicated that it should be used as it is, and only a few additions were made to its core elements. Some of the stakeholders suggested that changes can only be made in the long run when a need is identified. The stakeholders viewed Nemutandani's collaborative model as very good, and as a tool that would assist the health systems to be able to save many lives that could be lost due to non-collaboration. This category further divides into two subcategories: Clear and Simple, and Accessibility.

(a) Clarity and simplicity and accessibility

The findings of the study revealed that all stakeholders viewed Nemutandani's collaborative model as clear and simple, and that it is suitable to meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

'To me, all the seven components should be implemented as is, as they are clear and relevant to Gert Sibande.'

'I suggest implementing them as they are, and we will see when the time goes on if there is a need for modifying them.'

'I also think that all the component mentioned are clear, simple and relevant to Gert Sibande District, Mpumalanga Province, South Africa *and should be implemented as they are.'*

'This model is very good as it is, and it will assist the health systems to be able to save many lives that could be lost due to non-collaboration.'

These quotes revealed that most of the stakeholders regard Nemutandani's collaborative model as **clear and simple**. These stakeholders appreciated the initiatives and they indicated that it is easy to understand this model because it is written in languages that they understand. Most of the stakeholders preferred to use it as it is, with little additions to the core elements of the model. They indicated that major changes can only be made in the long run when a need is identified. Simplicity means that the model is uncomplicated and was developed with a goal in mind. When a model is simple, it means you will also gain a measure of clarity, and this will make it easier for you to make decisions. Walshe (2018:391) stated that the clarity and simplicity of the model imply that it has the quality of being understood and presenting no difficulty. This clearly indicates that implementing the model going forward will not have any hindrances.

To support this, Walshe (2018:391), in the study titled *Clear, Simple, Precise, Meaningful: A Quick Guide to Writing for Publication,* stated that if you write your research paper write it for a general audience so that naïve humans understand the paper, as you are the expert of your paper but your audience are not, and it is important to write with them in mind. Walshe (2018:391) further indicated that if you can't explain it simply, it means you don't understand it as well. Walshe (2018:391) indicated that your research paper should be written using a clear, elegant, and plain language, it should have clear, and central message, and be focused on one topic. Vecchiato (2022:2), in the study titled *Clear, easy, plain, and simple as keywords for text simplification,* stated that communication is in plain language if its wording structure and design are so clear that the intended audience can easily find what they need, understand what they find, and use that information. Clearly written messages show respect and consideration for your audience, and which helps to build better relationships. Using plain and clear language helps your audience read, understand, and use the information you are giving them (Vecchiato 2022:3). According to Vecchiato (2022:3), easy-to-read information, is information that is written in a simple way that people with intellectual disabilities can understand.

The seven components of Nemutandani's collaborative model are: *mindset and attitudes change; openness and truthfulness; respect and patients' rights, and responsibility; training and transfer of skills; HIV/AIDS and TB; collaboration and teamwork and joint review management and sharing of information*. The model for the current study aimed at enhancing collaboration between allopathic and traditional healthcare practitioners in the management of HIV/AIDS and TB. A good model that

enhances professional collaboration between the traditional and allopathic health systems, where both systems can complement each other is desirable and involves a process of working together in a climate where these two parties provide mutual assistance and help to attain a common goal (WHO, 2010:12). Gqaleni, Hlongwane, Khondo, Mbatha, Mhlongo et al. (2011:2), in their study titled *Biomedical and Traditional Healing Collaboration on HIV and AIDS In Kwazulu-Natal, South Africa,* stated that professional collaboration is very beneficial as it is shown to improve communication and increase mutual understanding between two types of practitioners. Professional collaboration between the two health systems can be done by facilitating mutual understanding and open communication, based on respect and acceptance between the different healthcare providers (Van Rooyen et al. 2017:291).

(b) Accessibility

Nemutandani's collaborative model component will be accessible to everyone as all Gert Sibande clinics will have copies of the model components written in the prominent languages used in the Gert Sibande District. Training on the implementation of Nemutandani's adjusted collaborative model will be conducted in all the selected clinics in Gert Sibande District, Mpumalanga Province, South Africa.

'This model is a good one and will be accessible to everyone as it is written in different languages and easily understandable.'

'The model will be accessible to everyone as it is going to be displayed in all the healthcare centres, and champions are readily available to assist and to answer any emerging questions.'

'This is a good and understandable model which is a very big need in the healthcare system.'

These quotes revealed that Nemutandani's collaborative model component will be ***accessible*** to everyone, including people with disabilities. To increase the accessibility of the model, the researcher ensured that the model is written in English, Swazi, Afrikaans, and Zulu, as those are the predominant languages used in Gert Sibande District, Mpumalanga Province, South Africa. All Gert Sibande, Mpumalanga Province, South Africa clinics will have a copy of the component of Nemutandani's collaborative model for referral purposes. Workshops and training will be conducted. Accessibility means the right to use or view something and it can also represent the availability of something (Mohamed & Jindal 2015 n.p). Accessibility is said to be both human rights issue and a developmental issue (Nureni 2014:11). To ensure accessibility of Nemutandani's collaborative model components, the recommendation to implement guidelines for accessible information by Nureni (2014:12), in the study titled *Information Communication Technology (ICT): Concept Application,* was used, and the

seven recommendations are: *include an accessibility statement in the organizational long-term strategy; develop a strategy or plan for implementing accessible information, make someone responsible for implementing information accessibility plan and provide them with the required resources; plan an incremental implementation- be ambitious and modest at the same time; embed accessibility into your information production and dissemination processes; provide information, education and training on accessibility for all staff; and when outsourcing information production*, *make sure accessibility requirements are addressed and undergo a quality check.*

3.8.2.2. Category Two: Relevancy

The findings of the study revealed that most stakeholders adopted all components of Nemutandani's collaborative model as it was viewed to be effective in meeting the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. Wharton (2016 n.p), in the study titled *Relevance,* indicated that relevance is a property of information that is worthwhile attending. In this study, it means it is worthwhile to implement Nemutandani's collaborative model in Gert Sibande District, Mpumalanga Province, South Africa. One member of the stakeholder was not certain about the issue of exchanging information between the two health systems, and the concern was on how they were going to do that due to their different level of education, understanding and beliefs. This category further divides into two subcategories.

(a) Scope and purpose

The components of Nemutandani's collaborative model were accepted as it is, with some additions on its core elements, as it was viewed as suitable to the health needs of the Gert Sibande district.

'I also support all the components, but component number five, the training and transfer of skills, what skills can a traditional healer transfer to me which I don't have already, as I can examine, diagnose and prescribe.'

'The problem is that their skills (THP skills) are not learnable as they inherit this thing. Do you know what I mean? They themselves don't know the mechanism of communicating with the ancestors, I mean they don't know.'

'For me the given seven components should be used as it is, as it is suitable to the health needs of Gert Sibande District, Mpumalanga Province, South Africa.'

'The components of the collaborative model are relevant to Gert Sibande District, Mpumalanga Province, South Africa and they should be implemented as they are, and adjustments will only be done when a need arise.'

These quotes revealed that Nemutandani's collaborative model was accepted as ***suitable*** as it covered the ***scope and purpose*** of addressing the health needs in the Gert Sibande District, Mpumalanga Province, South Africa. Only a few additions were made to the co-elements of the seven components with no information removed. The patients' unmet needs, call for the two health systems to work together. Hence the study aimed at implementing Nemutandani's collaborative model in the management of HIV/AIDS, so that all unmet clients' needs are met as they will have access to healthcare of their choice. The relevancy of Nemutandani's collaborative model means that it is appropriate to Gert Sibande, Mpumalanga Province, South Africa. According to Wharton (2016 n.p), in the study titled *Relevance,* information is said to be relevant to an individual if it provides that individual with some form of benefit at a worthwhile cost. Relevance is defined by Cosijn and Ingwersen (2000:535), as the relation between the intents, goals, and motivations of a user. According to Cosijn and Ingwersen (2000:534), in their study titled *Dimensions of Relevance,* relevance has certain attributes and manifests itself in different ways.

(b) Clinical evidence of treatment default due to non-collaboration between THP and AHP

The findings of the study revealed that non-collaboration of the two health systems lead to defaulting treatment by people living with HIV/AIDS and TB. The outcome of the study revealed that stakeholders viewed working in collaboration with the two health systems as a breakthrough, as working in isolation have never worked for them.

'Collaboration of the two health parties will be a breakthrough in healthcare system. We have been struggling to make people comply to their monthly prescribed medication.'

'People living with HIV/AIDS and TB, always bring forward different excuses that led to non-compliance and most of the excuses are not the true reflection of their real problems, is just that they don't want to open up to us.'

'Working in isolation has never worked for us, and it compromised our mission of saving lives as it led to loss of many lives.'

'I think the collaborative model is a big need and will actually be a breakthrough to people like myself.'

'We as patients suffering from those condition end up being confused as we always find ourselves in the middle not knowing, which is which, due to the conflict between the two health systems.'

These quotes revealed that stakeholders viewed the collaboration of THPs and AHPs in the management of HIV/AIDS and TB as a breakthrough in the healthcare system, as the non-collaboration of the two health systems has led to the default of treatment by people suffering from those conditions. This was supported by a study that was done by Majola et al. (2016), which provided ***clinical evidence*** that defaulting treatment for patients suffering from HIV/AIDS and TB is related to the non-collaboration between the two health systems. Nemutandani et al. (2016:6), in their study titled *Perception and Experiences of Allopathic Health Practitioners on Collaboration with Traditional Health Practitioners in Post-Apartheid South Africa,* stated that despite the strength of modern medicine, clients' and patients' beliefs and attitudes will always determine the type of healthcare they seek.

The merging of allopathic and traditional healing paradigms provides for a complementary system of plural healthcare, which could offer patients a truly holistic and comprehensive form of care (Moshabela et al. 2016:83). Van Rooyen et al. (2015:9) in the study titled *Allopathic and Traditional Health Practitioners' Collaboration,* stated that globally, and in South Africa there is an increased interest and demand for the use of both traditional and allopathic health systems, as the health seeking behaviour of individuals is mostly influenced by their cultural belief. Van Rooyen et al. (2015:9) further indicated that professional collaboration between the two health systems, where both systems can complement each other is desirable and requires collaboration between the systems. Table 3.5 represents identified components and core elements of Nemutandani's model that could effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

Table 0.5 Identified Content of Nemutandani's Model that could Effectively Meet Health Needs of Gert Sibande District.

COMPONENTS OF NEMUTANDANI'S COLLABORATIVE MODEL	CORE ELEMENTS OF THE MODEL THAT STAKEHOLDERS VOTED FOR
Mindset and attitude change	No health system is better than the other. Both allopathic and traditional health systems complement each other. Patients are allowed to practice and exercise their beliefs, as no one owns a patient. Communication between the two health systems.
Openness and truthfulness	Sharing their experiences and further reaching out to each other.

	Commitment to work together is maintained.
Respect and patients' rights, responsibility	Respect for patients' choices when it comes to consultation on either of the two health systems. Patients are allowed to exercise their rights and responsibilities. Acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two parties.
Training and transfer of skills	THPs will be trained on the signs and symptoms of HIV/AIDS and TB. Accepting each other attitudes will be promoted by training both parties. The relationship and narrowing of the gap between the two
HIV/AIDS and TB	A human being is a complex matter which cannot be predicted. Patients living with HIV/AIDS and TB consult both AHPs and THPs interchangeably for the same conditions. They are both influenced by their beliefs and prevailing circumstances, and they decide not to disclose. Patients living with HIV/AIDS and TB condition have rights that need to be respected. The implementation of the model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers.
Collaboration and teamwork	Cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. All patients consulting with AHPs with the belief of THPs will be referred to recognised THPs trained on HIV/AIDS and TB.
Joint review, management and sharing of information.	THPs will be part of a larger pool of community health workers supporting and promoting compliance with DOT and ARV treatment. Clear lines of communication between THPs and AHPs and patients will be cross-referred between the two parties for further management.

3.9. Summary

In this chapter, the findings of phase one were presented and discussed. Nemutandani's collaborative model was validated by identifying the need for model implementation and the content of the model that effectively meets the health needs of Gert Sibande District, Mpumalanga Province, South Africa. The next chapter will present phase two findings and its discussion.

CHAPTER 4: PRESENTATION AND DISCUSSION OF THE FINDINGS FOR PHASE TWO

4.1. Introduction

In the previous chapter, the findings of phase one were presented and discussed. This chapter aimed to adjust Nemutandani's collaborative model, by reviewing the core elements of the model.

4.2. Objectives

To adjust Nemutandani's collaborative model, by reviewing the core elements of the model.

4.3. Methodology

The research design, setting, population, sampling criteria and sample size were discussed in detail in chapter two.

4.4. Demographic Characteristics of the Stakeholders

The same stakeholders who participated in phase one were used to conduct the nominal group technique process for phase two. See Table 2.1.

4.5. Data Collection Method

The nominal group technique (NGT) was used as a method of data collection during phase two of the study. Day two of the NGT workshop focused on adjusting Nemutandani's collaborative model by reviewing the core elements of the model.

4.5.1. Nominal Group Technique Process for Phase Two

Reviewing the core elements of Nemutandani's collaborative model

The stakeholders responded to the following question: *How will the core elements of Nemutandani's collaborative model identified in phase one be adjusted to meet the health needs of the Gert Sibande District?* The researcher presented the components and the core elements of Nemutandani's collaborative model that was agreed upon in phase one. The NGT rounds continued until data saturation of ideas was reached. Details of the steps of the NGT process followed during phase two

of the study were discussed in chapter 2, the methodology chapter. Figure 4.1 represents the nominal group process followed to adjust Nemutandani's collaborative model by reviewing the core elements of the model. Table 4.1 represents the results of the NGT process in reviewing the core elements of Nemutandani's collaborative model.

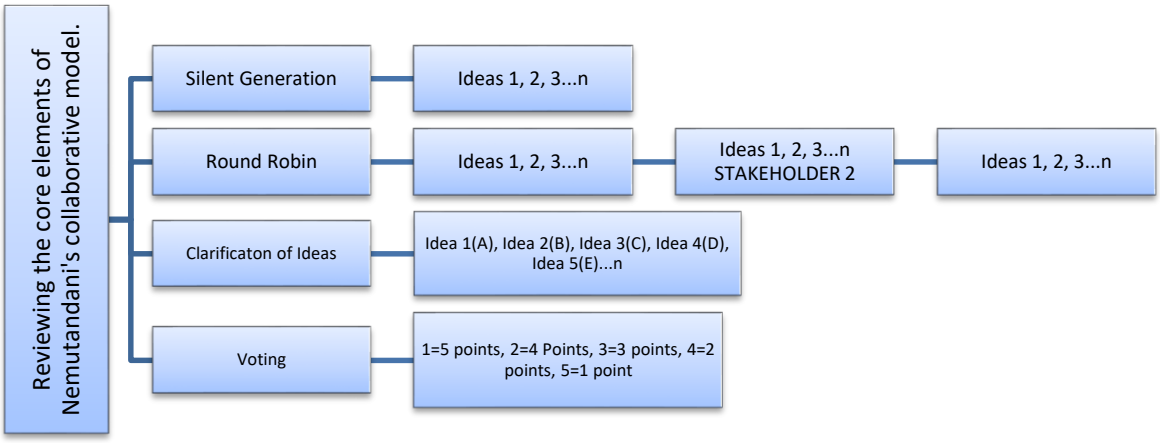


Figure 0.1 NGT Process on the Adjustment of the Collaborative Model

Review of core elements of Nemutandani's adjusted collaborative model.

The research question for phase two was: How will the core elements of Nemutandani's collaborative model identified in phase one be adjusted for the Gert Sibande District, Mpumalanga Province, South Africa's health needs? On the reviewed core elements of Nemutandani's collaborative model, all 13 stakeholders (*n*=100%) supported the reviewed core elements of Nemutandani's collaborative model.

Table 0.1 The Results of the NGT Process on the Review Core Elements of Nemutandani's Collaborative Model

Research Question	Votes received on the reviewed core elements of Nemutandani's collaborative model	Total score	Percentage
How will the core elements of Nemutandani's collaborative model identified in phase one be adjusted for the Gert Sibande district health needs?	1+1+1+1+1+1+1+1+1+1+1+1+1	65	100%

4.6. Findings and Discussion of Phase Two of the Study: Review of the Core Elements of Nemutandani's Collaborative Model

Four themes were identified in phase two of the study and are: Mutual understanding; disclosure of how each system operates; respect of patient's rights and sharing of information.

The themes were further divided into eight categories, and the categories were further divided into sixteen subcategories.

4.6.1. Theme One: Mutual Understanding

The findings of the study revealed that mutual understanding between the two health systems is important, as no health system is better than the other. Stakeholders agreed that both allopathic and traditional health systems will complement each other. Two categories and four subcategories were identified under this theme. The presentation of theme one, categories and subcategories was in conjunction with representative quotes from the stakeholders. Figure 4.2 represents theme one, categories and subcategories.

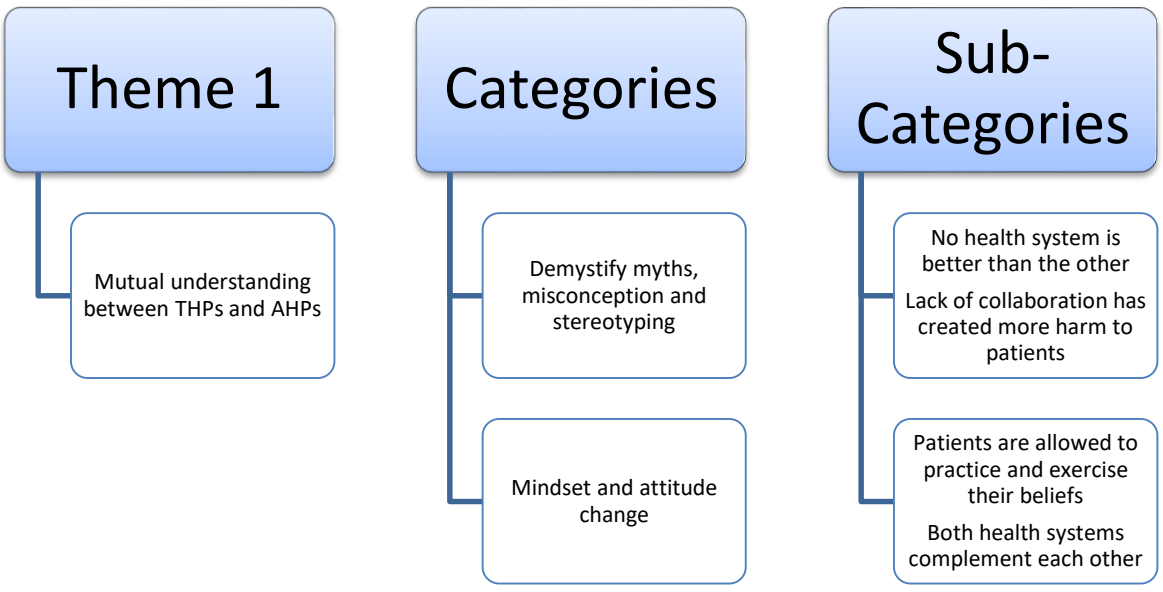


Figure 0.2 Theme One, Categories and Subcategories

4.6.1.1. Category One: Demystify Myths and Misconceptions and stereotyping

Stakeholders indicated that there is a need to demystify myths, misconceptions, and stereotypes for the two health systems to be able to work together. They further realised the harm that was endured by patients due to a lack of collaboration between the two health systems. This category further divides into two subcategories which are: no health system is better than the other and lack of collaboration has created harm to patients.

(a) No health system is better than the other.

The findings of the study revealed that patients do not belong to anyone and have the right to consult the healthcare providers of their choice.

'Patients' reaction to treatments is linked to their social and cultural behaviour, so it is important to allow them freedom of choice.'

'I like the part which says no one owns a patient and the fact that patients as much as they are sick, they have rights to be respected.'

'Traditional forms of care have persisted in spite of all the advances in scientific medicine.'

'We should also keep in mind that human beings from the beginning had a method of coping with illnesses and diseases in the community, and that should not be taken for granted.'

These quotes revealed that stakeholders have realised that ***no health system is better than the other***. All stakeholders acknowledged that many years ago, there were no doctors and hospitals, and people were using traditional medicines for health problems. This was supported by Trimble and Rajaraman (2017:9) in their study titled *'Integrating Traditional and Allopathic Medicine: An Opportunity to Improve Global Health in Cancer,* where they indicated that many of the interventions prescribed routinely in allopathic medicine arose from traditional medicine and natural products. Van Rooyen et al. (2015:2) stated that globally including in South Africa, there is an increased interest and demand to use both traditional and allopathic health systems. For many years there has been a pattern of using both health systems by healthcare consumers alternatively or simultaneously in search of a diagnosis, healing, or other services (Van Rooyen et al. 2015:2). Saggar, Mir, Kumar, Chawla, Uppal et al. (2022:107), in their study titled *'Traditional and Herbal Medicines: Opportunities and Challenges'* indicated that an estimated 80% of people throughout the world are using traditional medicine as a primary healthcare system, and tremendously increasing day by day due to toxicity and adverse reaction associated with modern allopathic drugs, which has also led to the rapid rise in

herbal drug manufactures. Since ancient times traditional medicines were extensively used for the treatment and prevention of various ailments (Saggar et al. 2022:107). Moshabela et al. (2016:85), in their study titled *'Bridging the Gap Between Biomedical and Traditional Health Practitioners in South Africa',* stated that it has been observed that acknowledging a practice does not mean endorsing it, and if collaboration between THPs and AHPs is to succeed, both systems must reach some degree of mutual understanding based on respect and equal footing.

(b) Lack of collaboration has created more harm to patients.

The study findings revealed that the current health system is not working as there is still a high rate of non-compliance, irrespective of the resources provided by the government to fight against HIV/AIDS and TB.

'I think something needs to be done as there is still increased number of losses to follow-up and defaulters in the district despite the resources provided by the government to fight against those diseases.'

'The reason ascribed to high defaulters' rate are treatment fatigue, stigma, and poverty. Government always provides resources to fight against these diseases, but it ends up being a waste as consumers don't comply to treatments provided.'

'As healthcare providers we should keep in mind that the way how our health system operate currently is not benefiting consumers instead it frustrates them.'

These quotes revealed that both traditional and allopathic health practitioners have realised that the ***lack of collaboration between the two systems has caused harm to patients.*** Stakeholders indicated that healthcare providers need to stop judging patients for using healthcare providers of their own choice. The study revealed that the current system is not working, as there is still a high rate of non-compliance. This was supported by Van Rooyen et al. (2015:2), in their study titled '*Allopathic and Traditional Health Practitioners' Collaboration'* where they indicated that collaboration between THPs and AHPs is needed, as both health systems are working within the same communities, their respective practices may have a synergistic or detrimental effect on the other's practice to the benefit or disadvantage of the consumer of health services. Trimble and Rajaraman (2017:9) in their study titled *'Integrating Traditional and Allopathic Medicine: An Opportunity to Improve Global Health in Cancer',* indicated that integrating traditional health practitioners in healthcare can increase the healthcare workforce as the number of traditional health practitioners far exceeds the number of allopathic health practitioners in many countries. Saggar et al. (2022:107), in

their study titled *'Traditional and Herbal Medicines: Opportunities and Challenges',* stated that most people in developing countries rely on traditional medicine as their primary Medicare and therapeutic applications.

4.6.1.2. Category Two: Mindset and Attitude Change

Stakeholders have indicated that the need to change their mindset and attitudes is very important for the two health systems to be able to work together. This category further divides into two subcategories, and those are: Patients will be allowed to practice and exercise their beliefs, and both health systems will complement each other.

(a) Patients will be allowed to practice and exercise their beliefs.

The study findings revealed that patients do not belong to anyone and have the right to consult the healthcare provider of their choice and denying them these rights can lead to complications.

'Patients are victimised for seeking help from healthcare providers of their own choice.'

'I like the part which says no one owns a patient and the fact that patients as much as they are sick, they have rights to be respected.'

'We as patients will be pleased if our rights can be respected when it comes to accessing health providers of our own choice, as the current system does not benefit us but rather confuses us.'

'I also agree that the model implementation is a great need in Gert Sibande District, Mpumalanga Province, South Africa because the people we are working with need to be allowed to use health providers of their choice, and allow them to exercise their rights in what they believe in.'

These quotes revealed that ***allowing patients to practice and exercise their beliefs*** is needed if the two health systems are passionate to work together. It is important to allow patient freedom of using healthcare providers of choice, as their reaction to treatments is linked to their social and cultural beliefs. Saggar et al. (2022:107), in their study titled *'Traditional and Herbal Medicines: Opportunities and Challenges',* mentioned that the traditional healthcare system is gaining popularity and is still increasing worldwide due to public curiosity about herbal drugs and its marvellous acceptance for their beneficial properties with least or no side effects against various challenging health-related problems. Van Rooyen et al. (20115:1), in their study titled '*Allopathic and Traditional Health*

Practitioners' Collaboration', indicated that every society has various systems in place to maintain and restore well-being, and these systems are influenced by differences between cultures and their understanding of health and diseases. Sub-Saharan Africa is one region of the world in which traditional medicine has been held to be widespread, and a considerable number of its population rely on it to maintain their health and prevent and treat communicable and non-communicable diseases (James et al. 2018:1). Oseni and Shannon (2020:2), in their study titled *'The Relationship Between Indigenous And Allopathic Health Practitioners in Africa and its Implication for Collaboration: A Qualitative Synthesis, Global Health Action'* indicated that traditional medicine in its cultural relevance to the population it serves, making it capable of meeting their psychological and social needs, and this explains why some people are prepared to travel further and pay fees to consult to AHPs despite the availability of closer and less expensive allopathic services. Traditional medicine users choose traditional medicine because they identify and share common culture, beliefs, relationships, social life, and environment with the traditional medicine practitioners (Chebii, Muthee & Kiemo 2020:5). They believe that traditional healthcare practitioners are more approachable, accessible, and their drugs are affordable as compared to allopathic medicine (Chedii et al. 2020:5).

(b) Both health systems should complement each other

The research study findings have revealed that the collaborative model is urgently needed as working in isolation of the two health systems compromised the mission of saving lives and led to the loss of many lives. The lack of knowledge of how each system works was regarded as a disaster for the healthcare programmes.

'I think this model is urgently needed for us to do a complete work to our patients. Main health issues about our patients were going to be ruled out if the two parties were working together.'

'There is really a need for us to work together as we are actually failing to save lives if we are working in isolation.'

'What I have learned from experience is that people living with HIV/AIDS and TB get treatment fatigue due to the lifelong treatment. So, if they could be supported by THPs I think it could help, as remember that people are also psychologically affected and THPs offer a very great deal of psychological support.'

'If THPs tell them that your ancestors say…that statement alone can heal an individual completely.'
'The support from THPs goes a long way. THPs offer both treatment and psychological support.'

'We need to complement each other as AHPs have no knowledge to attend to spiritual issue (izilwane) affecting a patient, and us THPs don't have a drip to administer to weak patients.'

'Working together will be highly appreciated as in a human body there are things that need medical intervention and some need traditional intervention.'

'Working together will promote trust between us THPs and our clients. If there is trust patients will be able to disclose to us everything and that will help us to make a correct diagnosis for an individual and be able to refer cases that need allopathic attention.'

'Working in isolation has never worked for us, and it compromised our mission of saving lives as it led to loss of many lives.'

'If we want to see reduced morbidity and mortality due to HIV/AIDS and TB related diseases, we must work in collaboration with each other.'

'I also support that we traditional healers don't have drips to administer to weak patients, but allopathic have.'

These quotes revealed that the two health systems should stop undermining each other but ***complement each other.*** Stakeholders indicated that they really need to learn from each other. Trimble and Rajaraman (2017:9), in their study titled *'Integrating Traditional and Allopathic Medicine: An Opportunity to Improve Global Health in Cancer*' indicated that the integration of allopathic and traditional medicine can address some of the challenges of disease control. Traditional medicine and allopathic medicine are often viewed as separate realms and ignore the fact that patients walk in both realms at the same time during their disease journey (Trimble and Rajaraman 2017:9). Oseni and Shannon (2020:1), in their study titled *'The Relationship Between Indigenous and Allopathic Health Practitioners in Africa and its Implication for Collaboration: A Qualitative Synthesis, Global Health Action'* mentioned that traditional medicine does not only answer the what of illness, but importantly the why has this happen to me. Saggar et al. (2022:112), in their study titled *'Traditional and Herbal Medicines: Opportunities and Challenges'* indicated that traditional medicine has played an essential role in the human healthcare system all over the globe, not only in sick situations but also as a possible material for maintaining adequate health. Professional collaboration between health systems, where these health systems can complement each other is desirable, and requires cooperation between the systems (Van Rooyen et al. 2015:2). Lack of collaboration between traditional and allopathic health practitioners is a huge impediment towards the integration of traditional medicine (Chedii et al. 2020:5). According to Chedii et al. (2020:6), cooperation between traditional and allopathic

practitioners is touted to be beneficial and complementary to healthcare delivery but often derailed by suspicion.

4.6.2. Theme Two: Disclosure of How Each Health System Operates

The findings of the study revealed the need for the two health systems to open to each other. The two health systems should share their experiences and further reach out to each other. Two categories and four subcategories were identified under this theme. The presentation of theme two, categories and subcategories will be in conjunction with representative quotes from the stakeholders. Figure 4.3 represents theme two, categories and subcategories.

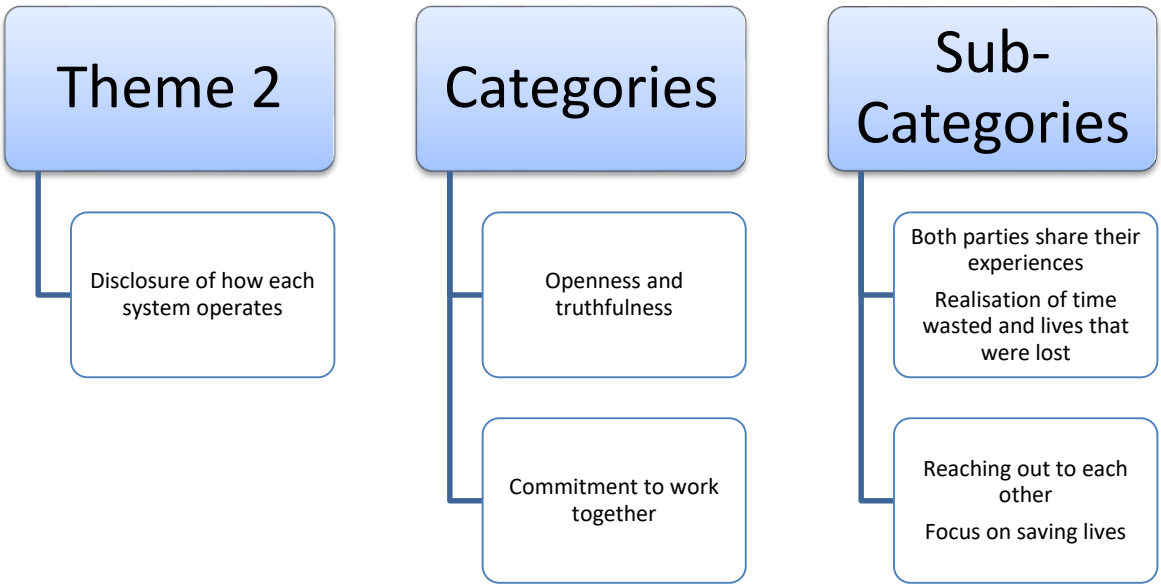


Figure 0.3 Theme Two, Categories and Subcategories

4.6.2.1. Category One: Openness and Truthfulness

The study findings revealed openness and truthfulness between the two health systems as very important for them to be able to work together. This category further divides into two subcategories, and those are: both parties share their experience and realisation of time wasted and lives that were lost.

(a) Both parties share their experiences

The study findings revealed that it is important that both allopathic and traditional health providers share their lived experiences with each other as healthcare providers. Stakeholders indicated that the

two healthcare providers should stop undermining each other, instead be eager to learn from each other to meet the health needs of patients.

'I don't know much about traditional healthcare practitioners but in the context of community health what I have observed is that allopathic medicine has come as the only option.'

'We know that people go to THPs and how these THPs work, we don't know. Sharing of information between us as healthcare providers is very important.'

'We need to refrain from undermining each other, if we are really passionate to save lives.'

'We should be eager to learn from each other and share our lived experiences as healthcare providers in order to prevent the loss of patients' lives due to non-collaboration.'

'As healthcare providers we can learn a lot from each other if we can have an open communication, and this can also eliminate many problems that we currently have.'

These quotes revealed that both healthcare providers need to ***share their experiences***. Sharing their lived experiences would help both parties to learn from each other and promote collaboration between them. The stakeholders indicated that working together would also help them to take rational decisions. This was supported by Van Rooyen et al. (2015:6), in their study titled '*Allopathic and traditional health practitioners' collaboration'* as they suggested that mutual understanding is crucial for effective collaboration between the two healthcare providers, as both parties have experienced a negative attitude towards each other. Oseni and Shannon (20have2) in their study, titled '*The Relationship Between Indigenous and Allopathic Health Practitioners in Africa and its Implication for Collaboration: A Qualitative Synthesis, Global Health Action'* mentioned that relationship between healthcare providers has been shown to be a crucial element of collaboration and it enables the separate and shared knowledge and skills of the healthcare providers to synergistically influence the client/patient care provided. Moeta, Anokwuru and Mulaudzi (2022:4) in their study titled, *'What About Ways of Living: Traditional Health Practitioners Describe the Tenets of African Traditional Medicine'* indicated that the voices of traditional health practitioners must be heard without prejudice, especially in Africa as THPS are respected within their communities and often consulted when people need counselling or advice on matters that requires wisdom from the traditional and spiritual realm. Moeta et al. (2022:4) stated that THPs must be given platforms and opportunities to share their knowledge and understanding, using participatory methods that give them ownership of the knowledge that is being generated and shared by them.

(b) Realisation of time wasted and lives that were lost.

The study findings revealed that the way how our health system operates currently is not benefiting consumers instead it frustrates them, as patients' reaction to treatments is linked to their social and cultural behaviour, so is important to allow them freedom of choice.

'This non-collaboration led to waste of government resources like human and financial resources, as government try to provide needed resources but is not used as expected and that is a waste. There is really a need for us to work together as we are failing to save lives if we are working in isolation.'

'Working together will make us happy as traditional healers as we currently feel like we are being undermined by medical doctors as they call us as witch doctors, and this kind of attitude paint a wrong picture on the contributions made by THPs. Some patients are victimised for seeking help from healthcare providers of their own choice.'

'We as patients suffering from those condition end up being confused as we always find ourselves in the middle not knowing which is which. If you see us consulting in your healthcare facilities in numbers, you must know that we are desperate for help and need anything that can heal us speedily and completely sometimes.'

'There is a lot of controversy caused by non-collaboration and lack of knowledge sometimes. Collaboration of the two health systems is an urgent need as patients can be seen as a compliant due to honouring their follow-up dates, but you become surprised when you visit their homes because some of them don't even drink a single tablet from the clinic package, and some do, but don't adhere because they are also taking traditional medicine secretly.'

'We as THPs have a big problem due to the non-collaboration between the two health systems, as we are being undermined and sometimes in front of our patients and that attitude made our patients to have doubt on us too.'

'Collaboration of the two parties will be a breakthrough in healthcare system. We have been struggling to make people comply to their monthly prescribed medication.'

These quotes revealed that both traditional and allopathic health practitioners have *realised the time wasted and the lives that were lost* while fighting each other. Government always provides resources to fight against these diseases, but it ends up being a waste as consumers don't comply. This is supported by Trimble and Rajaraman (2017:9), in their study titled *'Integrating Traditional and*

Allopathic Medicine: An Opportunity to Improve Global Health in Cancer' stated that traditional health practitioners have been suggested as potential partners in public health programs as long as there is mutual respect and consistent communication to ensure program quality and adherence to current medical standards.

Oseni and Shannon (2020:2), in their study titled '*The Relationship Between Indigenous and Allopathic Health Practitioners in Africa and its Implication for Collaboration: A Qualitative Synthesis, Global Health Action'* indicated that traditional medicine has been found to be more accessible, more affordable and provide more holistic care. It is often alleged that most patients seek treatments from THPs before medical treatments (Van Rooyen et al. 2015:2). Van Niekerk, Dladla, Gumbi, Monareng and Thwala (2014:20), in their study titled *'Perceptions of the Traditional Health Practitioner's Role in The Management of Mental Healthcare Users and Occupation: A Pilot Study'* stated that it is reported that allopathic healthcare practitioners turned a blind eye to THPs in some cases even collaborated with them informally (Van Niekerk et al. 2014:2). Van Niekerk et al. (2014:2) further indicated that the publication of the White Paper on the Transformation of the Health System in 1997 effectively decriminalised traditional healthcare and placed the role of THPs firmly on the healthcare transformation agenda. Mothibe and Sibanda (2019:18), in their study titled *'African Traditional Medicine: South African Perspective, Traditional and Complementary Medicine'* mentioned that the use of African traditional medicine by the public will persist and keep growing as it plays a role that cannot be completely substituted by allopathic medicine. Traditional medicine will remain a part of the healthcare option available to the population if it is accessible (Mothibe & Sibanda 2019:18).

4.6.2.2. Category Two: Commitment to Work Together

The study findings revealed that stakeholders identified commitment to work together as very important for the two systems to be able to work together. This category further divides into two subcategories, and those are: reaching out to each other and focusing on saving lives.

(a) Reaching out to each other

The study findings revealed that reaching out to each other is very important as human beings are complex species with different needs. Some of the stakeholders indicated that in the human body, there are things that need medical intervention and some need traditional intervention.

'THPs have contributions to make in healthcare that can help us as AHPs if we work together. Most of our patients are also psychologically affected and THPs offer a very great deal of psychological support.'

'If allopathic health practitioners can see a need to work in collaboration with us, we will be very happy as that will be of benefit to health consumers at large.'

'We are thankful to the one who have seen a need to recognise contributions made by THP in saving lives of people, and we also need to be educated on how each system work in order to get knowledge. We are grateful about this as we believe it will open our minds as healthcare providers.'

'I also agree with the training and transfer of skills and want to agree that it should be AHPs that share more of the skills towards THPs, but again we need to accept and understand the way how each system operates.'

'Training and awareness of both parties including the community is very important, as there is a lot of controversy caused by non-collaboration and lack of knowledge sometimes.'

'We also need papers that authorises us to refer our clients to AHPs and further accepting our sick notes.'

These quotes revealed that working together with the two health systems means ***reaching out to each other.*** The study findings revealed that both traditional and allopathic health practitioners have a lot that they need to learn from each other. Lack of knowledge on how each health system work is disastrous to healthcare programmes. This is supported by Trimble and Rajaraman (2017:9), in their study titled *'Integrating Traditional and Allopathic Medicine: An Opportunity to Improve Global Health in Cancer*' indicated that programs targeting the control of AIDS in Africa have long recognised the need for integration between allopathic and traditional medicine. Traditional medicine practitioners are more likely to speak the language of a patient as they reside closer to the patient and charge more affordable fees than allopathic medicine practitioners (Trimble and Rajaraman, 2017:9) James et al. (2018:2), in their study '*Traditional complementary and alternative medicine use in Sub-Saharan Africa: A systematic review'* stated that the increase in the prevalence of chronic non-communicable diseases is significantly contributing to high burden to the healthcare system which is already strained due to the high incidence of infectious diseases. Collaboration between traditional and allopathic health systems has been promoted as a way of achieving universal coverage, enhancing coordination of care and referral systems, promoting the safety of patients, distributing patients' demands better, facilitating inter-professional learning and boosting the overall quality of healthcare provided (Oseni & Shannon 2020:2)

(b) Focus on saving lives.

From the study findings, it was revealed that a lot of time was wasted, and many lives were lost as those two health system focused on fighting with each other, rather than saving lives.

'Many lives were lost due to non-collaboration of the two parties as some people who are sick due to HIV/AIDS related conditions are denying it and thought they were bewitched and prefer to go to traditional health practitioners than allopathic health practitioner, while intervention of AHPs can save their lives.'

'Some patients suffer from spiritual issues, like izilwane (animals) which a medical doctor cannot do anything about it. For us traditional healers it is easy to diagnose animals (izilwane) even before throwing bones, and then action to stabilise the patient done immediately before doing full physical examination.'

'There is really a need for us to work together as we are actually failing to win this battle of saving lives if we are working in isolation.'

'THPs plays a very big role in the community by saving lives, as even long time there were no doctors nor hospitals, this is not something new. People were using traditional medicine to heal themselves from any illness.'

'It is difficult to separate Africans from their beliefs, some of them pretend to be taking the allopathic medication while they are not. In many cases treatments are found under their mattresses when they are already death.'

'Working in isolation has never worked for us, and it compromised our mission of saving lives as it led to loss of many lives.'

'I welcome collaboration between allopathic and traditional health practitioners with warm hands as that will reduce the problems we encounter as healthcare providers where our patients discontinue treatments due to conflict caused by non-collaboration of the two parties.'

'Collaboration of the two health systems is needed as people reactions to illness are linked to a large number of factors one of which is their social and cultural behaviour.'

These quotes revealed that the two health systems should ***focus on saving lives.*** The two health providers should stop undermining each other and refer patients to each according to their needs to

save lives. Many African countries use both AHPs and THPs nowadays. This is supported by Gallaher, Purcell, Banda & Charles (2020:1953), in their study Titled '*The Effect of Traditional Healer* Intervention *Prior to Allopathic Care on Paediatric Burn Mortality in Malawi',* which stated that historically, many indigenous communities in sub-Saharan Africa have used medicinal plants and animal-derived-remedies to treat disease in the setting of limited allopathic healthcare resources. Oseni and Shannon (2020:2), in their study titled '*The Relationship Between Indigenous and Allopathic Health Practitioners in Africa and its Implication for Collaboration: A Qualitative Synthesis, Global Health Action',* mentioned that some people consult to THPs if they are not improving following allopathic treatments, and vice versa or they might use both concurrently. James et al. (2018:2), in their study titled '*Traditional Complementary and Alternative Medicine Use In Sub-Saharan Africa: A Systematic Review'*, stated that the high traditional medicine use for chronic health conditions reported outside Africa suggests that the use of traditional medications will play an integral role in the health and well-being of people suffering from chronic diseases in Africa as well. Gallaher et al. (2020:1953) indicated that the utilisation of THPs is an important issue challenging the effective, safe, and coordinated provision of conventional medical services, particularly in rural populations.

4.6.3. Theme Three: Respect for Patients' Rights

The findings of the study revealed that patients' rights to access health services of choice should be respected. Two categories and four subcategories were identified under this theme. The presentation of theme three, categories and subcategories will be in conjunction with representative quotes from the stakeholders. Figure 4.4 represents theme three, categories and subcategories.

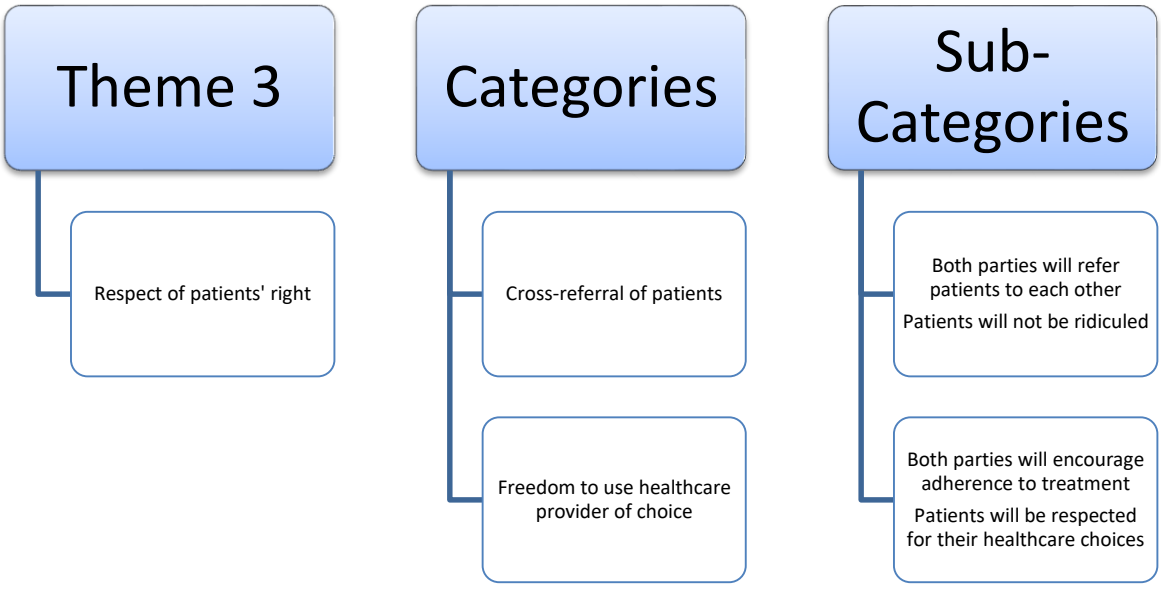


Figure 0.4 Theme Three, Categories and Subcategories

4.6.3.1. Category One: Cross-Referral of Patients

The study findings revealed that working together of the two health systems will be a great achievement, whereby the two health providers are able to refer patients to each other.

(a) Both parties will refer patients to each other freely.

Stakeholders indicated that there should be cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment.

'All patients consulting to AHPs with the belief of THPs will be referred to recognised THPs trained on HIV/AIDS and TB.'

'Patients living with HIV/AIDS and TB consult to both AHPs and THPs interchangeably for the same conditions… these patients are both influenced by their beliefs and prevailing circumstances, and they decide not to disclose.'

'I also believe it will work better if we can have a way to refer our clients to hospital when we see a need. Referring to each other currently is only happening among us as THPs as no one can be specialised in everything.'

Stakeholders agreed that THPs should be free to accompany their patients to the allopathic clinics and request AHPs to screen them for other conditions like HIV/AIDS & TB. The stakeholders indicated that there are still some AHPs who are sceptical and judgemental when referring to THPs, and this means that more education is needed.

'Some of the THPs have try their best to refer patients as I have one traditional practitioner, who is also their leader who always refer patient directly to me to assist and go to an extent to say I suspect that my client is having TB. I screen the patient and give verbal report to the patient and if possible, to the traditional healer.'

'It is my wish to see both allopathic and traditional health practitioners referring patients to each other without any hesitation.'

'Some of the AHPs undermine our contributions as THPs and that attitude actually does not assist the patient as they think.'

'Cross referral between the two parties is necessary as some patients have complex health issues that needs intervention from both parties.'

'I also believe rights of patients to consult to healthcare providers of choice should be respected.'

These quotes revealed that working in collaboration between the two health systems would mean that ***both parties will refer patients to each other.*** Health-seeking behaviour of individuals is mostly influenced by their cultural beliefs, and that means to meet their health needs they should be allowed to exercise their rights in using healthcare providers of choice. To support this, Nemutandani, Hendricks & Mulaudzi 2016:2) in their study titled '*Perception and Experiences of Allopathic Health Practitioners on Collaboration with Traditional Health Practitioners in Post-Apartheid South Africa',* indicated that despite the strength the allopathic medicine has, it is patients' belief and attitude that will determine the type of healthcare they opt for. Some patients usually sneak from the hospital to go and consult with traditional healers (Nemutandani et al. 2016:2). According to Oseni and Shannon (2020:2), in their study titled '*The Relationship Between Indigenous and Allopathic Health Practitioners in Africa and its Implications for Collaboration: A Qualitative Synthesis',* indicated that nowadays, many African people use both traditional and allopathic health systems. People might consult traditional health practitioners if their condition is not improving following allopathic treatment, and vice versa, or they might use both systems concurrently (Oseni & Shannon 2020:2). Nemutandani et al. (2016:6) stated that if non-collaboration of the two health systems continue as is, it will mean that the 60%-80% of the 6 million diagnosed with HIV, who are consulting to THP today, could be lost in between the two health systems. Moshabela et al. (2016:83), in their study titled *Bridging the Gap between Biomedical and Traditional Health Practitioners in South Africa, South African Health Review* indicated that despite the negative picture painted about THPs, there is also growing evidence generated to build bridges between traditional and allopathic health practitioners.

(b) Patients will not be ridiculed.

Stakeholders mentioned that all healthcare facilities should be user-friendly. They further indicated that patients should be given necessary advice and information from either of the two healthcare providers.

'The attitude of allopathic healthcare providers towards use of traditional medicine should change.'

'Allopathic health providers should be able to advise us on the use of registered THPs if we choose to and that information should be available in all clinics.'

Health providers will only see a remarkable increase in compliance with treatment when the two health systems work in collaboration with each other. Several stakeholders indicated that healthcare providers should correct their negative attitude towards each other if they want to save lives.

'The attitudes of nurses towards traditional health practitioners compromise lives of patients, as some patients choose not to disclose their consultation history to THPs or either delay to consult to AHPs until when it is very late.'
'Adherence to treatment can only be achieved if the two healthcare providers are truly complementing each other.'

These quotes revealed that ***patients will not be ridiculed*** for consulting health providers of their own choice. There is a need to consider the value that traditional health practitioners offer in providing healthcare to all timeously. This is supported by Trimble and Rajaraman (2017:9), in their study titled '*Integration of Traditional and Allopathic Medicine: An Opportunity to Improve Global Healthcare',* where they indicated that traditional healthcare practitioners are more accessible to patients than practitioners of allopathic medicine and are often the first point of contact in any setting. Van Rooyen et al. (2015:1), in their study titled '*Allopathic and traditional health practitioners' collaboration,'* indicated that health-seeking behaviour and the choice to consult, or not to consult either traditional, and allopathic health practitioners is a complex process which is determined by the chronicity/severity of the disease, attribution of causation of ill-health to supernatural sources, and as a preventive measure against possible ill health. Traditional healing in African countries is interwoven with cultural practices and religious beliefs and is therefore regarded as being holistic, involving both the body and the mind (Mothibe & Sibanda 2019:2). In the study done by Mutola et al. (2021:1), titled '*Utilization of traditional medicine and its integration into the healthcare system in Qokolweni, South Africa: project for enhanced universal health coverage',* it was stated that a large body of evidence indicates that 60% of the population in Sub-Saharan Africa live in rural areas where conventional medical facilities are in short supply and traditional medicines and healers are widely utilised in the prevention and treatment of diseases in most African countries. Mutola et al. (2021:1) further mentioned that the World Health Organisation designed the '*WHO Traditional Medicine Strategy 2014-2023'* whose aims are to*:* help healthcare leaders develop solutions that contribute to a broader vision of improved health and patient autonomy.

4.6.3.2. Category Two: Freedom to User Healthcare Provider of Choice

The study findings revealed that there is a need to allow patients to consult healthcare providers of choice as health-seeking behaviour is linked to individual cultural beliefs and religion.

(a) Both parties will encourage adherence to treatment

Stakeholders indicated that much improvement is needed in handling HIV/ AIDS & TB cases. Stakeholders indicated that if the two health systems can work in collaboration, it will encourage patients to be transparent when consulting to either of the two healthcare providers.

'I think using healthcare providers of choice is important as it also satisfy the health needs of an individual.'

'Freedom of choice will encourage everyone to take all their treatment as required as both healthcare providers will also give advice on adherence to prescribed treatments.'

After initial training was conducted, regarding implementation of the collaborative model, THPs promised to assist AHPs in giving continuous health education on compliance to treatment to their clients, especially those on chronic medications.

'If we can work in collaboration the number of losses of follow up cases can drop dramatically as it also ascribes again that people go to THPs and then stop allopathic medicine in favour of THPs. So, if maybe we can work together, it is possible that both healthcare providers can encourage patients to continue taking prescribed medications.'

'So, if maybe we can work together, it is possible that both healthcare providers can encourage patients to continue taking prescribed medications.' *'We have been struggling to make people comply to their monthly prescribed medication. They keep on bringing different excuses forward and most of the time is not the true reflection of their real problems, but they don't open to us. Working in isolation has never worked for us, and it compromised our mission of saving lives as it led to loss of many lives.'*

The quotes revealed that there is a need for both parties ***to encourage patients to adhere to treatments.*** A change of mindset and attitudes of both allopathic and traditional health practitioners is needed so that they can learn from each other and be able to advise patients accordingly. Studies

revealed that the current system is not working as there is still a high rate of non-compliance. Moshabela et al. (2016:84), in their study titled '*Bridging the Gap Between Biomedical and Traditional Health Practitioners in South Africa, South African Health Review',* mentioned that both health systems need to acknowledge the use of other healthcare providers by their patients, as to acknowledge a process, does not mean to endorse it. They further mentioned that if collaboration between traditional and allopathic healing systems is to succeed, both systems must reach some degree of mutual understanding based on respect and on equal footing (Moshabela et al. (2016:83). Habtom (2018:6) in his study titled *'Perceptions and Attitudes of Modern and Traditional Medical Practitioners about Traditional Medical Practice in Eritrea'* indicated that traditional and allopathic healthcare systems are complementary than competitive. According to Habtom (2018:6), the traditional medical system complements the allopathic healthcare system in the social, medical, and economic dimensions.

(b) Patients are allowed to exercise their rights of choice of healthcare providers.

The outcome of the research findings revealed that giving patients the freedom to use healthcare providers of choice will be of benefits to healthcare outcomes as patients will be free to open and that will help health providers to give appropriate intervention from the beginning, thus preventing complications related to wrong history given by patients.

'It is important to allow patients to exercise their rights when it comes to healthcare needs as patient's reaction to treatments is linked to their social and cultural belief.'

'I personally have met patients who were victimised for seeking help from healthcare providers of their own choice.'

'Traditional forms of care have persisted despite all the advances in scientific medicine. We therefore should also keep in mind that human beings from the beginning had a method of coping with illnesses and diseases in the community, and that should not be taken for granted.'

'As patients we will be pleased if our rights can be respected when it comes to accessing healthcare providers of our own choice.'

'I also agree that the model implementation is a great need in Gert Sibande because the people we are working with need to be allowed to use health providers of their choice, and allow them to exercise their rights in what they believe in.'

Some of the stakeholders indicated that the current situation of how the two health systems is operating is not benefitting the patients but causing more harm.

'The way how our health system operate currently is not benefiting consumers instead it frustrates them.'

"'There is a need to strengthen collaboration between THPs and AHPs in the management of HIV/AIDS and TB.'

These quotes revealed that ***patients need to be respected for the use of healthcare providers of choice.*** It was indicated that patients' reaction to treatments is linked to their social and cultural behaviour, so is important to allow them freedom of choice. To support this, Tembani, Van Rooyen and Pretorius (2009:2), in their study titled *'Strategies to Facilitate Collaboration between Allopathic and Traditional Health Practitioners'* mentioned that the traditional medicine system as a second health sector has survived in Africa despite the successful introduction of modern medicine. Mothibe and Sibanda (2019:2), in their study titled *'African Traditional Medicine: South African Perspective, Traditional and Complementary Medicine'* indicated that traditional medicine has been used by humankind for the treatment of various diseases since long before the introduction of allopathic medicines, and to this day, serve the health needs of most of the world population. Nemutandani, et al. (2016:2) stated the apartheid government before 1994 actively discouraged the use of traditional medicine and associated it with witchcraft. Despite the suppression and the structural arrangements which ignored traditional medicine and promoted the dominance of the allopathic healthcare system as the preferred health provider, patients continued to refer themselves to traditional health practitioners (Nemutandani, et al. 2016:2). It appears that African communities have not completely adopted the Westernised approaches, despite being subjected to centuries of colonisation and dehumanisation of their tradition, belief and practices, as while the majority of South African patients rely on the current antiretroviral drugs, which are wholly managed and controlled by the allopathic health system, some still prefer traditional medicines and practices to manage opportunistic infections (Nemutandani, et al. 2016:2).

4.6.4. Theme Four: Sharing of Information

The findings of the study revealed the need for the two parties to share information. Two categories and four subcategories were identified under this theme. The presentation of theme four, categories and subcategories will be in conjunction with representative quotes from the stakeholders. Figure 4.5 represents theme four, categories and subcategories.

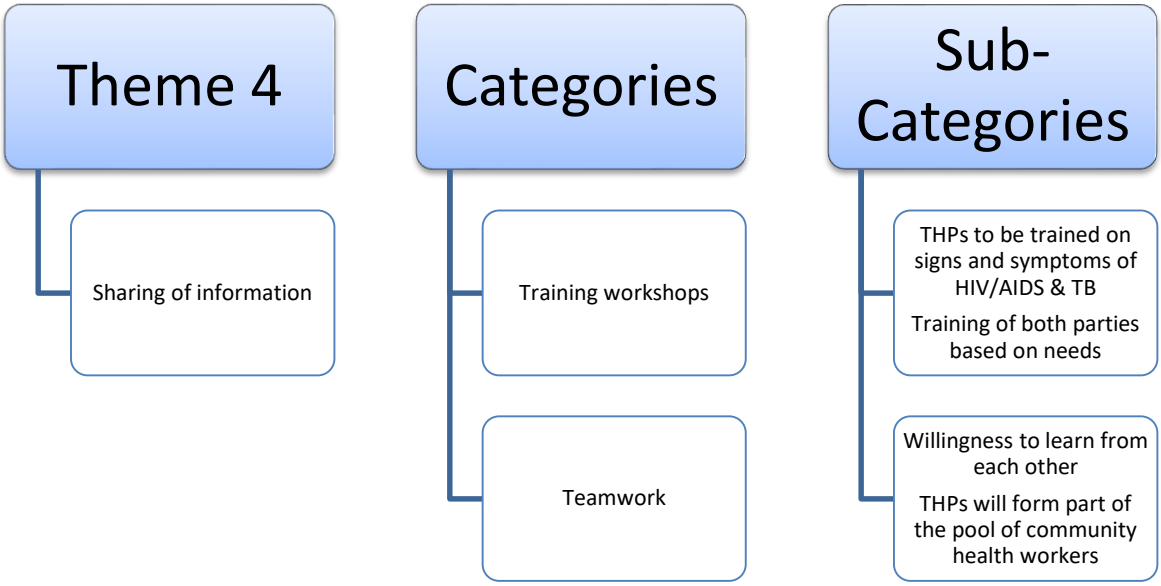


Figure 0.5 Theme Four, Categories and Subcategories

4.6.4.1. Category One: Training Workshops

The study findings revealed that there is a need for the two health systems to learn from each. Training for both systems on how each system operates was suggested.

(a) THPs will be trained on the signs and symptoms of HIV/AIDS and TB.

Stakeholders indicated that THPS will be trained on the signs and symptoms of HIV/AIDS and TB.

'THPs will be trained on Identification of symptoms of either disease or referral for medical treatments.'

'If our THPs can also be trained on the signs and symptoms of HIV/AIDS and TB it will be of much benefit to our patients as currently, we have people who are suffering from those conditions but only to find that they are not taking HIV or TB medication as their traditional practitioners told them that they have been bewitched (isidliso), and finally we end up losing those patients.'

The stakeholders agreed that **THPs will be trained on the signs and symptoms of HIV/AIDS and TB.** THPs indicated that we really need to learn from each other and indicated to be more than willing to learn from AHPs. This is supported by Habtom (2018:18), in his study titled *'Perceptions and Attitudes of Modern and Traditional Medical Practitioners about Traditional Medical Practice in Eritrea',* where he indicated that undertaking training of THPs will improve traditional knowledge

systems, practices, capacities and capabilities, and will consequently improve the quality and efficacy of traditional medicine.

Nemutandani et al. (2015:121) in the study titled *'HIV/AIDS and TB Knowledge and Beliefs among Rural Traditional Health Practitioners in Limpopo Province South Africa',* stated that urgent measures are needed in South Africa to reduce the incidence of HIV/AIDS and TB infections and the possible strategies could include the training of THPs on signs and symptoms of HIV/AIDS and TB, recognising their role and initiating collaboration in the fight against the disease. The role could extend to task-shifting with THPs and their inclusion in the management of patients to reduce the workload in the already overburdened and short-staffed public health facilities (Nemutandani et al. 2015:121). This includes allowing THPs to be involved in providing support for patients on ARV and TB treatment, making treatment of these diseases much more widely accessible and available (Nemutandani et al. 2015:121)

(b) Continuous training of both healthcare providers based on identified needs.

The stakeholders indicated that training and skills transfer between the two healthcare providers is needed to ensure the smooth running of the collaboration process.

'I also believe training each other is actually very important and that is my long-standing need.'

'Training of both parties on how each system work is very important as it will promote acceptance of each other and also improve communication between the two healthcare providers.'

'I also support the training of both healthcare providers as when I was still newly diagnosed with HIV/AIDS after receiving my treatment package, I also consulted to one of the THPs and gave him my full medical history and he advised me to stop taking the allopathic HIV treatment and to bring the treatment to him so that he can discard it, but I decided otherwise which was to continue with treatment and never go back to him.'

'Training and awareness of both healthcare providers including the community is very important, as there is a lot of controversy caused by non-collaboration and lack of knowledge sometimes.'

The agreement reached during the workshop was that ***both healthcare providers will be trained based on identified needs.*** The findings of the study revealed that there is still a lot that the two health systems need to learn from each other, as a lack of knowledge of how each system works is disastrous to healthcare programmes. Nemutandani et al. (2016:6), in their study titled *'A Model for*

the Collaboration Between Allopathic and Traditional Health Practitioners in the Management Of HIV/AIDS and TB in Vhembe District, Limpopo Province' indicated that the scepticism with which AHPs view traditional healing and practitioners thereof is not wholly justified. According to Nemutandani et al. (2016:6), factors contributing to such scepticism include the lack of knowledge among AHPs about traditional theories of disease and health (Nemutandani et al. 2016:6). Wagner (2020:400) conceded that lack of appropriate knowledge and understanding of complementary and alternative medicine is a constraint that can hinder the integration between the two healthcare systems. Training of both THPs and AHPs will be beneficial towards the implementation of Nemutandani's collaborative model.

4.6.4.2. Category Two: Teamwork

The study findings revealed that no health system is better than the other. Stakeholders indicated that to reach the main goal of saving lives working in collaboration for both health systems is needed.

(a) *Willingness to learn from each other.*

Findings from the study indicated a need for healthcare providers to learn from each other to help them understand their patients better.

'We therefore ask God to help these two healthcare providers to work together in fighting illnesses in a human body, so that people can be healed. We need each other.'

'If both healthcare providers can work together, they will be able to understand each other better, and this will also help the patient to understand health status, rather than being confused by the conflict between us as healthcare providers.'

'We as AHPs and THPs can learn a lot from each other if we can have an open communication, and this can iron out many problems that we currently have.'

'We desperately wish to learn from allopathic health practitioner as sometimes we are exposed to difficult cases to manage due to lack of medical information.'

'I believe we can learn a lot from traditional practitioners as THPs have knowledge that we don't have…. they know how to handle & treat somebody with demons (izilwane), and AHPs don't know they just give calming injections.'

These quotes revealed that both ***healthcare providers are willing to learn from each other.*** This is supported by Green and Colucci (2020:55), in their study titled '*Traditional healers' and biomedical practitioners' perceptions of collaborative mental health in low-and middle-income countries: A systematic review'* where they indicated that a more degree of understanding of the role that traditional healers play in their respective societies is needed. Green and Colucci (2020:95) indicated that recent studies have shown that there may be subjective benefits that patients reap from seeing a traditional healer that may not be quantifiable in a Western framework, and this need to be explored. Van Rooyen et al. (2015:6), in their study titled '*Allopathic and traditional health practitioners' collaboration'* stated that lack of knowledge and understanding about the other health system is a constraint that could hinder collaboration between allopathic and traditional health practitioners. Studies done based on the collaboration of the two health systems has revealed that working with THPs as AHPs has more benefits for the patients and a high level of commitment in the fight against HIV/AIDS and TB as has been reported (Nemutandani et al. 2016:6).

(b) ***THPs should be part of a larger pool of community health workers.***

The study findings revealed that stakeholders agreed that THPs should be part of the larger pool of community health workers, and that health centres should have a data base for registered traditional healthcare practitioners which they got from the provincial offices. Knowing the traditional healthcare practitioners on data base would be helpful to the community at large, and AHPs will be able to give proper advice to patients about legal THPs and bogus THPs.

'The two healthcare providers agreed that THPs will be part of a larger pool of community health workers supporting and promoting compliance to DOT and ARV treatment.'

'All healthcare centres should have a list of registered THPs to save lives and money that were previously wasted on 'bogus traditional practitioners.'

Stakeholders agreed that ***THPs should be part of a larger pool of community health workers*** *supporting and promoting compliance with DOT and ARV treatment.* It was agreed that allopathic health practitioners will encourage patients to use registered THPs as they will be available on the database. This is supported by Moshabela et al. (2016:83) in their study titled *'Bridging the Gap Between Biomedical and Traditional Health Practitioners in South Africa. South African Health Review'* stated that THPs in South Africa are increasingly acknowledged as essential providers of healthcare and the National Department of Health is taking a firm step towards the formal regulation of THPs.

Nemutandani et al. (2016:6), in their study titled *'Perception and Experiences of Allopathic Health Practitioners on Collaboration with Traditional Health Practitioners in Post-Apartheid South Africa'* stated that clients' needs to be addressed range from the physical, mental, and psychological state of mind among others, and it is the patients' unmet needs that call for the collaboration between the two health systems. According to Zuma, Wight, Rochat and Moshabela (2016:2), in their study titled *'The Role of Traditional Health Practitioners In Rural Kwazulu-Natal, South Africa: Generic or Mode Specific?* indicated that THPs are consulted for their explicit linkage of health with patients' social and cultural beliefs.

4.7. Conclusion

All stakeholders accepted the components of Nemutandani's collaborative model. A few core elements were added to adjust the model to be suitable to meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. Core elements that were added to adjust Nemutandani's collaborative model to meet the health needs of Gert Sibande District include:

- Mutual understanding of both systems and demystifying myths, misconceptions, and stereotypes.
- There will be full disclosure of how each system operates and the modes of treatments.
- Patients will not be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that leads patients to hide the truth to the detriment of their condition.
- Both parties need to be oriented to the other system to address attitudes and perceptions and to refer as required to the other system.
- THPs will be trained on the identification of symptoms of either disease or referral for medical treatments. Motivation and treatment support will be given to patients to foster treatment adherence.
- Screening, referral, support, and community education.
- The two healthcare providers will hold regular meetings, give feedback, and do case studies/presentations to teach each other.

Table 4.2 describes the components and core elements of the final adjusted Nemutandani's collaborative model. The core elements that were added to adjust the model are reflected in **bold**.

Table 0.2 Components and Core Elements of the Adjusted Collaborative Model

COMPONENTS OF THE ADJUSTED COLLABORATIVE MODEL	CORE ELEMENTS OF THE ADJUSTED COLLABORATIVE MODEL
Mindset and attitude change	No health system is better than the other. Both allopathic and traditional health systems to complement each other. Patients are allowed to practice and exercise their beliefs, as no one owns a patient. Communication between the two health system **Mutual understanding of both systems and to demystify myths, misconception, and stereotypes.**
Openness and truthfulness	Sharing their experiences and further reaching out to each other. Commitment to work together maintained. **Full disclosure of how each system operates and modes of treatments.**
Respect and patients' rights, responsibility	Respect of patients' choices when it comes to consultation on either of the two health systems. Patients allowed to exercise their rights and responsibilities. Acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two healthcare providers. **Patients won't be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that lead patients to hide truth to the detriment of their condition.**
Training and transfer of skills	THPs will be trained on the signs and symptoms of HIV/AIDS and TB. Accepting each other's attitudes will be promoted by training both parties. The relationship and narrowing of the gap between the two health systems will be improved by team building.

	Both parties to be oriented to the other system to address attitudes and perceptions and to refer as required to the other system.
HIV/AIDS and TB	A human being is a complex matter which cannot be predicted. Patients living with HIV/AIDS and TB consult to both AHPs and THPs interchangeably for the same conditions. They are both influenced by their beliefs and prevailing circumstances, and they decide not to disclose. Patients living with HIV/AIDS and TB condition have rights that need to be respected. The implementation of the model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers. **THPs will be trained on Identification of symptoms of either disease, or referral for medical treatments. Motivation and treatment support will be given to patients to foster adherence to treatment.**
Collaboration and teamwork	Cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. All patients consulting to AHPs with the belief of THPs will be referred to recognised THPs trained on HIV/AIDS and TB. **Screening, referral, support, and community education.**
Joint review, management and sharing of information.	THPs will be part of a larger pool of community health workers supporting and promoting compliance to DOT and ARV treatment. Clear lines of communication between THPs and AHPs and patients will be cross-referred in between the two parties for further management. **Parties will hold regular meetings, give feedback, do case studies/presentation to teach each other.**

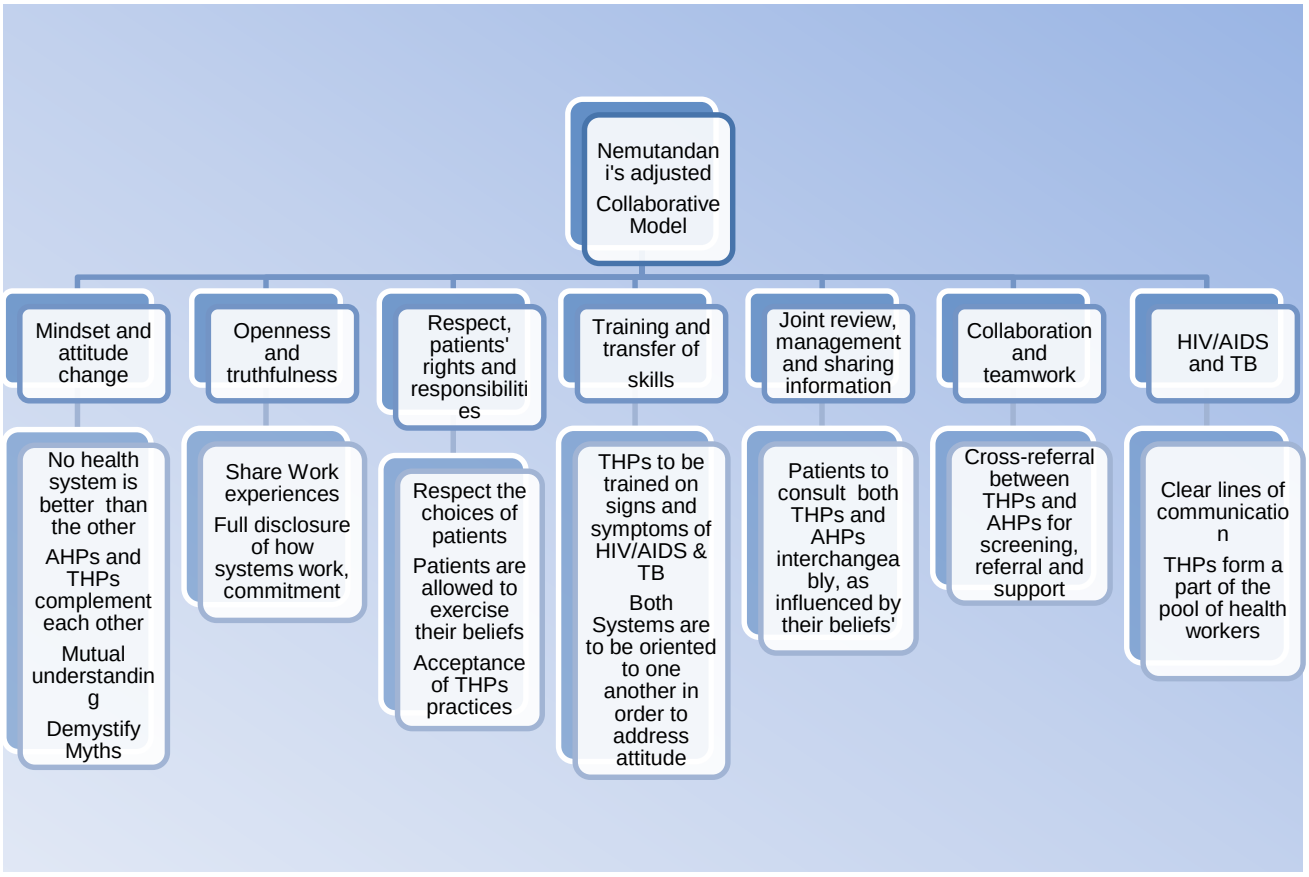


Figure 0.6 Nemutandani's Adjusted Collaborative Model

Mindset and attitude change

Mindset is defined by Stoycheva and Ruskov (2015 n.p) in their study titled, *'Growth mindset development pattern'* as an established set of attitudes held by someone, your beliefs about yourself and your most basic qualities. Stoycheva and Ruskov (2017 n.p) indicated that changing your mindset requires refocusing your values and ensuring that your actions align with them. To have a positive mindset, means to focus on what is there, instead of focusing on what is not there. In both clinics, patients were allowed to practice and exercise their beliefs, as no one owns a patient. The study findings revealed that no health system is better than the other. The stakeholders agreed that traditional and allopathic health practitioners should complement each other. They indicated that patients should be allowed to practice and exercise their beliefs pertaining to their healthcare of choice, as no one owns a patient.

Stakeholders further indicated that there should be a mutual understanding between the two healthcare providers and the demystification of myths, misconceptions, and stereotypes. Patients should be allowed the freedom to consult with a healthcare provider of their own choice. The Patients' Rights Charter stated that most of the South African population has experienced either denial or violation of fundamental human rights, including rights to healthcare services (RSA, 1996:1). Halonen

& Jilani (2017:13), in their study titled *'Leading the realization of human rights to health and through health: Report of the high-level working group on the health and human rights of women, children and adolescents,*' indicated that the rights to health includes both freedom and freedom entails having right to control body integrity, including the right to be free from non-consensual medical treatment and experimentation.

The Department of Health is committed to upholding, promoting, and protecting patients' rights, and therefore proclaims the Patients' Rights Charter to ensure the realisation of the right of access to healthcare services as guaranteed in the Constitution of the Republic of South Africa (RSA, 1996:1). Farzianpour, Foroushani, Niusha and Nosrati (2016:1), in their study titled *'Relationship between patient's rights charter and patient's satisfaction in gynaecological hospitals,'* indicated that people in every part of the health spectrum have rights, and when their rights are respected by others, especially the healthcare providers, they would be more satisfied and secured. Communication between allopathic and traditional healthcare providers would be improved at the selected district, as they would contact each other to discuss patients' conditions. Collaboration between the two health systems will lead to a mutual understanding of both systems and myths, misconceptions, and stereotypes will be demystified. All stakeholders were involved in the process to ensure the success of the collaboration between the two health systems. Some allopathic healthcare providers demonstrate negative attitudes towards traditional healthcare practitioners despite the effort made to make everybody aware of the need for collaboration between the health systems.

Openness and truthfulness.

Ghazinejad, Hussein and Zidane (2018:2), in their article *'Impact of Trust, Commitment, and Openness on Research Project Performance: A Case Study in a Research Institute,'* defined openness as the level of transparency in sharing task-relevant information that facilitates the alignment of goals and expectations and helps team members to achieve a common and mutual understanding of project scope. The openness and truthfulness component allowed both healthcare providers to share their experiences and further reach out to each other. The findings of the study revealed that stakeholders recognised the need for both allopathic and traditional health practitioners to share their experiences and further reach out to each other. Stakeholders also identified a need for full disclosure of how each system operates and modes of treatments, and they committed to work together. Full disclosure of how each system operates and modes of treatment was done by both healthcare providers.

Commitment is defined by (Ghazinejad et al. (2018:3), as the strength of an individual's identification with and involvement in an organisation. To ensure that commitment to work together is maintained the collaborative model was implemented. Ghazinejad et al. (2018:4) indicated that the level of

commitment may affect the success or failure of a project. The two parties were committed to learn from each other. Understanding how each system operates would make them realise that they wasted time fighting with each other and missed opportunities to save patients' lives. To support this Nursing and Midwifery Council (NMC) (2015:1), in their study titled *'Openness and Honesty When Things Go Wrong: The Professional Duty of Candour,'* stated that healthcare professionals must be open and honest with their colleagues, employers and relevant organisations, and take part in reviews and investigations when requested. The NMC (2015:1) indicated that every healthcare professional must be open and honest with patients when something goes wrong with their treatments or care causes or has the potential to cause harm or distress.

Respect and patients' rights, responsibility.

The study findings revealed that both THPs and AHPs recognised the need to respect patients' choices when it comes to consultation on either of the two health systems. They indicated that patients should be allowed to exercise their rights and responsibilities. The stakeholders identified and acknowledged the need for acceptance of THPs and their practices by AHPs, and the initiation of a mutual and trusting relationship between the two healthcare systems. In addition, stakeholders mentioned that implementation of the model would mean that patients won't be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that leads patients to hide the truth to the detriment of their condition. Implementation of the model would allow patients to exercise their rights and responsibilities. The patients' rights charter indicated that for many decades most of the South African population has experienced either a denial or violation of fundamental human rights, including rights to healthcare services (RSA, 1996:1). Jose (2017:5), in his study titled *'Right to health as a human right,'* stated that the right to health is the economic, social, and cultural right to a universal minimum standard of health to which all individuals are entitled.

According to Daher (2016:1), in his study titled *'Patient rights'* stated human rights are universal and indivisible rights possessed by all people, by virtue of their common humanity. The right to health and well-being is a very important right that influences all aspects of life, and the most effective way for a healthcare professional to fulfil their obligation under this right is to ensure that they provide the highest possible standard of care while respecting the fundamental dignity of each patient (Daher 2016:1). Nemutandani's adjusted collaborative model indicated that patients would not be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that led patients to hide the truth to the detriment of their condition. The Patients' Rights Charter states that everyone has a right to choose a particular healthcare provider for services or a particular health facility for treatment provided that such choice shall not be contrary to the ethical standards applicable to such healthcare providers or facilities (RSA, 1996:1).

In healthcare delivery, patient's rights include the right to privacy, information, life, and quality care, as well as freedom from discrimination, torture, and cruel, inhumane, or degrading treatment (Jose 2017:7). Patient's rights include the task that a medical centre and the treatment team are obliged to implement and abide by the physical, mental, spiritual, social legitimate needs embodied as standards, rules, and regulations of therapy (Farzianpour et al. 2016:1). Furthermore, patients also have responsibilities such as to cooperate, and follow the given care and treatment with instructions and accept the consequences of not following instructions (RSA, 1996:1). Lack of collaboration between the two health systems was viewed as dangerous to patients' health, and it could also lead to non-discloser of their health status to either THPs or AHPs. Nemutandani's adjusted collaborative model advocated for the acceptance of THPs and their practices by AHPs, and the initiation of a mutual and trusting relationship between the two parties. The World Health Organization commended the contributions that could be made by traditional and complementary medicine to improve access to healthcare services and reduce the burden of diseases (Lampiao, Chisaka & Clements 2019:1).

Training and transfer of skills

Stakeholders indicated that there is a need for both health systems to be oriented to the other system to address attitudes and perceptions and to refer as required to the other system. The relationship and narrowing of the gap between the two health systems could be improved by team building. The stakeholder reached an agreement that THPs will be trained on the signs and symptoms of HIV/AIDS and TB and accepting each other attitudes will be promoted by training both parties. Jackson, Fleming, and Rowe (2019:3), in their study titled *'Enabling the transfer of skills and knowledge across classroom and work contexts,'* stated that the transfer of skills and knowledge across different contexts is acknowledged as a complex area of learning theory which lacks empirical analysis. The transfer process cannot be separated from context, and there is a wide acknowledgement that it is influenced by three factors: learner characteristics, learning program characteristics and workplace characteristics (Jackson et al. 2019:4).

A study done by Lampiao et al. (2019:4) titled, *'Communication Between Traditional Practitioners and Western Medical Professionals',* revealed that both traditional health practitioners and allopathic health practitioners wish to improve patient care. THPs wish to increase their competence and be seen as the most appropriate healthcare providers, and AHPs on the other hand wish to discover new drugs, educate THPs to prevent harmful practices and limit delayed referral, and identify patients not accessing mainstream healthcare (Lampiao et al. 2019:4)

HIV/AIDS and TB

According to the stakeholders, a human being is a complex matter which cannot be predicted. Stakeholders indicated that patients living with HIV/AIDS and TB condition have rights that need to

be respected. Patients living with HIV/AIDS and TB consult both AHPs and THPs interchangeably for the same conditions, and their health-seeking behaviour is influenced by their beliefs and prevailing circumstances, and due to the non-collaboration between the two health systems, they decide not to disclose. Stakeholders indicated that the implementation of Nemutandani's collaborative model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers.

The stakeholders agreed that THPs will be trained on the identification of symptoms of either disease or referral for medical treatments. Motivation and treatment support will be given to patients to foster treatment adherence. Sisay, Mekonen, Abera, Berhan, Kebede, et al. (2018:74), in their study titled *'An evaluation of collaboration in the TB and HIV control programme in Oromia Region, Ethiopia: Seven years of retrospective data'* mentioned that globally, HIV and TB co-infection represents a significant cause of morbidity in resource-limited settings. There is an additional burden of mortality among the group of patients who are co-infected due to the shared nature of the immune defence against TB and HIV infections (Sisay et al. 2018:74). The model implementation would promote freedom of choice between the two health systems and non-judgemental attitudes among healthcare providers. The goal of collaboration between AHPs and THPs in the management of HIV/AIDS and TB is to decrease the burden of TB and HIV in people at risk or affected by both diseases (WHO, 2004:14).

The WHO (2015:5) indicated that people living with HIV are 29 times more likely to develop TB disease as compared to people without HIV living in the same country. THPs requested training on the identification of symptoms of either disease or referral for medical treatments. Motivation and treatment support were to be given to patients to foster treatment adherence.

Collaboration and teamwork

Stakeholders agreed that strengthening collaboration means there would be cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. They agreed that all patients consulting with AHPs with the belief of THPs would be referred to recognised THPs trained in HIV/AIDS and TB. The stakeholders further agreed that there will be screening, referral, support, and community education. Reevy, Chamberlain and Stein (2013:5), in their study titled *Identifying Collaboration, Teamwork, and Leadership Practices on Campus*, stated that collaboration includes working with others cooperatively to solve problems, make decisions, or produce something that cannot easily be produced by someone acting alone. Assbeihat (2016:248), in the study titled *The Impact of Collaboration Among Members on a Team's Performance* mentioned that working in isolation is very little gainful when contrasted with the work done by several people together. Teamwork occurs when people interact to accomplish shared goals, and it involves

cooperating and coordinating to get work done in an interdependent fashion, with defined roles and clear objectives (Reevy et al. 2013:5). Teamwork is defined by Assbeihat (2016:249) as a group of two or more individuals that work together interdependently to achieve common goals. Onyebuchi, Olakunle and Esther (2021:261) mentioned that effective teams in organisations make all the differences in the achievement of cooperate value creation, growth, and achievement of predetermined and emergent goals and objectives. Teambuilding encourages continuous growth, open and positive communication, development of trust and leadership potentials of organisations members (Onyebuchi et al. 2021:261). Cross-referral was to be instituted between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. All patients consulting with AHPs with the belief of THPs were to be referred to recognised THPs trained in HIV/AIDS and TB. WHO traditional medicine strategy 2014-2023 indicated that the public and consumers of healthcare worldwide continue to include traditional and complementary medicine in their health choices, and this obliges Member States to support them in making informed decisions about their options (WHO, 2013:18). Screening, referral, support, and community education was to be done on continuous.

Joint review, management and sharing of information.

Stakeholders supported that THPs should form part of a larger pool of community health workers supporting and promoting compliance to direct observed treatment (DOT) and antiretroviral (ARV) treatment. This is supported by Nemutandani et al.(2016:160, as cited from The Traditional Health Practitioners Act, Act 22 of 2007, 1994:321)) in their study titled *A Model for the Collaboration Between Allopathic and Traditional Health Practitioners in the Management of HIV/AIDS and TB in Vhembe District, Limpopo Province,* where they indicated that the two health systems agreed that THPs would be part of the larger pool of community health workers supporting and promoting compliance to direct observed treatment care (DOT) and antiretroviral (ARV) treatment. They all agreed that there is a need for clear lines of communication between THPs and AHPs and that patients would be cross-referred between the two healthcare providers for further management. The need for both healthcare practitioners to hold regular meetings, give feedback, and do case studies and presentations to teach each other were identified. Savolainen (2017: n.p), in his study titled *Information Sharing and Knowledge Sharing as Communicative Activities, Information Research*, indicated that information sharing is a set of activities by which information is provided to others, either proactively or upon request, such that the information has an impact on another person's image of the world, and creates a shared, or mutually compatible working, understanding of the world (Savolainen 2017: n.p). The adjusted model encourages clear lines of communication between THPs and AHPs and patients were to be cross-referred between the two parties for further management. The two healthcare providers should hold regular meetings, give feedback, do case studies and presentations to teach each other. According to Lampiao et al. (2019:4), both THPs and AHPs do share goals and motivations in their practices, which are to treat patients and promote a healthy

society. Information sharing appears as an activity through which ideas, opinions, facts, and documents are transferred from an individual to other people (Savolainen 2017 n.p). Figure 4.6 represents Nemutandani's adjusted collaborative model.

4.8. Summary

This chapter addressed the findings and discussion of phase two of the study. The phase aimed to adjust Nemutandani's collaborative model by reviewing the core elements of the model. The Nominal group technique was used to collect data from the second workshop. The outcome of phase two was Nemutandani's adjusted collaborative model. The next chapter will discuss the implementation of the adjusted collaborative model.

CHAPTER 5: IMPLEMENTATION OF THE ADJUSTED NEMUTANDANI'S COLLABORATIVE MODEL

5.1. Introduction

The previous chapter addressed the findings and discussion for phase two. This chapter focused on the implementation of Nemutandani's adjusted collaborative model in the management of HIV/AIDS and TB.

5.2. Objectives

Objectives of phase three were to implement Nemutandani's adjusted collaborative model. Implementation is the third step of PAR. *The guiding questions were: how will Nemutandani's adjusted collaborative model be implemented?*

5.3. Setting

Setting: In an implementation study it refers to the environmental characteristics in which the implementation occurs (Damschroder et al. 2009:3). Two clinics from Gert Sibande District, Mpumalanga Province, South Africa were used as a setting for data collection.

5.4. Population and Sampling

The Population of interest, sample and sample size and the inclusion and exclusion criteria was discussed in detail in chapter two of the research study. A total of 20 patients signed informed consent to participate in the implementation of Nemutandani's adjusted collaborative model. In clinic A, ten patients participated, comprising six females and four males, and in clinic B, ten patients, comprising five males and five females, participated in the implementation process of the research study. Six stakeholders (champions), three from each clinic, signed informed consent to participate in the implementation process of the research study. Table 5.1 represents the characteristics of patients who participated on the implementation process in clinic A, and Table 5.2 shows the characteristics of the patients who participated in Clinic B. Table 5.3 represents the programme champions who participated in the implementation process of Nemutandani's adjusted collaborative model.

Table 0.1 Characteristics of the Patients who Participated in the Implementation of Nemutandani's Adjusted Collaborative Model - Clinic A

Participant number	Sex	Age (In years)	Nationality	Condition	Years/months on treatment
P1	F	60	South Africa	HIV	16 years
P2	F	33	South Africa	HIV	8 years
P3	M	45	South Africa	HIV/AIDS & TB	HIV=2 years TB=4 months
P4	F	23	South Africa	HIV	3 years
P5	M	28	South Africa	HIV	7 years
P6	M	56	South Africa	HIV/AIDS & TB	HIV=4 years TB=6 weeks
P7	F	37	South Africa	HIV/AIDS &TB	HIV=11 YRS TB=9 months
P8	F	51	South Africa	HIV/AIDS & TB	HIV=2 years TB=3 months
P9	F	40	South Africa	HIV	1 year
P10	M	41	South Africa	HIV	6 years

Table 0.2 Characteristics of the Patients who Participated in the Implementation of Nemutandani's Adjusted Collaborative Model - Clinic B

Participant number	Sex	Age (In years)	Nationality	Condition	Years/months on treatment
P11	F	50	South Africa	HIV	10 years
P12	M	43	South Africa	HIV	12 years
P13	F	40	South Africa	HIV	5 years
P14	M	29	South Africa	HIV	10 years
P15	M	32	South Africa	HIV	5 years

P16	F	53	South Africa	HIV	13 years
P17	F	31	South Africa	HIV/AIDS &TB	HIV=11 years TB=2 months
P18	M	44	South Africa	HIV	3 years
P19	M	35	South Africa	HIV/ AIDS & TB	15 years
P20	F	55	South Africa	HIV	4 years

Table 0.3 Characteristics of the stakeholders who Participated in the Implementation of Nemutandani's Adjusted Collaborative Model – Both Clinics

Participant number	**Age (In years)**	**Employer**	**Category**	**Clinic**	**Work Experience (In years)**	**Trained on the 7 components. Yes/no**
P21	50	Public	OPM	Clinic 1	28 years	Yes
P22	38	Public	Lay counsellor	Clinic 1	10 years	Yes
P23	55	Public	THP	Clinic 1	20 years	Yes
P24	42	Public	OPM	Clinic 2	14 years	Yes
P25	45	Public	Lay counsellor	Clinic 2	8 years	Yes
P26	53	Public	THP	Clinic 2	25 years	Yes

5.5. Implementation of the Adjusted Collaborative Model

Implementation is described by Damschroder et al. (2009:3) in their study titled, '*Fostering Implementation of Health Services Research Findings into Practice: A Consolidated Framework for Advancing Implementation Science',* as the constellation of processes intended to get an intervention to use within an organisation; it is defined as a means by which an intervention is assimilated into an organisation. It is the carrying out of planned, intentional activities that aim to turn evidence and ideas into policies and practices that work for people in the real world. Implementation is further described as the critical gateway between an organisation's decision to adopt an intervention and the routine use of that intervention; the transition period during which targeted stakeholders become increasingly

skilful, consistent, and committed in their use of an intervention (Damschroder et al. 2009:3). The implementation process is a process intertwined with the context in which it takes place (Damschroder et al. 2009:3). To implement the adjusted collaborative model, the researcher used the Consolidated Framework for Implementation Research (CFIR) by Damschroder et al. (2009). The CFIR by Damschroder et al. (2009) has five major domains which are: the intervention characteristics, inner and outer setting, individuals involved and the process by which implementation is accomplished. Figure 5.1 represents the five major domains of CFIR by Damschroder et al. (2009).

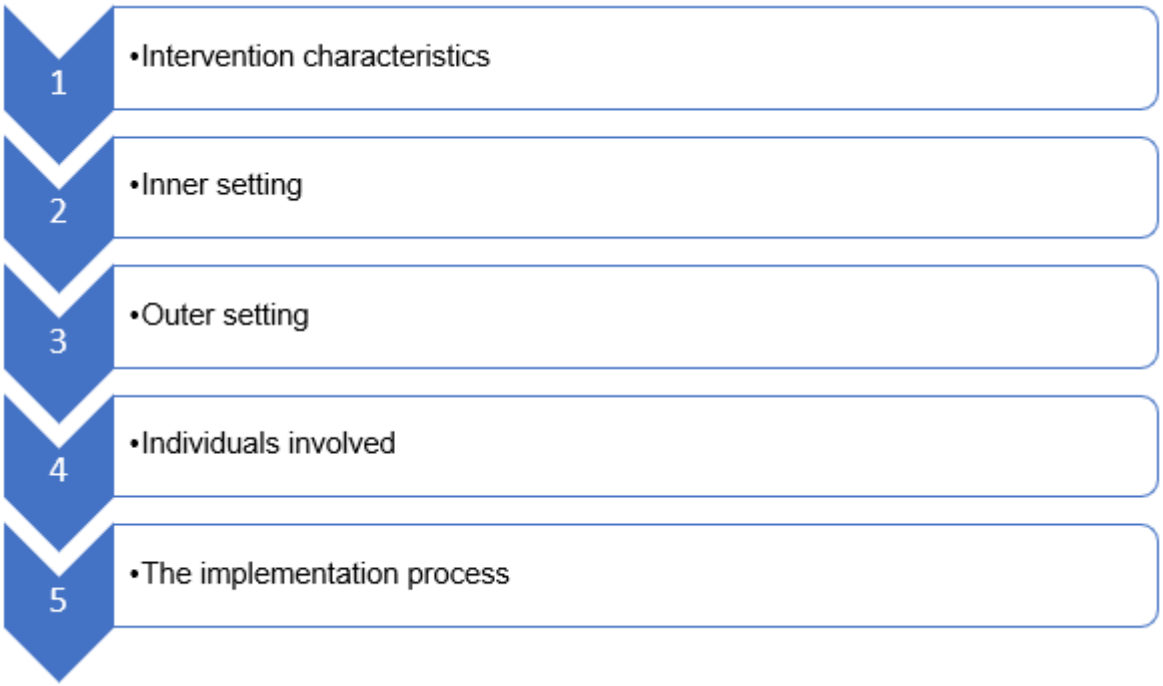


Figure 0.1 Five Major Domains of CFIR by Damschroder et al. (2009).

5.5.1. The Domains of the Consolidated Framework for Implementation Research (CFIR) by Damschroder et al. (2009).

5.5.1.1. Characteristics of the Intervention

This domain relates to the characteristics of the intervention being implemented in a particular organisation. In this study, it refers to Nemutandani's adjusted collaborative model to be implemented in the Gert Sibande District, Mpumalanga Province, South Africa. Damschroder et al. (2009:3) indicated that without adaptation, interventions usually come to a setting as a poor fit and are resisted by individuals who will be affected by the intervention. The core elements of Nemutandani's adjusted collaborative model were reviewed to meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. To ensure that the implementation process is accomplished an active process

to engage individuals' concerns is necessary. Following is a detailed description of the characteristics of the intervention:

Intervention source

Intervention source refers to the perception of the stakeholders about whether the intervention was externally or internally developed. Nemutandani's adjusted collaborative model was derived from a model of collaboration between THPs and AHPs in the management of HIV/AIDS and TB, that was developed by Nemutandani et al. (2016). Stakeholders who are decision-makers held two NGT workshops with the researcher. In the first workshop validation of Nemutandani's collaborative model was done by identifying the need for the model implementation and by identifying the core elements of the model that meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. The second workshop was held to adjust Nemutandani's collaborative model, by reviewing the core elements of the model. The legitimacy of Nemutandani's adjusted collaborative model source may positively influence the implementation process.

Relative advantage

Relative advantage refers to stakeholders' perception of the advantage of implementing Nemutandani's adjusted collaborative model. Stakeholders indicated that there is a need for implementation of Nemutandani's adjusted collaborative model as patients who prefer to use both health systems are experiencing a lot of problems due to the non-collaboration of the two health systems. Collaboration between THPs and AHPs in the management of HIV/AIDS and TB needs to be strengthened to save lives. Stakeholders also mentioned that patients do not belong to anyone and have the right to consult a healthcare practitioner of their choice. It was stated that patients' reaction to treatments is linked to their social and cultural beliefs, so it is important to allow them freedom of choice when it comes to healthcare needs. It was further indicated that government always provide resources to fight against these diseases, but it ends up being a waste as patients generally do not comply due to the non-collaboration of the two health systems. Collaboration between AHP and THP will be a great advantage in the Gert Sibande District, Mpumalanga Province, South Africa as there is still a high rate of HIV/AIDS and TB, and increased morbidity and mortality rates due to non-compliance to treatments.

Trialability

Trialability refers to the ability to test the intervention on a small scale in the organisation, and to be able to reverse or undo the implementation if warranted (Damschroder et al. 2009:6). In this study pilot testing was done to test the feasibility of the research study and allowed stakeholders to build experience and expertise, and time to reflect upon and test the intervention, and the usability testing promoted adaptation of the intervention. The outcome of the pilot testing indicated that Nemutandani's adjusted collaborative model effectively meets the health needs of the Gert Sibande District,

Mpumalanga Province, South Africa and no further adjustment of the model was done. It was indicated that adjustment of the model will only be done at a later stage when a need is identified.

Complexity

Complexity refers to the perceived difficulty of implementation, which may be due to disruptiveness, centrality and the number of steps required to implement (Damschroder et al. 2009:7). To minimise possible difficulties, pilot testing ensued, and with it having a risk mitigation strategy, it allowed the researcher to uncover ethical and practical issues that might hamper the main study.

To conduct the pilot study, the researcher used the first three steps of the implementation process by Damschroder et al. (2009:10), and those steps were also used during actual implementation: planning, engaging and execution. Based on the results of the pilot study, no difficulties were anticipated for the main study.

5.5.1.2. Inner Setting

A pilot study was conducted to understand how the notion of collaboration between the two health systems applies to different levels within the health organisations, whether the idea applies equally to all levels, and which ideas are most important at which level.

Structural characteristics

The two clinics identified as implementation sites were the busiest clinics that render services to approximately 3000 patients monthly. These clinics are the larger ones in the Gert Sibande District, Mpumalanga Province, South Africa which have been operational for over 30 years. Both clinics have fully appointed staff which includes an operational manager for each clinic, a professional nurses specialised in clinical nursing and those not yet holding any speciality, enrolled and auxiliary nurses, pharmacists, and allied workers. Both clinics render different health services, including the management of patients suffering from HIV/AIDS and TB. Both clinics have about four to five consulting rooms which provide integrated services to ensure that patient is not moving up and down to access health services

Networks and communications

Both clinics already have existing committees with multiple stakeholders. The available committees held their meetings quarterly to discuss matters regarding healthcare services in those selected clinics. Staff in both clinics used telephones, and emails as their usual means of communication, though internet connections were reported to be on and off. Load-shedding issues were also reported to cause disruptions in both the landlines and the internet connection. Both clinics had a backup system (generators) in case of load shedding, but sometimes those generators don't have a diesel. The general practice at those respective clinics was that they always start with climate meetings every

morning to update each other, and those meetings usually don't last for more than 15 minutes. Every Friday, each clinic holds a weekly meeting to discuss issues regarding their respective clinics. Connections between individuals, units, services, and hierarchies are tangible, formal, and strong, and this relationship is believed to be strengthened by their frequent meetings. The kind of relationship and communication patterns in the respective clinics were possibly going to make the implementation process effective.

Culture

Culture refers to the norms, values and basic assumptions of a given organisation. The culture of both the clinics identified as implementation sites were the same. Both clinics were encouraging the usage of allopathic medication in the management of HIV/AIDS and TB, though they were aware of the health plan which stipulates that traditional practitioners should form part of the pool of healthcare providers in South Africa. Training and orientation meetings that were held before implementing Nemutandani's adjusted collaborative model assisted in transforming the culture in those selected clinics. Allopathic healthcare practitioners and the community of the Gert Sibande District, Mpumalanga Province, South Africa started to recognise and accept contributions made by traditional health practitioners. Allopathic healthcare practitioners started to recognise and accept that there is a need to allow patients to exercise their rights when it comes to using healthcare practitioners of choice.

Implementation climate

Implementation climate refers to the absorptive capacity for change, shared receptivity of involved individuals to an intervention, and the extent to which use of that intervention will be rewarded, supported, and expected within their organisation (Damschroder et al. 2009:8). To ensure support and receptiveness of Nemutandani's adjusted collaborative model implementation the researcher gained access to the selected clinics and the community through the Mpumalanga Department of Health research committee and through the Health District Manager, who wrote a formal notice to the respective clinics regarding the research study to be conducted. The operational managers of both selected clinics also granted the researcher permission to access the clinics for the research purpose. Orientation meetings, training and booster training conducted by the researcher and the selected programme champions also played an important role in the receptiveness of the collaborative research study. The training was about Nemutandani's adjusted model of collaboration and more attention was on the component of the model. Damschroder et al. (2009:8) identified six sub-constructs that contribute to a positive implementation climate for an intervention: tension for change, compatibility, relative priority, organisational incentives and rewards, goals and feedback and learning climate.

- *Tension for Change* - Refers to the degree to which stakeholders perceive the current situation as needing change. In this study, stakeholders identified a need for implementing Nemutandani's adjusted collaborative model between THPs and AHPs in the management of patients with HIV/AIDS and TB.
- *Compatibility* - Is the degree of tangible fit between meaning and values attached to the intervention by involved individuals, how those align with individuals' norms, values, and perceived risks and needs, and how the intervention fits with the existing workflows and system. In this study, the core element of Nemutandani's (2016) collaborative model that fits the Gert Sibande District, Mpumalanga Province, South Africa community was identified, and those identified core elements were further reviewed to meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.
- *Relative priority*- It refers to individuals' shared perception of the importance of the implementation within the organisation. In this study, stakeholders involved in the study shared the same view of the need for implementation of the adjusted collaborative model for the two health systems to work together to save lives.
- *Organisational incentives and rewards*- This sub-construct refers to extrinsic incentives such as goal-sharing awards, performance reviews, promotions, and increased salaries, as well as less tangible incentives such as increased stature or respect. In this study no incentives nor rewards were attached, the focus was on preventing further loss of lives due to non-collaboration between AHPs and TPHs.
- *Goals and feedback*- It is the degree to which goals are clearly communicated, acted upon, and fed back to staff and alignment of that feedback with goals. In this research study goals for implementing the model were clearly stated and feedback on the pilot study results was also given back to stakeholders. Training and booster training on the adjusted collaborative model was conducted to ensure awareness and understanding of the adjusted collaborative model. Feedback from the pilot study indicated that implementation of the adjusted collaborative model was a great need in Gert Sibande District, Mpumalanga Province, South Africa.
- *Learning climate* Learning climate refers to the climate where leaders express their own fallibility and need for team members' assistance and input. In this, study stakeholders agreed that collaboration between the two health systems means that both healthcare practitioners need to learn from each other. The agreement reached was that THPs will be taught about the signs and symptoms of HIV/AIDS and TB and training of both healthcare providers was recommended to promote cooperation.

5.5.1.3. Outer Setting

Patient needs and resources.

Patient needs and resources refer to the extent to which patient needs, as well as barriers and facilitators to meet those needs are accurately known and prioritised by an organisation (Damschroder et al. 2009:7). The mission of all health entities is to improve the health and well-being of patients. Thus, the main aim of implementing Nemutandani's adjusted collaborative model is to save lives by ensuring that there is mutual understanding between AHPs and THPs, the two health system work in collaboration with each other, patients consult freely to a health provider of choice without being ridiculed, both healthcare practitioners encourage patients to comply to prescribed treatments, and that there is cross-referral of patients between the two parties. In an organisation, if patients are at the centre of its processes and decisions: patient choices are provided, patient barriers are addressed, the transition between two elements is seamless, and complexity and costs are minimised (Damschroder et al. 2009:7). If patients are satisfied with the health service rendered, it is unlikely that they can default or discontinue HIV/AIDS and TB treatments.

Cosmopolitanism

Cosmopolitanism refers to the degree to which an organisation is networked with other external organisations (Damschroder et al. 2009:7). In the current situation, public health facilities are being supported by the Broad reach group, which operates through vantage health technologies and Broad Reach health development. This group primarily supports HIV/AIDS and TB management programmes. The Broad Reach group seeks to transform how health work gets done, and they work at the intersection of the public sector and private sector healthcare payors and providers. Government always provides resources to fight against these diseases, but it ends up being a waste as consumers are not given the freedom to choose healthcare providers of choice. It is often alleged that most patients seek treatments from THPs before medical treatments. The implementation of Nemutandani's adjusted collaborative model seeks to ensure that traditional healthcare practitioners form part of the pool of community healthcare providers in the Gert Sibande District, Mpumalanga Province, South Africa.

Peer pressure

The pressure to implement the adjusted collaborative model arose from patients' needs, and not from competing organisations. Stakeholders have realised that patients do not belong to anyone and have the right to consult the healthcare practitioners of their choice. It was indicated that patients' reactions to treatments are associated with their social and cultural beliefs, so it is important to allow them freedom of choice when it comes to healthcare. The current healthcare system was seen as not

working, as in Gert Sibande District, Mpumalanga Province, South Africa there is still a high rate of non-compliance and a high morbidity and mortality rate due to HIV/AIDS and TB. Non- collaboration between AHPs and THPs was regarded as a cause of non-compliance to HIV/AIDS and TB treatments, and the many lives that were lost, as the way those two systems operate currently frustrate patients who need their combined interventions. A need to strengthen collaboration between the two health systems was identified to save lives.

External policies and incentives

The stakeholders who were part of the study comprised influential people who are also policymakers: The Director of nursing services, and the Chairperson of the traditional leaders. These stakeholders may have broad ideas that encompass external strategies to spread the adjusted collaborative model, including policy and regulations, recommendations, and guidelines, and public or benchmark reporting.

5.5.1.4. Characteristics of Individuals Involved with the Intervention

Damschroder et al. (2009:9) indicated that organisational change starts with individual behaviour change, and the individual knowledge towards changing behaviour and the level of self-efficacy to make the change is necessary.

Knowledge and beliefs about the intervention refer to the individual attitudes toward and the value placed on the intervention, as well as familiarity with facts, truths, and principles related to the intervention. In this study, stakeholders who participated were directly and indirectly involved in the management of patients living with HIV/AIDS and TB. The inclusion criteria for patients who participated in this study were individuals living with HIV/AIDS and TB.

Self-efficacy refers to the individual belief in their own capabilities to execute courses of action to achieve implementation goals. Both allopathic and traditional health practitioners demonstrated having the willingness to work together and learn from each other.

Individual identification with an organisation This construct relates to how individuals perceive the organisation and their relationship and degree of commitment to that organisation, as these attributes may affect the willingness of staff to fully engage in implementation efforts. In this study, the patients living with HIV/AIDS and TB who gave informed consent to participate in the research study were those using the selected clinics as their point of care.

5.5.1.5. The Implementation Process

The researcher used the first three steps of Damschroder et al. (2009) implementation process which are: planning, engaging and execution. Figure 5.2 represents the three steps of the implementation process used.

Figure 0.2 The Implementation Process by Damschroder et al. (2009)

Planning

Planning is described as the degree to which a method of behaviour and tasks for implementing an intervention is developed in advance and the quality of those methods (Damschroder et al. 2009:10). Damschroder et al. (2009:10), in the study titled *Fostering Implementation of Health Services Research Findings into Practice: A Consolidated Framework for Advancing Implementation Science,* stated that the main objective of planning is to design a course of action to promote effective implementation by building local capacity for using the intervention, collectively and individually. Implementation of the adjusted collaborative model according to plan was to last for three months (September, October, and November 2021, but the actual period for implementation was two months (September and October 2021) and the third month (November 2021), was used for evaluation of the usefulness of Nemutandani's adjusted collaborative model. World Health Organisation (2014:17)

indicated that the research sites, the timeline for the research activities and the procedure for data collection must be established. Gligorovski (2017 n.p) indicated that staying competitive means implementing changes constantly whenever they occur.

The implementation sites for this model were two clinics in the Gert Sibande District, Mpumalanga Province, South Africa. The designed plan for implementation was guided by the following: stakeholders' needs and perspectives; strategies used fit the selected clinics; appropriate style, imagery and metaphors used for delivering information and education; appropriate communication channels used, and progress is monitored and evaluated (Damschroder et al. 2009:10). The implementation process was planned in such a way that no disturbances in the clinics' regular routines would occur.

Continuous health education and awareness of the implementation of the Nemutandani's adjusted collaborative model were done every day in the morning before assuming duties. The progress of the implementation process was planned to be monitored and evaluated by the researcher weekly until the end of the implementation process.

It was planned that the researcher and the identified program champions who signed consent to participate would attend a one-day orientation meeting. The plan also indicated that Nemutandani's adjusted collaborative model will be distributed through orientation meetings, which was going to be helpful in the preparation of the THPs and the AHPs to initiate a collaborative working relationship. The seven components of Nemutandani's adjusted collaborative model were displayed in the waiting areas and all consulting rooms of the selected clinics so that everyone became familiar with them. Banners with the seven components were used to reinforce the new practice under study. Continuous health education and awareness of the implementation of the adjusted collaborative model were done every day in the morning before assuming duties. The progress of the implementation process was planned to be monitored and evaluated by the researcher on a weekly basis until the end of two months.

Engaging

Engaging is defined by Damschroder et al. (2009:11) as attracting and involving appropriate individuals in the implementation and the use of the intervention through a combined strategy of social marketing, education, role modelling, training, and other similar activities. To gain access to the selected clinics the researcher got approval from the Mpumalanga Department of Health Research Committee and held a meeting with the Health District Manager in Gert Sibande District, Mpumalanga Province, South Africa who then wrote formal notifications to the two selected clinics regarding the research study to be conducted. The researcher further got permission for entry from the operational

managers of the two selected clinics. The Gert Sibande District, Mpumalanga Province, South Africa THPs chairperson was also contacted regarding the implementation process and was requested to assist in getting recognised traditional healers that are on the database in the Mpumalanga province. Stakeholders who were from those two selected clinics made it easier for the researcher to gain access. All stakeholders who were willing to participate signed informed consent. Both clinics were already having existing clinic committees with all the different stakeholders. The clinic committees were made aware of the research study in one of their meetings which they usually hold quarterly. These committee members were trained in Nemutandani's adjusted collaborative model, and more specifically on the seven components of the model for them to be able to give proper support during the implementation process.

A one-day orientation meeting was held by the stakeholders with the identified program champions who signed consent to participate. The champions were individuals working directly with people living with HIV/AIDS and TB. The orientation meetings lasted for about two hours in each of the clinics. During these meetings, the stakeholders orientated the program champions on the content of Nemutandani's adjusted collaborative model and trained them to be trainers of trainees to ensure that everyone gets information on the use of the new model (Kilbourne et al. 2007:6). Booster training on Nemutandani's adjusted collaborative and the component of the model to be used for implementation was given according to identified needs. The content of the orientation meeting included detailed information about the research study, and more attention was on the seven components of Nemutandani's adjusted collaborative model to be implemented. The champions of the program were allocated the role of training all staff members in their respective sites and the community members about the adjusted collaborative model and its implementation. The content of Nemutandani's adjusted collaborative model was used during training. Engagement is pivotal to successful commercial and business performance, and it can affect employees' attitudes, absence, and turnover levels (Robertson-Smith & Markwick 2009:1). Musgrove et al. (2014 n.p) stated that organisational productivity is determined by employees' efforts and engagement. Osborne and Hammoud (2017:50) mentioned that interpersonal behaviours affect productivity.

Executing

Execution means carrying out or accomplishing the implementation according to plan (Damschroder et al. 2009:11). Implementation is defined by Peters et al. (2013:2), in their study titled *Implementation research: What it is and how to do it*, as a method to enhance the adoption of a clinical intervention such as the use of job aids, providing education, or audit procedures. Implementing a project includes the process of conducting and monitoring the proposed activities, as well as updating and revising the research plan accordingly as conditions dictate (WHO 2014:117). The outcome of phase one indicated that there is a need for implementing Nemutandani's adjusted collaborative model and the content of the model that could effectively meet the health needs of Gert Sibande District,

Mpumalanga Province, South Africa. The outcome of phase two was Nemutandani's adjusted collaborative model to be implemented in phase three. Community awareness, training of healthcare practitioners in those selected clinics, and training and transfer of skills among the team members were done during the engagement stage prior to the implementation to ensure the smooth running of the implementation process. The champions, with support from the researcher, implemented the adjusted collaborative model for two months, which were in September and October 2021. Stakeholders ensured that information about the use of Nemutandani's adjusted collaborative model reaches everyone. Components of the adjusted collaborative model were displayed in the waiting areas of those selected clinics, consulting rooms and all clinical areas throughout the implementation process. These components were written in English, Afrikaans, Zulu, and Swazi as those languages are the predominant ones used in the Gert Sibande District, Mpumalanga Province, South Africa. The list of traditional healers who are practicing legally was available in both clinics for referral purposes as per patient's preference. The stakeholders gave advice on maintaining the core elements of the adjusted collaborative model and analysed and solved serious problems. Some of the allopathic healthcare practitioners were initially resistant to the use of Nemutandani's adjusted collaborative model, but the implementation process coupled with continuous education continued until most of the healthcare practitioners' members saw the need for collaboration. The researcher facilitated the implementation of the adjusted collaborative model in both clinics and gave booster training to those clinics as needed.

5.6. Summary

This chapter discussed the implementation of Nemutandani's adjusted collaborative model, and the next chapter, chapter 6 will address the evaluation of the extent to which Nemutandani's adjusted collaborative model meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

CHAPTER 6: EVALUATION OF THE EXTENT TO WHICH THE ADJUSTED COLLABORATIVE MODEL MEETS THE HEALTH NEEDS OF THE GERT SIBANDE DISTRICT, MPUMALANGA SOUTH AFRICA

6.1. Introduction

The previous chapter addressed the implementation of Nemutandani's adjusted collaborative model. In this chapter, the evaluation of the extent to which Nemutandani's adjusted collaborative model meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa was discussed. The Likert scale was used by the stakeholders to evaluate the extent to which Nemutandani's adjusted collaborative model was useful to Gert Sibande District, Mpumalanga Province, South Africa.

6.2. Objectives

The objective of phase four was to evaluate the extent to which Nemutandani's adjusted collaborative model was useful to the Gert Sibande District, Mpumalanga Province, South Africa. The guiding question was: *To what extent was Nemutandani's adjusted collaborative model useful to Gert Sibande District, Mpumalanga Province, South Africa?*

6.3. Setting

The setting for the evaluation process was the same as for phases one and two of the research study.

6.4. Population and Sample

All thirteen stakeholders who participated in phases one and two of the research study participated in the evaluation process.

6.5. Evaluation of Nemutandani's Adjusted Collaborative Model

Damschroder et al. (2009:11) in the study, titled *Fostering Implementation of Health Services Research Findings into Practice; A Consolidated Framework for Advancing Implementation Science,* described evaluation as quantitative or qualitative feedback about the progress and quality of

implementation accompanied by regular personal and team debriefing about progress and experience. According to Yambi (2020:5), in the study, *Assessment and Evaluation in Education,* define evaluation as determining the value of something, measuring or observing the process to judge or to determine it for its value by comparing it to other some kind of standards. Evaluation is a final process that is determined to understand the quality of the process (Yambi 2020:5). In this study, the focus is on evaluating the extent to which Nemutandani's adjusted collaborative model is useful to the Gert Sibande District. The evaluation process included traditional forms of feedback, such as reports, qualitative feedback, and anecdotal stories of success (Damschroder et al. 2009:11). Evaluation is the fourth step of PAR. The third month of the implementation phase, November 2021, was used for the evaluation of the usefulness of Nemutandani's adjusted collaborative model in the Gert Sibande District.

6.5.1. The Evaluation of Nemutandani's Adjusted Collaborative Model

To evaluate the usefulness of Nemutandani's adjusted collaborative model, the stakeholder used the four-point Likert scale in which 1=strongly agree, 2=agree, 3=disagree and 4= strongly disagree. The Likert scale questionnaires (Annexure B) were formulated using the content of Nemutandani's adjusted collaborative model. The Likert scale was written in the predominant local languages used in the Gert Sibande District, Mpumalanga Province, South Africa namely Zulu, Swazi, Afrikaans and English and dependent on the educational levels of the stakeholders. Figure 6.1 represents the seven components of Nemutandani's adjusted collaborative model, and Table 6.1. illustrates the Likert scale used to evaluate the usefulness of Nemutandani's adjusted collaborative model by the stakeholders.

Figure 0.1 Seven Components of Nemutandani's Adjusted Collaborative Model

Table 0.1 The Likert-scale Used to Evaluate the Usefulness of Nemutandani's Collaborative Model

Components of the adjusted collaborative model	**Strongly agree (1)**	**Agree (2)**	**Disagree (3)**	**Strongly disagree (4)**	**The rationale for strongly agree or strongly disagree**
Component 1: Mindset and attitude change					
No health system is better than the other.	0	13	0	0	
Both allopathic and traditional health systems complement each other.	7	5	1	0	In South Africa, we have diverse cultural beliefs which influence health seeking behaviour of individuals. Allowing patients freedom of choice when it comes to healthcare needs decreased the number of those defaulting treatment.
Patients are allowed to practice and exercise their	13	0	0	0	Patients have rights that need to be respected. Allowing them to use

beliefs, as no one owns a patient.					healthcare providers of choice satisfied their health needs
Communication between the two health systems.	13	0	0	0	Communication between the two health systems has minimised harm to the patients, as patients were open about their consultation with the other healthcare practitioner.
Mutual understanding of both systems and demystifying myths, misconceptions, and stereotypes.	6	7	0	0	Understanding how each system functions eradicated the myths, misconception and stereotyping that currently exist between the two health systems
Component 2: Openness and Truthfulness					
Sharing their experiences and further reaching out to each other.	0	13	0	0	Most stakeholders stated that during model implementation the two health care providers were open to each other and their lived experiences in the field.
Commitment to work together maintained	12	1	0	0	Majority of the stakeholders stated that during model implementation both healthcare providers were committed to work together.
Full disclosure of how each system operates and modes of treatments	0	12	1	0	
Component 3: Respect and patients' rights and responsibility					
Respect of patients' choices when it comes to	13	0	0	0	All stakeholders respected choices of

consultation on either of the two healthcare systems.					patients when it comes to use of healthcare providers.
Patients allowed to exercise their rights and responsibility.	13	0	0	0	Rights of patients were respected throughout the implementation process
Acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two parties.	11	1	0	1	One of the stake holders indicated that he is still unsure of accepting the practices of THPs as this people have never undergone formal education and their practices are mostly spiritual, and that alone cause controversy to AHPs.
Patients won't be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that lead patients to hide truth to the detriment of their condition.	13	0	0	0	indicated that he is still unsure of accepting the practices of THPs as this people have never undergone formal education and their practices are mostly spiritual, and that alone cause controversy to AHPs.
Component 4: Training and transfer of skills					
THPs trained on the signs and symptoms of HIV/AIDS and TB.	13	0	0	0	All THPs agreed to be trained on signs and symptoms of HIV/AIDS and TB, and all registered THPs who availed themselves for training were trained.

					Training was conducted by the program champions with the help of stakeholder from allopathic and traditional health practitioners.
Accepting each other attitudes will be promoted by training both parties.	13	0	0	0	Training in each of the clinics was conducted to train both healthcare practitioners on how each system operates. Training was conducted by the program champions with the help of stakeholder from allopathic and traditional health practitioners.
The relationship and narrowing of the gap between the two health systems will be improved by team building.	0	13	0	0	
Both parties to be oriented to the other system to address attitudes and perceptions and to refer as required to the other system.	6	7	0	0	The training was conducted to ensure that both healthcare providers are orientated with each other
Component5: HIV/AIDS and TB					
A human being is a complex matter which cannot be predicted. Patients living with HIV/AIDS and TB condition have rights that need to be respected.	13	0	0	0	Implementation of the adjusted model reminded healthcare providers that people living with HIV/AIDS and TB are human beings who are also having rights to be respected.
Patients living with HIV/AIDS and TB consult	13	0	0	0	Implementation of the model assisted

with both AHPs and THPs interchangeably for the same conditions.					healthcare providers to understand their patients better and intervened correctly, as patients managed to open up regarding their consultations to both health systems interchangeably.
Patients' health-seeking behaviour is influenced by their beliefs and prevailing circumstances, and they decide not to disclose.	13	0	0	0	Since the implementation of Nemutandani's adjusted collaborative model patients stopped shying away from disclosing the use of either of the healthcare practitioners.
The implementation of the model promoted freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers.	4	9	0	0	Non-judgemental attitude was observed in both healthcare providers since the implementation of Nemutandani's adjusted collaborative model.
THPs were trained on the identification of symptoms of either disease or referral for medical treatments.	13	0	0	0	All registered THPs who avail themselves for training during the implementation of the model were trained.
Motivation and treatment support was given to patients to foster treatment adherence.	6	5	2	0	Since the implementation of the adjusted collaborative both healthcare providers model was advising patients to comply with treatments without judging them.
Component 6: Collaboration and teamwork					

Cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment.	0	13	0	0	Some of the THPs were seen bringing their patients for consultation at the clinics, and no patient was sent back without being helped.
All patients consulting with AHPs with the belief of THPs will be referred to recognised THPs trained in HIV/AIDS and TB.	3	8	1	1	One of the stakeholders strongly disagree with the cross-referral between the two healthcare providers. The stakeholder indicated that it should be the THPs that refer patients to AHPs.
Screening, referral, support, and community education.	13	0	0	0	THPs were doing well on this since their training on signs and symptoms of HIV/AIDS and TB, and they were patients that medical attention than before the implementation of the adjusted collaborative model.
Component 7: Joint review, management and sharing of information					
THPs will be part of a larger pool of community health workers supporting and promoting compliance with DOT and ARV treatment.	12	1	0	0	AHPs accepted the fact that THPs will form part of the larger pool of community healthcare workers supporting and promoting compliance. One of the AHPs stakeholders indicated that THPs usually keep most of their practices secret, and she was wondering if this adjusted

					collaborative model will ever make them open up when it comes to sharing exactly how they operate.
Clear lines of communication between THPs and AHPs and patients will be cross-referred between the two parties for further management.	13	0	0	0	AHPs managed to get a database of registered THPs and THPS got phone numbers for the Gert Sibande clinics.
Parties will hold regular meetings, give feedback, and do case studies/presentations to teach each other.	7	6	0	0	It was agreed in the last meeting that was held during model implementation that both parties will hold regular meetings to make sure that things go well when it comes to the collaboration of the two health systems
TOTAL SCORE	**243**	**114**	**5**	**2**	**364**
TOTAL PERCENTAGE	**66.8%**	**31.3%**	**1.4 %**	**0.6%**	**100%**

6.5.1.1. Analysis of the Findings from the Likert Scale

The total scores in Table 6.1 indicated that the strongly agreed response received the highest score (243=66.8%), followed by the agreed score (114=31.3%), disagree (5=1,4%), and strongly disagree with a score of (2=0.6%).

Most stakeholders strongly agreed (66.8%) and agreed (31.1%) that the core elements of Nemutandani's adjusted collaborative effectively meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. Only two stakeholders (0,6%) strongly disagreed with some of the core elements of Nemutandani's adjusted collaborative model. The first stakeholder that was in strong disagreement with one of the core elements, which says *acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two parties of component three, Respect and patients' rights and responsibility component*, indicated that he is still unsure of accepting the practices of THPs as this people have never undergone formal education and

their practices are mostly spiritual, and that alone cause controversy to AHPs. The second strong disagreement was on component six (Collaboration and teamwork), on its core elements which says *All patients consulting with AHPs with the belief of THPs will be referred to recognised THPs trained on HIV/AIDS and TB*. The stakeholders indicated that no formal referrals could be made by AHPs to THPs as their level of education is not the same, and the only thing that he believes can be done is only to give advice to those that need information regarding registered THPs. The outcome of the evaluation process revealed that Nemutandani's adjusted collaborative model is useful to the Gert Sibande District, Mpumalanga Province, South Africa.

6.5.1.2. Discussion of Findings for the Evaluation Process

All stakeholders were excited about the outcome of the implementation of Nemutandani's adjusted collaborative model and they indicated that it is a breakthrough for patients who were denied their rights of choice and access to healthcare providers of their own choice. It was indicated that implementation of Nemutandani's adjusted collaborative model between allopathic and traditional healthcare practitioners in the management of HIV/AIDS and TB was a long-standing need in Gert Sibande District. Stakeholders also indicated that if the need was recognised at an early stage, a lot of lives were going to be saved. All stakeholders welcomed the initiatives, especially the THPs, and they indicated that they are delighted that Department of Health is now starting to recognise their contributions in healthcare. Stakeholders accepted the usage of Nemutandani's adjusted collaborative model as it is. The components of the model were viewed as very clear, simple, and fitting perfectly to the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

About 66.8% of the stakeholders strongly agreed with the usefulness of Nemutandani's adjusted collaborative model, 31.1% agreed, 1,4% disagreed, and only 0,6% strongly disagreed with certain core elements of the model. The THPs reported that this was a dream come true to them as the Department of Health seemed to be starting to recognise their contributions as healthcare providers. They indicated that providing healthcare is a gift from God to them, but they were experienced feelings of guilt when performing their duties as the Department of Health was not recognising them. Disagreement and strong disagreement were from AHPs and all THPs agreed with all the core elements of the model. The AHPs' main concern that led to disagreements was how were they going to exchange information with traditional health practitioners as AHPs, because their level of education is totally different, and they further indicated that traditional healers had never undergone formal education as allopathic health practitioners did. Allopathic healthcare practitioners stated that traditional health practitioners do their work mostly based on spiritual calling which might be controversial when it comes to AHPs. The traditional health practitioners also pleaded with the

government to have a way to exclude 'bogus' traditional healthcare practitioners from this initiative. During implementation, some of the THPs were even accompanying their clients to the clinics and requested specific AHPs to screen and test them for other conditions like HIV & TB, and it was done with pleasure and a report given back to them, though it was a verbal report. In both clinics, traditional practitioners didn't have problems when it comes to referring to allopathic health practitioners, but some of the AHPs were still sceptical and judgemental when it comes to this, and it was an indication that more education is needed.

Respect for patients' rights, learning from each other and sharing of information was indicated as very important to strengthen collaboration between the two health systems. Some of those who were uncertain about implementation of the Nemutandani's adjusted collaborative model indicated that they do support collaboration between the two health systems but were just concerned about respect between the two health systems. Evaluation of the study findings revealed that more training is still required for the Gert Sibande District, Mpumalanga Province, South Africa Mpumalanga Province, South Africa healthcare providers and the community, to ensure the smooth running of Nemutandani's adjusted collaborative model's continuous implementation and to improve the management of patients with HIV/AIDS and TB. Based on the findings above Nemutandani's adjusted collaborative model is useful to meet the health needs of the Gert Sibande District, Mpumalanga Province, South Africa.

Patients who were part of the stakeholders reported that since the implementation of Nemutandani's collaborative model, their clinics are user-friendly. Nemutandani's adjusted collaborative model was regarded as accessible to consumers as it was distributed in their respective clinics which would make things easier to refer to when a need arises. Accessibility of the adjusted collaborative model was also increased by the fact that it was written in all the languages used at Gert Sibande. The outcome of the evaluation process regarded Nemutandani's adjusted collaborative model as of clinical significance as the stigmatization of patients who prefer to use both healthcare providers would be decreased and that would also decrease defaulters of treatments which lead to high morbidity and mortality rate. Health providers also reported a remarkable increase in compliance with treatment since the implementation of the model.

Stakeholders indicated that much improvement was observed in handling HIV/ AIDS & TB cases since the commencement of the implementation of Nemutandani's collaborative model. THPs encouraged their clients to be transparent with them and not to stop their allopathic medications. On the other hand, AHPs never interfere with or scold patients for attending THPs, but they just gave them relevant health education. every morning, before the consultations, all patients in the waiting area were made aware of Nemutandani's adjusted collaborative model and requested to cascade the information. Both healthcare providers recognised a need to continuously learn from each other, as

that would help them to understand their patients better. Knowing the traditional practitioners on the database was anticipated to be helpful to the community of the Gert Sibande District, Mpumalanga Province, South Africa and to all AHPs, as they would be able to give proper advice to patients regarding registered THPs.

6.6. Conclusion

The study findings revealed that implementation of Nemutandani's model for collaboration between allopathic and traditional healthcare in the management of HIV/AID and TB was a long-standing need in the Gert Sibande District, Mpumalanga Province, South Africa. The healthcare providers, patients, and Gert Sibande District community a welcomed the initiatives with open hearts. All the stakeholders, patients, and clinic committees supported the implementation of the seven components of Nemutandani's adjusted collaborative model.

Respecting patients' rights, learning from each other, and sharing information were indicated as very important in making collaboration possible. More training was still required for Gert Sibande District, Mpumalanga Province, South Africa healthcare practitioners and community to ensure the smooth running of Nemutandani's adjusted collaborative model implementation and to improve the management of patients living with HIV/AIDS and TB. Based on the findings from the evaluation process, the adjusted collaborative model is useful to the Gert Sibande District, Mpumalanga Province, South Africa. The data collection tools (Likert scale) yielded the required results, and this means it is suitable and relevant to answer the research questions for evaluating the usefulness of Nemutandani's adjusted collaborative model in the Gert Sibande District, Mpumalanga Province, South Africa.

6.7. Summary

This chapter discussed phase four of the research study, which was the evaluation of the extent to which Nemutandani's adjusted collaborative model effectively meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. The next chapter will address the conclusion, implications, limitations, and recommendations.

CHAPTER 7: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

7.1. Introduction

In the previous chapter, the researcher discussed the evaluation of the extent to which Nemutandani's adjusted collaborative model meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa. In this chapter, the researcher will present the conclusion of the study, implications for nursing, limitations, and recommendations for future research. The main aim of the study was to implement a model of collaboration between allopathic and traditional health practitioners in the management of patients living with HIV/AIDS and TB.

7.1.1 The research questions

The research questions for the study were:

- What is the need for Nemutandani's collaborative model implementation? What is the effective model content that meets the health needs of the Gert Sibande District, Mpumalanga Province, South Africa?
- How will Nemutandani's collaborative model be adjusted to effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa?
- How will Nemutandani's adjusted collaborative model be implemented?
- To what extent was Nemutandani's adjusted collaborative model useful to the Gert Sibande District, Mpumalanga Province, South Africa?

7.1.2 The research objectives

The objectives of the study were:

- To validate Nemutandani's collaborative model by identifying a need for the model implementation and to identify the content of Nemutandani's collaborative model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa.
- To adjust Nemutandani's collaborative model, by reviewing the core elements of Nemutandani's collaborative model.
- To implement Nemutandani's adjusted collaborative model.
- To evaluate the extent to which Nemutandani's adjusted collaborative model was useful to the Gert Sibande District, Mpumalanga Province, South Africa.

7.2. Conclusion of the Research Study

The research study was conducted in four phases. In phase one, validation of Nemutandani's collaborative model was done by identifying the need for the model implementation and the content of the model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. Phase two focused on adjusting Nemutandani's collaborative model by reviewing the core elements of the model. The seven components of the model are: Mindset and attitude change Respect and patients' right and responsibility, Openness and truthfulness, HIV/AIDS and TB, Training and transfer of skills, Collaboration and teamwork, and Joint review, management and sharing of information. Phase three focused on the implementation of Nemutandani's adjusted collaborative model, and phase four, the last phase focused on evaluating the extent to which Nemutandani's adjusted collaborative model meets the health needs of Gert Sibande District, Mpumalanga Province, South Africa.

7.2.1. Summary of Phase One of the Research Study

Phase one aimed to validate Nemutandani's collaborative model by identifying the need for Nemutandani's adjusted collaborative model implementation and the content of the model that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa. Two workshops were conducted by the stakeholders who were decision-makers for phases one and two. To collect data from both workshops, the Nominal Group Technique (NGT) was used. During the first workshop, data collection for phase one was collected using NGT and an audiotape recording was also used as per the stakeholders' agreement, to ensure that no data is lost. The consensus reached in phase one of the study was that there is a need for implementing Nemutandani's adjusted collaborative model between THPs and AHPs in the management of HIV/AIDS and TB, and the content that could effectively meet the health needs of Gert Sibande District, Mpumalanga Province, South Africa was identified.

7.2.2. Summary of Phase Two of the Research Study

Phase two aimed to adjust Nemutandani's collaborative model by reviewing the core elements of the model. The second day of the workshop was used for phase two of the study to review the core elements of Nemutandani's collaborative model using the NGT method. The consensus reached was

that all seven components of the model were relevant to the Gert Sibande District, Mpumalanga Province, South Africa and few additions were made to the core elements of each component. The outcome of phase two was a draft of Nemutandani's adjusted collaborative model which was going to be implemented in phase three of the research study.

7.2.3. Summary of Phase Three of the Research Study

To implement Nemutandani's adjusted collaborative model, the researcher used the first three steps by Damschroder et al. (2009): planning, engaging, and executing.

Planning

Implementation of Nemutandani's adjusted collaborative model was planned to be conducted in September, October, and November 2021. The actual implementation lasted for two months and the third month, which was November 2021 was used for evaluation. The designed implementation plan was guided by five considerations: stakeholders' needs and perspectives; strategies to be used fit the selected clinics; appropriate style, imagery and metaphors are used for delivering information and education; appropriate communication channels are used, and progress is monitored and evaluated. The implementation process was planned in such a way that no disturbances in the normal clinic routine would occur.

Two clinics in Gert Sibande District, Mpumalanga Province, South Africa were identified as implementation sites of Nemutandani's adjusted collaborative model. Nemutandani's adjusted collaborative model was distributed through orientation meetings, which was helpful in the preparation of the THPs and the AHPs to initiate a collaborative working relationship. Members of the stakeholders who were from the two clinics assisted in identifying appropriate potential stakeholders who could be orientated to implement the adjusted collaborative model within their organizations. The identified stakeholders were not forced to participate, but those who gave informed consent to participate in the study were allowed to participate and were regarded as programme champions.

A total of six programme champions gave consent to participate in the study, three from each clinic The programme champions included: operational managers nursing, nurses working directly with patients living with HIV/AIDS and TB, and the THP representatives. The researcher was responsible for the orientation of the program champions. The researcher coordinated the orientation meetings. The researcher held another meeting with the district PHC manager for the Gert Sibande District, Mpumalanga Province, South Africa to gain access to the two clinics identified as implementation sites. The PHC manager wrote a formal notice to the respective clinics about the implementation research to be conducted. The researcher further requested permission to conduct the study from the

operational managers of those clinics, which was granted. The operational managers from the clinics and the two doctors who were part of the key stakeholders made it easier for the researcher to gain access to both identified clinics.

The seven components of Nemutandani's adjusted collaborative model were displayed in the waiting areas and all consulting rooms of the selected clinics so that everyone became familiar with them. Banners with the seven components were used to reinforce the new practice under study. Continuous health education and awareness of the implementation of the adjusted collaborative model were done every day in the morning before assuming duties. The progress of the implementation process was planned to be monitored and evaluated by the researcher on a weekly basis until the end of two months.

Engaging

To access the selected clinics, the researcher obtained approval from the Department of health research committee and held a meeting with the Health District Manager in the Gert Sibande district, who then wrote formal notifications to the respective clinics regarding the research study to be conducted. The researcher further requested permission to conduct the research study from the operational managers of those clinics, which was granted. The Gert Sibande THPs chairperson was also contacted regarding the implementation process and was requested to assist in getting recognised traditional healers that are on the database in Mpumalanga province. Stakeholders who were from those two selected clinics made it easier for the researcher to gain access. Both clinics were already having existing clinic committees with all the different stakeholders. The clinic committees were made aware of the research study in one of their meetings which they usually hold quarterly. This committee were trained about Nemutandani's adjusted collaborative model to enable them to give appropriate support during the implementation process.

A one-day orientation meeting was held by the stakeholders with the identified program champions who signed consent to participate. The champions are individuals working directly with people suffering from HIV/AIDS and TB. The orientation meetings lasted for about two hours in each of the clinics. During these meetings, the stakeholders orientated the program champions on the content of Nemutandani's adjusted collaborative model and trained them to be trainers of trainees to ensure that everyone gets information on the use of the new model. The content of the orientation meeting included detailed information about the research study, and more attention was on the seven components of Nemutandani's adjusted collaborative model to be implemented. The champions of the program were allocated the role of training all staff members in their respective sites and the Gert Sibande community about Nemutandani's adjusted collaborative model and its implementation.

Executing

The champions, with support from the researcher, implemented Nemutandani's adjusted collaborative model for two months, which were in September and October 2021. Stakeholders ensured that information about the use of Nemutandani's adjusted model reaches everyone. Components of Nemutandani's adjusted collaborative model were displayed in the waiting areas, consulting rooms and all clinical areas throughout the implementation process. These components were written in English, Afrikaans, Zulu, and Swazi, as those languages are the prominent ones used in Gert Sibande district. The list of traditional healers who are registered was requested from the Mpumalanga province through the District Manager to ensure that proper referral is done as per patient preference. The stakeholders gave advice on maintaining the core elements of Nemutandani's adjusted collaborative model and analysed and solved serious problems. Some of the allopathic healthcare practitioners were initially resistant to the implementation of Nemutandani's adjusted collaborative model, but the implementation process coupled with continuous education continued until most of the healthcare practitioners' members saw the need for collaboration. The researcher facilitated the implementation of Nemutandani's adjusted collaborative model in both clinics.

7.2.4. Summary of Phase Four of the Research Study

Phase four of the study aimed at evaluating the extent to which Nemutandani's adjusted and implemented collaborative is useful to Gert Sibande District, Mpumalanga Province, South Africa. The Likert scale was used by the stakeholders to evaluate the extent to which Nemutandani's adjusted collaborative model was useful to Gert Sibande District, Mpumalanga Province, South Africa.

The evaluation process.

The study findings revealed that implementation of Nemutandani's adjusted model for collaboration between allopathic and traditional healthcare in the management of HIV/AID and TB is useful to Gert Sibande district. The healthcare practitioners, patients and the community welcomed the initiatives with open hearts. All stakeholders supported the implementation of the seven components of the adjusted collaborative model.

About 66.8% of the stakeholders strongly agreed with the usefulness of Nemutandani's adjusted collaborative model, 31.1% agreed, 1,4% disagreed, and only 0,6% strongly disagreed with some of the core elements of the model. THPs reported that this was a dream come through to them as the Department of Health seemed to be starting to recognise their contributions as healthcare providers. They indicated that providing healthcare is a gift from God to them, but they were feeling guilty to perform their duties as the Department of Health was not recognising them. Disagreement and strong disagreement were from AHPs and all THPs agreed with all the core elements of the model. The

AHPs' main concern that led to disagreements was how were they going to exchange information with traditional health practitioners as AHPs, because their level of education is totally different, and they further indicated that traditional healers had never undergone formal education as allopathic health practitioners did. Allopathic healthcare practitioners stated that traditional health practitioners do their work mostly based on spiritual calling which might be controversial when it comes to AHPs.

The traditional health practitioners also pleaded with the government to have a way to exclude 'bogus' traditional healthcare practitioners from this initiative. During implementation, some of the THPs were even accompanying their clients to the clinics and requested specific nurses to screen them for other conditions like HIV and TB, and it was done with pleasure and a report given back to them, though it was a verbal report. In both clinics, traditional practitioners didn't have problems when it comes to referring to allopathic health practitioners, but some of the AHPs were still sceptical and judgemental when it comes to this, and it was an indication that more education is needed.
More training was required for district healthcare providers and the community to ensure the smooth running of the adjusted model implementation and to improve the management of patients with HIV/AIDS and TB. Based on the findings from the evaluation process, the adjusted collaborative model is useful to Gert Sibande district.

7.3. Implications for Nursing

The implementation of Nemutandani's adjusted collaborative model will be an advantage to nursing, as patients defaulting from care will be tracked down easily, leading to decreased morbidity and mortality rates related to HIV/AIDS and TB. Healthcare outcomes will improve. Nemutandani's adjusted collaborative model will further act as a guideline to ensure that all patients have access to quality and safe healthcare. Improvement of communication between the two healthcare practitioners and accessibility of the healthcare practitioner of choice will reduce complications related to defaulting or overdosing on medications. Collaboration between the two health systems will benefit both AHPs and THPs to learn how each system operates.

7.3.1. Practice

Collaboration between the two health systems will allow patients to access healthcare practitioners of their choice. Patients will use both services freely without being victimised. The rights and needs of the patient will be respected irrespective of their condition. People will be allowed to exercise their own beliefs, as no one owns a patient. As a result, the number of patients who defaulted from care will be decreased as their choice of treatment will be accepted. Collaboration of the two health

systems will also promote efficient use of health services as patients who needed referral between the two health practitioners would be referred. The conflict caused by the lack of collaboration between the two health systems to patients who prefer THPs as their first line of treatment will be resolved, and that will possibly further minimise the delay in seeking medical help.

The collaboration will make it easy for both health practitioners to follow up on all patients because they will be able to give each other reports about the patients. Implementation of Nemutandani's adjusted collaborative model will further create clear lines of communication between traditional health practitioners and allopathic health practitioners, thus minimising the misunderstanding, misconception, myths, and stereotyping between the two healthcare practitioners, treating the same patient. Besides, clear lines of communication might strengthen the referral system, and that would make it easy to trace patients who defaulted from taking HIV/AIDS and TB treatment. Nemutandani's adjusted collaborative model implementation will create acceptance of THPs and their practices by AHPs and the initiation of mutual relationships between the two health systems. Collaboration between the two health systems will improve relationships between AHPs and THPs, and patients' lives will be saved.

7.3.2. Education

The findings of the research study can be used to encourage healthcare practitioners' leaders to educate and model the collaboration between the two parties so that they can develop their followers to embrace collaboration between the two parties. It is recommended that collaboration between AHPs and THPs in the management of HIV/AIDS and TB be included in the health curriculum of undergraduates.

7.3.3. Research

The researcher recommends that once Nemutandani's adjusted collaboration model is implemented, further research on how collaboration between the two health systems influenced the consumers of care, health providers and healthcare outcomes should be conducted.

7.4 RECOMMENDATIONS

The researcher recommends that:

- There should be continuous exchange of information between the two healthcare providers
- Training programme should include combined trainings for allopathic and traditional health practitioners

- Referral policy between the two healthcare providers should be developed to promote collaboration

7.5 Strenght and Limitations of the Study

7.5.1 The strength of the study

All stakeholders who participated in this research study had experience in managing patients living with HIV/AIDS and TB. Participatory action research was used to ensure that data and interpretations of the findings are not figments of the researchers' imaginations, but clearly derived from the data collected. Findings were based on stakeholders' responses rather than the characteristics and preferences of the researcher'. Participatory action research promote deep understanding based on authentic experience, as in PAR participants are not only the witness, but also the change agents in researches. PAR provides new ways of knowing, and participants get familiar with people and environment in the community.

PAR builds positive relationship based on equality in research roles. The equality of research roles encourages participants' initiative and enthusiasm. In PAR participants are supported to improve self-awareness., critical thinking skills and learn to do their own researches.

7.5.2 The limitations of the study

The study was done in the Gert Sibande district community only therefore, generalisation of the research findings to other settings might not be possible. The exclusion criteria might have excluded stakeholders who were going to contribute positively to reviewing the components of the model to ensure that it effectively meets the health needs of the Gert Sibande district and to the whole research process. Researcher using participatory approach commit him/ herself to work for grassroots groups, communities and social classes, such as those who are poor.

Another limitation of PAR is that different environment and educational backgrounds have different external manifestations on people's languages, body language and other manners. PAR is criticised for lacking methodological rigor and technical validity, and those two aspects are considered to be pillars of academic research. PAR is also criticised for using the traditional research techniques such as participant's observation and unstructured interviewing. PAR largely depends on participants' views and the issue at hand, it then tends to portray a subjective view hence rendering their conclusions less reliable.

7.4. Final Conclusion

The study concludes that collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB is one of the effective way that can improve treatment adherence, reduce morbidity and mortality rates related to these conditions, save lives, and improve health outcomes.

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ANNEXURES

ANNEXURE A: PARTICIPANTS INFORMATION LEAFLET (PICD) AND SURVEY TOOL

Researcher's name	BC Majola
Student number	10672207
Supervisor	Prof. RN Ngunyulu
Department	Nursing
Institution	University of Pretoria
Protocol Number	160/2020

Study title: Participatory action research to implement a model of collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB.

1. INTRODUCTION

You are invited to take part in the research study: **Participatory Action Research to Implement A Model Of Collaboration Between Allopathic And Traditional Health Practitioners In The Management Of HIV/AIDS And TB.** The study is being conducted by Bongane Charles Majola, a PhD student from the University of Pretoria, and the supervisor is Prof. Roinah Nkhensani Ngunyulu from the University of Johannesburg. This study leads from a previous study by Nemutandani et al. (2016) titled 'Development of A Model for Collaboration Between Allopathic and Traditional Health Practitioners in the Management of HIV/AIDS and TB Patients: A participatory action research study. You have been invited to participate in this study because you meet the criteria of the population of interest. Please read the information in this invitation letter carefully and use it to decide whether to take part in this study or not.

2. THE NATURE AND PURPOSE OF THE STUDY

The purpose of the study is to validate, adjust, and implement Nemutandani's adjusted model of collaboration and to evaluate the extent to which Nemutandani's adjusted collaborative model is useful to Gert Sibande District.

3. EXPLANATION OF THE PROCEDURE TO BE PURSUED

If you agree to participate in the study, you will have to sign an informed consent to show that you agree to participate in the research study. The study is participatory in nature. The study will be conducted in four phases. If you agree to participate you will be expected to be available throughout the four research phases.

Two days (8 hours each) of stakeholders' workshop will be conducted in order to collect data. Prior to the workshop, if you gave consent to participate in the study you will receive an electronic copy of the seven components of Nemutandani's collaborative model, so that you can familiarise yourself with the content in preparation for the workshops. During the workshop, the facilitator (researcher) will use the dominant languages used at Gert Sibande District namely, Zulu, Swazi, English and Afrikaans, in order to create a relaxed and comfortable environment for all the stakeholders. This will further create a platform for you to agree on the ground rules, group dynamics, seating preferences, transcribing, and recording during the meeting sessions as part of pre-session preparation. The researcher will encourage you to introduce yourself, confirm consent, and assure you that confidentiality will be maintained throughout the study. The purpose of the workshop will be introduced by the researcher, and you will be expected to respond to research questions from phase one and two. For you to be able to answer the research questions, the researcher will present Nemutandani's collaborative model. With your permission, the workshops will be recorded to capture data during the NGT workshops.

4. RISKS AND DISCOMFORT

No risks and discomfort are anticipated in taking part in this study.

5. POSSIBLE BENEFITS OF THE STUDY

Although there is no direct benefit from the study, implementation of Nemutandani's adjusted collaborative model for the collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB patients might decrease the number of losses to follow-up of such cases due to the unknown used traditional medication. The implementation of Nemutandani's adjusted collaborative model will create clear lines of communication between traditional and allopathic healthcare providers, thus minimising the misunderstanding between the two healthcare systems. In addition, clear lines of communication might strengthen the referral system and that will make it easy to trace patients who default from taking HIV/AIDS and TB treatment. Patients might use both services freely without being stigmatised.

6. COMPENSATION

No payment will be received for taking part in the study. However, any cost that you may have to pay in the study, costs will be paid back to you.

7. VOLUNTARY PARTICIPATION

The decision to take part in this study is yours and is yours alone. You have a right not to take part if you do not want to. You can stop at any time during the study without giving a reason. Refusal to take part in this study will not affect you in any way.

8. ETHICAL APPROVAL

The research study was submitted to the Research Ethics Committee of the Faculty of Health Sciences at the University of Pretoria, Medical Campus, Tswelopele Building,
Level 4-59, telephone numbers 012 356 3084/ 012 356 3085 and written approval have been given by that committee. The study will follow the Declaration of Helsinki (last updated: October 2013), which guides researchers on how to conduct research on people. The researcher can give you a copy of the Declaration if you wish to read it.

9. INFORMATION AND CONTACT PERSON

If you have any questions please contact the researcher, Mr Bongane Charles Majola: Cell number 0810597651, tel. 0178111036 and email address u10672207@tuks.co.za, and the Supervisor Prof. Roinah Nkhensani Ngunyulu at cell: 0722401696, Email address: rnngunyulu@uj.ac.za. You can also contact the Chairperson of the Research Ethics Committee at 0123563084.

10. CONFIDENTIALITY

In this research study, anonymity will not be possible as it will be a face-to-face interview, and we will be able to see each other. Your answer will be linked to a code number, and we will refer you in this way in the data or any population report. All records from this study will be regarded as confidential. Results will be published in medical journals or presented at conferences in such a way that it is not possible for people to know that you were part of the study.

The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Research Ethics Committee. All of these people are required to keep your identity confidential. Otherwise, records that identify you will be available only to people working on the study unless you give permission for other people to see the records.

All hard copy information will be kept in a locked cupboard at the office of the researcher, and at the University of Pretoria, for a minimum of ten years and only the research team will have access to this information.

11. CONSENT TO PARTICIPATE IN THE STUDY

- I confirm that the person requesting my consent to participate in this study has told me about the nature and process, any risks or discomforts, and the benefit of the study.
- I have also received, read, and understood the above-written information about the study.
- I had adequate time to ask questions and I have no objections to participate in the study.
- I am aware that the information obtained in the study, including personal details, will be kept confidential and my name will not be attached to the data and study report.
- I understand that I will not be punished in any way should I wish to stop taking part at any point in the research study.
- I am participating willingly.
- I have received a signed copy of this informed consent agreement.

Signature of the stakeholder…….Date…….
Signature of the researcher……..Date……..
Witness signature……..Date……..

ANNEXURE B: LIKERT SCALE AND QUESTIONNAIRE TO EVALUATE USEFULNESS OF NEMUTANDANI'S ADJUSTED COLLABORATIVE MODEL

Components of the adjusted collaborative model	Strongly agree (1)	Agree (2)	Disagree (3)	Strongly disagree (4)	Rationale for strongly agree or strongly disagree
Component 1: Mindset and attitude change					
No health system is better than the other.					
Both allopathic and traditional health systems to complement each other.					
Patients allowed to practice and exercise their beliefs, as no one owns a patient.					
Communication between the two health systems.					
Mutual understanding of both systems and demystifying myths, misconceptions, and stereotypes.					
Component 2: Openness and Truthfulness					
Sharing their experiences and further reaching out to each other.					
Commitment to work together maintained					

Full disclosure of how each system operates and modes of treatments					
Component 3: Respect and patients' right, responsibility					
Respect of patients' choices when it comes to consultation on either of the two health systems.					
Patients allowed to exercise their rights and responsibility.					
Acceptance of THPs and their practices by AHPs, and initiation of a mutual and trusting relationship between the two parties.					
Patients won't be ridiculed and harassed/humiliated by medical professionals for revealing that they had consulted THPs, as that lead patients to hide truth to the detriment of their condition.					
Component 4: Training and transfer of skills					
THPs will be trained on signs and symptoms of HIV/AIDS and TB.					
Accepting each other attitudes will be promoted by training both parties.					
The relationship and narrowing of the gap between the two health systems will be improved by team building.					
Both parties to be oriented to the other system in order to address attitudes and perceptions and to					

refer as required to the other system.					
Component 5: HIV/AIDS and TB					
A human being is a complex matter which cannot be predicted. Patients living with HIV/AIDS and TB condition have rights that need to be respected.					
Patients living with HIV/AIDS and TB consult to both AHPs and THPs interchangeably for the same conditions.					
They are both influenced by their beliefs and prevailing circumstances, and they decide not to disclose.					
The implementation of the model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers.					
THPs will be trained on Identification of symptoms of either disease, or referral for medical treatments. Motivation and treatment support will be given to patients to foster adherence to treatment.					
Component 6: Collaboration and teamwork					
Cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment.					

All patients consulting to AHPs with the belief of THPs will be referred to recognised THPs trained on HIV/AIDS and TB.					
Screening, referral, support and community education.					
Component 7: Joint review, management and sharing of information					
THPs will be part of a larger pool of community health workers supporting and promoting compliance to DOT and ARV treatment.					
Clear lines of communication between THPs and AHPs and patients will be cross-referred in between the two parties for further management.					
Parties will hold regular meetings, give feedback, do case studies/presentation to teach each other.					

ANNEXURE C: RANKING METHOD

IDEA	KELLY	JOYCE	TIM	JOE	TOTAL

Ranking method for a nominal group technique

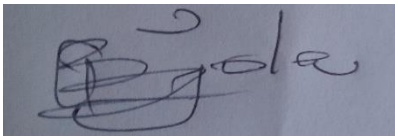
PRIORITIES	KELLY	JOYCE	TIM	JOE	TOTAL

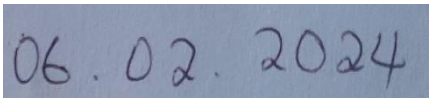
Ranking method with prioritised ideas for a nominal group technique

DECLARATION

Student number: 10672207

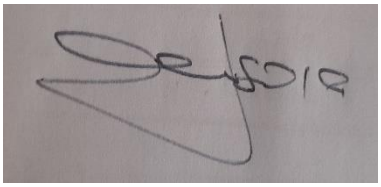
I, **Bongane Charles Majola**, declare that my study titled, '**Participatory Action Research to implement of a model of collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB** is my own work and that all sources that have been used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted for any other degree at any other institution.

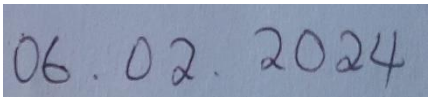




Researcher signature

Date





Witness signature

Date

ANNEXURE E: LETTER TO CHIEF EXECUTIVE OFFICER

REQUEST TO CONDUCT A RESEARCH STUDY

I, Bongane Charles Majola, doctoral degree student in Nursing Science Department, University of Pretoria request a permission to conduct a research study on a participatory action research to implement a collaborative model between allopathic and traditional health practitioners in the management of patients with HIV/AIDS and TB. This study will take about three months to complete. The targeted population is allopathic and traditional health practitioners at Gert Sibande District, and other stakeholders with powers to influence change. People from the targeted population will voluntarily participate in the study.

The results of the study will be used for scientific purposes and may be published on condition that co-researchers and institution is guaranteed.

I agree to answer any questions about the study to the best of my ability.

Name of the researcher…….

Signature…….Date…….

Approved/Not Approved

……

……

……

……

…….. ……..

Mr JS Aphane Date

Chief Executive Officer

Ermelo Hospital

ANNEXURE F: THE DISTRICT MANAGER, GERT SIBANDE DISTRICT

REQUEST TO CONDUCT A RESEARCH STUDY

I, Bongane Charles Majola, doctoral degree student in Nursing Science Department, University of Pretoria request a permission to conduct a research study on a participatory action research to implement a collaborative model between allopathic and traditional health practitioners in the management of patients with HIV/AIDS and TB. This study will take about three months to complete. The targeted population is allopathic and traditional health practitioners at Gert Sibande District, and other stakeholders with powers to influence change. People from the targeted population will voluntarily participate in the study.

The results of the study will be used for scientific purposes and may be published on condition that co-researchers and institution is guaranteed.

I agree to answer any questions about the study to the best of my ability.

Name of the researcher……

Signature……Date…….

Approved/Not Approved

……

……

……

…….. ……..

Mrs N.G Hlatywayo Date

Gert Sibande District Manager

Health Department

ANNEXURE G: LETTER TO MPUMALANGA PROVINCE RESEARCH COMMITTEE

Date:
The Research Committee
Mpumalanga Department of Health

Sir/ Madam
REQUEST TO CONDUCT A RESEARCH STUDY
I, Bongane Charles Majola, Doctoral degree student in Nursing Science Department, University of Pretoria request permission to conduct research study on **participatory action research to implement a model of collaboration between allopathic and traditional health practitioners in the management of HIV/AIDS and TB.** The targeted population will be stakeholders, like chairperson of traditional healers, traditional and allopathic health practitioners, Hospital CEO, Medical practitioner dealing with HIV/AIDS and TB, Patients' representative, Director nursing Service, Project manager for HIV/AIDS and TB, political representatives, community-based worker and lay counsellor. Nominal group technique will be used as a method of data collection. They will participate voluntarily in the study.
The results of the study will be used for scientific purposes and may be published in an accredited scientific journal. I will also provide you with a report of the study.
I agree to answer any questions about the study to the best of my ability.
Yours sincerely
BC Majola

ANNEXURE H: LETTER TO THE COORDINATOR OF TRADITIONAL HEALERS

REQUEST TO CONDUCT A RESEARCH STUDY

I, Bongane Charles Majola, doctoral degree student in Nursing Science Department, University of Pretoria request a permission to conduct a research study on the implementation of a collaborative model between allopathic and traditional health practitioners in the management of patients with HIV/AIDS and TB. This study will take about three months to complete.

The targeted population is allopathic and traditional health practitioners at Gert Sibande District. People from the targeted population will voluntarily participate in the study.

The results of the study will be used for scientific purposes and may be published on condition that co-researchers and institution is guaranteed.

I agree to answer any questions about the study to the best of my ability.

Name of the researcher……..

Signature……Date…….

Approved/Not Approved

……

……

……

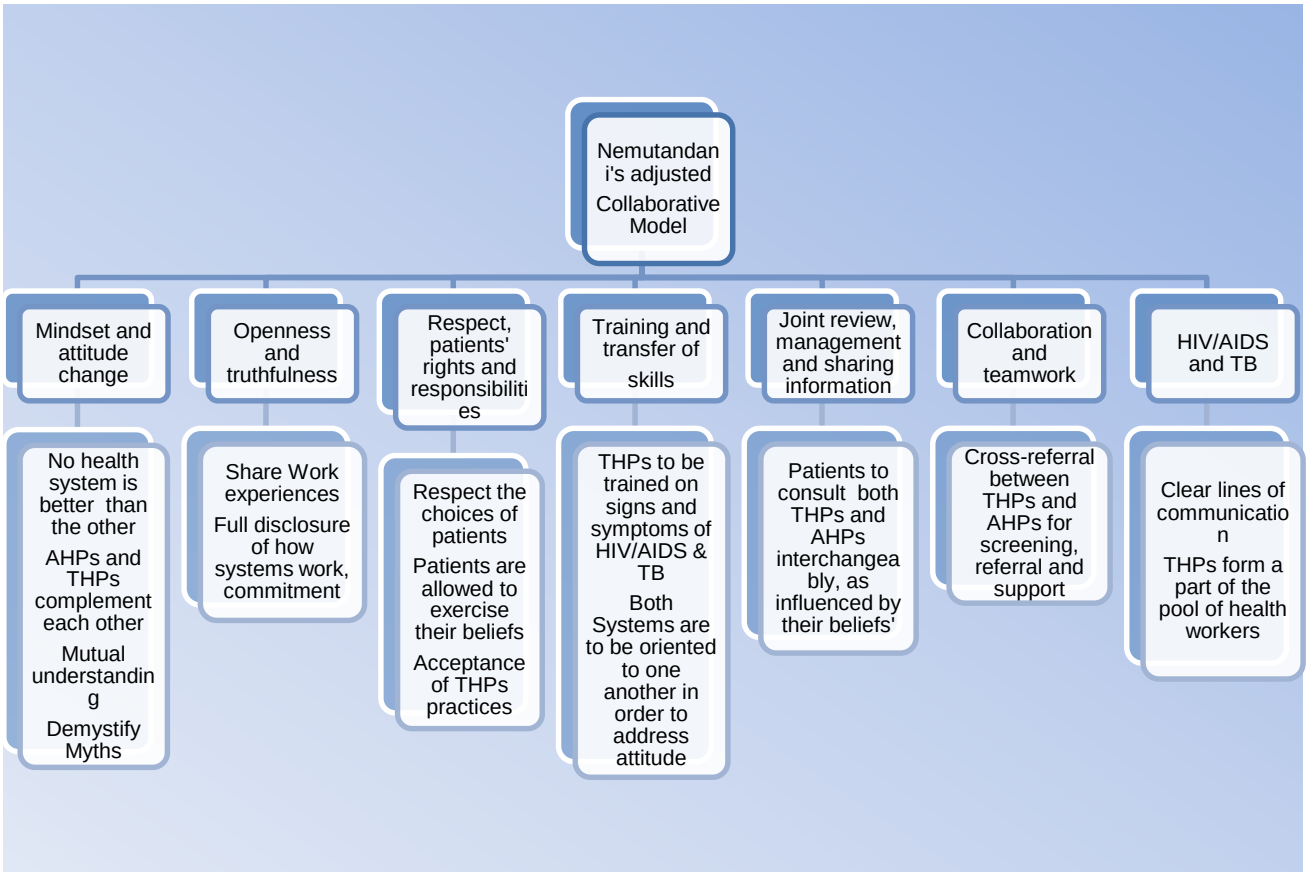
……

…….. ……..

Mr Themba Thabethe Date

Coordinator of traditional healers Gert Sibande

ANNEXURE I: NEMUTANDANI'S ADJUSTED COLLABORATIVE MODEL



Mindset and attitude change

A positive mindset means to focus on what is there, instead of focusing on what is not there. Patients should be allowed to practice and exercise their beliefs, as no one owns a patient. The study findings revealed that no health system is better than the other. The agreement reached was that traditional and allopathic health practitioners will complement each other. It was indicated that patients should be allowed to practice and exercise their beliefs when it comes to the healthcare of choice, as their health-seeking behaviour is mostly influenced by their cultural beliefs. It was further indicated that there should be a mutual understanding between the two healthcare systems (THPs & AHPs), and the demystification of myths, misconceptions, and stereotypes. Communication between allopathic and traditional health practitioners should be improved at Gert Sibande district, and they would contact each other to discuss patients' conditions. Collaboration between the two health systems will lead to a mutual understanding of both systems and myths, misconceptions and stereotypes will be demystified. All stakeholders were involved in the research process of this study to ensure there is success in the collaboration of the two health systems. Some of the allopathic healthcare practitioners demonstrate negative attitudes towards traditional healthcare practitioners despite the effort made to make everybody aware of the need for implementing Nemutandani's adjusted collaborative model

between the two health systems. Training of both parties on a continuous basis was recommended for them to understand how each system operates.

Openness and truthfulness

The openness and truthfulness component allowed both healthcare providers to share their experiences and further reach out to each other. The findings of the study revealed that stakeholders recognised the need for both allopathic and traditional health practitioners to share their experiences and further reach out to each other. Stakeholders also identified a need for full disclosure of how each system operates and the mode of treatment, and the two parties committed to working together. Full disclosure of how each system operates and the mode of treatment was made by both parties. To ensure that commitment to work together is maintained the collaborative model was implemented. The two parties were committed to learn from each other. Understanding how each system operates was recommended as it would make them realise that they wasted time, fighting with each other and missed opportunities to save patients' lives.

Respect and patients' rights, responsibility

The study findings revealed that both THPs and AHPs recognised the need to respect patients' choices when it comes to consultation on either of the two health systems. They indicated that patients should be allowed to exercise their rights and responsibilities. The stakeholders identified and acknowledged the need for acceptance of THPs and their practices by AHPs, and the initiation of a mutual and trusting relationship between the two parties. In addition, stakeholders mentioned that implementation of Nemutandani's adjusted collaborative model would mean that patients won't be ridiculed and harassed/humiliated by AHPs for revealing that they had consulted to THPs, as that leads patients to hide the truth to the detriment of their condition. Implementation of Nemutandani's adjusted collaborative model will allow patients to exercise their rights and responsibilities. The right to health and well-being is a very important right that influences all aspects of life, and the most effective way for a healthcare professional to fulfil their obligation under this right is to ensure that they provide the highest possible standard of care, while respecting the fundamental rights of each patient. Patient rights include the task that a medical centre and the treatment team are obliged to implement and abide by the physical, mental, spiritual, and social legitimate needs embodied as standards, rules and regulations. Lack of collaboration between the two health systems was viewed as dangerous to patients' health, and it could also lead to the non-disclosure of their health status to either THPs or AHPs. Nemutandani's adjusted collaborative model advocated for the acceptance of THPs and their practices by AHPs, and the initiation of a mutual and trusting relationship between the two parties.

Training and transfer of skills

Stakeholders indicated that there is a need for both health systems to be oriented to the other system in order to address attitudes and wrong perceptions and to refer patients as required to the other system. The relationship and narrowing of the gap between the two health systems could be improved by collaboration. The stakeholder reached an agreement that THPs will be trained on the signs and symptoms of HIV/AIDS and TB, and accepting each other attitudes will be promoted by training both parties. Lampiao et al. (2019:4), in their study titled *Communication Between Traditional Practitioners and Western Medical Professionals. Frontiers in Sociology* stated that THPs wish to increase their competence and be seen as the most appropriate health workers, and AHPs on the other hand wish to discover new drugs and educate THPs to prevent harmful practices and limit delayed referral and identify patients not accessing mainstream healthcare.

HIV/AIDS and TB

The findings of the study revealed that a human being is a complex matter which cannot be predicted. Stakeholders indicated that patients living with HIV/AIDS and TB conditions have rights that need to be respected. Patients living with HIV/AIDS and TB consult both AHPs and THPs interchangeably for the same conditions, and their health-seeking behaviour is mostly influenced by their beliefs and prevailing circumstances. These patients usually decide not to disclose if they have consulted another healthcare practitioner with the same problem, due to the non-collaboration between the two-health system. Stakeholders indicated that the implementation of Nemutandani's adjusted collaborative model might promote freedom of choice between the two health systems and non-judgmental attitudes among healthcare providers. The stakeholders agreed that THPs will be trained on the identification of signs and symptoms of either disease or referral for medical treatments. Motivation and treatment support will be given to patients on a continuous basis to foster adherence to treatment. Nemutandani's adjusted collaborative model implementation would promote freedom of choice between the two health systems and non-judgemental attitudes among healthcare providers. The goal of collaboration between AHPs and THPs in the management of HIV/AIDS and TB is to decrease the burden of TB and HIV in people at risk or affected by both diseases. THPs requested training on the identification of symptoms of either disease or referral for medical treatments. Motivation and treatment support were to be given to patients to foster adherence to treatment.

Collaboration and teamwork

Stakeholders agreed that strengthening collaboration means there would be cross-referral between AHPs and THPs of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. It was agreed that all patients consulting with AHPs with the belief of THPs will be referred to recognised THPs trained in HIV/AIDS and TB. The stakeholders further agreed that there will be screening, referral, support and community education. Cross-referral will be instituted

between AHPs and THPs in the management of patients with HIV/AIDS and TB for further management, support, and supervision of the patient's treatment. All patients consulting with AHPs with the belief of THPs were to be referred to recognised THPs trained in HIV/AIDS and TB. WHO traditional medicine strategy 2014-2023 indicated that the public and consumers of healthcare worldwide continue to include traditional and complementary medicine in their health choices, and this obliges Member States to support them in making informed decisions about their options (WHO, 2013:18). Screening, referral, support, and community education was to be done on continuous basis.

Joint review, management and sharing of information.

Stakeholders supported that THPs should form part of a larger pool of community health workers, supporting and promoting compliance to direct observed treatment (DOT) and antiretroviral (ARV) treatment. They all agreed that there is a need for clear lines of communication between THPs and AHPs and that patients would be cross-referred between the two health systems for further management. The need for both healthcare practitioners to hold regular meetings, give feedback, and do case studies/presentations to orientate each other on how the other system operates was identified. The adjusted model encourages clear lines of communication between THPs and AHPs and patients were to be cross-referred between the two parties for further management.

ANNEXURE J1: CEO APPROVAL

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

1. Name & contact no. of Applicant:	Bongane Charles Majola
2. Contact Number:	0810597651
3. Data collection period to undertake the study:	Start: 1 November 2020 End: 31 January 2021
4. Research summary and how data will be collected:	Background: Lack of implementation of collaborative models in the provision of health remain a global concern as it leads to a lack of collaboration between the traditional and allopathic health practitioners in the provision of healthcare in Sub-Saharan Africa. The use of multiple health systems is common. People around the world including South Africa, have diverse cultural backgrounds and they need collaborative healthcare services to meet their health needs Aim: The purpose of the study is to validate, readjust, implement Nemutandani et al's readjusted model and evaluate the extent to which the readjusted collaborative model is useful to Greater Sibande District. Nominal group technique (NGT) step will be used to collect data for phases one and two. The four steps of NGT are a generation of ideas round-robin clarification of ideas and voting. The first three steps of the implementation process by Damschroder (planning, engaging, and execution) will be used as a guide in phase three, then the fourth step which is evaluation will be used in phase four.
5. Population target:	Allopathic and Traditional health practitioners, patients Dolt representatives.
6. Period to undertake the study	From: to: 05/10/2020 — 05/10/2021

7. Resources Required from Facility/Sub-district/Community

5.1: Facility Staff Required to assist with the Study	(Yes) How many: Nurses: PHC NURSE Doctors: 1 Doctor Space: Other, please specify: 13 Stackholders: 1e CEO, Doll rep, THP & ATHP rep, patients	NO
5.2: Patients / Researchers' Records/Files	Yes	(NO)
5.3: Interviewing Patients/ participants at Facilities	(Yes)	NO
5.4: Interviewing Patients/ participants at Home	Yes	(NO)
5.5: Resource Flow (Are there benefits to Patients/community)	(Yes) Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy Patients will be able to use both health services without being stigmatized, there will be referral between the two health services	NO
5.6: Resource Flow (Are there benefits to Facility/District)	(Yes) Please list: to create a linkage between all research stakeholders Patient defaulting from care will be track down early leading to decrease to morbidity and mortality rate. Healthcare outcome will be improved.	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district, i.e. the CEO/District Manager acknowledges to have been consulted on the study

Letter of Support Signed by Chief Director (CD)/CEO/District Manager (DM)/Programme Manager (PM)

6. Availability of Required Clearance			
6.1: Ethical Clearance	(Yes)	Pending	NO
	Clearance Number:		
6.2: Clinical Trial	Yes	Pending	NO
	Clearance Number:	Not applicable	
6.3: Vaccine Trial	Yes	Pending	NO
	Clearance Number:	Not applicable	
6.4: Is conducted in a village led by tribal authority?	Yes		(NO)
	Date tribal authority engaged:		

Declaration by Applicant:

I (Mr/Ms/Dr/Prof/Adv. BC MAJOLA) agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 31 DECEMBER 2021

Comment by CEO/~~DM/PM~~: **Supported / ~~Not Supported~~**

Signature of CEO/CD/DM/PM 2020.10.19 **Stamp/Date:**

Name: Mphane J.S

Please email completed form to: JerryS@mpuhealth.gov.za **or** ThembaM@mpuhealth.gov.za

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

ANNEXURE J2: DISTRICT APPROVAL

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

MPUMALANGA
THE PLACE OF THE RISING SUN

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

1. Name & contact no. of Applicant:	Bongane Charles Majola
2. Contact Number:	0810597651
3. Data collection period to undertake the study:	Start: 1 November 2020 End: 31 January 2021
4. Research summary and how data will be collected:	Background: Lack of implementation of collaborative models in the provision of health remains a global concern as it leads to a lack of collaboration between the traditional and allopathic health practitioners in the provision of healthcare in Sub-Saharan Africa. The use of multiple health systems is common. People around the world including South Africa, have diverse cultural backgrounds and they need collaborate health care services to meet their health needs. Aim: The purpose of the study is to validate, readjust, implement Nemukondzeni et al's readjusted model and evaluate the extent to which the readjusted collaborative model is useful to Gert Sibande District Nominal group technique (NGT) steps will be used to collect data for phases one and two. The four step of NGT are a generation of ideas round-robin clarification of ideas and voting. The first three steps of the implementation process by Damschroder (planning, engaging, and execution) will be used as a guide in phase three, then the fourth step which is evaluation will be used in phase four.
5. Population target:	Allopathic and Traditional health practitioners, patients DoH representatives
6. Period to undertake the study	From: to: 05/10/2020 — 05/10/2021

7. Resources Required from Facility/Sub-district/Community

5.1: Facility Staff Required to assist with the Study	(Yes) How many: Nurses: PHC Nurse; Doctors: Doctor; Space: ; Other, please specify: 13 Stackholders i.e. CEO, DoH rep. THP EMP rep, patients	NO
5.2: Patients / Researchers' Records/Files	Yes	(NO)
5.3: Interviewing Patients/ participants at Facilities	(Yes)	NO
5.4: Interviewing Patients/ participants at Home	Yes	(NO)
5.5: Resource Flow (Are there benefits to Patients/community)	(Yes) Please list: all potential remedial ideas emanated from research will be taken up for healthcare practice and policy Patient will be able to use both health services without being stigmatized there will be referral between the two health services	NO
5.6: Resource Flow (Are there benefits to Facility/District)	(Yes) Please list: to create a linkage between all research stakeholders Patient defaulting from care will be track down easily leading to decrease to mortality and morbidity rate. Healthcare outcome will be improved.	NO

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district.
i.e. the CEO/District Manager acknowledges to have been consulted on the study

Letter of Support Signed by Chief Director (CD)/CEO/District Manager (DM)/Programme Manager (PM)

6. Availability of Required Clearance:			
6.1: Ethical Clearance	(Yes)	Pending	NO
	Clearance Number:		
6.2: Clinical Trial	Yes	Pending	NO
	Clearance Number:	Not applicable	
6.3: Vaccine Trial	Yes	Pending	NO
	Clearance Number:	Not applicable	
6.4: Is conducted in a village led by tribal authority?	Yes		(NO)
	Date tribal authority engaged:		

Declaration by Applicant:

I (Mr/Ms/Dr/Prof/Adv. BC MAJOKA) agree to submit/present the result of this study back to the CEO/Institution/District.

Estimated date of feedback: 31 December 2021

Comment by CEO/DM/PM: **Supported / Not Supported**

The study is supported and all Departmental Research Procedure and protocol be followed.

Signature of CEO/CD/DM/PM

Name: 12/10/2020.

CHIEF DIRECTOR
Date: 12 10 2020
MPUMALANGA PROVINCE
DEPARTMENT OF HEALTH
GERT SIBANDE DISTRICT OFFICE

Please email completed form to: JerryS@mpuhealth.gov.za or ThembaM@mpuhealth.gov.za

MPUMALANGA PROVINCE
DEPARTMENT OF HEALTH
GERT SIBANDE DISTRICT OFFICE
2020 -10- 12
CHIEF DIRECTOR

Please note that this letter is not an approval to undertake a study, but a support letter from identified facility/district. i.e. the CEO/District Manager acknowledges to have been consulted on the study

ANNEXURE J3: PROVINCIAL APPROVAL

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

Indwe Building, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Enq: 013 766 3766/3511
Ref: MP_202010_011

Provincial Research Approval Letter

Mr Bongane Charles Majola
P.O.BOX 1432, 92 OOSTHUISE STREET
Ermelo, 2350

TITLE: **APPLICATION FOR RESEARCH APPROVAL: PARTICIPATORY ACTION RESEARCH TO IMPLEMENT A MODEL OF COLLABORATION BETWEEN ALLOPATHIC AND TRADITIONAL HEALTH PRACTITIONERS IN THE MANAGEMENT OF HIV/AIDS AND TB**

Dear Mr Majola

The Provincial Department of Health Research Committee has approved your research proposal in the latest format you sent.

- Approval Reference Number: MP_202010_011
- Data Collection Period: 15/11/2020 to 20/05/2021.
- Approved Data Collection Facilities: Gert Sibande District Offices & Ermelo Hospital

Kindly ensure that conditions mentioned below are adhered to, and that the study is conducted with minimal disruption and impact on our staff, and also ensure that you provide us with a soft or hard copy of the report once your research project has been completed.

Conditions:
- *Researchers not allowed to make copies or take pictures of medical records.*

Kind regards

DR C NELSON
MPUMALANGA PHRC CHAIRPERSON
DATE: 05 November 2020

MPUMALANGA
THE PLACE OF THE RISING SUN

ANNEXURE J4: UNIVERSITY OF PRETORIA ETHICS APPROVAL 2020

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences

Institution: The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.
- FWA 00002567, Approved dd 22 May 2002 and Expires 03/20/2022.
- IORG #: IORG0001762 OMB No. 0990-0279 Approved for use through February 28, 2022 and Expires: 03/04/2023.

5 October 2020

Approval Certificate
New Application

Ethics Reference No.: 160/2020
Title: Participatory action research to implement a model of collaboration between allopathic and traditional health care practitioners in the management of HIV/AIDS

Dear Mr BC Majola

The **New Application** as supported by documents received between 2020-03-24 and 2020-09-30 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on 2020-09-30 as resolved by its quorate meeting.

Please note the following about your ethics approval:
- Ethics Approval is valid for 1 year and needs to be renewed annually by 2021-10-05.
- Please remember to use your protocol number (160/2020) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

Ethics approval is subject to the following:
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

Dr R Sommers
MBChB MMed (Int) MPharmMed PhD
Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health)

Research Ethics Committee
Room 4-00, Level 4, Tuwelepele Building
University of Pretoria, Private Bag x323
Gezina 0031, South Africa
Tel +27 (0)12 356 3084
Email: deepeka.behari@up.ac.za
www.up.ac.za

Fakulteit Gesondheidswetenskappe
Lefapha la Dikarolo tša Maphelo

ANNEXURE J5: UNIVERSITY OF PRETORIA ETHICS APPROVAL 2021

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences

Institution: The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 22 May 2002 and Expires 03/20/2022.
- IORG #: IORG0001762 OMB No. 0990-0279 Approved for use through February 28, 2022 and Expires: 03/04/2023.

Faculty of Health Sciences **Research Ethics Committee**

16 September 2021

Approval Certificate
Annual Renewal

Dear Mr BC Majola

Ethics Reference No.: 160/2020
Title: Participatory action research to implement a model of collaboration between allopathic and traditional health care practitioners in the management of HIV/AIDS

The **Annual Renewal** as supported by documents received between 2021-08-18 and 2021-09-15 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on 2021-09-15 as resolved by its quorate meeting.

Please note the following about your ethics approval:

- Renewal of ethics approval is valid for 1 year, subsequent annual renewal will become due on 2022-09-16.
- Please remember to use your protocol number (160/2020) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

Ethics approval is subject to the following:

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

On behalf of the FHS REC, Dr R Sommers
MBChB, MMed (Int), MPharmMed, PhD
Deputy Chairperson *of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria*

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health)

Research Ethics Committee
Room 4-60, Level 4, Tswelopele Building
University of Pretoria, Private Bag x323
Gezina 0031, South Africa
Tel +27 (0)12 356 3084
Email: deepeka.behari@up.ac.za
www.up.ac.za

Fakulteit Gesondheidswetenskappe
Lefapha la Disaense tša Maphelo

ANNEXURE J6: UNIVERSITY OF PRETORIA ETHICS APPROVAL 2023

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences

Institution: The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567. Approved dd 18 March 2022 and Expires 18 March 2027.
- IORG #: IORG0001762 OMB No. 0990-0278 Approved for use through August 31, 2023.

Faculty of Health Sciences **Research Ethics Committee**

19 January 2023

Approval Certificate
Annual Renewal

Dear Mr BC Majola,

Ethics Reference No.: 160/2020 – Line 2
Title: Participatory action research to implement a model of collaboration between allopathic and traditional health care practitioners in the management of HIV/AIDS

The **Annual Renewal** as supported by documents received between 2022-12-02 and 2023-01-18 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on 2023-01-18 as resolved by its quorate meeting.

Please note the following about your ethics approval:

- Renewal of ethics approval is valid for 1 year, subsequent annual renewal will become due on 2024-01-19.
- Please remember to use your protocol number (160/2020) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

Ethics approval is subject to the following:

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

On behalf of the FHS REC, Dr R Sommers
MBChB, MMed (Int), MPharmMed, PhD
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Fakulteit Gesondheidswetenskappe
Lefapha la Disaense tša Maphelo

ANNEXURE K: EDITOR'S LETTER

21 Aero Rd
Valhalla
0185

7th June 2023

I, Nicolette Sutherland (ID 740711 0250 081), hereby confirm that I have edited the proposal to engage in the presentation of the Master's dissertation noted below. The utmost care will be taken to ensure that the Final Document is free of spelling and grammatical errors, however, the accuracy of the final work remains the responsibility of the author.

Author: Bongane Charles Majola

Title: Participatory Action Research To Implement A Model Of Collaboration Between Allopathic And Traditional Health Practitioners In The Management Of HIV/AIDS And TB

The edit includes the following:

- Spelling
- Vocabulary
- Punctuation
- Grammar
- Consistency in terminology, numbering, font style.
- Sentence construction
- Suggestions for text with unclear meaning
- Logic: Relevance, clarity, and consistency
- Checking the list of references against in-text citations.

Nicolette Sutherland
082 453 1469
Nikkisuth40@gmail.com