A Framework to Explore Traditional, Complementary and Alternative Medicine use for Children at Health Care Facilities in eThekwini District

BY

SHANITHA PILLAY

Student Number: 21449552

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Supervisor: Prof. T. S. P. Ngxongo

Co-Supervisor: Dr D. G. Sokhela

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DECLARATION

“A Framework to explore Traditional, Complementary and Alternative Medicine use for Children at Health Care Facilities in eThekwini District.”

I, Shanitha Pillay, student number 21449552, declare that the above thesis is my own work and that all the sources that I have used or quoted in this study have been acknowledged and indicated by means of complete references.

I further declare that I have submitted the thesis to originality checking and that it falls within the accepted requirements for originality.

I also declare that I have not previously submitted this work for examination at the Durban University of Technology or at any other Higher Education Institution.

_____ 25/06/2024

Signature of student Date

Approved for final submission

_____ 26/06/2024

Prof T.S. P. Ngxongo Date

RN, RM, ADM, MHSc: Nursing, D: Nursing

_____ 26/06/2024

Dr D.G. Sokhela Date

RN, RM, ADM, MHSc: Nursing, D: Nursing

DEDICATION

This thesis is dedicated to my dear husband Julian, my precious children Kaitlyn and Jaiden as well as my brother Bikash, Dad – Manny and Mum - Rosh

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ABSTRACT

Background

Decades of prioritisation and immense efforts directed towards interventions for improving child health care globally have yielded a considerable decline in child mortality rates. Nevertheless, in 2019 5.2 million children died before reaching their fifth birthday, which equates to approximately 14 000 deaths every day, this being an intolerably high number of largely preventable child deaths. Health care in South Africa encompasses different systems which include medical care, self-medication, and the use of traditional, complementary, and alternative medicine (TCAM), which is the fundamental type of health care in many communities within the country.

Aim: In view of the high prevalence of TCAM use as part of health care seeking behaviour of caregivers for children under the age of five years, the researcher conducted a study to gain more insight on TCAM use with the ultimate aim of developing interventions to strengthen current child health care assessments in eThekwini district.

Methods: A qualitative exploratory descriptive research design was used for this study. Data were collected over three months using face-to-face interviews with 22 caregivers in Phase 1 and five focus group discussions in Phase 2, with professional nurses trained either in child nursing, primary health care or integrated management of childhood illnesses (IMCI) in two selected regional hospitals and two selected primary healthcare clinics in eThekwini district. Data were analysed using Tesch's 8-step coding procedure.

Findings: Caregivers indicated that the use of TCAM for their children either on its own or concurrently with conventional medicine. The disclosure of TCAM use presented a challenge for many caregivers, stemming from fears of being blamed, to a lack of understanding among professional nurses.

The researcher analysed Phase 1 of the data collection first to ensure data saturation was reached before proceeding to Phase 2 which was also analysed to ensure data saturation as well. Caregivers expressed the use of TCAM for their children either on its own or concurrently with conventional medicine. The disclosure of TCAM use posed a challenge to most caregivers, ranging from fear of being blamed to professional nurses not understanding. Professional nurses reported a high prevalence of TCAM use for children, however stated that enquiry regarding its use was only conducted if they suspected it's use in critically ill children. This revealed the need for routine guided enquiry, hence a framework to explore the use of TCAM in children attending health care facilities, with guidelines for implementation, was developed.

Successful implementation of the proposed framework regarding TCAM use in children at health care facilities in eThekwini, in conjunction with IMCI guidelines, would contribute to the provision of holistic, family centred, culturally sensitive care which could positively influence child survival in eThekwini district, and even South Africa as a whole. Early identification of TCAM use would prevent caregivers administering it concurrently with conventional medicine through routine guided education by professional nurses. It would also allow for prompt identification of potential complications associated with TCAM use, thus improving the prognosis and survival of children in eThekwini district. Audits at healthcare facilities should monitor the communication process between professional nurses and caregivers, as well as monitor for efficient assessment, classification, management, and referral of children found to have used TCAM inappropriately. Should the proposed framework be implemented, it should be incorporated into nurse training programmes that include IMCI. Further studies are recommended regarding TCAM use for children in all nine provinces in South Africa, as well as the use of TCAM during the perinatal period.

Key words: Traditional, Complementary and Alternative medicine, Effects of TCAM use in Children, Framework.

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GLOSSARY OF TERMS

Caregiver: A person who provides direct care for children (Merriam-Webster Dictionary 2016). For the purpose of this study, caregiver refers to an individual whose responsibility, at a given time, is the care of a child.

Child/Children: A young person especially between infancy and puberty (Merriam-Webster Dictionary 2016). For the purpose of this study a child is any person under the age of five years.

Complementary, alternative medicine: The terms complementary or alternative medicine refer to a broad set of health care practices that do not form part of a county's conventional medicine and is not completely integrated into the dominant healthcare system. These terms can also be utilised interchangeably with the term traditional medicine (World Health Organization 2018).

Conventional medicine: the usual methods of healing or treating disease that are taught in Western medical schools (Merriam-Webster Dictionary 2016)

Framework: Pertains to a set of rules, ideas, or beliefs which you use in order to deal with problems or to decide what to do (Collins English Dictionary 2020).

Integrated management of childhood illnesses: Guidelines developed by the World Health Organization (WHO) and UNICEF for health care workers to assess, classify and manage childhood illnesses in children up to five years (Haskins *et al.* 2017: 1378).

Professional nurse: A person registered in terms of section 31 of the Nursing Act No. 33 of 2005. A person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability of such practice (South African Nursing Council 2005). For the purpose of this study, professional nurse includes a registered nurse who has specialised in child nursing science as well as a nurse who has been trained in IMCI.

Traditional medicine: According to the WHO "traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral

based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to treat, diagnose and prevent illnesses or maintain wellbeing” (WHO 2018).

LIST OF ACRONYMS

Acronym	Full Term
CoMMiC	Committee on Morbidity and Mortality in Children
HILI	Herb-induced liver injury
IMCI	Integrated Management of Childhood Illnesses
PHC	Primary Health Care
SANC	South African Nursing Council
TCAM	Traditional Complementary and Alternative Medicine
UNICEF	United Nations Children's Fund
UN IGME	United Nations Inter-Agency Group for Child Mortality Estimation
WHO	World Health Organization

CHAPTER OUTLINE

Chapter	Title	Description
1	Overview of the Study	This chapter begins with an introduction and background to the study. It presents the problem statement, purpose, objectives, research questions, significance of the study as well as definition of concepts.
2	Literature Review	The chapter presents a literature review which provides detailed information on the topic being researched.
3	Theoretical Framework	The theoretical framework which was used to guide this study is presented.
4	Research Methodology	The overall plan and presentation of the research steps for addressing the research objectives, including the ethical considerations, validity and reliability. Application of the adopted theoretical framework.
5	Presentation of Findings	Analysis of the data collected and presentation of the findings from the study.
6	Discussion of Study Findings	Discussion of the findings.
7	Development of the Framework	Presentation of the framework to determine traditional, complementary and alternative medicine use in children in eThekwini district, South Africa.
8	Summary, Conclusions, Limitations, and Recommendations	The final chapter presents a summary of study findings, conclusion, limitations, and recommendations.

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND

Decades of prioritisation and immense efforts directed towards interventions for improving child health care globally have yielded a considerable decline in child mortality rates (United Nations Inter-Agency Group for Child Mortality Estimation 2020). Despite the statistical decline, in 2019, 5.2 million children died before reaching their fifth birthday, which equates to approximately 14 000 deaths every day, which is an intolerably high number of largely preventable child deaths (United Nations Inter-Agency Group for Child Mortality Estimation [UNIGME] 2020).

The United Nations Inter-Agency Group for Child Mortality Estimation (UNIGME) (2020) indicates that the child mortality rate in South Africa has declined considerably over the years. Nevertheless, the World Health Organization (WHO) (2018) indicates that disparities continue to exist in under-five mortality in many countries. Approximately half of the under-five child deaths are related to diseases that are preventable and treatable by simple, inexpensive interventions as well as strengthening health systems (WHO 2018).

In South Africa, the Committee on Morbidity and Mortality in Children under 5 years (CoMMiC) estimated that 55% of child deaths occurred outside formal health facilities at home or in the community (Price *et al.* 2019: 862). Upon examining child health care in South Africa, Haskins *et al.* (2017: a1378) highlighted that there are various types of health care used in communities, including medical care, self-medication, and the use of traditional, complementary, and alternative medicine (TCAM). Price *et al*. (2019: 878) found that TCAM is a common feature in South African healthcare and is commonly used in combination with Western medicine, however it remains unclear whether traditional medicine is used prior to, after, or concurrently with conventional medicine during the child's final illness, and why it is associated with death at home. There is a possibility that TCAM is a marker for serious and chronic illness, and for

discharge from a health facility with insufficient follow-up, as parents try all avenues to treat their child (Price *et al*. 2019: 878). Despite health care in the South African public sector being provided free of charge for children under the age of five years, Haskins *et al.* (2017: a1378) further assert that approximately 60% of the recorded child deaths actually occur at home and not in health care facilities which could be attributed to a delay in seeking timeous health care. Price *et al.* (2019: 878) concur that home deaths account for the over half of all under-5 deaths in rural South Africa despite high rates of care-seeking during the period of final illness which could be attributed to traditional beliefs about disease aetiology, loss of confidence in conventional medicine, stigma, ease of access and shorter waiting times to receive care. A study conducted by Bantie *et al.* (2019: 482) indicated that factors associated with a delay in seeking healthcare for children under-five include the use of self-medication as well as the use of TCAM.

TCAM use in children has become increasingly popular as it has been reported that up to 40% of healthy children and 75% of sick children utilize it (Zorzela *et al.* 2014: 467). There are various factors such as cultural beliefs, transport costs, perception of illness and personal or family preferences that serve as determinants for the choice of TCAM use in children (Kagabo *et al.* 2018). The reasons for seeking TCAM prior to conventional health care, according to Oyebode *et al*. (2016: 984), may be related to the perception that this approach is more affordable, accessible, and acceptable than conventional health care. Zorzela *et al.* (2014: 467) explain that while the use of TCAM is prevalent in children, the majority of caregivers (77%) do not disclose their use to the health care provider. Non-disclosure of TCAM use while seeking medical care often results in the concurrent administration of conventional medicine and TCAM (Thomford *et al*. 2015: 637). The concern here is that enzyme system which metabolises TCAM also sometimes metabolise conventional medicine, and this can have serious health implications for young children (Thomford *et al*. 2015: 637).

The incidence of acute poisoning from TCAM use is greater in children and neonates because their digestive and immune systems are not completely evolved (Ghorani-Azam *et al*. 2018: 26). Although most of medicinal plants used to develop TCAM have traditionally been considered safe, medical data has demonstrated that continuous use may be associated with respiratory compromise, chronic liver injury, and, in some

cases, liver failure (Ghorani-Azam *et al*. 2018: 26). The potential for side effects of TCAM is also supported by Aziato and Antwi (2016: 142) who state that although TCAM is thought to be natural, users should be cognizant that there could be side effects on the skin, eye, liver, or kidneys and result in problems like diarrhoea and vomiting. With a high prevalence of TCAM being used concurrently with conventional medicine there is a great risk for complications that can result from drug-drug interactions (Duru *et al.* 2016: 9). A report by Okaiyeto and Oguntibeju (2021: 5988) indicated that many people combine TCAM with orthodox medicines without a doctor's prescription or knowledge and, perhaps, without considering their adverse interactions. This finding is consistent with that of Marais, Steenkamp and Du Plooy (2015: 8), where the concurrent use of TCAM and conventional medicine is prevalent and should be averted to prevent adverse interactions and even death.

While there is a high percentage of non-disclosure of TCAM use in children by their caregivers, there is also a lack of inquiry by health care workers in this regard (Zorzela *et al.* 2014: 467). Serious adverse effects can occur with uncontrolled ingestion of TCAM, such as liver damage, kidney failure, stomach upsets, and diarrhoea (Okaiyeto Okaiyeto and Oguntibeju 2021: 5988). Some people believe that since their ancestors used herbal mixtures and concoctions (TCAM) for their wellbeing in the past and with no reported side effect, they habitually assume that because TCAM are natural their safety is guaranteed however, this assumption has unfortunately led to several instances of organ damage and death of the users (Okaiyeto Okaiyeto and Oguntibeju 2021: 5988).

It is imperative for the formal healthcare system to ensure that sick children are identified and managed appropriately to reduce child deaths. Knowledge and understanding of health care seeking behaviour by carers for sick children is imperative so that health care workers can develop appropriate interventions with these contextual issues in mind (Haskins *et al.* 2017: a1378). Therefore, in view of the high prevalence of TCAM use as part of health care seeking behaviour of caregivers for children under the age of five years, the researcher conducted a study to gain more insight into TCAM use and developed interventions to strengthen current child health care assessment in eThekwini district.

This study was conducted in eThekwini health district, which is a densely populated urban metropolitan district where a third of the population of the KwaZulu-Natal (KZN) province, South Africa, reside (eThekwini Municipality 2018: 2). The current metro area population of Ethekwini in 2021 is 3 176 000 citizens (United Nations 2022). In terms of race, over 51% of residents are black African, approximately one-quarter of the population is Indian or Asian, while 15.3% are white, and 8.6% are designated as coloured (World Population Review 2021). Since the eThekwini district forms the economic hub of KZN, it has all the common characteristics of an industrialized society with a high disease burden (eThekwini Municipality 2018: 2), so more effort is directed towards increasing services for children and reducing childhood illness related deaths through focused community-based interventions.

1.2 RESEARCH PROBLEM

The holistic health care of children is dependent upon discussion and disclosure of all health seeking behaviour by caregivers so that potential drug-drug interactions from concurrent use of TCAM and conventional medicine can be averted (Adams *et al.* 2014: 217). The researcher, having worked in a regional hospital as a child nurse specialist, has observed children coming into hospital critically ill, and caregivers not readily disclosing the use of TCAM until a child has complicated organ failure or even death. Mothibe and Sibanda (2019) explain that the inappropriate doses of TCAM can lead to the accumulation of drugs in the body and finally cause toxic effects. According to Polat and Gürol (2020) TCAM use with children is widespread and health care workers should be aware of this and be alert for possible side-effects or interactions.

Liver problems are the most common result of toxicity due to chronic use of TCAM (Ozioma and Chinwe 2019). Furthermore, Amadi and Orisakwe (2018) explain that liver injury associated with the consumption of TCAM is referred to as ‘herb-induced liver injury’ (HILI), the incidence of which is underestimated because of the low frequency with which patients report their use. Presently, there is a growing concern on the potential risks of HILI from herbal products because the contents of most of these medicines are unregulated and unstandardised (Amadi and Orisakwe 2018). Alghamdi *et al.* (2018: 77) point out that although there is an increased use of TCAM

among children, health care workers do not routinely enquire about this when caregivers present with sick children. Professional nurses need to be aware that since common ailments such as a cough can be treated with TCAM, identification of its use is important as it can avert potential drug-drug interactions, adverse events, treatment failure and even death (Marais, Steenkamp and Du Plooy 2015: 8). It has been reported that in seeking health care, people often consult traditional healers first, and often choose to withhold this information when later consulting a health care worker (Mothibe and Siband 2019). Similarly, findings by James *et al.* (2018) showed that the concurrent use of TCAM is known to potentially undermine patient safety and health outcomes due to drug-drug interactions leading to serious adverse effects as well as the therapeutic failure of conventional medications.

It is likely that many adverse reactions go unrecorded with caregivers failing to divulge information of TCAM use to health care workers hence, establishing a diagnosis of herbal toxicity can be difficult. Very few adverse reactions have been reported for TCAM, especially when used concurrently with conventional medicines (Ozioma and Chinwe 2019). According to the Nursing Act No. 33 of 2005 a professional nurse should provide comprehensive nursing care for all health problems of individuals, groups and communities and ensure a comprehensive plan for the promotion of self-care in a natural and biological sphere of individuals, families, and communities (Government Gazette 2020). There is currently no standardised framework requiring professional nurses to enquire about TCAM use formally and routinely in every child attending a health care facility, so this vital information is often missed, with the potential of the child's condition deteriorating. Despite the high prevalence of TCAM uses, there is a lack of communication between caregivers and professional nurses who should ask about the use of TCAM and inform caregivers about the possible dangers of TCAM use in children (Polat and Gürol 2020). The most commonly cited reason for caregiver disclosure was that the professional nurses actually asked about TCAM use during patient interviews (Foley et al. 2019).

Thus, the researcher undertook as part of the planned study to develop a framework to determine TCAM use in children in eThekwini district, South Africa.

1.3 AIM OF THE STUDY

The aim of this research was to explore the use of TCAM in children with the ultimate aim of developing a framework to guide professional nurses during their assessment of all children up to the age of five years attending health care facilities to ask about TCAM use.

1.4 OBJECTIVES

The objectives of this study were to:

1. Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses.
2. Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.
3. Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.
4. Explore professional nurses' perspectives regarding TCAM use for children.
5. Develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district.

1.5 RESEARCH QUESTIONS

The following questions needed to be answered to achieve the study objectives:

1. What are the caregiver's perspectives regarding the use of conventional medicine for childhood illnesses?
2. What are the caregiver's perspectives regarding the use of TCAM for childhood illnesses?
3. What are the factors influencing caregiver's disclosure of TCAM use for childhood illnesses?
4. What are professional nurses' perspectives regarding TCAM use for children?
5. What would be a suitable framework to guide professional nurses on how to enquire regarding TCAM use in children under five when they are being assessed in eThekwini district?

1.6 SIGNIFICANCE OF THE STUDY

The significance of this study would add value to the following areas.

1.6.1 On assessment of children up to the age of five years

This study would contribute to the existing body of knowledge in nursing by generating information on TCAM use in children. In this study the researcher intended to develop a framework which could be used to guide the nursing assessment conducted by professional nurses of all children attending health care facilities to determine the use of TCAM. If the framework is accepted by the eThekwini district health department and applied to clinical practice, it could ensure that the caregiver of every child attending health care facilities will be asked about TCAM use. This guided and routine enquiry can facilitate a more holistic and comprehensive approach to nursing assessments and care planning to be implemented by professional nurses. The successful implementation of the framework could ensure prevention of potential drug-drug interaction and lead to an improved prognosis of children up to five years of age. Caregivers may feel inclined to disclose and discuss TCAM use if questions were included as part of the routine guided interview regarding patient's medication history (Galicia - Connolly *et al.* 2014). The researcher therefore believes that if an enquiry on TCAM use is included in every caregiver interview, this may make disclosure easier, without fear and judgement.

1.6.2 Nursing education

Nursing curricula include the use of national and international guidelines and frameworks as teaching tools to develop the competencies of student nurses. The development and implementation of a framework for the assessment of TCAM used in children could be incorporated into the nursing curricula in KwaZulu-Natal. This framework could be used by nurse educators as a teaching tool for student nurses to add to a comprehensive and holistic assessment of children. The framework could also be used to teach all categories of nurses in training where assessment of children forms part of the curriculum.

1.6.3 Research in nursing

This study will contribute to the scholarly field of new information and in this way enhance the body of knowledge in nursing and provide practice guidelines for determining the use of TCAM in children. After reviewing the existing body of knowledge regarding the assessment of children at provincial healthcare facilities, a gap was identified in relation to the use of TCAM as part of health care seeking behaviour. This study intended to bridge this gap by developing a framework to ensure a routine, guided assessment of TCAM use in children. If the framework is successfully adopted in eThekwini district, the benefits may encourage the use of the framework throughout South Africa and in other developing countries. The study also outlined recommendations which could provide a pathway for future research.

1.7 CHAPTER SUMMARY

This chapter provided an introduction and background to the use of TCAM to treat children as part of the caregiver's health seeking behaviour. The assessment guidelines used by professional nurses to assess, classify and treat sick children was also introduced. Although the use of TCAM in children has been the subject of much research, it still presents challenges for the accurate assessment of children by professional nurses. This chapter also indicated the research problem, outlined the aims and objectives for this study as well as the research questions. The significance of the study on the assessment of children, nursing education as well as on nursing research was described.

A literature review is presented in the next chapter.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 presented the background and significance of the study. The focus in the previous chapter was to describe the use of TCAM with children. Chapter 2 presents literature that was reviewed to substantiate the value of developing a framework to determine the use of TCAM use in children. The literature reviewed also aided the researcher in identifying and adopting a theoretical framework that was used to guide the study.

For the purpose of this study, literature was reviewed to obtain information that could contribute to achieving the objectives of this study, which were to determine the following:

1. Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses.
2. Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.
3. Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.
4. Explore professional nurses' perspectives regarding TCAM use for children.
5. Develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district.

A search for empirical literature was undertaken to highlight the assessment of children's health by child nurse specialists, in relation to the use of TCAM. The literature search also encompassed the global and national use of TCAM for children as part of the care seeking behaviour of caregivers. Research terminology included the TCAM use in children, non-disclosure of TCAM use by caregivers, TCAM use in children and its resultant effects on children. Online databases searched included

Academic Search Complete on EBSCO web, EBSCO Host (CINAHL, Health Source-Nursing/ Academic, MEDLINE); Google Scholar, Wiley online library, Web of Knowledge, ProQuest, and South African e-publications via Sabinet. The search indicated that many studies have been conducted on the about TCAM use in children, and of these studies the recommendation of many highlighted the importance of nurses asking caregivers about the possible use of TCAM prior to seeking medical care. The literature which was searched and reviewed is presented in this chapter.

Grove, Burns and Gray 2017: 135) state that the review of literature should be presented as themes that are organised into sections; therefore, the literature reviewed has been organised under specific headings to create a meaningful and sound presentation. To provide a clear guide, table 2.1 provides the alignment of the study objectives with the literature search findings.

Table 2.1: Study objectives aligned with literature search findings.

Objectives	Literature search findings
Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses.	- Traditional, complementary, and alternative medicine - Global trends of TCAM in children - The use of TCAM in children in Africa and Sub-Saharan Africa - The use of TCAM in children in South Africa
Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.	- Medical pluralism related to caregiver's health care seeking pathways. - Use of TCAM to treat childhood illnesses.
Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.	- Potential complications of TCAM use. - Child health assessment in South Africa. - Discussions of TCAM use between nurses and caregivers. - Reasons for caregiver's non-disclosure of TCAM use
Explore Professional nurses' perspectives regarding TCAM use for children.	- Clinical manifestations of TCAM toxicity

2.2 TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE MEDICINE

According to the WHO, traditional medicine can be described as “the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences traditional to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness” (Mwaka, Abbo and Kinengyere 2020). Complementary and alternative medicine (CAM) is described by Yeon and Nam (2016: 313) as a phrase used to describe any additional health care methods, which include mind/body practices and natural products not regarded as treatments by conventional medicine. Thus, TCAM can be described as any practice that does not form part of conventional Western medicine, where the philosophical underpinnings are beliefs, customs, and experiences traditional to a particular group of people, and which is used in the overall maintenance of health and prevention of illnesses (Mwaka, Abbo and Kinengyere 2020). Patients seem to prefer informal health services from TCAM providers because of their increased accessibility partly because traditional healers are present in higher numbers than physicians and biomedical facilities, especially in low-resource settings (Sundararajan *et al.* 2020). Patients may also seek out TCAM to address symptoms attributed to ancestral curses or bewitching, believed incurable by biomedicine, as well as in the context of biomedicine treatment ‘failure’, when symptoms worsen or persist despite ongoing therapies (Sundararajan *et al.* 2020). According to James *et al.* (2018), TCAM in the African setting may encompass local herbal medicines or products, indigenous healthcare practices such as traditional bone setting, as well as imported complementary and alternative medicine products and practices that include acupuncture or chiropractic. TCAM in sub-Saharan Africa is widespread, with a large proportion of the population relying on it to maintain their health or prevent and treat communicable and non-communicable diseases, with a contribution of at least R2.9 billion (US$2.2 million) to the South African economy alone (James *et al.* 2018).

2.3 GLOBAL TRENDS OF TCAM USE FOR CHILDREN

The use of TCAM for the treatment and prevention of diseases has a long tradition globally and still plays an essential role in the health care of many societies ranging

from developing countries in Asia and Africa to developed countries in the West (Du *et al*. 2014: 218). The use of traditional medicine is far-reaching at a global level, with the WHO estimating that at least three quarters of the global population depend on TCAM as a means of primary health care with an estimated spend for TCAM amounting to $83 billion annually (Gunjan *et al.* 2015: 138). There has been a substantial increase in the use of TCAM in many regions of developing countries as well as developed countries whereby the use of traditional medicine is preferred over the use of conventional medicine by two to three times (Gunjan *et al.* 2015: 134). Amongst Latinos, folk illnesses, which are also referred to as "culture-bound syndromes," are collections of symptoms that are not recognised by conventional medicine so are often treated using TCAM because of alignment of TCAM with popularly understood mechanisms of causation (Bauer and Guerra 2014). The use of TCAM was also found to be common in Argentina and Uruguay where TCAM is frequently used for supportive care. Rocha *et al*. (2017) found that the predictors of TCAM were a mother's education, wealth index, and TCAM belief system. The study also found that a large proportion of families use TCAM concurrently with conventional therapy, and therefore an increased awareness is vital to ensure the safe integration of the two medical modalities (Rocha *et al.* 2017). Germany has a relatively high use of TCAM among children in comparison with children from other countries and the determinants of TCAM use include younger age as well as children of families with higher socio-economic status (Du *et al.* 2014 :218). In Indonesia Pengpid and Peltzer (2019: 298) found a high prevalence of TCAM use and that a younger age, socioeconomic status, together with poor self-rated health status were the main reasons for use. The authors concluded that, in view of the high use of TCAM, health care workers should provide information to patients on traditional medicine use as well as the use of TCAM and conventional medicine to ensure safe health practices in childcare (Pengpid and Peltzer 2019: 298). Despite the move to modify traditional medical practices to align with biomedicine, alternative forms of medical practices continue to persist in the world: not only traditional and indigenous medical practices in Asia, Africa, and Latin America, but also complementary and alternative medicine in Europe and North America (Shim 2018: 402). In the Philippines Sato *et al*. (2020) explored the care seeking pathway of children with severe pneumonia and found that

some caregivers were concerned that their children might have *piang*, which refers to a dislocation, with parents remembering that their children fell or slipped before symptoms such as coughing and abnormal breathing started. Caregivers wanted to know if their children had *piang* and believed that only a traditional healer could confirm and treat it and after children were diagnosed as *piang* by a traditional healer. Caregivers realised that the treatment was not necessarily effective, while some caregivers mentioned that their children's condition did not get better and even worsened after seeing a traditional healer (Sato *et al*. 2020). It has been shown that the danger signs of pneumonia are difficult to recognise for caregivers, and the authors suggested, and might be associated with a delay in hospitalisation and therefore fatal outcome of severe pneumonia. In Korea, traditional Chinese (Korean) herb(al) medicine is an important component of the medical industry, and many Koreans have a positive attitude towards traditional Chinese (Korean) herb medicine (Asrat *et al*. 2020).

2.4 THE USE OF TCAM IN CHILDREN IN AFRICA AND SUB-SAHARAN AFRICA

Currently, in sub-Saharan Africa, approximately one-sixth of the population lives more than two hours away from a public hospital, and one in eight people is no less than one hour away from the nearest health centre. Health care facilities in sub-Saharan African countries are facing rising pressure from growing populations and people in this region are least satisfied with the health care services they have access to compared with other parts of the world (Falchetta, Hammad and Shayegh 2020).

An estimated 5.2 million children under age five died in 2019 and more than half of those deaths occurred in sub-Saharan Africa (United Nations Children's Fund [UNICEF] 2019). Sub-Saharan Africa remains the region with the highest under-5 mortality rate in the world, with 1 child in 13 dying before his or her fifth birthday (WHO 2020). Over 50% of under-5 deaths across sub-Saharan Africa occur at home, though this is as high as 77% in Mali, 76% in Niger and 67% in Uganda (Price *et al.* 2019: 863).

Towns, Eyi and Van Andel (2014) report that the healthcare seeking behaviour of caregivers in sub-Saharan Africa is truly pluralistic, consisting of three main domains:

biomedical care, traditional healing, and popular knowledge. A persistent challenge in sub-Saharan Africa and many other developing regions remains poor healthcare seeking behaviour despite availability of effective treatments for childhood diseases (Akinyemi *et al*. 2019). Asrat *et al.* (2020) found that in Fagita Lekoma Woreda, Amhara Regional State, Northwest Ethiopia utilisation of TCAM remains high since from the total of 858 participants, 693 (80.3%) had used TCAM for their children. This finding is somewhat lower compared with the study conducted in Mota town, Northwest Ethiopia, which showed that 88.2% of parents used TCAM for children (Asrat *et al*. 2020). More than 88% of Ethiopian parents had used different forms of TCAM for their children. In addition, it is of significance to note that 66% of mothers who used TCAM were delayed in seeking healthcare for their children (Bantie *et al*. 2019).

Unfortunately, early care seeking for childhood illnesses remains a challenge in countries with high mortality rates. Estimates from sub-Saharan Africa indicate that only 2 out of the 5 children with pneumonia specific symptoms are taken to an appropriate provider for care, with cultural beliefs, religion, habit, perceived severity of the illness, and previous experiences with health services as key factors which influence the decision of caregivers to seek care (Noordam *et al.* 2017).

The map in Figure 2.1 illustrates where the sub-Saharan Africa region is situated within the continent of Africa.

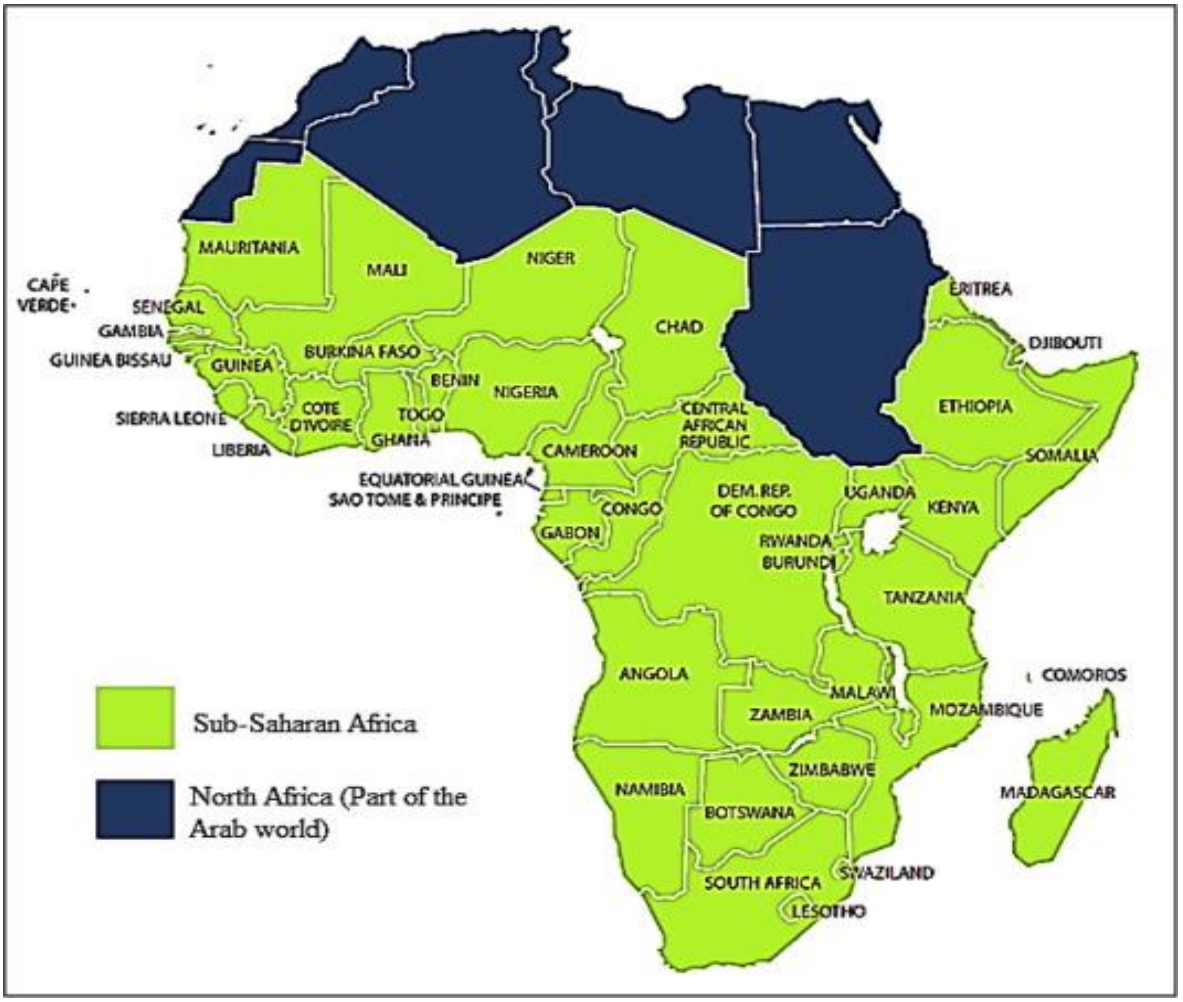


Figure 2.1: Map of Africa showing sub-Saharan Africa
Source: Ngoran *et al.* (2016: 115)

The use of herbal medicines in developing nations has increased in recent times with estimates of over three-quarters of the population in sub-Saharan Africa depending on traditional herbal remedies for primary health care (Amadi and Orisakwe 2018).

The WHO and UNICEF reported that promptly seeking healthcare with an appropriate healthcare provider is one of the most important steps that can be taken to save the life of a child with a disease like pneumonia. Thus, timeous, and appropriate care-seeking for childhood pneumonia has implications both in terms of child survival as well as the expenditure at household and health system levels (Bantie *et al.* 2019). In sub-Saharan Africa, where most pneumonia deaths occur, only 40% of children seek care (Bantie *et al.* 2019). A similar study in sub-Saharan Africa pertaining to TCAM use, revealed that less than half of the mothers of children affected by diarrhoea and

acute respiratory infection symptoms sought care from health facility (Akinyemi *et al.* 2019). There are different pathways to care-seeking for childhood illnesses by mothers of under-fives in the region; in many sub-Saharan Africa settings the common practice is home treatment and spiritual / traditional healers before health facility treatment (Akinyemi *et al*. 2019). This healthcare seeking behaviour is often linked to perceptions about causes of illnesses and source(s) of solution when there is a belief that illness in a child is caused by spiritual forces (Akinyemi *et al.* 2019).

2.5 THE USE OF TCAM IN CHILDREN SOUTH AFRICA

Despite significant reductions in child mortality, unfortunately preventable and treatable conditions remain the leading cause of death and illness in South African children (Murdoch *et al.* 2020). The country is beset by ongoing social inequality, poverty, unemployment, a heavy burden of disease, and an inequitable quality of healthcare service provision (de Villiers 2021). Caregivers of sick children sometimes need to walk or hitchhike 50 km to reach the nearest clinic, and this is the reality for many parents who live in rural and remote areas of South Africa (de Villiers 2021). A key dimension of access to healthcare is acceptability which is related to a person's willingness to seek services, and acceptability is low when patients perceive services to be ineffective or when social and cultural factors such as language, age, sex, ethnicity or religion of health provider discourage them from seeking services (de Villiers 2021). The issues of language and culture in South Africa are examples of how important acceptability is in seeking out healthcare services, and in truly being able to access health as a resource (de Villiers 2021).

According to Marais, Steenkamp and Du Plooy (2015) the use of TCAM in South African communities plays an important role and therefore health care professionals must be aware that ailments such as cough and influenza as well as digestive problems are commonly treated with TCAM. According to Price *et al*. (2019: 877), TCAM is a common feature of South African healthcare is often used in combination with Western medicine. Traditional beliefs about disease aetiology, loss of confidence in formal medical care, stigma, ease of access and shorter waiting times all contribute to traditional medicine use, however, it remains unclear whether TCAM is used before,

after or in parallel with formal care during the child's final illness, and whether it is associated with death at home (Price *et al*. 2019: 877). It is possible that a history of traditional care in a case is an indicator of serious and chronic illness, and the desire for traditional care can be a reason for discharge from a health facility with inadequate follow-up, as parents try all options to treat their child (Price *et al.* 2019: 877). Haskins *et al.* (2017: a1378) assert that critical illness can occur as a result of a delay in caregivers seeking appropriate health care due to traditional health being a primary type of care sought in many communities. In South Africa specifically, the CoMMiC estimated that 55% of child deaths occurred outside health facilities at home or in the community (Price *et al.* 2019: 863).

Child mortality in South Africa remains alarmingly high despite the availability of free treatment for children, and data pertaining to child deaths in Kwa-Zulu Natal indicate that approximately 60% of children die at home, before even reaching a health care facility (Haskins *et al.* 2017).

The map in Figure 2.2 illustrates South Africa and its nine provinces.

Figure 2.2: Map of South Africa with nine provinces
Source: UN Cartographic section (2021)

2.6 MEDICAL PLURALISM RELATED TO CAREGIVER'S HEALTH CARE SEEKING PATHWAYS

Medical pluralism refers to the use of multiple treatment modalities and commonly occurs in settings where both conventional and TCAM are accessible to patients (Sundararajan *et al*. 2020). In low- and middle-income countries, TCAM is often provided by traditional healers who render care outside of a formal biomedical system and includes the use of plants, animals, and minerals (Sundararajan *et al*. 2020). Health care seeking is recognised to be a result of a complex behavioural process that is influenced by several factors, including socioeconomic and demographic characteristics, perceived need, accessibility, and service availability. The symptoms of illness, duration, and an episode of illness as well as age of the sick child can be important predictors of whether and where caregivers seek care during illness (Sarker *et al.* 2016).

Delay in seeking healthcare has been shown in several regions to play an important role in under-five morbidity and mortality (Umuhoza *et al.* 2018). Factors that contribute to the delay in seeking timeous medical health care include aspects such as geographic accessibility (distance from home to healthcare facility), economic affordability of care, religious beliefs, use of un-prescribed medicine, educational level of the care giver, age and sex of the sick child, age of the caretaker, family size and composition, use of traditional healers (Umuhoza *et al.* 2018). According to Asrat *et al.* (2020), parental educational status was significantly associated with parental TCAM use for children; their study revealed that the frequency of TCAM use decreases as parental education increases. This finding was not in keeping with previous studies conducted in the United States, and Germany which indicated that parents who used TCAM for their children were more educated and the difference may be due to parents living in developed countries preferring natural products and medicine rather than chemically synthesised medicine because of the fear of side effects of modern medicine (Asrat *et al*. 2020).

Traditional medicine and practices in rural South Africa operate within a complex set of belief systems whereby most participants reported practising cultural traditions or rituals related to African ancestral belief systems which underpin their worldview (Price *et al.* 2019: 875). The motivations participants described for using traditional medicines and traditional healers varied with some caregivers administering traditional enemas as part of the routine care they provide within the home to promote well-being or treat common symptoms of mild illness, while others frequently administered enemas to their children (Price *et al.* 2019: 875).

2.7 USE OF TCAM TO TREAT CHILDHOOD ILLNESSES

In 1992, the WHO and the UNICEF developed a strategy for children's health care, known as Integrated Management for Childhood illnesses (IMCI) with an integrated approach to improve children's health globally (Sierra and Cañas 2020). The IMCI provides unified health care instead of separate management of common illnesses affecting children under five with a particular focus on the reduction of morbidity and mortality rates associated with the most common diseases in childhood (Sierra and

Cañas 2020). The IMCI guidelines have been implemented in approximately 100 countries globally, including South Africa, where the major causes of child mortality are pneumonia, malaria, measles, malnutrition, and diarrhoea (Kilov *et al.* 2021). Key strengths of IMCI are the holistic approach, rational use of medications, and improved quality and efficiency of health service provision. According to Kilov *et al.* (2021), the implementation of IMCI has resulted in improved outcomes for children, which translates to care and care-seeking practices among the community. The strategy is divided into three components: organisational, clinical, and community (Sierra and Cañas 2020). Since IMCI guidelines are currently being used to assess children up to five years in South Africa, the researcher has explored the use of TCAM in relation to the childhood illnesses highlighted in the guidelines.

2.7.1 GENERAL DANGER SIGNS

According to the IMCI guidelines (2019), general danger signs for a child are convulsions, vomiting, and being lethargic or unconscious. Children presenting with seizures which can be classified as a general danger sign (IMCI), have also been given various forms of TCAM, which has an impact on the effectiveness and metabolism of anti-seizure medication even to the point of reversing the effects of the medication (Galicia-Connolly *et al*. 2014). TCAM has been found to be used commonly, ranging from 24% to 78% in children who have neurological disorders such as seizures and headaches while the reporting to health care workers with such conditions is low (Yeon and Nam 2016: 313).

2.7.2 COUGH/DIFFICULT BREATHING

Cough and difficult breathing are common signs that denote respiratory tract infections in a child, and is a common reason why TCAM is given (Webair and Ghouth 2014: 581). Haskins *et al.* (2017) explained that children presenting with a cough or asthma are at times treated at home with TCAM, often in the form of an enema, especially if the cough is persistent. Health care workers need to be aware of common ailments such as cough being treated with TCAM so that drug interactions, adverse events, treatment failure and even the potential for death can be averted (Marais, Steenkamp and Du Plooy 2015: 8). A study conducted in sub-Saharan Africa revealed that only

approximately 16% of the children with cough had sought treatment from a health care facility and this invariably constitutes a threat to child survival (Adedokun *et al*. 2020). Similarly, in the Philippines a study by Sato *et al*. (2020) revealed that children with pneumonia visited multiple facilities before hospitalisation, including traditional healers, hence resulting in delays of more than two days.

2.7.3 DIARRHOEA

Diarrhoea can be defined as loose, watery, frequently occurring stools and caregivers commonly treat their children with this condition with TCAM (Webair and Ghouth 2014: 583). A study conducted in sub-Saharan Africa reflected that less than 50% of the caregivers of children with diarrhoea sought medical care (Akinyemi *et al*. 2019). In many sub-Saharan settings, caregivers often resort to home treatment or TCAM from traditional healers before seeking formal health care for their children with diarrhoea (Akinyemi *et al*. 2019). The poor health care seeking behaviour by caregivers for children with diarrhoea was also found by Adedokun *et al*. (2020) who revealed that 10% of the children in their study had sought health care. Caregivers were also found to give children TCAM that acts as a laxative namely, *Cotoneaster* (Mosavat, *et al.* 2018: 1018).

2.7.4 FEVER

Fever is one the most frequently occurring symptoms in sick children, more so among toddlers and is also a common reason for hospital referrals as it can predispose to febrile seizures (Ravanipour, Akaberian and Hatami 2014). Given the severe implications of fever in young children, it is of great concern to note that Gunjan *et al.* (2015:135) found that up to 60% of children with an increased temperature arising from malaria were treated at home with TCAM. In their study Ravanipour, Akaberian and Hatami (2014) found that many caregivers treated an elevated temperature with herbal brews and various juices. Fever in children is perceived in various ways by caregivers and this perception directly influences the health seeking pathway that will be sought, and often the use of TCAM or traditional practices are the first line of treatment (Webair and Ghouth 2014: 582).

2.7.5 MEASLES

Measles is a highly communicable disease which is caused by a virus and although it is a vaccine-preventable disease, measles remains a leading cause of deaths among children (Uchendu, Ige and Adeyera 2019: 1744). The WHO has advised that any child presenting with measles should report to a health care facility within 48 hours as part of a surveillance strategy (Uchendu, Ige and Adeyera 2019: 1744). There are serious complications that commonly occur in children under the age of five years such as encephalitis and therefore seeking medical care is important (WHO 2019). Despite the seriousness of the disease, up to 91% of caregivers chose to administer TCAM instead of taking the child to a health care facility in the study conducted by Uchendu, Ige and Adeyera (2019: 1744).

2.7.6 EAR PROBLEMS

Mukara *et al.* (2017) describe ear infections as a common childhood occurrence that may cause an ear discharge. TCAM is used frequently to treat childhood ear infections and ongoing ear infections that are not treated appropriately can predispose a child to complications such as hearing impairment and delay in speech (Mukara *et al.* 2017). Although caregivers administer TCAM to children with ear infections, this treatment modality is not considered as a suitable treatment measure by health care workers since there is limited and confusing scientific evidence available regarding the safety and efficacy of TCAM in such cases (Marom *et al.* 2016: 2695).

2.7.7 SORE THROAT

Anwar *et al.* (2015: 281-295) found in their study that seeking professional help for minor ailments was not a preferred choice for caregivers as they preferred to try and fix the condition on their own first by using TCAM products, but if the condition progressed for a long period of time, they would consider seeking help from a doctor. Interventions to treat a sore throat include to gargle with decoction of cassia legumes in milk, drink ginger juice in honey or gargle with alum water (Anwar *et al.* 2015: 281-295).

2.7.8 MALNUTRITION

According to the WHO (2018), malnutrition in the world is a major problem with 52 million children under the age of five years being wasted, 17 million being severely wasted and 155 million being stunted. Approximately 45% of deaths in this age group are linked to malnutrition. Arafat *et al.* (2018) enquired about the perceptions of caregivers pertaining to acute malnutrition and found that they visited traditional healers ("kabiraj" or "fakir") for TCAM and were advised to do so by neighbours; some also mentioned visiting both conventional and traditional/local medicine practitioners concurrently. Treating a child with TCAM causes a delay in seeking timeous medical care, which can result in deterioration of the child's condition.

2.7.9 HUMAN IMMUNODEFICIENCY VIRUS (HIV)

While patients believe that TCAM can be important to the healing process, some elements could delay, interfere with, or counteract biomedical HIV treatment. Zuma *et al.* (2018: 73) found that people tend to use TCAM for HIV due to family expectations, especially of the elders. Issues of fear, stigma, and discrimination often prevent individuals from testing, and accessing care, with most (70% to 80%) seeking healing from the use of TCAM, however, whether TCAM is an appropriate resource to support the treatment and prevention of HIV in South Africa remains unclear (Zuma *et al.* 2018: 73).

2.7.10 TCAM USE FOR OTHER CHILDHOOD ILLNESSES

According to Diorio *et al.* (2016: 791), TCAM strategies are widely used in paediatric oncology, but can lead to medical, legal, and ethical challenges to health practitioners since such strategies can cause uncertain interactions with conventional medicine, particularly when the use of TCAM is not disclosed, and may delay therapies with proven effectiveness. This may then be associated with increased mortality risk.

2.8 POTENTIAL COMPLICATIONS OF TCAM USE

There is a high prevalence of TCAM being used concurrently with conventional medicine and this poses a great risk for complications that can result from drug–drug

interactions (Duru *et al.* 2016: 9). Marais, Steenkamp and Du Plooy (2015: 8) state that the concurrent use of TCAM and conventional medicine is prevalent and should be averted to prevent adverse interactions and even death. Despite the frequent use and popularity of TCAM, the potential benefits and risks of the use are not always clearly defined. Beringer *et al.* (2015: 23) further assert that use of TCAM is unconventional; some preparations often do not meet the required standards of consistency regarding the composition and biological activity; there is also a lack of reporting of adverse reactions and drug interactions due to a lack of professional monitoring; and specific information on organ toxicity is not easily available. Many TCAM products and practices are not tested for safety, quality or effectiveness when used in children, and many patients believe that TCAM are safe since it is 'natural' so therefore often do not link side effects or adverse reactions to TCAM (Beringer *et al.* 2105: 23). Caregivers tend to prefer the use of conventional medicine combined with TCAM and have a higher preference for TCAM (Webair and Gouth 2014: 581). There are concerns about these plural medical systems that are composed of both TCAM and conventional medicine since some systems are found to cause tensions between the two different traditions of medical practices and subsequently adverse healthcare outcomes (Shim 2018: 402).

Liver injury associated with the consumption of herbal medicines is referred to as 'herb-induced liver injury' (HILI), (Amadi and Orisakwe 2018). TCAM has been implicated in herb-induced liver injury (HILI) in sub-Saharan Africa, however, little data exists on the hepatotoxicity of commonly used herbs or the contribution of herbs to the burden of liver disease in sub-Saharan Africa. The incidence of HILI is more difficult to document than drug induced liver injury (DILI), because of the use of a wide variety of non-commercial and non-prescribed TCAM and because of the low frequency with which patients report their use (Amadi and Orisakwe 2018). Patients believe that TCAM products are natural in origin, and hence safe for consumption, however, in contrast to this belief, the literature has proven this to be untrue, with multiple reports of hepatotoxicity (Amadi and Orisakwe 2018). Some TCAM have also been found to contain heavy metals such as lead, mercury, cadmium, or arsenic that are added as adulterants due to the belief they could enhance the efficacy of the products, and of

major concern is that these heavy metals are mostly unlabelled (Frenzel and Teschke 2016: 588).

According to Ghorani-Azam *et al.* (2018) medicinal plants are often being used even in children, but the toxic effect and adverse reactions of these plants are an important and challenging issue in safety monitoring of these products as although most medicinal plants have traditionally been considered safe, medical data has demonstrated that continuous use of these plants may be associated with respiratory insult, chronic liver injury, and in some cases liver failure. Medicinal plants and herbal remedies such as *Thespesia acutiloba* and *Bersama abyssinica* are currently used in South Africa for the treatment of various diseases, especially to combat paediatric infections. Toxicological studies have shown that most of these plant extracts have strong cytotoxicity and therefore cannot be considered as appropriate paediatric remedies (Ghorani-Azam *et al.* 2018).

A study conducted in New Delhi, India, by Mehta *et al*. (2021: 29) found that the TCAM known as ayurvedic has been widely used in India for centuries with most of these herbal preparations being a mixture of different components produced in a crude unregulated method. Ayurvedic and herbal medicine induced liver injury is rarely reported in children even though the injury can range from mild asymptomatic elevation of liver enzymes to severe presentation with acute liver failure leading to death (Mehta *et al.* 2021: 29).

Findings of a study by Ghorani-Azam *et al*. (2018) showed that intoxication with wild berries (*Vaccinium* species) and elephant ear (*Colocasia* species), deadly nightshade (*Atropa belladonna*), and impila (*Callilepis laureola*) are more prevalent in Africa. Reports show that other practices such as cutaneous application of cade oil (juniper tar) from *Juniperus oxycedrus* as a mildly irritant oil, which is considered as a plant with antiseptic, antimicrobial, and anti-fungal properties, can also cause serious acute poisoning in children with clinical manifestations such as convulsions, acute pulmonary oedema, renal failure, and hepatotoxicity (Ghorani-Azam *et al*. 2018).

2.9 CHILD HEALTH ASSESSMENT IN SOUTH AFRICA

The South African health care system consists of one national, nine provincial and 52 district health structures. Districts are further divided into sub-districts and municipal wards as administrative units (Pandya, Slemming and Saloojee 2018: 177). Within each district, clinics and community health centres (CHCs) are the key delivery points for PHC services, including IMCI. Districts are responsible for operationalising the IMCI strategy (Pandya, Slemming and Saloojee 2018: 177). Child PHC services are primarily delivered by professional nurses who receive in-service training in IMCI, as well as professional nurses who undertake a 1-year post graduate diploma in primary clinical care or child nursing science offered by the South African Nursing Council, which is meant to augment nurses' ability to care for sick children at a PHC level (Pandya, Slemming and Saloojee 2018: 177). Despite the free-of-charge health care for children under the age of five years, health care seeking for a sick child can be a complex process influenced by multiple carers using multiple providers, where a sick child could either be treated at home or be taken to a variety of places including clinics, private doctors, traditional healers, faith healers and hospitals (Haskins *et al.* 2017). Only a few caregivers indicated that they would take their child back to the original health provider if the child remained ill but would instead move from one provider to another until the child's health improved (Haskins *et al*. 2017).

In South Africa, there are few or no policy guidelines or legal frameworks on how traditional medicine can operate and/or co-exist with modern medicine in the health system (Cunnama and Honda 2016: 669). Consequently, there is a wide variation in the provision and types of TCAM and the choice of healthcare providers is left to people who may lack sufficient technical knowledge to make fully informed decisions about appropriate healthcare (Cunnama & Honda 2016: 669). The absence of a framework outlining how traditional and modern practitioners can operate together and safely in the health system, the lack of guidelines for people's healthcare choices, and pluralistic healthcare systems resulting in patients 'hopping' between modern and traditional providers, can all result in delays in treatment. This can also lead to mixed treatment, resulting in inconsistent or incomplete medical care as there have been

reports that some forms of TCAM contain harmful substances which can further complicate disease or injury in children (Cunnama and Honda 2016: 669).

2.10 DISCUSSIONS OF TCAM USE BETWEEN NURSES AND CAREGIVERS

Many patients in Saudi Arabia have used TCAM without consulting their health care professional while 90% of health care professionals did not ask the patients about TCAM use during an assessment (Alghamdi *et al.* 2018: 77). Communication pertaining to TCAM use is imperative in order to support safe therapeutic decisions for patient care and this applies particularly to nurses as they play a pivotal role regarding communication with patients (Hall *et al.* 2018: 281). Although caregivers do not disclose the use of TCAM for their children, Marais, Steenkamp and Du Plooy (2015: 8) believe that health care workers are equally to blame because they do not routinely enquire about it during history taking.

Although traditional medicine appears to be highly accepted in the community studied, it is not seen as acceptable by all modern practitioners and while there is a need to increase the understanding of traditional medicine by modern health care providers, the practice of including some harmful substances in TCAM given to children is a valid concern (Cunnama and Honda 2016: 669). Malaysian studies showed that the nondisclosure rate was as low as 25% and as high as 90.4%, hence, this lack of discussion may indicate a deficiency in patient-conventional healthcare professional relations which could have a negative impact on patient care and outcomes (Kelak, Cheah and Safii 2018).

TCAM is thought by many people to be natural and safe to use, without adverse effects, leading many people to use TCAM in addition to conventional medicine (Kelak, Cheah and Safii 2018). Furthermore, Polat and Gürol (2020) explain that most TCAM have not been subjected to rigorous clinical trials so there is a lack of evidence-based information about the efficacy and safety of TCAM products in children. Despite the high prevalence of TCAM uses, there is a communication problem between TCAM users and healthcare professionals. Healthcare professions should ask about the use of herbal remedies and inform patients about the possible dangers of herbal medicine.

Also, parents should inform their physicians regarding herbal remedy use by their children during conventional treatment (Polat and Gürol 2020).

2.11 REASONS FOR CAREGIVERS' NON-DISCLOSURE OF TCAM USE

According to Foley *et al.* (2019), the concurrent use of TCAM and conventional medicine use occurs frequently and carries potential risks to health. However, TCAM users often do not disclose its use to health care workers. Some of the reasons given by participants for not disclosing the use of TCAM include fear of the health care worker's disapproval, the caregiver not being asked, and the belief that TCAM was safe and would not interfere with conventional treatment. The most commonly cited reason for disclosure was that the provider asked about TCAM use (Foley *et al.* 2019). These findings were also evident in a study conducted by Marais, Steenkamp and Du Plooy (2015: 8), that caregivers are not forthcoming with history pertaining to TCAM use out of concern that health care workers may be negative in their judgement. Many caregivers are also of the belief that health care workers will not take their perceptions seriously enough and therefore do not disclose TCAM use for their children, whereas if health care workers were, very simply, non-judgemental it would foster a trust relationship and promote disclosure (Webair and Gouth 2014: 581). Other reasons for non-disclosure of TCAM use include inconsistent definition of TCAM when asking about it as well as the lack of a standard measure for disclosure (Foley *et al.* 2019).

2.12 CINICAL MANIFESTATIONS OF TCAM TOXICITY

Although TCAM may have potential benefits for the treatment of certain disorders, they can lead to acute toxicity, including central nervous system disorders and hepatotoxicity in young children, therefore, health care workers and caregivers should be aware of these toxic effects. Symptoms include abdominal pain, diarrhoea, vomiting, dermatitis, jaundice, decreased level of consciousness, tachycardia, dry mouth, confusion, incoherent speech, visual disturbances, hearing and visual hallucinations, coma, and death (Ghorani-Azam *et al.* 2018).

A study conducted in China indicated that some Chinese TCAM are known to cause nephrotoxicity (rapid deterioration in kidney function due to toxic effects of chemicals),

which can be overlooked by physicians and patients due to the belief that herbal medications are innocuous (Yang, Oh and Ha 2018: 1607). The kidney manifestations of nephrotoxicity associated with TCAM include acute kidney injury, chronic kidney disease, nephrolithiasis, rhabdomyolysis, Fanconi syndrome, as well as urothelial carcinoma. Several factors may cause nephrotoxicity from TCAM, including the intrinsic toxicity of herbs, incorrect processing or storage, adulteration, contamination by heavy metals, incorrect dosing, and interactions between herbal medicines and medications (Yang, Oh and Ha 2018: 1606). Figure 2.3 illustrates herb-related, treatment and patient factors which may contribute to nephrotoxicity of TCAM (Yang, Oh and Ha 2018: 1606).

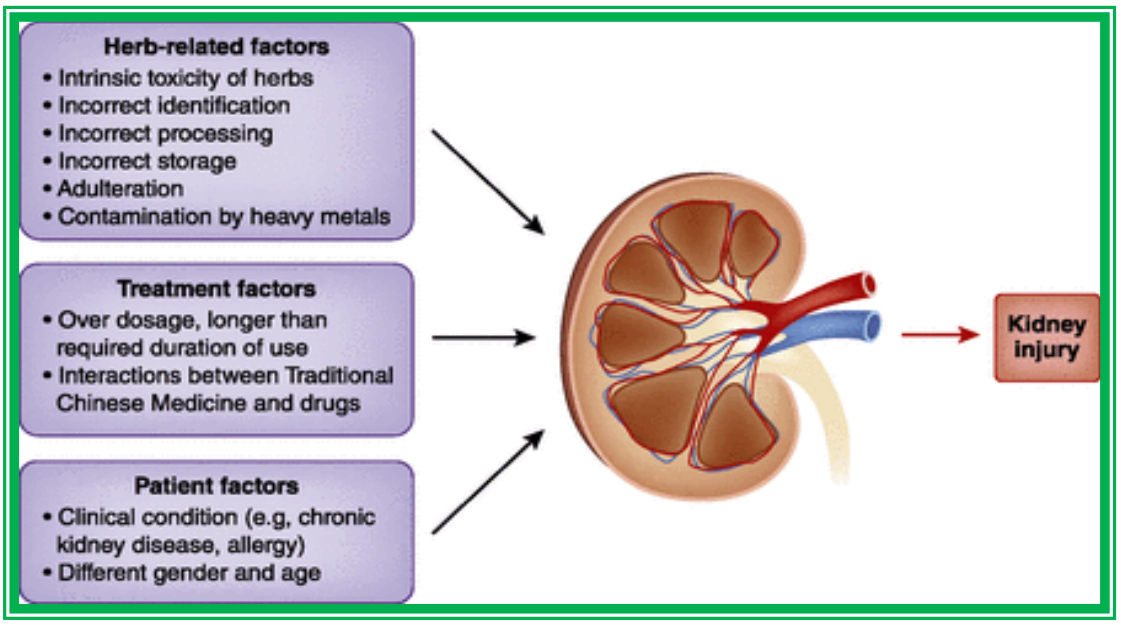


Figure 2.3: Factors influencing the development of kidney disease associated with TCAM use
Source: Yang, Oh and Ha (2018: 1606)

2.13 CHAPTER SUMMARY

Chapter 2 presented the findings of the literature search conducted in relation to the objectives of this study. The literature reviewed highlighted the prevalence of TCAM use for children by caregivers in South Africa and globally to treat childhood illnesses as well as to prevent illness. The literature search also yielded the potential complications that arise from TCAM administration to children. Literature was also

perused on the discussion of TCAM use for children between health care workers and caregivers. Some reasons for non-disclosure were reviewed.

The next chapter describes the theoretical frameworks that were considered for this study and the framework that the researcher chose to guide this study.

CHAPTER 3: THEORETICAL FRAMEWORK

3.1 INTRODUCTION

The previous chapter presented the literature reviewed in relation to the objectives of this study. This chapter forms part of the second phase of the literature review which is related to the concept of a theoretical framework and the impact it has on a research study. The researcher reviewed a few theoretical frameworks and presents the considerations as well as the framework best suited for this study.

3.2 THE ROLE OF A THEORETICAL FRAMEWORK IN RESEARCH

A theoretical framework forms the foundation of a study that allows knowledge to be constructed to support the aim, objectives, significance the literature review as well as the data collection and analysis of data (Grant and Osanloo 2014). A theoretical framework is an abstract, plausible structure of meaning that guides the development of a study and enables the researcher to relate the findings to the body of knowledge in nursing (Gray *et al.* 2017: 138). Theoretical frameworks explain the direction that a study will take and grounds it firmly within theoretical constructs. Adom, Hussein and Joe (2018: 438) further assert that together with stimulating the research to extend knowledge, a theoretical framework also enhances the empiricism and the rigour of a study. Brink, Van der Walt and van Rensburg (2018: 21) explain that a theoretical framework assists with the organisation of a study and provides a context in which problems, data, and analysis can be examined by the researcher. According to Heale and Noble (2019: 36), a theoretical framework informs the problem that the researcher has identified and the purpose and significance of the research, demonstrating how the research fits with what is already known (relationship to existing theory and research). This provides a basis for the research questions, the literature review and the methodology as well as the form of data analysis that the researcher chooses (Heale and Noble 2019: 36).

The researcher recognised that the theoretical framework selected should be suited to guiding the achievement of the aims and objectives of this study. There were numerous theoretical frameworks that could have guided this study, however there

were four that seemed most suitable, namely, the health belief model, Tannahill's model of health promotion, Andersen and Newman's framework of health services utilisation, as well as Donabedian's structure, process, outcome theory.

3.3 THE HEALTH BELIEF MODEL

According to Bishop *et al.* (2015: 3019), the health belief model was designed in the early 1950s by social scientists based at the Public Health Service in the United States with the aim of understanding why people fail to embrace strategies to prevent illness. Bishop *et al.* (2015: 3019) explain that this has evolved to include six constructs:

i. Perceived susceptibility
ii. Perceived severity
iii. Perceived benefits
iv. Perceived barriers
v. Cues to action
vi. Self-efficacy

Additionally, there are three main categories, namely, individual perceptions, modifying factors, and likelihood of action. After considering the health belief model, the researcher found that it does not consider a caregiver's behaviour that will arise from something being socially acceptable.

The health belief model does not suggest a strategy that can change health related actions or behaviours. Therefore, the researcher did not adopt this model as a theoretical framework for this study.

3.4 TANNAHILL'S MODEL OF HEALTH PROMOTION

The researcher also considered but did not adopt Tannahill's model of health promotion. Marotta and Mazzucco (2017: 166) describe this model as the actions taken to enhance positive health and the prevention of illness through overlapping spheres of health education, prevention, and health protection.

The researcher did not select this model since it did not fully include an assessment of the child's condition which would direct the health care worker to the care planning and education for the sick child.

3.5 DONABEDIAN'S STRUCTURE, PROCESS, OUTCOME THEORY

In a health system, the provision of quality care is pivotal. According to the WHO, the Donabedian model is well suited for health care assessments and focuses on improving awareness and satisfaction with outcomes (Sardasht, Jafarnejad and Jahani 2014: 50). Donabedian's definition of quality of care can be viewed as a triad of structure, process, and outcome (SPO) constructs. The relationships between the SPO constructs stems from the idea that good structure should promote good process and good process should in turn promote good outcome, following a unilateral pathway (Ameh *et al*. 2017: 229), as illustrated in Figure 3.1.

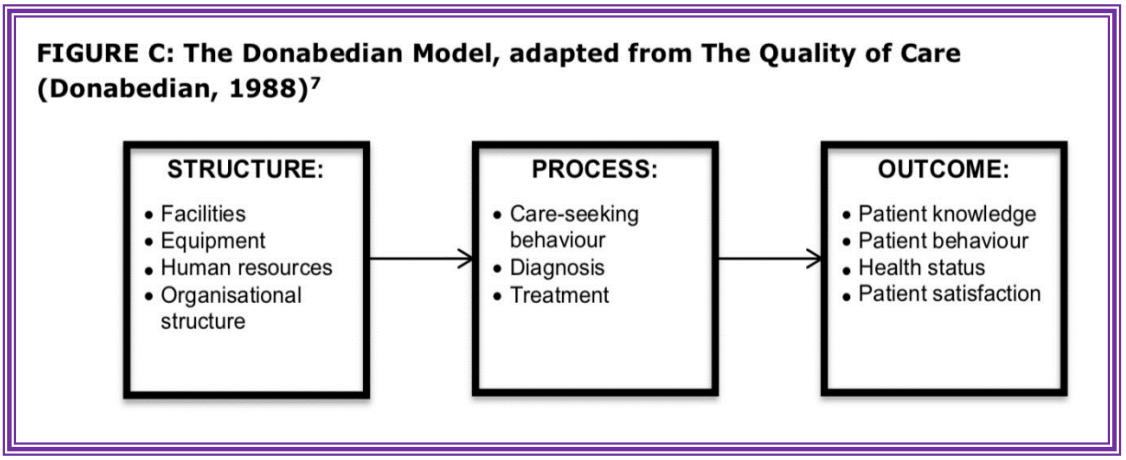


Figure 3.1: Donabedian's structure, process, outcome theory (Ameh et al. 2017: 229)

3.5.1 Structure

Donabedian describes 'structure' as the professional and organisational resources related to the provision of health care (Ameh *et al.* 2017: 229). In addition, according to Voyce *et al.* (2015) this refers to places where health care is rendered and includes the patient as well as the service provider. Structural measures are described as characteristics of the space where care occurs, including architecture and availability

of equipment, and process measures include delivery of care to patients and the workflows encompassed therein (Binder, Torres and Elwell 2021).

3.5.2 Process

'Process', as described by Voyce *et al.* (2015) relates to a group of activities that take place between professionals, and between professionals and patients. These include technical as well as interpersonal aspects. Process also pertains to the things that are done for the patients which aid in identification, prioritisation and addressing of health problems, resources, and outputs (Ameh *et al.* 2017: 229).

3.5.3 Outcome

'Outcome' is the desired result of interventions by the health practitioner and ultimately satisfaction with the care rendered (Ameh *et al.* 2017: 229). An outcome pertains to the results of health care provision and the impact it has on the individual patient, the family, the community as well as the care providers (Ameh *et al.* 2017: 229). There are two types of outcomes in this model:

(i) Technical outcomes which refer to physical and functional areas of care such as the prevention of complications, disability, and death.

(ii) Interpersonal outcomes such as patient satisfaction, as well as the influence of care rendered, on the patient's quality of life (Ameh *et al.* 2017: 229).

3.6 SELECTION OF A THEORETICAL FRAMEWORK

The researcher reviewed the above-mentioned theoretical frameworks and considered that the use of a theory in a study simultaneously conveys the deepest values of the researcher and provides a clearly articulated signpost for how the study will process the new knowledge that is obtained (Collins and Stockton 2018). Collins and Stockton (2018) highlighted the importance of the following three components of a theoretical framework:

1. Existing knowledge and previously formed ideas about complex phenomena,
2. The researcher's epistemological dispositions, and
3. A lens and a methodically analytic approach.

Working through these three components renders theory as an important tool which adds coherence and depth to a study (Collins and Stockton 2018).

After due consideration, the researcher decided that Donabedian's structure, process, and outcome theory would provide a valid structure to this study. The researcher also took cognisance of the fact that this theory had been used previously in South Africa to evaluate the quality of care in integrated chronic disease management, as well as in Sweden for a study regarding quality systems utilising 386 hospitals (Ameh *et al.* 2017: 229). The Donabedian model has been used as a framework for health care quality since 1966. The model describes structure, process, and outcome measures as having synergistic relationships, each important to the evaluation of health care quality.

Figure 3.2 presents the application of Donabedian's structure, process, outcome theory to this study.

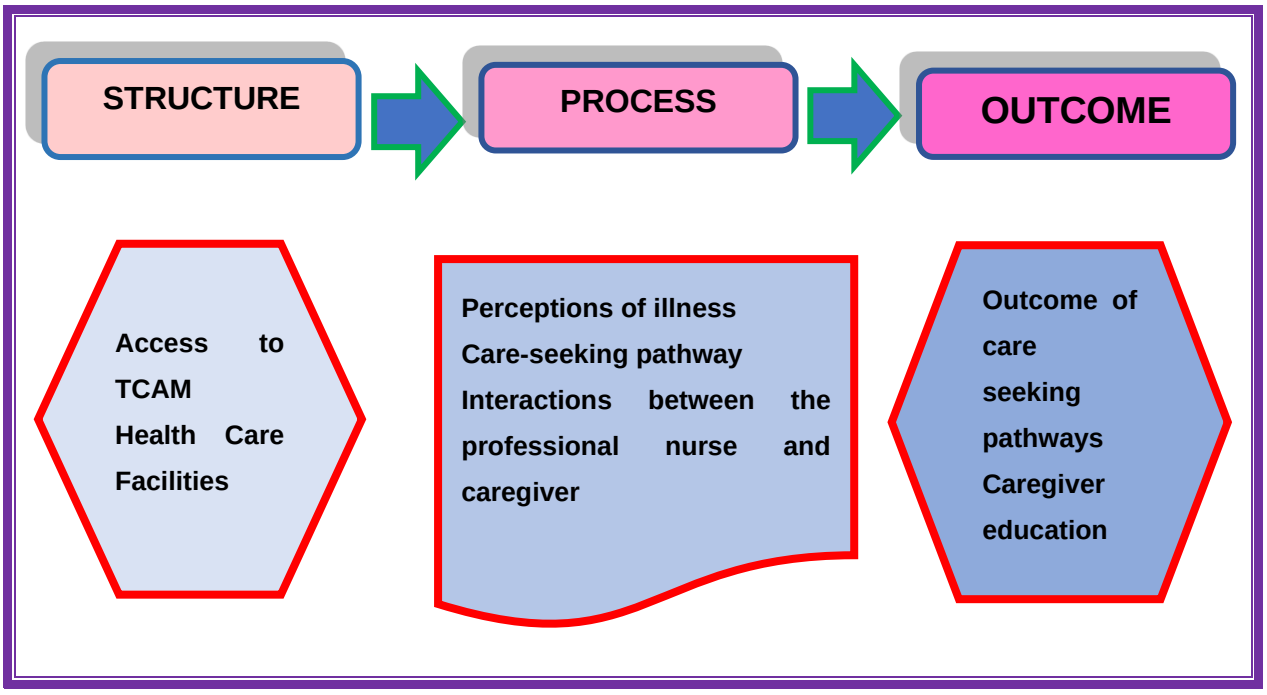


Figure 3.2: Donabedian's structure, process, outcome theory applied to current study

The structure encompasses the access that caregivers have to TCAM, as well as health care facilities. The process includes caregiver's perception of illness, care-

seeking pathways and the interactions that occur between professional nurses and caregivers. Outcome reflects the effects of care-seeking pathways, routine caregiver education and the need for a framework to determine the use of TCAM in children.

3.7 CHAPTER SUMMARY

Chapter 3 discussed the theoretical framework that the researcher used to guide the study. The researcher identified three possible theoretical frameworks – the health belief model, Tannahill's model of health promotion and Donabedian's structure, process, outcome theory. After carefully considering the objectives and aims of the study, the researcher adopted Donabedian's structure, process, outcome theory, and presented the application thereof to this study. The conceptual framework was applied during the discussion of results. In the next chapter, the research design and methodology for this study is presented.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

Chapter 4 presents the research methodology that was used in this study which includes the research design, research setting, sampling process, and data collection process. Ethical considerations specific to this study are also described. The chapter provides insight into the methods of data analysis that were used in this study.

4.2 SELECTION OF A RESEARCH METHOD

In trying to determine a suitable research method, the researcher considered both quantitative and qualitative research methodologies. The quantitative method, according to Creswell and Creswell (2018: 4), can be described as an approach for testing objective theories by examining the relationship that exists between variables, which in turn can be measured so that numerical data can be analysed using statistical procedures. Quantitative researchers determine the data collection and analysis procedures before the study begins, and deviating from those procedures, such as changing the sample or adding a question, becomes a threat to the rigour of the study (Grove, Burns and Gray 2017: 61). In contrast, qualitative research methods allow the researcher flexibility during data collection and analysis (Marshall and Rossman 2016). Qualitative researchers use systematic scholarly processes that require them to think abstractly and conceptually while analysing data provided by participants (Grove, Burns and Gray 2017: 61). Qualitative research is an approach used for exploring and understanding the meaning that either groups or individuals attribute to a social or human problem (Creswell and Creswell 2018: 4). Having considered the objectives of this study, the researcher selected a qualitative research method with the belief that it would provide greater depth in exploring human behaviour and perceptions. In qualitative research the emphasis is on the understanding of human experience from the research participant's viewpoint, by providing an in-depth understanding of the findings, and having the researcher being actively involved in the research process (Brink, Van der Walt and van Rensburg 2016: 121). Qualitative methods are more

flexible than quantitative methods to ensure the process of discovery so that, within the story, the participant's voice is heard. Qualitative research can be viewed as an interpretive methodological approach that places value on subjective science (Grove, Burns and Gray 2017: 283).

4.3 RESEARCH DESIGN

A research design is a blueprint for a study that can impact on the desired outcome, and the design type guides the selection of the population, the sampling process, as well as a plan for the collection of data and analysis thereof (Grove, Burns and Gray 2017: 52). Research designs are types of inquiry within a qualitative approach that provides specific direction for procedures in a research study (Creswell and Creswell 2018: 11). A qualitative research design is flexible and capable of adjusting to new data during the process of data collection (Polit and Beck 2017: 741). Traditional qualitative designs are usually rooted in the research traditions of ethnography, grounded theory, and phenomenology, however, at times researchers take an alternative generic approach such as descriptive qualitative studies (Polit and Beck 2017: 462).

For the purpose of the current study, the researcher used a qualitative exploratory descriptive research design which Bradshaw, Atkinson and Doody (2017) describe as an approach that offers the opportunity to obtain rich descriptions about the area of interest from those who have the necessary experience or knowledge.

4.3.1 Exploratory research design

Qualitative exploratory research studies are conducted when not enough is known about a phenomenon. A qualitative research design is used to gain an in-depth understanding of human behaviour, experience, attitudes, intentions and motivations in order to find out more about the way people think and feel (Mbaka and Isiramen 2021: 27). An exploratory design is well suited for this study since the researcher intended on gaining in-depth data from caregivers and professional nurses on the use of TCAM in children.

4.3.2 Descriptive research design

Qualitative descriptive research studies are those that seek to understand a phenomenon, or the perspectives and worldviews, of the people involved (Bradshaw, Atkinson and Doody 2017). A descriptive design is well suited for research questions that intend on unveiling the 'who, 'what', and 'where' of experiences and to gain a deeper understanding from participants about a poorly understood phenomenon (Kim, Sefcik and Bradway 2017). According to Kim, Sefcik and Bradway (2017: 23), qualitative descriptive studies are often used in examining healthcare and nursing related phenomena. There is a clear alignment of qualitative descriptive research with the philosophies that underpin nursing as well as the understanding and support of people, families, and society as it explores their perceptions and promotes person centred care (Bradshaw, Atkinson and Doody 2017). A qualitative descriptive research design was therefore suitable for this study to describe the perceptions of caregivers and child nurse specialists on the use of TCAM for children.

4.4 THE WORLDVIEW

World views can be described as a general philosophical orientation about the world and the nature of research that the researcher adds to a study (Creswell and Creswell 2018: 5). The researcher considered all four world views as described by Creswell and Creswell (2018: 5).

4.4.1 Post positivism

According to Creswell and Creswell (2018: 6), post positivist assumptions are represented by the traditional form of research and is more of relevance to quantitative research than qualitative studies. This worldview may also be called the scientific method (Creswell and Creswell 2018: 6).

4.4.2 Transformative

A transformative worldview, as described by Creswell and Creswell (2018: 6), maintains that research inquiry needs to be intertwined with aspects such as politics

to confront social oppression pertaining to groups and individuals that may be marginalised or disenfranchised within society.

4.4.3 Pragmatism

Instead of focusing on methods, researchers following this worldview emphasise the research problem and questions. Pragmatism can be used for mixed method studies that draw from both quantitative and qualitative studies (Creswell and Creswell 2018: 6).

4.4.4 Constructivism

Constructivism holds that there are many interpretations of reality hence the main goal of qualitative research is to understand how individuals construct their reality in their natural context (Korstjens and Moser 2017: 272). The voices and interpretation of those involved in the study are crucial to understanding the area of interest. Constructivist studies yield in-depth, rich information since the studies are heavily focused on understanding human experiences through careful data collection and analysis that can potentially clarify various dimensions of complex phenomena Korstjens and Moser (2017: 272). Crotty (1998, cited in Creswell and Creswell 2018: 8) discusses constructivism using the assumption that people construct meanings as they engage with the world that they are interpreting, hence qualitative researchers tend to utilise open ended questions to allow participants to share their views.

4.4.5 Selection of world view for current study

The researcher considered the objectives of this study and decided that the constructivist world view would be used to inform the study design. In this study, the researcher sought to establish the meaning of a phenomenon arising from the views of the participants pertaining to TCAM use in children up to the age of five years. Another assumption is that we are all born into a world of meaning bestowed on us by our various cultures, therefore, the qualitative researcher seeks to understand the context of the participants by obtaining data personally (Crotty 1998, cited in Creswell and Creswell 2018: 8). For the purpose of this study, the researcher conducted the

data collection sessions personally as this allowed for the interpretation of data within the context of the participants.

4.5 GEOGRAPHIC AREA WHERE THE STUDY WAS CONDUCTED

This study was conducted in the eThekwini district, which is one of 11 districts of the KZN province in South Africa. This district is a very densely populated metropolitan district which comprises approximately a third of the population in KwaZulu-Natal province. As it is the economic hub of the province, eThekwini district has all the features of an industrialised population with a high disease burden as well as many informal settlements. Health care in eThekwini district comprises private and public facilities. eThekwini district is a metropolitan health district consisting of 103 wards that are urban, rural, and peri-rural in nature. The metropolitan area stretches over 2 297 square kilometres from Umkomaas in the south to Tongaat in the north, moving inland to tribal areas in Ndwedwe and ends at Cato Ridge in the west. Despite being highly urbanised the district has pockets of rural communities that exist on the outskirts of the west, south and north impacting on access to services and equity. eThekwini is densely populated (3 464 205) with the greatest concentrations of the population settling in South region (41%), followed by North region (32%) and West region (27%). There are marginally more females (50.4%) than males (49.6%). The majority are black (71.9%), followed by Indian/ Asian (16.3%) and coloured (2.2%). The economically active group comprises 64% of the total population (eThekwini Municipality 2015: 13). Maternal and child health in the district is a major concern with many of the key indicators showing an increase such as maternal and child mortality rates. Diarrhoea is a cause for concern in the district, however data is inconsistent. The highest number of deaths occurred in the Southwest sub-district. Malnutrition is also a concern among children under 5 years (eThekwini Municipality 2015: 17-18).

The map Figure 4.1 illustrates the geographical location of eThekwini district in South Africa.

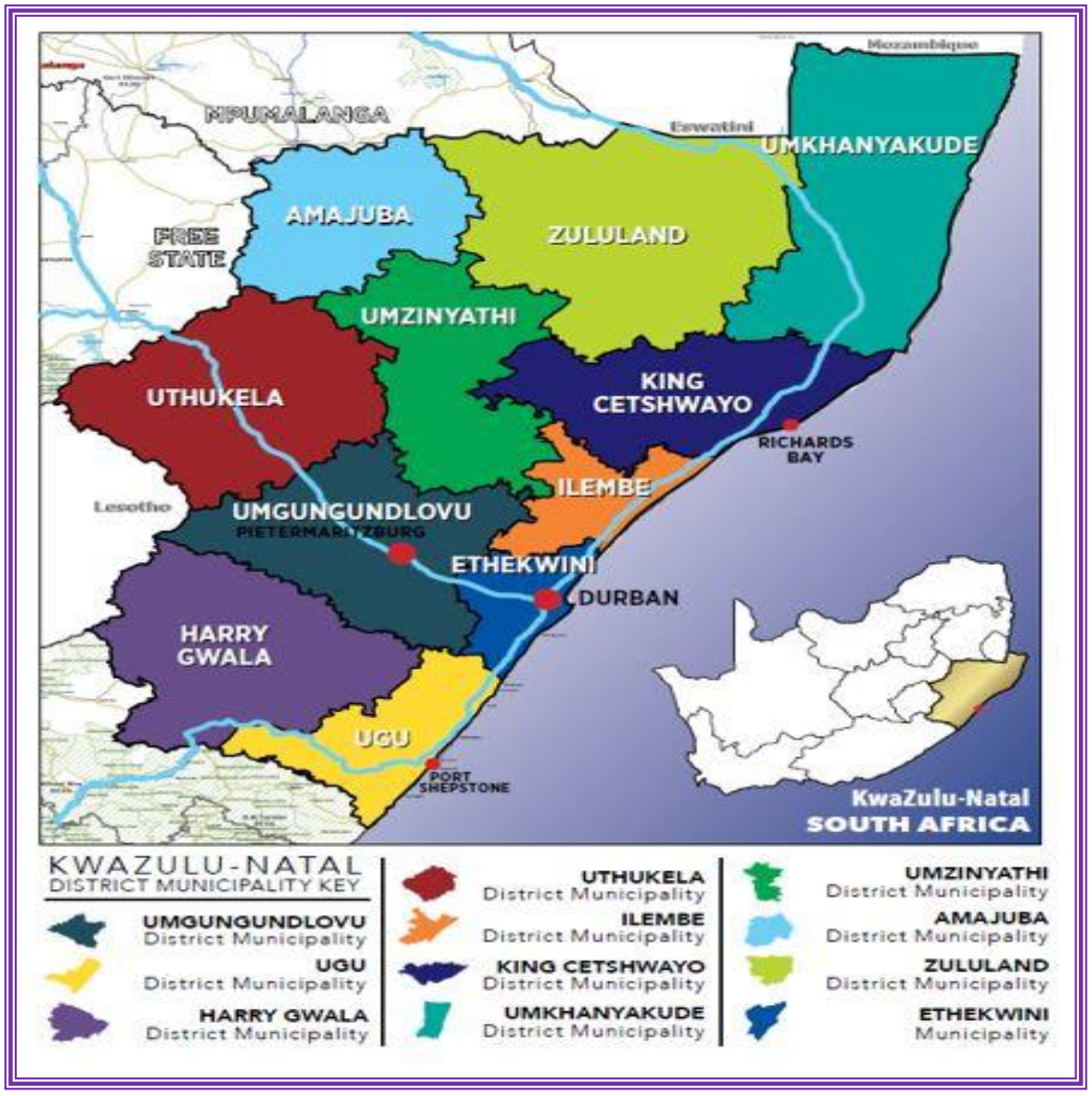


Figure 4.1: Map showing eThekwini district in KwaZulu-Natal province in South Africa
Source: KwaZulu-Natal Top Business (2021)

4.6 RESEARCH SETTING

According to Brink, Van der Walt and Van Rensberg (2016: 59) the study setting refers to a specific location where the data will be collected. There are three common settings where nursing research can be conducted which are natural setting, a partially controlled setting, and a highly controlled setting (Grove, Burns and Gray 2017: 353). For the purpose of this study the researcher used a natural setting since the environment was not changed or manipulated by the researcher. (Korstjens and Moser

2017: 272) explain that qualitative researchers engage in fieldwork in a natural setting since their interest lies in the context of people's perceptions and behaviours. The research setting pertains to the actual location of where the study will be conducted (Grove, Burns and Gray 2017: 353).

While healthcare in eThekwini district comprises private and public sectors, the researcher has selected the public sector to conduct this research. There are approximately 20 privately owned hospitals as well as government owned healthcare facilities which are made up of eight community health centres which provide primary health care, 24-hour maternity services as well as trauma and emergency services, 110 primary health care facilities which provide first level of care that is nurse led as well as basic emergency and chronic care (eThekwini Municipality 2015: 8). The hospitals are two district, four specialised, four regional hospitals, one tertiary hospital and one central hospital (eThekwini Municipality 2015: 8).

A central hospital allows for a national referral system with a highly specialised level of care, offers training to health professionals, and is actively involved in research (National Health Act 61 of 2003: Regulation no. 185: 5). A specialised hospital offers care that is focused on one discipline such as tuberculosis and eye care (National Health Act 61 of 2003: Regulation no. 185: 5). District, regional and tertiary hospitals provide different levels of care and follow specified referrals. Table 4.1 outlines the various services rendered to the public by district, regional and tertiary hospitals as outlined in Regulation number 185 arising from the National Health Act 2003.

Table 4.1: Services provided by district, regional and tertiary hospitals

District Hospital	Regional Hospital	Tertiary Hospital
A district hospital must provide health care services on a 24-hour basis	A regional hospital must provide health care services on a 24-hour basis	A tertiary hospital provides 24-hour care and provides specialist level services provided by regional hospitals
Small district hospitals with no less than 50 beds and no more than 150 beds; medium size district hospitals with more than 150 beds and no more than 300 beds; and large district hospitals with no less than 300 beds and no more than 600 beds.	A regional hospital has between 200 and 800 beds.	A tertiary hospital has between 400 and 800 beds.
May only provide the following specialist services- -paediatric health services. -obstetrics and gynaecology. -internal medicine. -general surgery.	May provide the following specialist services- -paediatric health services. -obstetrics and gynaecology. -internal medicine. -general surgery.	Provides health services in the fields of -internal medicine. -paediatrics. -obstetrics and gynaecology. -general surgery.
Provide services that include in-patient, ambulatory health services as well as emergency	Health services in at least one of the following specialties: -orthopaedic surgery. -psychiatry. -anaesthetics. -diagnostic radiology. -trauma and emergency services. -short term ventilation in a critical care unit.	Provides intensive care services under the supervision of a specialist or specialist intensivist.
Serves a defined population within a health district and supports primary health care	Serves a defined regional drainage population, limited to provincial boundaries, and receives referrals from several district hospitals	Receives referrals from regional hospitals not limited to provincial boundaries
Where practical, provide training for health care service providers.	Where practical, provide training for health care service providers	May provide training for health care service providers
A district hospital receives outreach and support from general specialists based at regional hospitals	A regional hospital receives outreach and support from tertiary hospitals.	A regional hospital receives outreach and support from central hospitals.

Source: South Africa. Department of Health. (2003). National Health Act 61 of 2003: Regulation no. 185: 5

Each health care facility follows a referral system, as depicted in Figure 4.2, designed by the National Department of Health (NDoH), according to the level of service delivery provided.

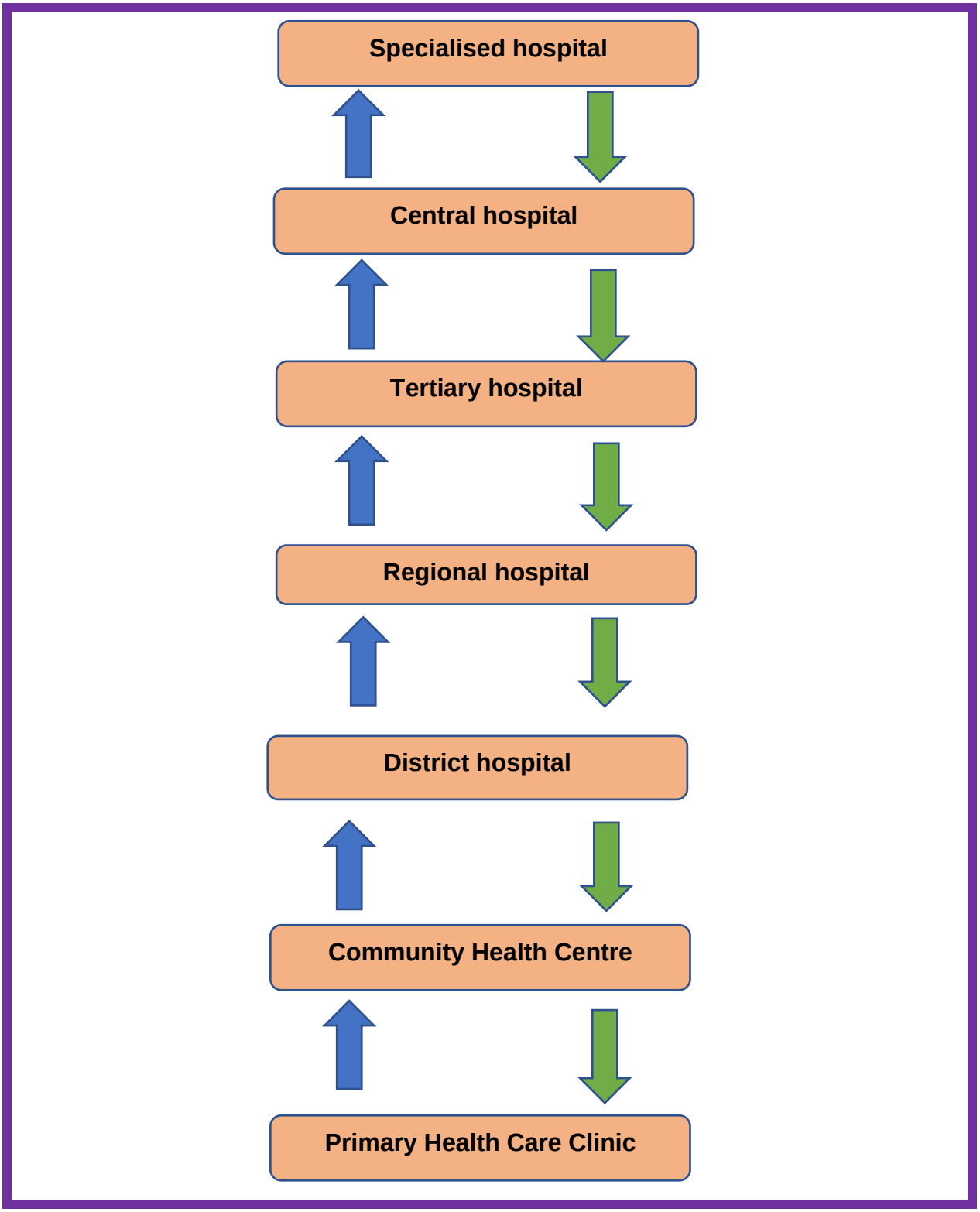


Table 4.2: Referral system according to levels of care (Regulation no. 185: 5)

The researcher considered the various levels of health care in the public sector, as well as the referral system, as illustrated in Figure 4.2, and decided to select regional hospitals and primary health care clinics as the research setting. The researcher, having worked in a regional hospital as a child nurse specialist, found that children with effects after TCAM use are often admitted to paediatric wards in regional hospitals. The severity of the complications lead the children to be referred from the primary health care clinics and CHC to district hospitals that further refer to regional hospitals where the children are treated. Therefore, a portion of the population required for this study was located at regional hospitals. The researcher also selected regional hospitals as the study setting since these have a larger bed state with a greater drainage area, hence it would better represent the population of eThekwini district. The researcher selected two of the four regional hospitals in the eThekwini district. The two regional hospitals combined, serve approximately two thirds of the population of eThekwini district due to the large drainage areas into these hospitals, including urban and rural areas. Combined, the two selected hospitals serve a total of about 2 254 184 of the approximately 3 464 205 people living in eThekwini district (Statistics South Africa 2019). The researcher selected these two regional hospitals in since the people served accounts for more than 50% of the total population, which includes urban and rural areas, within the district.

The first selected regional hospital serves as a referral hospital to one hospital, as well as 38 clinics from surrounding areas. Sick children from the surrounding clinics, who are classified according to IMCI guidelines as “requiring urgent attention and referral to hospital as a result of serious illness”, are referred to the Paediatric Out-Patient Department (POPD). Children who are requiring admission to hospital are then sent to the paediatric ward which is a 50 bedded unit that caters for children up to 12 years of age comprising medical, surgical, and orthopaedic cases. The paediatric ward is staffed by various categories of nurses, including 16 child nurse specialists and six professional nurses. On average, 2 100 children are admitted to the paediatric ward annually.

The second selected regional hospital also serves as a referral hospital to other hospitals, as well as 36 clinics and two district hospitals from surrounding areas. The

paediatric ward contains 40 beds that cater for children up to 12 years of age comprising medical, surgical, and orthopaedic cases. The unit is staffed by various categories of nurses with a child nurse specialist in charge of each shift. There are eight child nurse specialists and five professional nurses in the paediatric ward. The average number of annual admissions is 1 100 children.

The researcher also decided to select two primary health care (PHC) clinics that form part of the referral chain to the selected regional hospitals. Primary health care addresses the health needs of all patients at the community level, integrating care, prevention, promotion as well as education (van Weel and Kidd 2018: E463). Since PHC forms the first level of health care for children, the researcher believed that PHC nurses will make a valuable contribution to the study in terms of initial assessment of a child.

4.7 STUDY POPULATION

The population pertains to a certain group of people or type of element that meets the focus of the study (Grove, Burns and Gray 2017: 53). For the purpose of Phase 1 of this study, the population of interest included caregivers of children who were admitted to the paediatric ward. The researcher recognises caregivers as a constant in a child's life and as such they have considerable experiences in childcare and health. The concept of engaging caregivers in health research aligns with the principles of family centred care and this has gained the attention of researchers and policy makers (Shen *et al*. 2017: 543). Engaging caregivers in research gives recognition to them as experts with unique experiences and knowledge which can increase the quality and relevance to research (Shen *et al*. 2017: 543). Caregivers develop expert knowledge from their experiences pertaining to the health care of their children and this includes medical history, current condition of the child as well as unique responses to care interventions (Rennick *et al.* 2019). Hence the researcher believed that caregivers would contribute greatly to this study with their knowledge, experiences and cultural diversity pertaining to child health care. The researcher also considered the experiences of caregivers at all levels of healthcare and therefore selected the caregivers with children admitted to hospital since they would be able to share their perspectives on TCAM use at all the

levels of care. Some caregivers at clinic level may not have had an in-hospital experience so their perspectives could be limited, whereas the caregivers in hospital would share comprehensive information based on their perspectives on all levels of care.

For the purpose of Phase 2 of this study, the researcher identified professional nurses who were trained as child nurse specialists and professional nurses who were trained in IMCI training and were working in the paediatric wards. According to the South African Nursing Council (SANC), child nurse specialists refer to a professional nurse who has obtained a post graduate diploma qualification in child nursing science. The child nurse specialist is a resource person for students, other categories of health care workers, and the community (SANC 2012). The child nurse specialist is a change agent with advanced knowledge and skills which include IMCI training as well as an evidence-based practice researcher and she/he is the last in the continuum of specialised child nursing (SANC 2012). Professional nurses with IMCI training refer to a nurse who is trained in the capacity of a registered nurse with additional training in IMCI or a registered nurse who has completed a Diploma in Nursing (R425) with IMCI as part of the basic curriculum. The researcher has, in her capacity as a lecturer in nursing, taught both the child nurse specialist programme (R212) and the Diploma in Nursing (R425). The identified population for Phase 2 of the study were fully trained in IMCI with clinical exposure as well as evaluations to deem their competency. PHC nurses refer to professional nurses who have specialised in primary health care as well as training in IMCI and are in the frontline with regards to the assessment of children at clinics.

4.8 RECRUITMENT OF STUDY PARTICIPANTS

Prior to commencement of the recruitment process, the researcher awaited full ethical clearance from the Institutional Research Ethics Committee (IREC) at Durban University of Technology as well as written permission from the Provincial Department of Health Research Unit, District Office, eThekwini Municipality and the Chief Executive Officers of the selected hospitals. Once full permission was obtained, the researcher scheduled an appointment, through the secretary of the respective nursing

service managers, to meet with the nursing service managers and unit managers. The researcher travelled to one healthcare facility at a time on the scheduled day and met with the nursing service manager and unit manager together to outline the purpose of the study as well as the recruitment of participants and data collection process. The researcher also addressed any questions that the nursing service manager and unit manager had with regard to the study. This meeting session also served to confirm the days that the researcher will be present for data collection in the paediatric wards and PHC clinics.

4.8.1 Phase 1: Recruitment of caregivers

The effective recruitment of participants is vital for the success of a study (Grove, Burns and Gray 2017: 549). The respective hospitals were visited by the researcher according to an approved schedule that had been agreed upon during the initial appointment with the nursing service managers and unit managers. The researcher arranged with the unit manager to meet with caregivers in the paediatric ward, where each caregiver that met the inclusion criteria was greeted and addressed individually. A pleasant, positive, and informative approach was used by the researcher to ensure potential participants felt comfortable and valued. The caregivers were admitted to the unit with their child, however in the event where a caregiver was not admitted to the unit, the researcher liaised with the unit manager and caregiver to arrange a suitable time that was convenient to the caregiver or the unit, to meet for the face-to-face interview. The caregivers were addressed in the ward on a one-to-one basis, and the purpose of the study was explained in a manner that the caregiver had a clear understanding. The researcher, being a paediatric nurse and having experience with caregivers, was cognisant of the caregiver having reservations about disclosing TCAM use and therefore approached the subject in a manner that did not intimidate the caregiver. The researcher is a professional nurse who has specialised in Child Nursing Science, worked in paediatric departments for 13 years, and is currently a lecturer in nursing with experience in teaching the child nurse speciality. The experience of the researcher in the field of paediatric nursing as well as being a lecturer has contributed to the all-important interpersonal skills to establish a good rapport, gain trust, and ensure that caregivers feel safe during interviews. Guided by ethics the researcher

emphasised confidentiality to caregivers by explaining that the information they provide would be kept confidential, it would not reach the doctor or any staff member in the unit, and that the reporting of findings was to be done confidentially. The researcher also informed the caregivers that she does not work in the department that they are currently admitted to. The approach was to ask about TCAM use in general according to the caregiver's knowledge of their cultural and social beliefs and practices. The researcher did not directly ask the caregiver about the use of TCAM for their own child, in an attempt to gain information using an approach that would make the caregiver feel safe and allow for information to emerge from the interview. The potential participants were informed that their participation in the study was voluntary, and they could withdraw at any time. The researcher ensured that an information letter was given to each participant, in either English (Annexure I) or isiZulu (Annexure K) according to their preference. The translation of the letter of information and the consent form was to be undertaken by a nurse who has knowledge of research and is fluent in English and Isizulu. Once the participants fully understood the information provided, they were requested to sign an informed consent form in either English (Annexure J) or isiZulu (Annexure L). Once the consent form was signed by the participant, they were interviewed on the same day, individually in a private area as negotiated with operational manager of the unit. In the event of the participant who preferred to speak isiZulu during the recruitment process, the researcher had on standby a translator who is a nurse fluent in English and isiZulu with knowledge of child nursing and research. However, the population were mothers of children up to five years, hence the participants all preferred to speak in English.

4.8.2 Phase 2: Recruitment of professional nurses

According to Grove, Burns and Gray (2017: 263), it is crucial to recruit appropriate participants for a focus group. Selecting participants who have similar characteristics will facilitate an open discussion, and in this study all participants were trained as either child nurse specialists, primary health care, or professional nurses trained in IMCI. The researcher requested permission from the nurse managers and operational manager to address the target population during the morning meeting on a day that was most suitable for the staff. The researcher greeted and thanked all the staff for their valuable

time. The potential participants were informed about the purpose of the study and were given information letter (Annexure H) which explained the details of the study explained. The researcher addressed any questions that the potential participants had and explained that they were free to withdraw at any point in time without any penalties. The researcher highlighted the value of their input towards the study. Once the participants signed the consent form (Annexure J), focus group interviews were conducted consisting of between five to six participants in a separate area as negotiated with the operational manager of the unit.

4.9 SAMPLING AND SAMPLING TECHNIQUE

According to Grove, Burns and Gray (2017: 352) a sample denotes the selected group of people or elements included in a study. In addition, (Korstjens and Moser 2017: 11) explain that sampling refers to a process of selecting and participants who can provide rich data on the phenomenon of interest. The sampling method for this study was based on the non-probability sampling technique with a purposive sampling approach. The main intention of non-probability sampling in qualitative research is to obtain an in-depth understanding of a purposefully selected sample (Grove, Burns and Gray 2017: 352). Purposive sampling can at times also be referred to as judgement or selective sampling and refers to the researcher deliberately selecting only participants who would provide rich information that would greatly contribute to the purpose of the study (Grove, Burns and Gray 2017: 352). Purposive sampling pertains to a researcher purposely deciding to select participants who are judged to be specifically knowledgeable about the issues under study (Moser and Korstjens 2017: 11). Purposive sampling not only selects accessible participants, but it also creates the additional advantage of enabling the researcher to select participants whose qualities or experiences are required for the study (Bradshaw, Atkinson and Doody 2017). The researcher purposively selected caregivers because they would have been involved with childcare, and professional nurses would have been involved in the provision as well as the promotion of child health care at stipulated health care facilities, based on the inclusion criteria outlined.

4.9.1 Inclusion criteria

- **Caregivers**: Caregivers who were 18 years and older, with children admitted to the paediatric ward.
- **Professional Nurses**: Professional nurses who had been working in the paediatric ward or primary health care clinics for at least six months and had completed the post graduate diploma in child nursing science, who had completed the course in IMCI, or who had primary health care training

4.9.2 Exclusion criteria

- **Caregivers:** Who were younger than 18 years and those with a critically ill child.
- **Professional Nurses:** Those who had not been trained in IMCI and those who had worked in the paediatric ward or primary health care clinic for less than six months.

4.10 SAMPLE SIZE

4.10.1 Sample size for caregivers

A guiding principle in qualitative research is to continue with data collection until data saturation has been achieved (Moser and Korstjens 2017: 12). Data saturation is said to be reached once no new analytical information arises anymore and the study yields maximum information on the phenomenon of interest (Moser and Korstjens 2017: 12). Saturation of data, also referred to as informational redundancy, occurs when additional sampling provides no new information, only redundancy of previously collected data (Grove, Burns and Gray 2017: 352). The researcher followed an iterative sampling approach as described by Busetto, Wick and Gumbinger (2020) for face-to-face interviews with caregivers, whereby data collection after every five interviews was followed by data analysis and further followed by more data collection; this process continued until no new information could be obtained and further sampling became redundant hence data saturation was reached. Once data saturation had been reached, the researcher conducted two more interviews to confirm that data saturation had been achieved. The researcher applied this approach to each of the

two regional hospitals. At regional hospital one, a total of ten caregivers were interviewed and at regional hospital two, a total of twelve caregivers were interviewed.

4.10.2 Sample size for professional nurses

According to Hennink, Kaiser and Weber (2019), determining the number of participants in a focus group discussion is important since the sample size influences various study components, however, saturation and therefore sample size cannot be established in advance as it first requires the review of study data collected. For the purpose of this study, the researcher had focus groups consisting of five to six participants for each group, to ensure a good representation and that all COVID 19 protocols were adequately adhered to. The ideal recommendation by Creswell and Creswell (2018: 187) is between six to eight participants. The researcher conducted three focus group discussions in the two selected regional hospitals. One focus group for each of the selected primary health care clinics (PHC) was conducted. Hence a total of five focus group discussions with professional nurses was conducted and each focus group comprised five or six participants. The researcher analysed the data obtained after each focus group discussion session. Data saturation was reached after four focus group discussions, so one additional focus group discussion was conducted to confirm data saturation.

4.11 DATA COLLECTION INSTRUMENTS

4.11.1 Data collection instrument for caregivers (semi-structured interview guide)

The researcher used a self-developed semi structured interview guide (Annexure P) to direct the face-to-face in-depth data collection sessions with caregivers. Face-to-face in-depth interviews are semi structured or organised around a set of open-ended questions (Grove, Burns and Gray 2017: 459). The researcher prepared a written interview guide which included a list of areas to be covered, in relation to the objectives of the study as well as the literature reviewed in Chapter 2, with each participant (Polit and Beck 2017). The schedule guided the interview, and also allowed wording to be modified by the interviewer to best suit the participant (Dejonckheere and Vaughn

2019). The semi-structured interview guide for caregivers consisted of a grand tour question and a few predetermined open ended guided tour questions. Probing was used where necessary, depending on the responses from the caregiver. The schedule guided the interview, and also allowed other relevant themes to develop during the interview. The interview created a flow in the conversation (Evans 2018). Working with an interview guide enabled the researcher to collect specific information from all participants and allowed the participants to be in control of their answers (Moser and Korstjens 2017: 15). The researcher had a language translator available for caregivers who preferred to speak in isiZulu. The translator was a nurse who is fluent in isiZulu and English with knowledge of child nursing and research.

4.11.2 Data collection tool for child nurse specialists and professional nurses trained in IMCI (focus group discussion)

A self-developed semi structured guide was used to facilitate focus group discussions with professional nurses trained in IMCI working in the selected paediatric wards. The semi-structured interview guide (Annexure N) consisted of a grand tour question and a few predetermined open-ended guided tour questions. The researcher used probes dependent on the responses obtained from the participants. The researcher developed this interview guide after considering the study objectives as well as the literature review in Chapter 2. The researcher facilitated the focus group discussion by referring to the interview guide to ensure that the objectives of the study were met.

4.12 PRE-TEST OF THE RESEARCH INSTRUMENTS AND PROCEDURES

The researcher pre-tested the research instruments and procedures prior to commencement of the main study to ensure reliability and validity of the data collection instruments. The pre-test process assisted in identifying any need to refine the data collection instruments and/or the data collection procedures.

The researcher requested five child nurse specialists who were practising for at least five years to check the semi-structured interview guides to be used for the face-to-face interviews with caregivers and the semi-structured interview guide for the focus group discussions for clarity as well as relevance. The feedback indicated that the interview

guide was well structured in relation to the objectives of the study. There were no changes made to the data collection instruments for both the face-to-face interview with caregivers and the focus group discussion with professional nurses.

The pre-test also included the researcher conducting two face-to-face interviews with caregivers in the paediatric ward using the interview guide (Annexures P). The researcher had a discussion with the unit manager of the selected paediatric ward to determine a suitable time and venue to conduct the pilot study. Two caregivers who met the inclusion criteria were recruited. The purpose of the study was explained, and the letter of information (Annexure I) was given to each caregiver. Once they fully understood and agreed to participate in the interview, a consent form was signed (Annexure J). The caregivers were also informed that the researcher needed to record the session for the purpose of accurately capturing their valuable input, to which they were agreeable. The researcher followed the interview guide (Annexure P) to conduct the face-to-face interview with the caregivers, and some probing questions were used to give the caregiver opportunity to provide greater clarity. Field notes were taken by the researcher during the interview. The researcher ensured that all Covid 19 protocols were adhered to, including social distancing, wearing of a mask and hand sanitising. During the interview, the caregivers understood the questions well. They responded well and were comfortable to discuss the use of TCAM for their children. The researcher thanked each participant on completion and offered the participant an opportunity to ask any questions if needed. The interview sessions yielded valuable data; however, this was not included as part of the study findings since it was for the purpose of pre-testing the process and interview guide.

One focus group discussion with professional nurses was conducted by the researcher in a paediatric ward using the semi-structured interview guide (Annexure N). The researcher had a discussion with the unit manager of the selected paediatric ward to determine a suitable time and venue to conduct the pilot study with professional nurses. The researcher recruited professional nurses who met the inclusion criteria, the purpose of the focus group discussion was explained, and letters of information were handed to each participant. Once the nurses agreed to participate in the focus group discussion, a consent form was signed (Annexure H). The researcher ensured

that all Covid 19 protocols were adhered to, including social distancing, wearing of a mask and hand sanitising. The focus group comprised five child nurse specialists. The researcher asked the participants for permission to record the session so that information could be captured accurately, and field notes were taken. The session progressed well, with professional nurses demonstrating a good understanding of the questions and probes, they also presented in depth knowledge on the use of TCAM in children under five years of age and the health implications thereof.

The data obtained during the pre-test was analysed and interpreted, however it was not included into the main study as it is solely to establish the reliability and validity of the data collection instruments and procedure.

4.13 IMPLEMENTATION OF COVID 19 PROTOCOLS

Data collection conducted between 03 February 2023 to 07 March 2023, and during this period the occurrence of COVID 19 was reduced however all protocols for transmission were observed. The researcher ensured that the participant's hands were sanitised prior to being seated. The seating plan ensured that there was at least one-and-a-half-metre distance between each seat. The researcher ensured that each of the individuals present during the data collection sessions had masks that were worn to cover the nose and mouth at all times, for the full duration of the session. When the participant required to drink water during the session, then the mask was to be replaced immediately after consumption. Surfaces were sanitised by the researcher after each interview session and participants hands were sanitised after exchange of documents such as consent forms and the letter of information. The researcher also ensured adequate ventilation by ensuring that windows were open to promote circulation of fresh air. The researcher enquired from the respective nursing service managers about any additional Covid 19 protocols and ensured that these were implemented accordingly.

4.14 DATA COLLECTION

Grove, Burns and Gray (2017: 493) explain that data collection refers to a process of methodical gathering of information that is relevant to the purpose and objectives of a

study. Data collection was done in two phases, the first phase entailed collection of data from caregivers of children up to five years of age using semi-structured face to face interviews and the second phase involved data collection from professional nurses working in the selected paediatric wards and clinics, by means of focus group discussions. Data collection was commenced on 03 February 2023 and concluded on 07 March 2023.

4.14.1 Phase 1: Semi-structured face to face interview

The researcher conducted face to face semi-structured interviews with caregivers, of children up to the age of five years who were admitted to the selected paediatric ward. A face-to-face interview is an individual interview, that is, a conversation between participant and interviewer (Moser and Korstjens 2017: 15). Qualitative data was collected to explore the different practices in the use of TCAM, to understand the caregiver's perceptions of TCAM and conventional medicine, as well as to determine factors that would influence caregiver's disclosure of TCAM used for the sick child. According to Grove, Burns and Gray (2017: 259), most qualitative interviews are semi-structured and organised around a set of open-ended questions. The researcher was open minded about how the participant responded and carefully formulated words for follow up questions and probes in order to allow the emic view of the participant to emerge (Grove, Burns and Gray 2017: 259). The researcher used probing questions which facilitated exploring the answers of the participant to obtain in-depth and rich information (Moser and Korstjens 2017: 15). The individual semi-structured interviews allowed for the caregivers to share their views and experiences without fear of intimidation as a group would. This enabled the caregivers to share information that may be sensitive or even confidential to them during the face-to-face interviews. Once the participant had been screened according to Covid 19 protocols, they were seated. The researcher greeted and welcomed the participant, as well as provided the guidelines for adherence to Covid 19 protocols. The participant was offered water, to ensure their comfort during the interview. The purpose and objectives of the study was explained by the researcher together with a letter of information (Annexure I [English] or Annexure K) [isiZulu]) that was handed to the participant, and the researcher addressed any questions that they had. Once the letter of information was read and

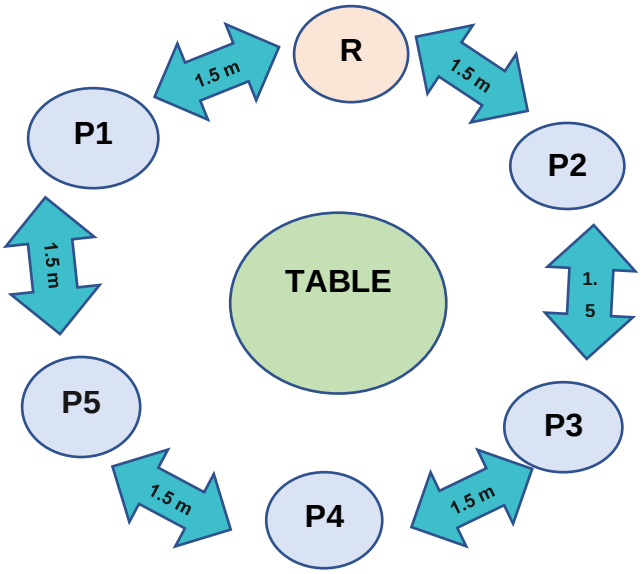
understood, the researcher asked the participant to sign a consent form indicating that they agree to participate in the data collection session and could withdraw at any point during the data collection session. The researcher completed Annexure O, demographic data of the participant, which was kept in an envelope separately to ensure anonymity of the participant. The researcher asked permission from the participant to audio record the interview session to ensure that their valuable input is not missed during analysis of the data. The researcher then commenced the face-to-face interview using the interview guide. The interviews were conducted over approximately 20-25 minutes. This time range allowed the researcher to obtain rich detailed information from the caregivers. The researcher did consider that some participants may prefer to speak in isiZulu and therefore had on standby an interpreter to assist with translation. The translator was a nurse who was fluent in English and isiZulu with knowledge of child nursing and research. On completion of each of the face-to-face interviews, the researcher thanked the participants for their valuable contribution to the study.

4.14.2 Phase 2: Focus group discussions.

According to Grove, Burns and Gray (2017: 364), focus group discussions allow for interactions among a group of people so that they can express their views openly in a non-threatening environment where the setting for focus groups will be a relaxed atmosphere where participants will sit comfortably in a circle and maintain eye contact with one another. Focus groups provide the opportunity to explore topics widely in order to generate more information related to selective objectives (Gundumogula 2020: 301). The group is selected by the researcher purposefully rather than a sample that is statistically representative of a larger population (Nyumba *et al.* 2018). In the selected paediatric ward, the researcher conducted focus group discussions comprising professional nurses trained as child nurse specialists and professional nurses who were trained in IMCI as they are involved with taking history from caregivers pertaining to their children's health and health seeking actions as well as nursing children with various ailments. The researcher believed that professional nurses working in a paediatric unit and who were trained in IMCI would offer rich data based on their specific child health care knowledge as well as their experience. For

the purpose of this study, the researcher conducted focus groups consisting of five or six participants, to ensure a good representation and that all Covid 19 protocols were adequately adhered to. The ideal recommendation by Creswell and Creswell (2018: 187) is between six to eight participants. The venue was determined prior to the focus group sessions, at the selected hospitals, to ensure easy accessibility to the venue by the professional nurses. The researcher made prior arrangements for a suitable venue with the assistance of the respective nurse managers. Once all the participants were screened according to Covid 19 protocols, they were seated as depicted in Figure 4.2. The researcher greeted and welcomed the participants, as well as provided the rules of the focus group discussion including the adherence to Covid 19 protocols. Each participant was given bottled water and a sealed snack to promote their comfort during the focus group discussion session. The purpose and objectives of the study was explained by the researcher together with a letter of information (Annexure H) that was handed to each participant, and they were allowed time to ask the researcher any questions that they may have had. Once the letter of information was read and understood, the researcher then asked each participant to sign a consent form (Annexure J) indicating that they agreed to participate in the data collection session and could withdraw at any point during the data collection session. The researcher asked each participant to complete the demographic data form (Annexure M) which was collected and kept in a separate envelop to ensure participant anonymity. The researcher asked permission from the participants to audio record the focus group discussion to ensure that their valuable input was not missed during analysis of the data. The researcher then commenced the focus group discussion session using the interview guide (Annexure N). The interviews were be recorded with prior permission from participants, and field notes were taken by the researcher. Field notes were written by the researcher during the focus group discussion and included content and aspects of metacommunication. At the end of the focus group discussion session, the researcher thanked all the participants for their valuable contribution to the study.

Figure 4.2 illustrates the seating arrangement during the focus group discussion.



R = researcher, P = participant
Figure 4.2: **Seating arrangement during focus group discussion**

The data collection methods were selected in relation to the study objectives. Table 4.3 shows an outline of the study objectives as well as the data collection methods and approach that the researcher used are depicted.

Table 4.3: Research and data collection methods to achieve study objectives

Step	Objectives	Data Collection Method	Approach
1	1. Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses.	Semi-structured face-to-face interviews with caregivers of children admitted to paediatric ward	Qualitative
	2. Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.		
	3. Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.		
2	4. Explore Professional nurses' perspectives regarding TCAM use for children.	Focus group discussions with professional nurses working in a paediatric ward and primary health care nurses working at clinics.	Qualitative
3	5. Develop a framework to guide Professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district.	Will be based on the findings from the steps above.	

4.15 DATA ANALYSIS

Data analysis pertains to a process whereby information is reduced, organised, and given meaning. The process also involves examining and interpreting information, to gain understanding as well as to develop empirical knowledge (Grove, Burns and Gray 2017: 269). According to Bradshaw Atkinson and Doody (2017), transcribing the interviews and listening to the voices of the participants repeatedly allows the transcriptions to come alive during the data analysis. The researcher ensured that the recorded data was carefully listened to again and again, then transcribed carefully to ensure accuracy in capturing the data. Information written in the form of field notes was also compared to the audio-recorded data to ensure accuracy between the data collected. The transcribed notes were read and re-read until the researcher became immersed in the data. Data was coded and classified into themes and subthemes that emerged from the data collected.

In qualitative research, data analysis can carry on while the writing of the report and data collection is continuing (Creswell and Creswell 2018: 192). The researcher concurrently analysed data from the field notes and audio recordings while continuing with data collection. Data for this study was analysed manually. In line with the content analysis strategy Creswell's (2009) method of data analysis was utilised and required the researcher to follow the following steps:

4.15.1 Organise the data and prepare for analysis

Organizing quality data requires many levels of analysis (Creswell and Creswell 2018: 193). A system was created for the data to be arranged according to the source such as the field notes, or transcribed notes and according to the date and the site collected. The researcher transcribed the audio taped data verbatim in order to capture the participant's actual words. All field notes were typed up.

4.15.2 Develop a general sense

The researcher needs to get a general sense of the data as per Botma *et al.* (2015: 224). This was achieved by the researcher reading through the transcripts repeatedly in order to obtain an idea on the general views of the participants. The field notes were

read together with the transcripts for each face-to-face interview and each focus group discussion to ensure that all relevant information was captured accurately. Notes on the general ideas contained in the data was written in the margin to remind the researcher of the content.

4.15.3 Coding of the data

The 8-step coding procedure as provided by Tesch (1990) and highlighted by Creswell and Creswell (2018: 196) was utilised to guide the formation of codes in the study.

i. The transcriptions were read very carefully, in order to get a sense of the data as a whole, with the researcher writing down ideas as they surfaced.
ii. One interview at a time was reviewed, to get a sense of what the information was about, the thoughts that came up were written down in the margin.
iii. The researcher after going through a few documents in this way compiled a list of all the topics that surfaced, with a clustering of those that were similar. The topics were further categorised into major, unique and leftover topics.
iv. The list was used again to go over the data, and all topics were abbreviated into codes, which were written next to the corresponding section in the text. This technique allowed the researcher to identify any new categories that developed.
v. Topics that were related were grouped together, in order to reduce the list, and the most descriptive word was used to turn the various topics into categories. Lines were drawn between the categories to highlight the interrelationships.
vi. The codes were alphabetised.
vii. The data belonging to each participant category was gathered to perform an initial analysis.
viii. The data was recoded if and when necessary.

4.15.4 Generate a description and themes

The coding process assisted the researcher to create a description of the data collected in terms of the setting, and the themes unveiled (Creswell and Creswell 2018: 194). The themes were further developed into a narrative for discussion of the findings.

4.15.5 Represent the description and themes

Creswell's method of data analysis as described by Botma *et al*. (2015: 224) was utilised to represent the findings consisting of a narrative passage, which included in-depth discussions of the themes together with subthemes portrayed from multiple individuals.

4.15.6 Interpret the data

In the final step of the data analysis the researcher interpreted the meaning of the data by revealing lessons learnt on a personal level as well as in light of the relevant literature (Botma *et al*. 2015: 225).

4.16 DATA STORAGE

The researcher used a voice recorder to record the interviews and focus groups to ensure that information obtained from the participants is conveyed verbatim. Field notes were also taken as part of the data collection process, in order to support the recorded data. The participants were reminded at each session that the interview was to be recorded, and that field notes would be taken. Recorded data was transferred verbatim to a computer which has a password only accessible to the researcher. All written data has been stored in a locked cupboard with only the researcher having access to the contents. Data would be stored safely for a period of five years after which all field notes and written data would be shredded, recorded data would be deleted.

4.17 DEVELOPMENT OF A FRAMEWORK

Health research provides evidence that enhances knowledge, address health problems with the potential to improve health systems by bridging gaps identified (Mwendera et al 2017). The researcher had identified that there is currently no standardised framework to guide professional nurses to enquire about TCAM use formally and routinely in every child attending a health care facility. Hence this vital information is missed, with the potential of the child's condition deteriorating due to prior or concurrent TCAM use. Therefore, the researcher intended to close this gap by

the development of a framework which can be used to explore TCAM use in children. Once data collection and analysis were concluded, the researcher constructively analysed the predetermined themes and subthemes that emerged, as well as the theoretical framework (Donabedian's structure, process outcome theory) to ultimately develop a framework to explore children's TCAM at health care facilities in eThekwini district. The researcher also took into consideration the current assessment strategy used for the assessment of children up to five years of age, IMCI, in order to develop a user-friendly framework that professional nurses could utilise in relation to current practice.

Figure 4.3 illustrates a summary of the research process for this study.

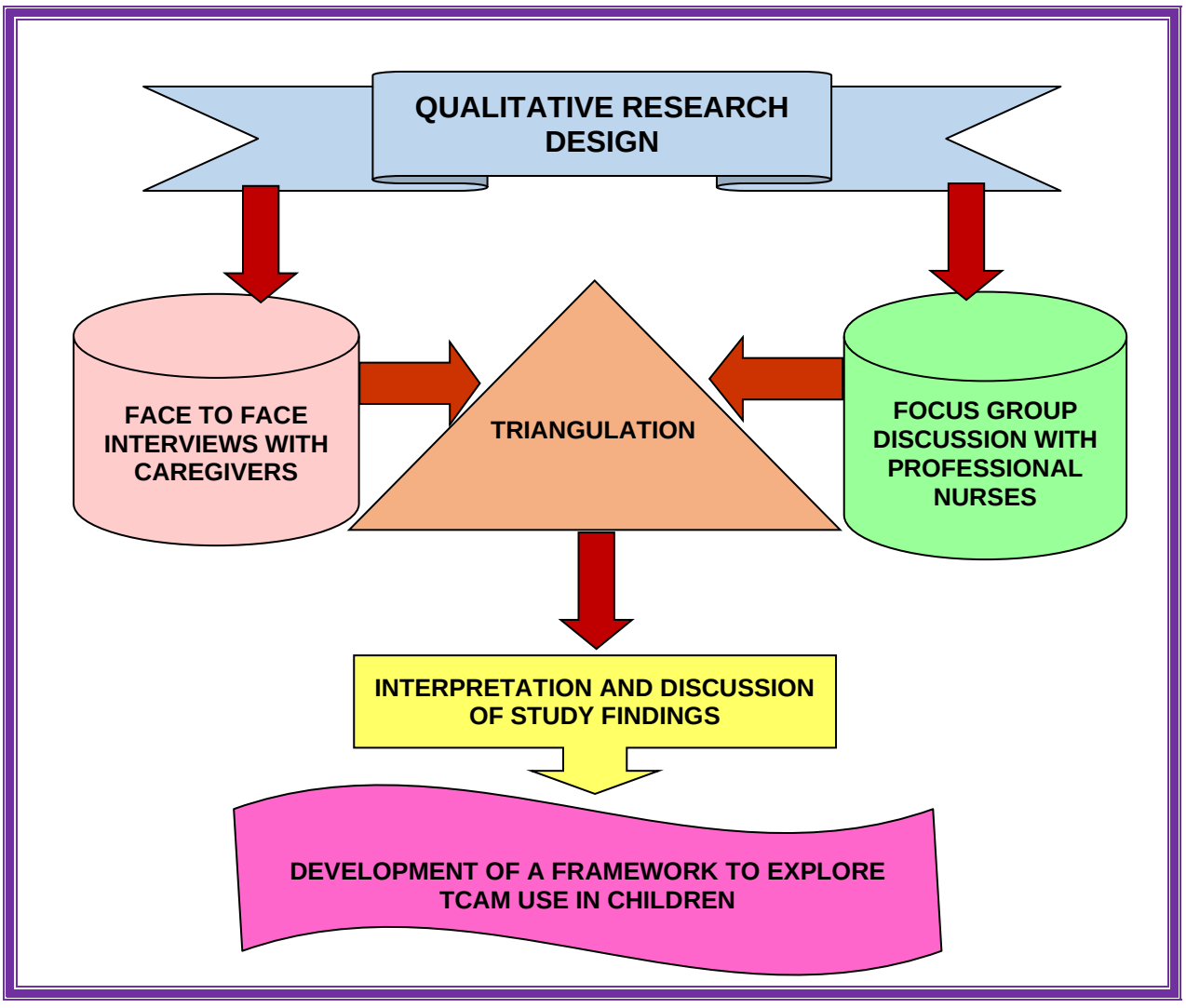


Figure 4.3: Qualitative research process of this study

4.18 RESEARCH RIGOUR

As qualitative research has an element of being potentially subjective, and is open to criticism, it is important that the study should provide evidence of validity and reliability (Polit and Beck 2017: 559). Scientific rigour is of great value since it is aligned with the actual worth of the study outcomes (Grove, Burns and Gray 2017: 42). The researcher ensured procedural rigour through accurate documentation of all processes that was taken to conduct the study. Interpretive rigour was ensured by basing the data analysis on Donabedian's structure, process and outcome theory as this is the theoretical framework that guided this study.

Trustworthiness. Qualitative researchers use the term trustworthiness which very simply asks the question "can the findings be trusted?" (Korstjens and Moser 2018: 121). Lincoln and Guba (1985: 289) recommended four criteria for developing the trustworthiness of a qualitative study namely. credibility, dependability, confirmability and transferability.

Credibility refers to internal validity in quantitative research and places emphasis on the aspects of truth-value (Korstjens and Moser 2018: 121). The researcher used a voice recorder so that data obtained from face-to-face interviews and focus group discussions were accurately recorded to ensure that the direct words and quotations of the participants were used when reporting the data. The researcher also used field notes that were generated on the site to ensure that a true reflection of data is reported. The researcher remained neutral during data collection sessions thereby ensuring that participants were not influenced when responding to questions.

Dependability and confirmability is described by Korstjens and Moser (2018: 121) as aspects that demonstrate consistency. A strategy required to ensure dependability is referred to as an audit trail. The researcher provided a complete set of notes regarding the decisions taken during the research process, reflective thoughts, sampling, as well as information about data handling. The researcher further ensured confirmability by not allowing her personal feelings to create any bias. Data collected has been stored safely under lock and key / password protected, as evidence for a period of five years to ensure an audit trail.

Transferability relates to the areas of applicability, whereby a reader can determine whether the findings of a study can be transferable to their own setting (Korstjens and Moser 2018: 121). The researcher ensured transferability of the findings of the current study by providing “a thick description” in the research report so that anyone can evaluate the applicability of the data from this study to another study setting.

4.19 ETHICAL CONSIDERATIONS

There are numerous ethical principles that a researcher must adhere to prior to and throughout the research process to protect the participant and uphold the integrity of the study (Bradshaw Atkinson and Doody 2017). Nursing research does not only require expertise and diligence in the research process but also requires honesty and integrity, therefore it is imperative to conduct research ethically (Grove, Burns and Gray 2017: 162). Written permission was sought from the following authorities/individuals:

- The Research Ethics Committee of Durban University of Technology (Annexure B), which is a formal committee that will review the proposed research plans. The key areas that govern the decisions made by the ethics committee include minimising risks to participants, ensuring that an informed consent is obtained and documented, and ensuring the privacy and confidentiality of the participant was always be maintained. The researcher awaited ethical approval from the Research Ethics Committee of Durban University of Technology prior to commencing any data collection.
- The provincial (Annexure G1) and district offices (Annexure F1) of KwaZulu-Natal Department of Health.
- eThekwini Municipality (Annexure E1)
- The chief executive officers of the selected hospitals (Annexures C1, D1).
- Participants in the study.

Participation was voluntary and withdrawal at any time was allowed with no penalties. All information was coded and the master list containing the names of participants with codes will be stored for five years then destroyed by shredding. Data pertaining to the study that is stored on electronic devices will be deleted.

The researcher ensured that the ethical principles which guide research were all adhered to during the research process.

Figure 4.4 shows a diagrammatic representation of the ethical principles that were applied to this study.

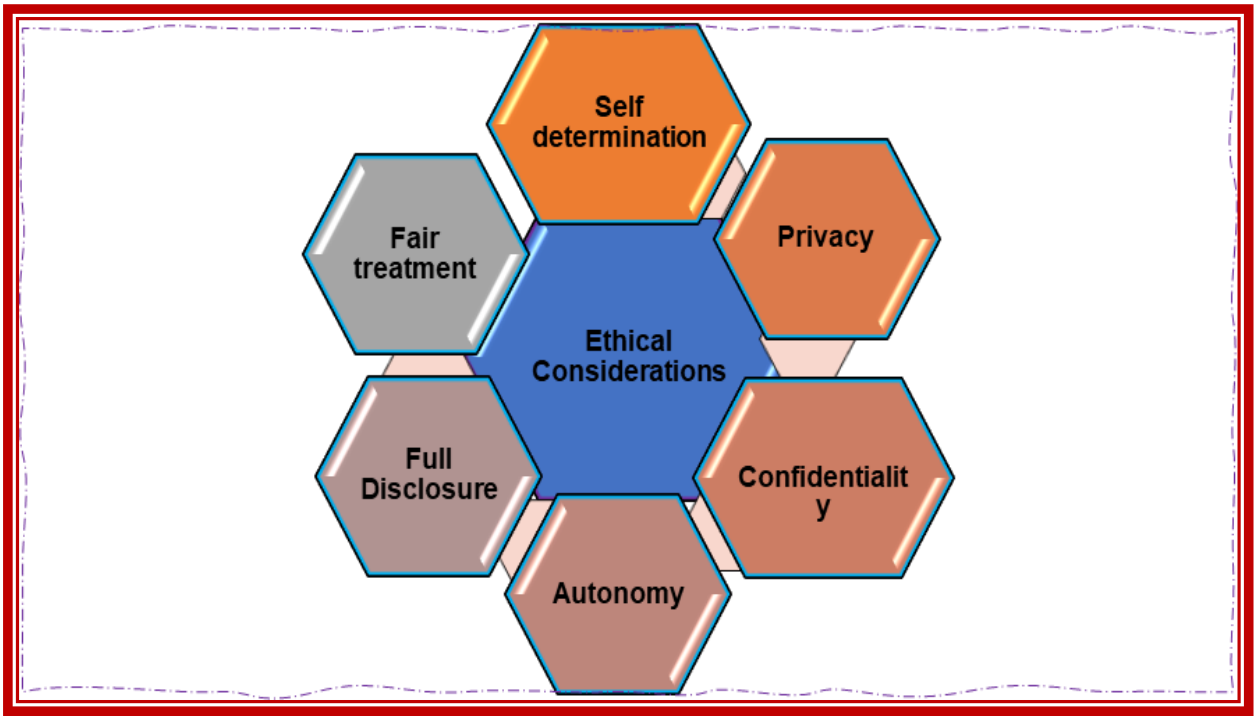


Figure 4.4: Ethical considerations applied to the study

4.19.1 Application of the right to self-determination

Grove, Burns and Gray (2017: 162) explain that the right to self-determination is based on the principle of respect towards people and to allow participants to determine their own contribution to the study. The researcher ensured that participants were fully informed about the nature of this study and allowed them to voluntarily choose whether they would like to participate or not. Participants were also informed that they had the right to withdraw from the study at any point without any penalties.

4.19.2 Application of the right to privacy

Privacy is an individual's right to determine the time, extent, and general circumstances under which personal information is shared with or withheld from others. In addition,

Grove, Burns and Gray (2017: 170) explain that this information consists of one's attitudes, beliefs, behaviours, opinions, and records. The researcher ensured that the participants' right to privacy was maintained. Interviews and focus groups were conducted in a quiet, private area where information shared by participants could not be overheard by others.

4.19.3 The right to confidentiality and anonymity

Qualitative researchers need to pay particular attention to protecting the confidentiality and anonymity of the participants, especially with data collection methods such as face-to-face interviews where the more information the researcher gives when constructing a rich description, the greater the potential to identify the participant (Bradshaw Atkinson and Doody 2017). The researcher ensured that confidentiality and anonymity was maintained throughout the study. No personal details linking the participants to the study was elicited. In keeping with Creswell and Creswell (2018: 95) during interviews and discussions, there was no mention of participant's names; instead, the researcher made use of pseudonyms.

4.19.4 Application of the right to fair treatment

The right to fair treatment is derived from the ethical principle of justice and that all participants should be treated the same (Creswell and Creswell 2018: 89). In the research setting, the participant's right to fair treatment includes the way the researcher selects participants (Grove, Burns and Gray 2017: 177). In this study, the researcher did not consider race, religion, gender, or social standing of the participants, but instead they were purposefully selected according to the potential contribution they would make to the study and that of the inclusion criteria being met. All participants were treated with respect and dignity by the researcher throughout the data collection process.

4.19.5 Application of the right to full disclosure

Creswell and Creswell (2018: 99) explain that full disclosure refers to a person's right to make a fully informed and voluntary decision to participate in a study. In this study the researcher fully described the nature of the study to prospective participants and

allowed them time to decide on whether to participate in the study or not, with no external coercion. Once individuals decided to participate, a letter of information was given to each participant in their preferred language (English or isiZulu) and once it was read and fully understood, fully informed written consent was obtained from the participant prior to collection of data.

4.20 CHAPTER SUMMARY

Chapter 4 described the methodology adopted for this study. Details have been outlined pertaining to the selection of the research design including the context, population, sampling; data collection methods and procedures; data collection tools; data analysis and measures to ensure trustworthiness. participants, the data collection methods, the sampling process as well as the inclusion and exclusion criteria. The research settings were also described. The ethical considerations and application of the various ethical principles that have guided the study have also been described.

The next chapter presents the study findings.

CHAPTER 5: PRESENTATION OF FINDINGS

5.1 INTRODUCTION

In Chapter 4, the research methodology was discussed. The main goal was to describe the processes involved in conceptualising a framework to determine the use of TCAM in children up to five years of age. This chapter presents the findings on analysis of the data collected in relation to the study objectives which were to:

1. Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses.
2. Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.
3. Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.
4. Explore professional nurses' perspectives regarding TCAM use for children.
5. Develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district.

The aim of this research was to explore the use of TCAM in children. The ultimate aim was to develop a framework that would guide professional nurses to conduct a routine guided enquiry during assessments to determine TCAM use in all children up to the age of five years, attending health care facilities. The data that emerged from the interviews and focus group discussions were similar in most instances. There were, however, some differences in data that emerged between the two groups whereby some caregivers did not view TCAM use as first line of treatment as a delay in obtaining conventional health care whereas professional nurses did. In addition, professional nurses thought that it was imperative for caregivers to disclose TCAM use while some caregivers did not think it was necessary for them to disclose this information.

5.2 SAMPLE REALISATION

Data collection was accomplished in two phases during this study. The first phase comprised face-to-face interviews with caregivers at two selected regional hospitals. Twenty two interviews, guided by data saturation, were conducted with caregivers of children up to five years of age. The second phase comprised focus group discussions with professional nurses at two selected regional hospitals and two primary health care facilities. Five focus group discussions, guided by data saturation, were conducted. Two focus group discussions were conducted at PHC clinics and three at the regional hospitals.

5.2.1 Phase 1: Face-to-face interviews with caregivers

Twenty-two (n = 22) face-to-face interviews were conducted with caregivers who met the inclusion criteria. At the first regional hospital data saturation was reached after eight interviews. Two additional interviews were conducted to confirm data saturation. At the second regional hospital data saturation was reached after ten interviews. Two additional interviews were conducted to confirm data saturation.

Table 5.1 provides a summary of the number of face-to-face interviews conducted.

Table 5.1: Summary of face-to-face interviews with caregivers

Research setting	Number of interviews		
	To data saturation	To confirm data saturation	Total
Regional Hospital 1 (RH1)	8	2	10
Regional Hospital 2 (RH2)	10	2	12
Total: Two Health Care Facilities	18	4	22

5.2.2 Phase 2: Focus group interviews with professional nurses

The researcher conducted five focus group discussions with professional nurses who met the inclusion criteria. Each group consisted of four to five professional nurses. Data saturation was reached after four focus group discussions. One additional focus group discussion was conducted to confirm data saturation. Table 5.2 provides a summary of the number of focus group discussions conducted.

Table 5.2: Summary of the focus group discussions

Research setting	Number of focus groups conducted	To data saturation	To confirm data saturation	Number of participants
Primary Health Care (PHC1)	1	4	1	5
Primary Health Care (PHC2)	1			5
Regional Hospital 1 (RH1)	1			5
Regional Hospital 2 (RH2)	2			5 and 4
Total: 4	5	4	1	24

5.3 STUDY FINDINGS

5.3.1 Demographic data for caregivers of children

The demographic data for caregivers of children who were admitted to the paediatric wards of two selected regional hospitals in eThekwini district reflected the following:

-Age: Six participants were between the ages of 18 to 25, thirteen were between the ages of 26 to 35 and three were between the ages of 36 to 45.

-Gender: All 22 participants were female.

-Relation to child: All 22 participants were related to the children as the mother.

-Employment: Twelve caregivers were employed while ten were unemployed.

-Religion: Fifteen caregivers were Christian, two were Zion, three Nazareth, one Hindu and one participant did not wish to disclose a religion.

-Race: The majority of the participants were black (17), four were Indian and one was coloured.

Table 5.3 provides a summary of the demographic data of caregivers who participated in the face-to-face interviews.

Table 5.3: Summary of demographic data for caregivers

DEMOGRAPHIC ELEMENTS					
AGE	**18-25: 6**	**26-35: 13**	**36-45: 3**	**45-55: 0**	**> 55: 0**
GENDER	**FEMALE: 22**	**MALE: 0**			
RELATION TO CHILD	**MOTHER: 22**	**FATHER: 0**	**GRANDPARENT: 0**	**AUNT: 0**	**OTHER: 0**
EMPLOYMENT	**YES: 10**	**NO: 12**			
RELIGION	**Christian: 15**	**Zion: 2**	**Nazareth: 3**	**Hindu: 1**	**N/A: 1**
RACE GROUP	**BLACK: 17**	**INDIAN: 4**	**WHITE: 0**	**COLOURED: 1**	

5.3.2 Demographic data for professional nurses

The demographic data for professional nurses at the two selected regional hospitals and the two selected primary health care clinics revealed the following:

-Age: One participant was between the ages of 18 to 25, three were between the ages of 26 to 35, eleven were between the ages of 36 to 45, five were between the ages of 46 to 55 and four were above the age of 55 years.

-Gender: Twenty-three of the participants were female while one was male.

-Clinical experience as a professional nurse: Three had between 1 to 5 years, three had between 6 to 10 years, six had between 11 to 15 years, six had between 16 to 20 years and six had over 20 years.

-Clinical experience within the speciality of either child nursing or primary health care: Five (5) participants had between 1 to 5 years', ten (10) between 6 to 10 years, five (5) between 11 to 15 years, three (3) between 16 to 20 years and 1 with over 20 years.

Table 5.4 provides a summary of the demographic data for professional nurses.

Table 5.4: Summary of demographic data for professional nurses

DEMOGRAPHIC ELEMENTS					
AGE	**18-25: 1**	**26-35: 3**	**36-45: 11**	**46-55: 5**	**> 55: 4**
GENDER	**FEMALE: 23**	**MALE: 1**			
YEARS OF CLINICAL EXPERIENCE	**1-5 YEARS: 3**	**6-10 YEARS: 3**	**11-15 YEARS: 6**	**16-20 YEARS: 6**	**> 20 YEARS: 6**
EXPERIENCE IN PAEDIATRIC WARD/ CLINIC	**1-5 YEARS: 5**	**6-10YEARS: 10**	**11-15 YEARS: 5**	**16-20 YEARS: 3**	**> 20 YEARS: 1**
HIGHEST QUALIFICATION	**DIPLOMA IN NURSING R425: 5**	**DIPLOMA IN CHILD NURSING SCIENCE: 10**	**DIPLOMA IN PRIMARY HEALTH CARE: 7**	**DEGREE IN NURSING: 2**	**IMCI: 24**

5.4 THEMES THAT EMERGED FROM DATA ANALYSIS

Six themes emerged from the analysis of data collected from face-to-face interviews with caregivers and focus group discussions with professional nurses. These themes formed an integral representation of the perceptions of TCAM use for children, both of professional nurses and of caregivers. Figure 5.1 illustrates the themes.

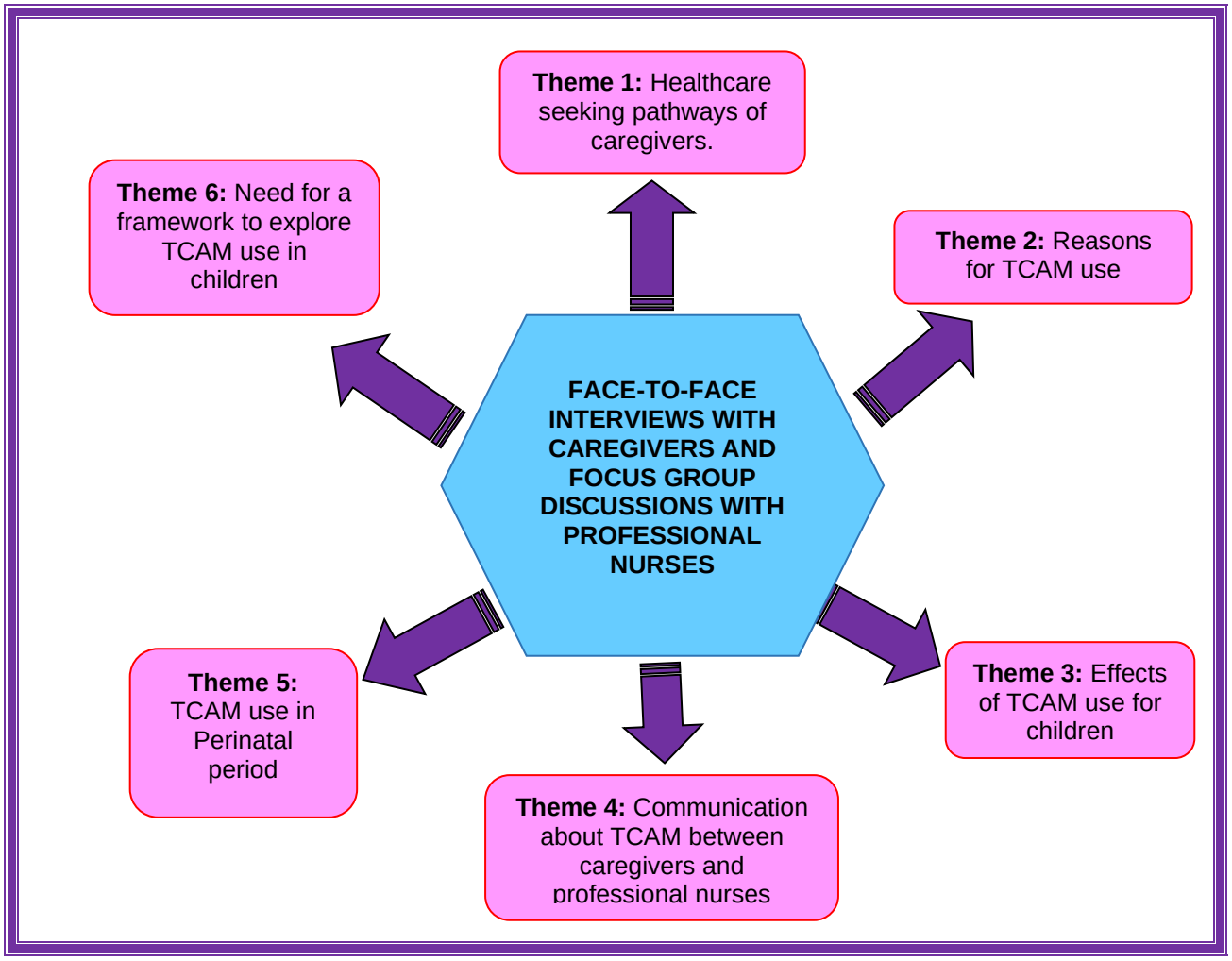


Figure 5.1: Themes that emerged from this study

Several subthemes emerged from face-to-face interviews with caregivers and focus group discussions with professional nurses. These subthemes are presented in Table 5.5.

Table 5.5: Themes and subthemes that emerged

THEMES	SUBTHEMES
Theme 1: Healthcare seeking pathways of caregivers	1.1 Use of TCAM as first line of care seeking behaviour 1.2 Use of TCAM for specific childhood illnesses 1.3 Use of conventional medicine
Theme 2: Reasons for TCAM use	2.1 Accessibility of TCAM 2.2 Respect for elders and tradition 2.3 Perception of illness 2.4 Dissatisfaction with public healthcare 2.5 Use of TCAM if conventional medicine does not help.
Theme 3: Effects of TCAM use for children	3.1 Delay in seeking timeous health care 3.2 Concurrent use of TCAM and conventional medicine for children 3.3 Complications associated with TCAM use (dosing, labelling, route of administration, ingredients of TCAM)
Theme 4: Communication about TCAM between caregivers and professional nurses	4.1 Disclosure of TCAM use to professional nurses 4.2 Reasons for non-disclosure of TCAM use. 4.3 Factors that promote disclosure of TCAM use
Theme 5: TCAM use in perinatal period	5.1 Use of TCAM during pregnancy, labour, and postnatal period.
Theme 6: A framework to explore TCAM use in children	6.1 Need for a framework to guide professional nurses to explore TCAM use in children 6.2 Need for structured, routine health education on TCAM use in children

5.4.1 THEME 1: HEALTHCARE SEEKING PATHWAYS OF CAREGIVERS

Participants' healthcare seeking pathways for their sick children was explored, to identify their preference for care. Healthcare seeking pathways have been described as "any action or inaction undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy" (Latunji and Akinyemi 2018: 52). The participants indicated that, once the caregivers have perceived the cause of illness in their child, they then chose a care pathway based on their perception of the illness. The two approaches to care seeking identified and described in the sub-themes below included:

- The use of TCAM as first line of care seeking behaviour.
- The use of conventional medicine.

5.4.1.1 Subtheme: 1.1 Use of TCAM as first line of care seeking behaviour

Some participants revealed that they would use TCAM as a first line of care seeking pathway as evidenced by the following explanations.

> For like diarrhoea I can use, I mix with the sunlight the enema. I think like IBANDE so it's the traditional medicine they use first. If it does not work, I will come to the hospital. (Participant 1 from RH 1)

> When the child is colicky, I use an enema, there is a root, it's a type of root that we use its called ISHALATI INYOGA, it has a potent smell and it usually helps them, helps calm them down. It's the leaf and the root … it helps. (Participant 2 from RH 1)

> If there is something that makes the baby sick, I will start with the traditional medicine first, if it doesn't work then I will go to the clinic. (Participant 10 from RH 1)

> Sometimes it feels scary when the baby is sicker as I have told you I am starting with traditional. (Participant 10 from RH 1)

While some participants sought care from a traditional source, other participants opted to use home remedies and only if these did not help then they would take the child to a healthcare facility. The following responses describe the use of home remedies by caregivers.

> So basic things I can do at home, I'll try that first, say my child has got a cough, I'll try some honey and hot water, I'll put a little bit of turmeric powder because you know, that helps. If there's any infection or if the child has a cut I know we use that (turmeric) as a cleaning agent as well. So there's certain things that I know doesn't do harm to the child because of the benefits of certain ingredients, I will use it. (Participant 4 from RH 2)

> I always try something at home first. Mixing medications from the doctor or the one I buy from the pharmacy. When she is hot, I will bath her with warm water. If it is getting worse, I will use the medication, then if worse I will take her to the clinic. (Participant 7 from RH 2)

It was evident from the comments by participants that, when caregivers do not achieve the desired results from TCAM use for their children, conventional healthcare is

sought. Occasionally, the professional nurses would identify either by history or by clinical manifestations that TCAM was given to the child before arriving at the health care facility. The commentaries below describe the experiences of professional nurses of children having been given TCAM as first line treatment.

> They give it to them then two to three days later the child rocks up here almost on death bed. There's a huge delay. Because the child is sick, they supposed to take the child to the clinic I guess the clinic is not accessible, so they can't just take the child over, so they try to treat them at home with their medication then when they end up eventually going to the clinic or hospital, it's too late. (FGD1)

> Well first of all is like the number of children, if you look at it I think 5 out of 10 that come in, mostly herbal medication have been administered herbal medication and from the five, I think like 3 out of the 5 you would assume that they not going to make it as in they demise and there's no come back from it. So herbal medicines from the Colgate to the polish to the liquids, the enemas that they push up the rectum or they are giving oral. (FGD 4)

> And also, what we've noticed is because this is the ward receiving these patients. Some of our patients come in very ill, they have already been given a very toxic, potent type of a traditional medicine, some of the time it's herbal enema, oral ingestion but remember by the time, they reach the outreach clinics, then being referred to us, by the time they get to us the U&E (urea and electrolytes), their physical and physiological state is already deranged so it is a great challenge. (FGD 5)

> And another thing I think the child gets severe at home, instead of sending the child to the hospital, maybe the child has GE (gastroenteritis), instead of sending the child to hospital, they start to go do these traditional healers. (FGD 5)

5.4.1.2 Subtheme 1.2: Use of TCAM for specific childhood illnesses

The use of TCAM for specific childhood illnesses was found to be common practice. Participants divulged their use of TCAM to treat childhood illnesses. In the explanations below, participants provided details of various types of TCAM used for gastro-intestinal problems.

> When my child is colicky, I use an enema, there is a root, it's a type of root that we use it's called ISHALATI INYOGA, it has a potent smell and it usually helps them, helps calm the child down. (Participant 2 from RH 2)

> There is something called MCHAGO, it is a mud, hard mud you use that one if your child has got a runny stomach, I put water in a teaspoon then put a piece of the mud. I always try something at home first. (Participant 7 from RH 2)

> For diarrhoea I usually use glucose for the running stomach. For constipation I just put Vaseline on his buttock and I too drink UMHLONYANE because I am breastfeeding. My child had a running stomach, if I was home, I was going to drink UMHLONYANE then breastfeed him same time. In the hospital I don't mix. If I'm home and I know I am not near to go to a hospital. (Participant 10 from RH 2)

Participants disclosed during interviews that caregivers use of TCAM was as first line of treatment for children having colds, flu, and respiratory problems, as depicted in participant comments below.

> For the flu I use sambrani (an aromatic powder which is added to burning coal, creates a lot of smoke) and dress warm. Also, a hot steaming bath and for small babies, on a cold day I give a camphor oil rub. I got a suggestion from my granny to use that on his body if it's cold. If unwell with like measles, we use turmeric rub and syringa berry leaves. (Participant 3 from RH 2)

> If the baby got asthma, there is this traditional medication that I give. It is called INHLABA. The child will drink this, the traditional healer makes it, I don't know what is in it. It helped my sister's baby, when he took INHLABA he vomited, that's when the asthma gets better. (Participant 4 from RH 1)

> When the child's got a fever or coughing there's another muti we will use it's called IBOZA. So, I take a few leaves and crush it and put salt and make the child drink it, but you strain it first. (Participant 7 from RH 2)

The following participant explained the use of TCAM for alterations in the appearance of the child's fontanelles.

> In children when – what do you call this place (points to fontanelle) – fontanelle, yes when the fontanelles go down and eyes are rolling up without shaking, that needs some traditional. That shows there is some bad spirits. (Participant 10 from RH 1)

Childhood illnesses include certain skin infections as well as communicable diseases and some participants divulged that they would use TCAM as first line treatment for skin problems in children. The descriptions below are indicative of TCAM as well as cultural practices used for childhood skin infections.

> I do use the NEEM leaf; it has certain properties that's a cooling agent and as well as the turmeric powder – it does have anti-bacterial properties. You grind them mostly because your skin is so tender at that time. You make it stand with some turmeric and then a little water comes out, use that to dab to soothe the skin. (Participant 3 from RH 2)

> I know that with measles and chicken pox you go into a time of isolation, apply turmeric to the skin, using the syringa berry leaves, sleep in a certain room and take shoes out. (Participant 11 from RH 2)

Professional nurses have, through their experiences, observed the use of TCAM by caregivers for various childhood illnesses. The professional nurses both at PHC and hospitals have identified this, and it is depicted in the descriptions below.

> We had a child that came, parents said child was shaking, they gave him a key to hold and then he was fine, and he had a recurrent seizure, and he became more ill then they decided to bring him. (FGD 2)

> Remember some of them are HIV positive and you giving the herbal meds, so now you have to basically check how you going to treat the patient because they not disclosing, or they are disclosing too late. (FGD 4)

> And another thing I think the child gets severe at home, instead of sending the child to the hospital, maybe the child has GE (gastroenteritis), instead of sending the child to hospital, they start to go do these traditional healers. (FGD 5)

> Bearing in mind, it's not just sangomas as well. You get old Indian people giving the baby a bath with hot water that can scald the child's skin, turning the baby upside down in front of lobhan (a fire is lit, and an incense powder that produces smoke that is

inhaled). There are a lot of things that Indian people do that's quaint as well, so every culture has its own traditional practices like drinking jeera water during labour. (FGD 5)

5.4.1.3 Subtheme 1.3: Use of conventional medicine

Although some participants indicated that they used TCAM for their children, others expressed their belief in conventional medicine and the benefits it has for their children. Some participants preferred to use conventional medicine as first line of treatment for their child as described below.

> Sometimes the child is sick, and I cannot help her but when I came to the hospital, I know she is okay. (Participant 1 from RH 1)

> I think it depends on what type of ailment the child has; with some you can actually come to the clinic because you need western medicine. (Participant 2 from RH 1)

> What I believe is that's why the doctors are here, they are here to help us; they are people who know better about medication so that's why we come for help at the hospitals or the clinics. So, we feel that we will get the kind of help, instead of using home remedies we rather come to somebody that has tested and tried the medicine and it's worked, they see results, that's why I feel comfortable going to the clinic or the hospital. (Participant 3 from RH 1)

> Normally if its diarrhoea I do not take it lightly even fever as well, if I don't have any funds, I make sure I get to the clinic as soon as possible, I will go to the pharmacy and get some medication, to treat fever or diarrhoea. (Participant 3 from RH 1)

For some participants the preference to using conventional medicine arose from the fear and uncertainty they had of the effects of TCAM on their children. The concerns of the participants about the use of TCAM for their children were expressed as follows.

> I don't want to use traditional medicines; they are very dangerous. The traditional healer does not check the baby, they just hear what you say. And the traditional medications are very strong for the babies, at least if the child is 4 years and above you can give. For small babies, you should go to the doctor or clinic or hospital. (Participant 7 from RH 1)

> The way I grew up, we used traditional medicine, the elders will tell, and it does help. Sometimes I'm scared, we don't mix traditional medicine with clinic medicine. I try clinic medicines first. (Participant 8 from RH 1)

> It is not good to use both medicines, it always clashes. I'm not really fond of traditional medicine. Since I'm African, stories get passed down, sometimes the more you pass down a story the more it can get diluted, its remixed. What worked for somebody is not going to work for me. (Participant 9 from RH 1)

> Sometimes it makes the condition worse and then I come to hospital and now the problem is greater than the initial problem... (Participant 9 from RH 1)

5.4.2 THEME 2: REASONS FOR TCAM USE

Participants disclosed the reasons for their use of TCAM for children. As the interviews progressed the following reasons for TCAM use emerged and are described in the subthemes below.

- Accessibility of TCAM.
- Respect for elders and tradition.
- Perception of illness.
- Dissatisfaction with public healthcare.
- Use of TCAM if conventional medicine does not help.

5.4.2.1 Subtheme 2.1: Accessibility of TCAM

Care choices often arise not only from the perception of illness but also from the accessibility of care. Comments from the participants highlighted the use of TCAM related to the easy access and cost effectiveness of it. This was identified in the following statements made by participants.

> Yes its cheaper, people are using traditional and alternate methods because the cost of living is expensive, so you can take leaves off a tree make it into a paste and feed it to your child, than to take your child to a doctor, even here to a government hospital is for free but I have to pay transport fares to take taxis or a bus, it's so much. (Participant 9 from RH 2)

The sentiments of the research participant cited above were echoed by several other participants. This was a significant finding in this study; a finding which highlighted the people's satisfaction regarding the accessibility of TCAM. This was reiterated by another participant who emphatically stated as follows:

> I don't want to mix medications, but I have also done a lot of home remedies. Like I refrain from going to the clinic because it is time consuming as well so whatever I know from our grandparents and parents and stuff, I follow it. (Participant 6 from RH 2)

The use of TCAM for children due to easy access and lower cost implications was also expressed by professional nurses during focus group discussions. The comments below by professional nurses concur with how caregivers feel about the easy accessibility of TCAM when compared with conventional health care.

> Most of the time they are the first contact for the patient so it makes it so hard for some as I've said in the rural area to come straight to hospital because the neighbour is a traditional healer, so he will run to the neighbour who is a traditional healer. (FGD 1)

> Another thing is that most of the patients that we are nursing come from rural backgrounds where the nearest place for them is the traditional healer, so if there is a way of incorporating the two – the medical and the traditional care in a safe way – maybe you wouldn't be getting these kids in the first place. (FGD 1)

> Also, they are going to sangoma which is their rights but most of them are not registered. Most of them going to roadside sangomas. The registered sangoma charge like R300 to R400, while roadside ones you pay like R50 or whatever and you get treatment so that's where the issue is as well. (FGD 1)

> And now they are buying alternative medicine in certain chain stores, because they believe these reputable stores, and give it to their children, this will continue unless we bring out something to say that children under a certain age should not be given traditional and alternative medicine. (FGD 5)

5.4.2.2 Subtheme 2.2: Respect for elders and tradition

Participants reported the concept of respect that younger mothers have for health advice from elders within the family or within the communities, as well as for lifelong

traditions that families have followed through generations. This was established from the following excerpts.

> The way that I grew up, we used traditional medicine, the elders will tell and it helps … Those things we use for bad spirit or health. When the child keeps on crying, you bath the child, he is not hot, then I will take the child to the traditional healer, they will burn something or give me something to rub on my child. (Participant 8 from RH 1)

> This will also be religiously for us as well, so we try both, it's not to say no that's going to harm. We've tried this for generations, and it has helped. (Participant 4 from RH2)

> Traditional medicine has been used for ages, like ages. Like just say our great, great, great grannies and stuff. From that generation it carried on to this generation. (Participant 3 from RH2)

Professional nurses also reiterated that some caregivers cannot, through respect for elders, refuse or question TCAM use for children. It has also been reported that some children are left in the care of elders who administer TCAM without consulting the mother of the child.

> And most of the times the mothers don't have a say in what is given to their children, it's the grannies. And the grannies have this tradition that if the child is sick, you must give the detergent enema or you give toothpaste enemas, and this is what's causing them to become so toxic. And the young parents can't say anything because the grannies – they can't differ to the elders in the communities. (FGD 1)

> Caregivers also fear their elders, so they listen to the elders. (FGD 2)

> … the children are like gasping when they are coming to the clinic, and they'll tell you this is what they used because the granny said go to the traditional healer first then go to the clinic. Caregivers feel the pressure from the elders. That is the risk, coming in too late to even help them sometimes. (FGD 2)

> And it's a bit of an ethical dilemma as well because you also do get doctors and nurses that won't stop doing it as well, we had cases where doctors told us, an old doctor told me that I cannot tell a patient not to give her child herbal treatment because she grew up that way, her granny gave her the herbal enema and nothing happened to her so she will never stop any parent from doing it. (FGD 5)

Participants also reported that the younger mothers were more likely to give TCAM to their child due to respect for the opinion of elders.

> Also, what we find is that most of the time it's the young mothers who come in with babies that have been given herbal but they themselves haven't given it, it's the elders at home most probably the grannies or the aunties that have encouraged them to use herbal medication. (FGD 5)

5.4.2.3 Subtheme 2.3: Perceptions of illness

Participants were asked about the use of TCAM for children, and their responses revealed that the caregiver's choice of care was guided by their understanding of the cause of illness and whether it was for conventional care or TCAM. Some participants perceived illness to be caused by evil spirits hence chose TCAM. If they perceived the cause of illness to be related to medical reasons, they would then seek conventional health care. This is evidenced by the following comments made by participants.

> Clinic medicines are helping a lot but when it's not concerned about the clinic sometimes, we believe in our ancestors, so you can bring the baby in the hospital if they are getting worse. We don't have any options but to do the traditional things. (Participant 1 from RH2)

> Sometimes you just need home remedies, normally depends on what you have … the root it helps, fight or chase away bad spirits if you rub it under their noses and on the temples, it helps. (Participant 2 from RH1)

> … I make it myself. I wash the leaves, keep it wet and put it in plastic and crush them. IBOZA, my child drinks this and MAGUMEDE is an enema that I give my child. There are some things that are for traditional and some that are for clinics and hospitals. (Participant 10 from RH1)

> I would love for some of the medicine from the traditional healer must be mixed with hospital medicine. It will help a lot of children, because some of us mothers we go at night – we do wrong things and those things they affect children. (Participant 10 from RH2)

> Once I go to the traditional healer, he will tell you that the baby maybe ate something wrong or he was affected by evil spirits, or it's just a passing spirit. Because they say

> kids see things we don't see. Then you know if it's not an evil spirit they can mix things in 1 bottle then the time he is drinking he will heal 3 or 4 things one time. (Participant 10 from RH2)

Perceptions of or beliefs in supernatural negativity such as evil spirits, and witchcraft play a significant role in caregivers' care seeking pathways. One participant revealed the use of TCAM while admitted in the ward, in order to protect the child from evil spirits in the ward. This is validated by the following contribution.

> For me I can say traditional medicine some are very good, they are very good. I can use it for like evil spirits or from you see, we are here ne, these children they are sick but not in the same disease so we've got that thing to protect if he can play with everybody, but he is not going to be affected by other disease. Ya, there's something we can give. We call it UMHLONYANE. Once he drinks UMHLONYANE even if the other children got high fever he won't be affected. Even if they are coughing – he won't be affected. So, while he is in the ward he can drink it but once a day. (Participant 10 from RH2)

Some participants perceived that the lack of a diagnosis in the hospital meant that the child had an evil spirit and needed TCAM as conventional medicine was not helping the child.

> My child had a seizure for 1 day. We came to the hospital. It was helping – he didn't have it again and now since we are here it's like he is normal, he's playing. But I will love to go check with the traditional healer – what was the problem for that. You see some babies the stomach will be growing, because of witchcraft. Once you go to the hospital, they will say maybe there's water, they will drain. But every time you keep on coming back, the doctor keeps on draining the water. But once you go to the traditional healer, they can make it stop for good. (Participant 10 from RH2)

> So once I get home, if seizures happen I must go to the traditional and explain that I already took him to the clinic then the traditional healer will say that was wrong of me, because I started at the clinic. So now the healing will take long. And I did the right thing to come to the hospital too. Some of the situations you must start at the traditional healer, and some of the situation at the hospital. (Participant 10 from RH2)

> I don’t think all sickness are for hospital, some are traditional, like bad dreams, like fits can be for both clinic and traditional. (Participant 5 from RH2)

Professional nurses concurred with caregivers that the role of cultural beliefs and perception of illness ultimately guides the care-seeking pathway of caregivers. The excerpts below, that emerged from focus group discussions, provide an explanation of this concept.

> Different cultures use different kinds of alternative medicine. We as health care workers don’t know the right and the wrong of this medicine. But from our experience we find that children are taken to traditional healers. (FGD 1)

> I think it’s true they feel some conditions are not for hospital, because I’ve seen maybe it’s my belief but I’ve seen a child where they had like a very bad impetigo, the skin was like just coming off and then we kept giving creams, the aqueous, we referred to the dermatologist – they were just not getting better, So the mum actually didn’t tell us but they went and did the traditional medicine and the child was fine, the skin was perfect only to find afterwards that she took; she didn’t tell us but she said it’s not the creams, it’s not the antibiotics but when I went to the traditional healer I came back with a child that was better. (FGD 3)

> It all comes down to their cultural belief, but you also have to health educate them if you know your baby is not well you need to seek medical assistance. You can’t just like okay I’m going to go to the sangoma and everything is going to be fine, because the next day they coming here to the clinic. So, you cannot stop them because it’s their belief, but the caregivers have got to watch what to ingest from the traditional healer because you don’t know what they giving. (FGD 4)

5.4.2.4 Subtheme 2.4: Dissatisfaction with public healthcare

Some caregivers expressed their dissatisfaction with services and care rendered at public health facilities which led them to try TCAM for their children first and as a last resort seek conventional health care. This is evidenced by the comments below which indicate the factors related to public health facilities that participants are unhappy with.

> I refrain from going to the clinic because it is time consuming. (Participant 6 from RH 2)

> Government hospitals, I don't mean to be rude but they always busy, the staff say they are short staffed, get to the point, when I try to explain. They shout at us worse than our parents shout at us, so you end up keeping quiet and say I don't know what is wrong with my child when I know exactly, I gave my child traditional medicine. (Participant 9 from RH 1)

> … and conditions, hospital conditions, sometimes the hospitals aren't really the cleanest, there are delayed times, and we get told to wait in the waiting area for many hours before getting help. So, there's a lot that nurses and hospitals can change because that's what pushes mothers to try home remedies and other treatments (Participant 9 from RH 1)

> Because hospitals they also tell us, the beds are full, or we short staffed, or this, or they tell you to turn away. But I mean I started at the traditional healer, because I knew that if I came here, I was probably going to sit on the benches for hours, I was probably going to be told the beds are full. Or we going to be told she is not really that bad, come back next week or if she is worse whereas other hospitals, they take you straight away, so that's my problem with coming to the hospital. So, I am going to try other methods before coming here. (Participant 9 from RH 1)

Participants also reflected on the care they received in health care facilities and revealed that they did not have trust in the medicine being given to them. Some perceived the medicines for health care facilities were being used as an experiment on them or expired with harmful effects.

> Clinic medicine they work fine. Sometimes I have to ask myself why I am getting my baby so early. Maybe it's that medicine I got from the clinic. Every month that they are changing, like each and every time and there's some other pills. Those pills are changing each and every month. Those are the questions I am asking myself. There are some other women who were here when I was ready to birth, they said that ooh you see me, I'm full term now, I didn't use those medicines. I can tell those medicines are so dangerous. Maybe they just testing on us. (Participant 2 from RH 2)

> Sometimes the medicine from the clinic can be expired. Traditional is from nature, it can be easy to use some cultural medicines are good. (Participant 9 from RH 2)

Some professional nurses highlighted that there are aspects of care at health facilities that could result in the dissatisfaction of caregivers who seek care for their children. The commentaries below are indicative of this.

> I also think one of the problems is mothers feel once they come to clinic there's so much of lines, it deters them to come to the clinic that's why the first choice will be to take traditional medicine because it's easily available, easily accessible, compared to coming to us because we have so much of patients that they have to wait. Sometimes they come too late and we're busy and overloaded we don't have a chance to talk. The line itself is a total deterrent for mothers to wait with their child. There are too many patients. Too few nurses. (FGD 2)

> … we've had some children with gastroenteritis, and caregivers say they go back and forth to the clinics and the clinics say no go home, some of them get refused. Some health care workers at the clinics say that the baby is not sick and ask caregivers why are they coming to the clinic? (FGD 4)

5.4.2.5 Subtheme 2.5: Use of TCAM if conventional medicine does not help

Caregivers revealed that in certain instances they first seek conventional health care, but if they are dissatisfied with the outcome of the treatment, they change their care seeking pathway to TCAM. The statements below depict the use of TCAM if conventional medicine does not help.

> If the doctors are failing to treat my child, then I will give the traditional medicine. I will give clinic medicine first. If it doesn't work, then traditional medicine. (Participant 1 from RH2)

> Now I must go to the traditional and explain that I already took him to the clinic then he (traditional healer) will say that was wrong of me, because I started at the clinic. (Participant 10 from RH2)

> … you have to come first to the clinic, after that you can take to the traditional. If the clinic medicine doesn't make my child better then I can try the traditional one. (Participant 12 from RH2)

> Not entirely together but if medical medicine doesn't work then I can try the traditional. (Participant 5 from RH1)

> It is very important. Like you see my child had a seizure and since we came to the hospital, he is fine, he is playing. And if results come clear, the doctor will send me home. The doctors and nurses don't know where I am staying, they don't know the environment where I am staying like how dirty or how evil, you see? (Participant 10 from RH2)

Participants in focus group discussions also expressed their observation with regard to caregivers resorting to TCAM if they were unhappy with conventional health care rendered.

> Then you'll say it's okay, it's fine but knowing that they're going to go back and use because it's like their professional thing. (FGD 3)

> It's just things we've heard from them that when I came to the clinic the first time and then maybe you give something and you tell them if it doesn't get better – come back so I will refer you, but they don't come back. Maybe someday you'll see them, and they will tell you – O! I went to a traditional healer – they said the child has – there's something in Zulu called INYONI – it's like a bird but I don't know what kind of bird, so they say when they went to that traditional healer, everything just came right. (FGD 3)

5.4.3 THEME 3: EFFECTS OF TCAM USE FOR CHILDREN

The researcher explored the care seeking choices that caregivers made, and findings revealed that when TCAM was sought first, it created a delay in seeking conventional health care. The subthemes below further emerged from this theme.

- Delay in seeking timeous health care.
- Concurrent use of TCAM and conventional medicine for children.
- Complications associated with TCAM use (dosing, labelling, route of administration, ingredients of TCAM).

5.4.3.1 Subtheme 3.1: Delay in seeking timeous health care

The use of TCAM as first line of care seeking behaviour, has been shown to have inevitably brought about a significant delay in the caregiver seeking timeous health

care at clinics and hospitals for their children. Below are indications on how long a caregiver could wait before seeking conventional health care.

> If I'm home and I know I am not near to go to a hospital. I can take even 3 months to wait. The thing is that the traditional ones are very fast. (Participant 10 from RH 2)

> If there is something that makes the baby sick, I will start with the traditional medicine first, if it doesn't work then I will go to the clinic. Maybe in a week. (Participant 10 from RH 1)

> I can wait maybe10 days or six days then go to the clinic. Some of the medicines I make it at home. (Participant 2 from RH 2)

> Just like western medication, I will give traditional medicine a week, and see what happens if it doesn't work then take the next step and go to the clinic. (Participant 2 from RH 1)

> If I give traditional medicine and see the baby is fine, I don't go to the clinic. But if the child is not fine them I will go to the clinic maybe after 1 or 2 days. I don't think all sickness are for hospital. (Participant 5 from RH 2)

Professional nurses in focus group discussions explained the impact that delays in seeking conventional health care had on children with special note being made of the poor prognosis and further complications to the child's health. Some participants also expressed that caregivers would not disclose their reasons for delaying in seeking conventional health care timeously.

> And then the caregivers keep the children at home for a long time that's the other issue. They give traditional medication to them then two to three days later the child is brought to hospital, almost on death's bed. There's a huge delay. Because the child is sick, they are supposed to take the child to the clinic. I guess if the clinic is not accessible, the caregiver will try to treat the child at home with their medication then when they end up eventually going to the clinic or hospital, it's too late. Probably for them a last resort is coming to the clinic. (FGD 1)

> The history was not given on admission, because sometimes the parents don't even know that the child was given something. The doctor had to basically pry. Then she

> started giving history on Saturday only when the child started becoming critical. (FGD 1)
>
> Sometimes caregivers come from quite far, a faraway drive from Eastern Cape and things like that and if you look at it, by the time they get here the baby is severely distressed and the gastroenteritis is too severe, so the baby is very dehydrated. (FGD 4)

Some professional nurses expressed that delays in seeking timeous health care were due to TCAM use but further delays in rendering appropriate care was due to caregivers who would not provide information about the use of TCAM. The only indicators would be clinical signs or blood tests.

> … they start to go do these traditional healers and then when they come later maybe they come like 5 days later, the child having this loose stool, it doesn't stop, then it's late, and the child is very sick and when she comes she's going to lie, she's not going to tell the truth about using traditional medicine, until the bloods are taken, they don't tell the truth. (FGD 5)
>
> When there are traditional marks on the child, you know this one is coming from the traditional healer. Other than that, they will delay to tell the truth. But they come very late, shame, they delay. So, one mum told me the child was given herbal medicine, I asked her if she gave the child herbal initially, she said no, and then later she said herbal treatment was given by her mother. But I think they are aware that the doctors and the nurses don't want the kids to be given these things, that is why when they come here, they have to delay to say the truth, they know. (FGD 5)

5.4.3.2 Subtheme 3.2: Concurrent use of TCAM and conventional medicine for children

Health care seeking pathways are influenced by various factors including health views and beliefs of the caregiver. Upon exploring the use of conventional medicine and TCAM for children, it emerged that while some participants opted for either TCAM or conventional medication, there were those who indicated that they would use both treatments together. Some caregivers believed that their children required both TCAM

and conventional medicine at the same time. Commentaries below describe the concurrent use of TCAM with conventional medicine.

> It can work together. I can give both the traditional and hospital medicine together. (Participant 2 from RH 2)

> For now, I'm only using Western medicine. But I think depends on the situation, maybe it is great to use both of the together. (Participant 4 from RH 1)

> Then you know okay, if it's not an evil spirit they can mix things in 1 bottle then the time he is drinking he will heal 3 or 4 things one time. Some of the traditional medicine and children's clinic medicine must be mixed. (Participant 10 from RH 2)

Concurrent use of TCAM and conventional medicine was also observed by professional nurses. They have emphasised their concerns pertaining to the concurrent use of TCAM with conventional medicine in relation to the harmful effects on the child's health.

> There is a risk also they can continue giving herbal medicine while in the ward. During visiting hours, the visitors are bringing herbal medicines. (FGD 1)

> And the other problem is when they come to us, they say they not using it because they know they are not supposed to use it. Yes, they continue, we won't say anything about it – if someone is saying I'm not using it then you just continue yet they are using it. And they are mixing traditional and Western medicine. (FGD 2)

> It's risky because the mum won't know blood levels that are needed, because sometimes they do exceed the limits so it's risk to the babies to give those traditional medicine and mixing with Western medicine. (FGD 4)

Participants in the focus group discussion divulged that some caregivers use TCAM together with treatment for chronic illnesses. They believe that the approach can negatively affect the efficacy of the conventional medicine and result in poor prognosis with a potential for treatment failure.

> The children who are on ART (anti-retroviral therapy), when they are unwell, you'll always hear the history from caregivers of them using the traditional medicine. It's part of when you are doing your counselling session with them. Children are not supposed

to be using any form of traditional medicine, but they still use it, and they will come and tell you that they used it first and it didn't work. (FGD 2)

Regarding chronic medicines, sometimes we have an interaction … because if they have a condition and they are taking our medication and traditional medication there are adverse reactions. If you look at a high viral load, in most cases where you doing history taking and you ask the caregiver, they say 'no I've been to a traditional healer or I can take immune booster by drinking certain solutions', but when results come back, you notice that the viral load is very high even in babies. (FGD 3)

5.4.3.3 Subtheme 3.3: Complications associated with TCAM use (dosing, labelling, route of administration, ingredients)

While some caregivers felt that TCAM was safe to use because it was from natural sources, others expressed concerns pertaining to potential dangers of TCAM. Below are explanations of these concerns that are related to the dose for children, labels on the containers, routes of administration and ingredients used to produce concoctions or mixtures.

Because some of the traditional medicines are so dangerous, the nurses have to flush it in the clinic. (Participant 7 from RH 1)

… sometimes traditional people don't know how to measure their own medicine. As for clinic they give you instructions how to use the medicine, but traditional healers they just give you, they are not even sure. Sometimes it causes problems like the baby becomes sicker. (Participant 8 from RH 1)

No, I don't want to use traditional medicines, they are very dangerous. The traditional healers they don't check the baby, they just hear what you say. And their medications are very strong for the babies. (Participant 7 from RH 1)

And you see us, we don't measure the traditional medicine we just let the children drink. That is the thing we are scared of. (Participant 10 from RH 2)

Participants went on to explain that the source of TCAM and the process of it being formulated was not safe and viewed this as a risk to the health of their children. They expressed concerns pertaining to dosing of TCAM related to children.

> So, I don't like to try something that isn't clinically tested, it's not safe at all. I don't want my child to be a guinea pig because grass is safer to eat than panado. (Participant 9 from RH 1)

> Traditional medicine is not safe because some people they make it, but they don't know how to make it. Some people they buy it from a sangoma and come to sell it to me, but when I ask what is in it, they say they don't know. So, I don't know what is in it. They know how to measure it, but I don't know. (Participant 12 from RH 2)

Participants in focus groups shared similar concerns as caregivers with regard to the quality and ingredients of traditional medications.

> We don't know what the child has been given, what the herbs are, from where it's been mixed, how it's been mixed. Because parents won't ask what ingredients he used. I also don't think they feel they have the right to question – he is in authority – so you are questioning a big man or a big lady – in that area. That person is a respected person to ask all those questions. (FGD 1)

The dangers, complications related to health, as well as poor prognosis, arising from TCAM given to children, was highlighted by professional nurses as they had experienced it in their respective units, both in clinics as well as hospitals. Below are assertions of complications of TCAM use that have been observed and managed by professional nurses.

> A child was transferred to Albert yesterday at 17h30. Two weeks ago, the child was given a detergent enema, the child has now gone into liver failure with ascites so they did an ascitic tap, on a little child, a one year old. The doctor drained out 800mls of fluid. What damage it has done. This was a surgical emergency, and this child presented so late. The child was already here about two or three days they were querying intestinal obstruction. (FGD 1)

> Sometimes there are neurological signs as well like seizures, irritability, respiratory problems, upper GI (gastrointestinal) bleeds, lower GI bleeds, restlessness. (FGD 1)

> Unfortunately, every child that we've seen so far, even with the traditional markings, they turn septic. Especially some come with like cuts around the chest, the abdomen and then we lose some of them. (FGD 1)

> When the children come with herbal intoxication some are very ill and gasping so we have to resuscitate them then report them. The child will be unresponsive even longer, they complicate. (FGD 2)

Discussions during focus group discussions yielded much concern related to the dose of TCAM given to children. Participants also raised issues on the lack of correct labelling, as well as being unaware of the ingredients in the concoctions.

> They use the traditional medicine some of them come in as medical emergencies. And some, they don't even ask how much they should give because there is no measurement like us, they just give. With traditional medicine there are some that you can drink and some you can't, but the bottles are not labelled so they will take the one that you give as enema and give it orally. (FGD 2)

> So now they think it's still effective even now but when it comes to children you have to be actually very specific when it comes to you know like titrating the amount and everything, so that's how maybe they get it wrong. With herbal enemas there is no dose, no strength. It's very difficult what actually happens, you look at this baby, the liver the kidneys – it's still developing so what does that impact on the child – we end up with children having renal failure at a very young age, we have child mortality – that's what I experienced at this facility. (FGD 3)

> Traditional medicine can cause toxicity in the blood stream because there is no standardised measurement given, so if the traditional healer tells the mother to give according to the first joint of the finger you have different sizes of the first joint of the finger, mine is different from hers and yours. That's not a standardised dose so that can be dangerous. (FGD 4)

> The problem is we don't know the content of the traditional medication and so we don't know the reaction of this thing with the Western medicine that the child will be getting, so it's a very problematic topic. (FGD 4)

> Because some of the things might be actually effective but then maybe how they do it – dosages and stuff that's where they get it wrong because at the end it's such young children. (FGD 4)

Participants in the focus group discussions highlighted that from their experiences, the complications that occurred in children after they used TCAM varied from respiratory

distress, gastro-intestinal problems, renal impairment, hepatic impairment as well as neurological complications.

> Like we said, traditional medicine can affect the child's kidneys, they could have respiratory failure, vomiting and diarrhoea. (FGD 3)

> Well first of all is like the number of children, if you look at it I think 5 out of 10 that come in, mostly herbal medication have been administered and from the 5, I think like 3 out of the 5 you would assume that they not going to make it as in the children demise and there's no come back from it. (FGD 4)

> From my experience traditional medicine like herbal enema, the most used medicine from the traditional side, and the outcomes from most of the cases are not good. So, you find out that some of them come with perforated anus, come up toxicity, deranged LFT (liver function test) and some with poisoning. That's what we usually encounter with traditional medication. (FGD 4)

> Mostly respiratory distress or gastroenteritis that affects the gut lining and when you look at it the children end up complicating. They are very lethargic, very weak. It's like they far gone, you know the condition, poor prognosis. So mostly it's gastric complications and respiratory distress. Could be renal sometimes and kidney failure. (FGD 4)

> Lots of renal complications, lots of liver impairments. Seizures sometimes because their sodium levels go sky high, and they go into status epilepticus with a potential for brain damage. Renal and liver impairment is big, it becomes like a lifelong ailment that you have to deal with. (FGD 5)

5.4.4 THEME 4: COMMUNICATION ABOUT TCAM BETWEEN CAREGIVERS AND PROFESSIONAL NURSES

The views of participants were explored to determine how they regarded communication between caregivers and professional nurses about TCAM use in children. The majority of the participants felt that it was important to discuss the use of TCAM for children at health care facilities. The following subthemes emerged.

- Disclosure of TCAM use to professional nurses.
- Reasons for non-disclosure of TCAM use.

- Factors that promote disclosure of TCAM use.

5.4.4.1 Subtheme 4.1: Disclosure of TCAM use to professional nurses

Some caregivers expressed that they were open to discuss TCAM use for their children with professional nurses, despite their fears and concerns related to the responses of nurses. The statements below indicate that some participants are willing to discuss TCAM use at hospital or clinic visits.

> Sometimes the nurse shouts, but it is important for the baby, so I am supposed to tell the nurse what I gave the baby, so that they know. (Participant 1 from RH 1)

> It is important that nurses and mothers talk about traditional medication. (Participant 2 from RH 1)

> I think it's good because when the mother goes to the clinic the nurses first must ask if the child was given traditional medicine, then if the mother says she used traditional medicine, it's going to be clear to the nurse. (Participant 4 from RH 1)

> Ya, I think it's important to talk to nurse so that you can be aware of the traditional medicines. But I don't see it as a bad thing because we have to tell the nurse. (Participant 5 from RH 1)

> I must tell the nurse what I used at home for the baby, they must know. Because some of it are so dangerous, they have to flush it in the clinic. There is nothing we must hide, because maybe it causes a problem to the baby, you must be open to the nurses, even if I did something wrong, I must tell the nurses they know how they can sort it out. (Participant 7 from RH 1)

> I think it's important. I will feel scared, but I will tell them. (Participant 5 from RH 2)

While some caregivers felt that it is important to discuss TCAM use with professional nurses, despite some concerns, others emphatically expressed that they could not disclose TCAM use for their child to professional nurses under any circumstances due to apprehension.

> I would feel unsafe because they will say that you make your child sicker by giving traditional medicine. I won't disclose, I will be too scared. (Participant 3 from RH 2)

> No I don't think I can say anything because you know it's our thing that you keep a secret because the nurse won't allow us to use traditional medicine. (Participant 7 from RH 2)

> I don't think I can tell nurses I gave traditional medicine because the nurses will scold. Sometimes it is grandmothers who give traditional medicine. (Participant 8 from RH 2)

> No, I can't tell about traditional medicine. The nurses they can ask me, why you are using it, but I won't tell. (Participant 9 from RH 2)

> YOH! (Laugh) I don't even start. Because most of the nurses they find a mistake in the baby's body, they will always blame traditional medicine. And you see us, we don't measure the traditional medicine we just let the children drink. That is the thing we are scared of. (Participant 10 from RH 2)

> But once I'm here at the clinic I won't tell you the truth. I will only tell you the right side so you can help my baby. (Participant 10 from RH 2)

While caregivers had a difference in opinion on whether to disclose TCAM use to the professional nurse or not, professional nurses shared their experiences of the challenges of non-disclosure of TCAM use by caregivers as reflected by the excerpts below.

> The other problem is when they come to us, they say they not using traditional medicine because they know they are not supposed to use it. (FGD 2)

> So, we try our level best to educate the mothers, but they still tell 'I didn't give anything' but due to experience that we have, we know the mother gave this baby something traditional to drink or gave an enema. (FGD 3)

> So, caregivers come to us, and they hide information, whereas they know very well that the child was given traditional medicine. The mothers of today are untruthful, they unlike the olden days mother. So herbal medicines from the toothpaste to the polish to the liquids, the enemas that they push up the rectum or they are giving orally. And there's the thing of them failing to disclose early so you can take an initiative to help the child. (FGD 4)

It happens quite often, and we see it all the time, the mothers are not forthcoming when it comes to traditional medicines, they scared to tell us they've given the child something traditional. (FGD 5)

5.4.4.2 Subtheme 4.2: Reasons for non-disclosure of TCAM use to professional nurses

The disclosure of TCAM use or not was dependent on how the caregivers felt nurses would respond to them. The comments below highlight some reasons why caregivers choose not to disclose TCAM use to professional nurses.

Some nurses you get help, some nurses you won't get help. Some are not as patient as others. Some would just tell you yes you can use just to brush you off, as I said we all not the same. (Participant 3 from RH 1)

The nurses will ask many questions like why I gave traditional, and they start shouting and mothers don't like that. I can only tell sister when there is a problem after giving the child traditional medication. And some nurses they got their way of talking to the patient you know. You know like I can see there's a medication that you've given the child, you know when they pull their face. Because now I will be in trouble, now the sister will say okay the child is bad, we can't help you, you've done a big damage, now maybe we can get arrested, so that's why I won't tell. And your results will come back, the blood results, I will still say no, even if the blood results say I gave the child the traditional medication but I will say no. (Participant 7 from RH 2)

The nurses shout a lot, maybe I am not being honest with them because they just shout. (Participant 8 from RH 1)

No nurses always shout at us for trying home remedies before coming to them. Sometimes it makes the condition worse and then I come to hospital and now the problem is greater than the initial problem. (Participant 9 from RH 1)

Sometimes it feels scary when the baby is sicker as I have told you I am starting with traditional, and I'm coming to the clinic and the nurse is asking what you gave the child, and if I'm telling I gave traditional medicine, the nurse will start screaming and shouting. It becomes scary to tell the nurse about traditional. Sometimes I can tell but sometimes I won't. It is important that nurses and mothers talk about it. For the sake of the child the nurse has to know what you have used at home and for the sake of being safe, the

nurse may know how dangerous that medication is and can tell you not to use it again. (Participant 10 from RH 1)

Communication pertaining to TCAM use in children was portrayed to be a great challenge with barriers such as difference in spoken language and fear, as identified during the focus group discussions. Professional nurses acknowledged that caregivers do find it difficult to disclose TCAM use for their children. The comments below describe professional nurses' perspectives regarding the reasons for non-disclosure of TCAM use by caregivers.

> Communication can be a problem because of language barriers, can be difficult to relay a message so mother may not be educated properly. Mothers, even if we are not judging them like if they in the hospital, they try by all means to avoid the topic, they not open. Caregivers feel we are going to judge them. They feel "if I don't tell them they will send me home faster". You notice how a mother who comes in with herbal for some reason she is very defensive from admission like we've already done something wrong to her. They shut off and they know what they did was wrong. They are afraid. They feel you going to phone the police, they feel you're going to do something to them. They also scared to say something because they feel what if the traditional healer does something to them (FGD 1)

> The other challenge we have is that some people that are coming to the clinic are speaking Portuguese, some speak French and Sotho, so a very big problem. Like yesterday I had a mother with her baby, and she couldn't give me any history. I had to find someone to interpret, and the baby had a lot of problems. So that's another big challenge because if the nurse is not getting the correct information then treatment won't be done properly. There's a lot of patients that speak Portuguese. (FGD 2)

> … so when the mother is going to divulge if she has given any traditional medication, if you going to scold that mother and be condemning, she is not going to tell you what you need to know. Cos she is already so scared of you and if you going to rant and rave, she is not going to tell you anything. (FGD 5)

5.4.4.3 Subtheme 4.3: Factors that promote disclosure of TCAM use to professional nurses.

Caregivers rely on effective interpersonal interactions such as effective listening, trust, respect, empathy, compassion, and effective consultation with professional nurses. While caregivers provided reasons for non-disclosure of TCAM use to professional nurses, they were also able to describe factors that would promote disclosure of TCAM use to professional nurses. There is a need to strengthen effective communication and disclosure, that is evidenced by the following contributions.

> I think it depends if they believe in traditional and if the nurse believes in traditional then it's easy to explain. (Participant 1 from RH 1)
>
> And it is also important that nurses educate themselves on how traditional medication works as well. If there was a platform for it that will help. It could help if they ask us or talk about it when we take the child because from my standpoint that when we're educating each other. (Participant 2 from RH 1)
>
> If they are more caring, I will feel like I can go and get help from them, they've dealt with these things. (Participant 3 from RH 1)
>
> The nurse needs to talk gently. She must never say she is going to do anything, just going to help the baby. Because when they take the blood, they are going to see something is wrong. (Participant 4 from RH 1)
>
> Maybe the nurses could just ask, but it is about how they ask. (Participant 5 from RH 1)
>
> Maybe they can try not to shout, then they can get the truth. If they start shouting, I'm never ever going to talk the truth, cos I know they will shout. (Participant 8 from RH 1)
>
> So, what nurses can change is their attitude, and actually come across as wanting to help us, be sensitive to our situation, yes I made a mistake, I tried traditional medicine, can you help me, instead of spending 20 minutes shouting. (Participant 9 from RH 1)
>
> If they are kind and don't shout. Sometimes it's important to talk about it and sometimes it's not cos you don't know what the side effects of the traditional medicine are giving

> to the baby, because you use the traditional medicine, and it affects the baby, so sometimes I can talk about it. (Participant 1 from RH 2)
>
> Yes, they know about our culture. Some nurses believe in cultural things. It depends on who you are speaking to. (Participant 9 from RH 2)

Professional nurses expressed their understanding of caregivers using TCAM and the comments below describe factors that they believe can promote caregiver disclosure of TCAM use for their children through improved approaches in communication.

> Being non-judgemental. If she feels we are attacking her, she will shut off. They also scared to say something because they feel what if the traditional healer does something to them. (FGD 1)
>
> I believe we should use a holistic approach you know be empathetic, try to put ourselves in their shoes because if you look at it some of us are different, the economy, our backgrounds, unemployment. So if we as nurses can try and be empathetic with a holistic approach just down to earth and try in between to create an environment where they're at home when you start speaking to them. I think we can try and buy in, in that way. (FGD 3)
>
> Attitude I guess, sometimes when you talk your approach has to be good and you got to be respecting of the other person, you don't judge the moment you judge the person, you draw up walls. They not going to answer you, whatever you ask them, they just going to close their eyes and just look at you they won't answer you at all until the next friendly person comes along. (FGD 4)
>
> But I think you know in nursing field especially, you have to have that respect and be humble because everybody out there has got issues, everybody has got social issues, everybody has got problems and you don't know what this mother is going through at that precise moment, we could be adding to her burden. (FGD 4)
>
> Just the friendliness, the attitude, because some nurses think we got the power. We do get that they very scared and they coming into an environment that's new, they are bringing in a child that is sick, the mother is worried about her other children alone at home so it's a lot of stress for them so I think even as doctor you can't have them shouting and screaming at mothers. The best thing is that our attitude and approach

has got to be good, establish a good rapport so they can open up to you in order for you to carry out proper management for the child. (FGD 4)

What I've seen that works, is the expression of the interviewer counts a lot, if I interview and taking history from the mother, my expression and demeanor it counts. I don't want to use the word attitude, but the welcoming demeanor that warmth and understanding, the mother will be more willing to open up to you than another person coming across as bossy. I think everything in the initial interview that's where we win or lose the battle. (FGD 4)

Yes, we shouldn't be judgmental because obviously the caregiver is not going to divulge if you going to be condemning and if you going to blame that person, so your manner of approach has to be one that is involving the mother. (FGD 5)

And another aspect of interpersonal skills you need to reinforce is confidentiality, you and the doctor, the multi-disciplinary health team but standing in the corridor and telling the next person that this caregiver has given herbal medication to her child, you are stigmatizing her and you think that mother is going to come back to you the next time? (FGD 5)

5.4.5 THEME 5: TCAM USE IN PERI-NATAL PERIOD

The researcher did not directly enquire about the use of TCAM in pregnancy, labour and the post-natal period, however some participants explained how they used TCAM during their pregnancy, labour and in the post-natal period which ultimately led to its continued use in early childhood.

5.4.5.1 Subtheme 5.1: Use of TCAM during pregnancy, labour, and postnatal period

While exploring the use of TCAM for children, some participants divulged how the use of TCAM began during pregnancy and continued during labour and post-delivery. The following responses highlight the findings.

There's this thing that we use when pregnant the medicine is IMBIZA. We drink it so that when in labour we don't feel so much pain. EHLANGIZWA the traditional healer will make it and it will be in a bottle for Smirnoff. They put it inside and I must drink. If I

> finish that maybe will be for 3 months, then after 3 months I must go collect another one. (Participant 7 from RH 2)
>
> When my child was born, I used sambrani and the leaf bath. The sambrani is a type of stone should I say, crush it fine, you put it on hot coals and smoke comes out of it, and then they take the baby and engulf baby in it. The leaf bath, I'm not sure what leaves, I just know it as bathing leaves, they boil it on the stove, and you use it to give the baby a bath. (Participant 11 from RH 2)

While caregivers related TCAM use in children to pregnancy and puerperium, professional nurses also expressed that there is a dire need to commence health education of caregivers on safe care-seeking pathways and use of TCAM during the antenatal visits to the clinic or hospital. The following excerpts indicate the views of participants.

> Encourage them to get clinic medicine first before you try TCAM. We need to start education in ANC that if your baby gets sick, take first to local clinic, it's free … (FGD 1)
>
> We need to actually start in ANC (ante-natal clinic). We have teenage mothers who listen to their mothers who also listen to their mothers (granny) … (FGD 2)
>
> But also on the green antenatal card, you find that they will say to you their baby died and you'll ask how did your baby die? And they'll say no we don't know because we were somewhere, we don't know what happened. (FGD 2)
>
> But I would think me personally, pre-natal or ante-natal, if we health educate on everything just like how we health educate on immunizations, take your baby when your baby is born, eat healthy things like that. (FGD 4)

5.4.6 THEME 6: NEED FOR A FRAMEWORK TO EXPLORE TCAM USE IN CHILDREN

While exploring the use of TCAM in children, participants invariably expressed the need for improved communication between caregivers and professional nurses, as well as a structured guide to enquiry and health education pertaining to TCAM use. This would create a standard which can be used to enhance communication, promote

disclosure, provide care and education necessary to optimise child health. The following subthemes emerged.

- Need for a framework to guide professional nurses to explore TCAM use in children.
- Need for structured, routine health education on TCAM use in children.

5.4.6.1 Subtheme 6.1: Need for structured, routine health education on TCAM use in children

The value of health education of caregivers by professional nurses to promote child health and wellbeing cannot be over emphasised. Professional nurses accentuated the importance of health educating caregivers, with the aid of a written plan, in respect of TCAM use, to promote child health and survival. Their explanations are presented below.

> If we had written information like health education, it will make it so much easier in clinic like how we do TB screening for every patient. It must be asked at every visit. It should be in a pamphlet form where we can give it to them as education. There is a question in our NCP (Nursing Care Plan) asking “Is there any herbal ingestion – yes or no”. But if you ask her “When last did you give TCAM” it’s better. Because they gave it maybe a month ago or 2 weeks ago but if you ask did you give any herbal medicine, they assume you asking today, so they say no. But if you delve further, they will say I gave it last week. Our language use is very important. (FGD 1)

> If I know a child was give traditional medicine, I would classify it as urgent referral. Nine out of ten times these children are very ill so they would need to be attended to as soon as possible – the sooner the better. (FGD 1)

> The two parts where we can classify a child who was give traditional medicine, under GE (gastro-enteritis) and weight parts, those are the two. Since GE is a common sign of traditional medicine use. Although cough and breathing can be affected. We should refer because we don’t know the complications. (FGD 2)

> But the fact is now you are looking at a patient coming in and how do you not know because clinically you can just look at a patient and assess. So, I think they need to be

highly skilled, knowledgeable about like you know what to pick up the signs and symptoms of what to pick up. (FGD 4)

Because sometimes when the doctors come like they assess patients here, I've had a mother when I assessed her, I asked her questions, and like because we know how to ask the questions and assess. That's another thing to look at because sometimes people do overlook things, yet if you are skilled and experienced, you will ask the relevant questions. (FGD 4)

Professional nurses further described how children with a positive history of TCAM use should be managed at health care facilities, to improve the prognosis of the child and promote their wellbeing. Participants provided information on the prioritisation, and step-by-step guide on how the child with TCAM use should ideally be managed by professional nurses. The excerpts below present the views of professional nurses.

If you are looking at the clinic, I think that child should be fast tracked, to the front of the line, because you don't know, what you may identify as not a dangerous herbal medication like we said we don't know what it is, like how we doing with ETAT (Emergency Triage Assessment and Treatment), we triaging, I think that child should be fast tracked. (FGD 5)

So, the child should be seen by a registered qualified healthcare professional and should be referred to hospital. While they are waiting for the transport, they can start the basic that they can put maybe fluids, observation, monitor the child. And I think the reason for referral would be, remember, when we are saying herbal medication, we don't know about the delayed presentation, a child can appear well and good now and eight hours down the line deteriorate. We shouldn't take a chance, because we don't know what the child has been given and how much, the side effects and things. (FGD 5)

If you know for a fact the child is presenting with signs of herbal intoxication, you need to probe, you not alone as a professional nurse, the doctor who is clerking the patient and as care continues, we need to continuously probe, then only the mother is going to divulge whether she has given something. If she does disclose, you have to definitely divulge it to the doctor, because the child can be stable, but you can start medical treatment, doctor can pull bloods and send it to laboratory, and then you can ask the

> mum does she know what type of herbal medication was given, how much was given? By whom it was given, and she can also bring it in to us. (FGD 5)

5.4.6.2 Subtheme 6.2: Need for a framework to explore TCAM use in children

It was encouraging to acknowledge that caregivers felt that there was a need to bridge the gap between themselves and professional nurses to best care for their children. Caregivers explained their views as follows:

> It is important that nurses and mothers talk about traditional medication. And it is also important that nurses educate themselves on how traditional medication works as well. (Participant 2 from RH 1)

> I would use traditional medicine not knowing, thinking that it's just a fever yet there's something else more to it and I will use this traditional medicine and it will erect something else that is causing this fever. Some nurses will give you the information, some will advise you to use and will tell you not to use it, they'll tell you what's best for you. (Participant 3 from RH 1)

> … what I can say is people should consult with a doctor or nurse. They should speak to someone who is more advanced before just using. (Participant 3 from RH 1)

> If for them, if the nurses try to educate about traditional medicine maybe we won't be scared to talk to them. (Participant 10 from RH 1)

> I think it's important because it can bridge the gap between both, and they can maybe come to some sort of like neutral ground with both and there are some traditional things that are not advisable for us which we need to be aware of. Because how else will we know what is acceptable if we do not discuss it with nurses, we need the nurses' perspectives of it from a medical background, and whether we should or should not, whether it's going to cause more harm to your child or yourself. (Participant 9 from RH 2)

Professional nurses felt that there was a pressing need for a framework that they could use when communicating with caregivers about TCAM use, as this would give them a guide to provide the same standard of care for all children. They presented various suggestions of where and how the empowerment and education of caregivers, in relation to TCAM us, should be done. These suggestions are presented below.

> Encourage them to get clinic medicine first before you try TCAM. We need to start education in ANC (ante-natal clinic) that if your baby gets sick, take first to local clinic, it's free. (FGD 1)

> That's essential to have a guide. All nursing staff out in the community need to filter this information it's very important. (FGD 1)

> We can put information in the road to health book, but they won't read it. We could put the information on charts in the waiting room so while they in the waiting area they can read it. (FGD 2)

> So, it stems from there, caregivers need to be health educated far before the baby gets to us. Because by the time the baby is born, they will have the pre-requisite knowledge of what they are not supposed to do. Immunization books, the new ones have information about the gastroenteritis, the sorol solution, because maybe for future purposes like where they have how you treat gastroenteritis or how you treat a fever, maybe we can include this education on traditional medicine in the immunization card. Actually, that would make sense, because mum is looking at it and then she can say okay I'm not supposed to be giving this. (FGD 4)

Participants in the focus group discussions were explicit in their views that health education on safe health care seeking pathways must commence in the ante-natal period and continue into early childhood at well baby clinics and hospitals. This is evidenced by the following contributions.

> We need to actually start in ANC (ante-natal clinic). We have teenage mothers who listen to their mothers who also listen to their mothers. (FGD 2)

> I would say not even a child visit or a well-baby clinic I will say from pre-natal or ante-natal that should start there because you also educating the mother on her condition. Because you see here we don't just treat the baby, we treat the mother and child. We health educate the mother in order to get a good proper management or first-hand management of the child a good outcome, you also have to educate the mother in terms of immunization and all like seeking medical help first. (FGD 4)

The involvement of community caregivers at community level was also an important aspect that emerged during the focus group discussions. Professional nurses saw the

need for health education pertaining to TCAM use to commence at grassroot levels. This can be conveyed by community caregivers (CCGs) due to their close relation with caregivers even before health care is sought at the clinics or hospitals. The excerpts below present the views of professional nurses in this regard.

> And it's not only the mothers, … It's the gogos (Granny in IsiZulu), so I think community nursing CCGs, that are at grassroot level, our CCGs are going into the communities, health education is the biggest game-changer, to go into grassroot level. Most often we all understand they will tell you transport is a problem, why must I go to the clinic every 2 or 3 days, but the CCGs can go out. (FGD 5)

> The community health workers work after hours because we get a lot of messages on WhatsApp. The community caregivers will say there's a mother … CCG are basically the outreach for us so if we can get to them, they can filter the message to the ones we are unable to get to. (FGD 2)

> I think it will benefit the mum for nurses to try and speak in her own grassroot level and language so the mother can understand what risk it would be for the child. The more we health educate it makes it better. (FGD 3)

> I just feel that we are severely lacking when it comes to health educating our community and also the mindset of 'because my granny gave it to me, I will give it'. It's difficult to change people's mindset but what we can do is health educate from grassroot level, right up to the top of our health care system, where you see us at regional level. (FGD 5)

5.5 CHAPTER SUMMARY

Chapter 5 presented the findings from data analysis that emerged from face-to-face interviews with caregivers and focus group discussions with professional nurses. A composite summary of the study findings is presented in a table found in Annexure R. The next chapter presents a discussion of the results from this study.

CHAPTER 6: DISCUSSION OF THE STUDY FINDINGS

6.1 INTRODUCTION

The previous chapter presented the study findings. Themes and sub-themes that emerged during the data analysis were discussed and supported by the participants verbatim responses. In this chapter, a discussion of the study results is presented in order to elucidate how the study objectives were achieved. The discussion of results in this chapter is presented in relation to Donabedian's model that guided this study, and the study objectives.

6.2 DISCUSSION OF RESULTS RELATED TO DONABEDIAN'S STRUCTURE, PROCESS, OUTCOME FRAMEWORK AND STUDY OUTCOMES

The discussion of results aims to emphasise caregiver health care seeking pathways as well as interactions between caregivers and professional nurses in relation to determining the use of TCAM in children during provisional assessment and history taking by professional nurses. The discussion reflects on factors identified during the analysis and interpretation of results in order to develop a framework to explore TCAM use for children at health care facilities in eThekwini district.

Table 4.1 provides a summary of the themes, subthemes and categories used to structure the discussion of the study results. The structure, process, outcome aspects of the theoretical framework as well as the study objectives have been incorporated into this table.

Table 6.1: Summary of theoretical framework and objectives related to study findings

THEORETICAL FRAMEWORK & OBJECTIVES	SUBTHEMES	CATEGORY
STRUCTURE **Objective 1:** Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses. **Objective 2:** Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.	1.1 Use of conventional medicine 1.2 Use of TCAM if conventional medicine does not help 1.3 Use of TCAM as first line of care seeking behaviour for specific childhood illnesses 1.4 Accessibility of TCAM 1.5 Respect for elders and tradition 1.6 Perception of illness 1.7 Dissatisfaction with public healthcare 1.8 Delay in seeking timeous health care 1.9 Use of TCAM during pregnancy, labour, and postnatal period	Knowledge Knowledge Perception Affordability Culture Ancestral belief, witchcraft Waiting time, short staffed Reasoning Timeous care Perceptions of health during peri-natal period
PROCESS **Objective 3:** Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.	2.1 Disclosure of TCAM use to professional nurses 2.2 Reasons for non-disclosure of TCAM use 2.3 Factors that promote disclosure of TCAM use	Communication Lack of open communication Effective communication
OUTCOME **Objective 4:** Explore professional nurses' perspectives regarding TCAM use for children. **Objective 5:** Develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district.	3.1 Concurrent use of TCAM and conventional medicine for children 3.2 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients of TCAM) 3.3 Need for a framework to guide professional nurses to explore TCAM use in children 3.4 Need for structured, routine health education on TCAM use in children	Combined treatment modalities Effects on child health Structure Standardisation

6.2.1 STRUCTURE

Healthcare utilisation includes complex and multifaceted behaviours with many influences beyond those related to health and illness. Sociodemographic characteristics, culture, economics, personality, perceptions, access to services, attitudes and beliefs, and social roles are just a few examples from a long list of non-health factors that influence the decision to seek health care, the type and volume of services used, and the outcome of health-related services (Fisher 2019). The element of structure in Donabedian's framework relates to the first two objectives of the study, where the researcher explored caregiver's perspectives regarding the use of conventional medicine and described caregiver's perspectives regarding the use of TCAM for childhood illnesses.

6.2.1.1 Caregiver's choice of conventional medicine

In respect of Objective 1, the question to be answered was: "What are the caregiver's perspectives regarding the use of conventional medicine for childhood illnesses?" The interview process revealed that there were some caregivers who preferred the use of conventional medicine instead of TCAM. The choice of conventional medicine by caregivers for their children could be related to their perceptions related to the child's health needs. In the current study, some participants were reassured that their children's illness would improve at health care facilities as they perceived certain ailments to require conventional medicine as first line of treatment. These participants were also fearful of giving their children TCAM, as they believed it was dangerous due to the potency in relation to the young age of the children. Caregivers determine whether to use conventional medicine or TCAM based on their understanding of their child's illness. Kagabo *et al.* (2018) describe care-seeking for children as actions taken by caregivers of young children in response to a child's perceived illness. The care-seeking route is described by Babatunde and Akintola (2023) as the effective management of a child's health condition which requires the caregivers' well-timed recognition of the health problem, the resolution to seek help and the appropriate utilization of healthcare services. However, decision-making on where and when to

seek help is a multifaceted process often influenced by the affordability, availability, and proximity of healthcare services.

6.2.1.2 Use of TCAM if conventional medicine does not improve illness

The information gathered during the interviews revealed that while some participants believed that conventional medicine was the first choice for their children, it was also evident that in the event that conventional medicine did not help their children improve, their reasoning would be to steer their children to TCAM use. This concurred with findings from a study conducted by Ngere *et al.* (2022) who found that caregivers appeared to be anxious of childhood illnesses and would associate them with bewitchment, when there is slow or no response to conventional medicine, or when health care professionals cannot provide a diagnosis.

As the interviews progressed, participants also divulged that they encounter challenges when seeking conventional health care first, whereby traditional healers would question their delay to seek TCAM, as well as the aspect of giving heed to ancestors which plays an important role for some participants. The mothers' behaviour of 'hopping' between traditional and conventional practitioners could result in tragic consequences, especially with choices made by a mother demonstrating complexity of decision-making about their children's healthcare. Furthermore, the course of action taken by the mother demonstrates how traditional and modern healthcare are used in tandem (Cunnama and Honda 2016: 669).

Participants in focus group discussions also revealed that they were aware of certain instances whereby caregivers would not return for follow up but instead elect to seek TCAM. Similarly a study conducted by Haskins *et al.* (2017) revealed that sick children could either be treated initially at home or taken to a variety of places including clinics, private doctors, traditional healers, faith healers and while very few caregivers would take their child back to the original health provider if the child continued to be ill, they would rather move from one provider to the next until the child's health improved.

6.2.1.3 Use of TCAM as first line of care-seeking behaviour for childhood illnesses

The question to be answered to meet Objective 2 was: “What are the caregiver’s perspectives regarding the use of TCAM for childhood illnesses?” As information was generated from the interviews, it emerged that the decision to choose TCAM as an initial health care seeking pathway during childhood illness seemed to have been guided by the knowledge of participants. Participants believe that there are certain illnesses that do not require conventional healthcare but rather TCAM, for example, fever, convulsions and fatigue are symptoms common to these illnesses as well as to multiple other conditions. Ngere *et al.* (2022) found that at times these symptoms have been attributed to supernatural causes such as witchcraft, evil spirits thus warranting TCAM use from the point of view of the caregivers.

Focus group discussions also yielded findings that caregivers first seek TCAM and then proceed to seek conventional medicine if no improvement occurs. Many caregivers would first use traditional home remedies before getting further help and if the cause of the illness was seen as related to traditional illness, traditional home remedies could be administered in the form of traditional herbs which may be burned, made into a drink, or given as enemas with herbs or toothpaste (Haskins *et al.* 2017).

6.2.1.4 Accessibility of TCAM

Participants expressed a tendency to utilise TCAM due to easier access in terms of travel distance when compared to conventional health care. This was also confirmed by a study whereby factors that contribute to the delay in seeking timeous medical health care include aspects such as geographic accessibility (distance from home to healthcare facility) (Umuhoza *et al.* 2018). In some regions TCAM is more accessible, while one-third of the world’s population and over half of the populations of the poorest parts of Africa do not have regular access to essential drugs (Asrat *et al*. 2020). Focus group discussions also revealed that financial challenges related to travel costs influenced the caregiver’s choice of TCAM instead of conventional medicine. Accessibility of TCAM was significantly associated with caregiver use for children (Asrat *et al*. 2020).

6.2.1.5 Respect for elders and tradition

During the interview process participants divulged that they face a certain degree of socio-cultural pressure from family members, especially elders and/or neighbours that ultimately influenced them about their choice of healthcare services for their children. Caregivers try to choose the best option for their children based on their own belief systems, past experience and their perception of the health status of their children. Focus group discussions yielded data that implied caregivers encounter pressure, especially from grandmothers, to use TCAM for children, and in certain instances, the grandmother would be the person to actually administer the TCAM to children. According to Haskins *et al.* (2017), when grandmothers were present, they usually contributed to or made the final decisions on where to seek care first, because they were considered knowledgeable and experienced, so grandmothers were generally the final decision-makers on whether a child went to a traditional healer when sick or whether conventional medicine were sought. The interviews also revealed that, in addition, some caregivers do not know that TCAM has been administered as their children are left in the care of grandmothers while they attend work. Grandmothers had a significant influence on health care seeking practices, with the mother often consulting the grandmother when faced with deciding what to do with a sick child (Haskins *et al*. 2017).

6.2.1.6 Perception of illness

Participants described their care seeking pathway as dependent upon their belief about the cause of illness in their child. A few participants revealed that there were certain illnesses such as convulsions that were not for hospital but rather traditional medicine due to their perception of the possibility of evil spirits or bewitchment being involved. There was a similar finding by Ngere *et al*. (2022) who observed that there are varied beliefs which motivate caregivers' choice of TCAM use among children. Hence it is crucial to consider perceptions and socio-cultural beliefs about illnesses when formulating interventions that are geared towards child health. An important factor influencing health care seeking behaviour was the symptoms of the child and how these were perceived by the carer, and the three illnesses scenarios were

perceived differently either as a Western type of illness or traditional illness or a mixture of both (Haskins *et al*. 2017). In addition, some childhood illnesses could be as a result of the ancestors being unhappy or it could be because of bewitchment, and herbs should be burned for the child for protection (Haskins *et al*. 2017).

6.2.1.7 Dissatisfaction with public healthcare

The interview process unveiled the dissatisfaction that participants endured with services at public healthcare facilities. The main reasons for dissatisfaction were long periods of waiting time and the departments being short staffed. The dissatisfaction with public health care services is suggestive of reasons for caregivers seeking TCAM as first line treatment to avoid the challenges they encounter. The dissatisfaction of caregivers with public health services is not a new phenomenon, since Fonn, Ray and Blaauw (2011: 658, cited in Maphumulo and Bhengu 2019: 1901), found that a major weakness in sub-Saharan African health systems is inadequate human resources, as Africa is said to have less than one health worker per 1 000 population compared to 10 per 1 000 in Europe. Participants in focus group discussions also explained that they are short of human and material resources, hence the prolonged waiting time for caregivers with children, even though every effort is made to prioritise care for ill children. Presently, of the estimated population of 55.5 million (National Department of Health 2016), approximately 84% of South Africans depend on the public health sector for their healthcare needs (Naidoo 2012: 149, cited in Maphumulo and Bhengu 2019: 1901). In addition, Barron and Padarath (2017: 4) noted that health problems in South Africa are worsened by unequal distribution of health professionals between the private and public sectors, coupled with unequal distribution of public sector health professionals among the provinces. The challenges experienced at public healthcare facilities have also had grave consequences; Kama (2017: 2) reported the case of a 1-year-old baby who died on his grandmother's back after they were turned away from three different healthcare facilities in one of the townships in Cape Town.

6.2.1.8 Delay in seeking timeous health care

Some participants divulged that they would commence home remedies, seek TCAM and if there was still no improvement in the child's condition, they would then seek

conventional health care. Delays in healthcare-seeking contributes to many child deaths in developing countries; according to a WHO report, 70% of child mortality is related to inadequate or delay in seeking health care and can be prevented by seeking health care earlier (Bantie *et al*. 2019: 482). Severe illness resulting from delayed conventional health care seeking represents a large proportion of the mortality burden in South Africa, whereas appropriate health care seeking pathways can reduce the occurrence of severe and life-threatening childhood illnesses. Focus group discussions also revealed that some caregivers come to clinics or hospitals too late, as TCAM should be sought first. In African settings, health care is still a combination of different systems including biomedical care, self-medication, and traditional healers, with traditional health care being the principal type of health care in many African countries (Haskins *et al.* 2017). In South Africa specifically, the Committee on Morbidity and Mortality in Children under 5 years (CoMMiC) estimated that 55% of child deaths occurred outside health facilities at home or in the community (Price *et al*. 2019: 865). A recent systematic review of social autopsies in low resource settings showed high rates of symptom recognition in fatal neonatal and childhood illness and found that formal care was sought in only 78% to 88% of deaths in children 1 to 59 months (Price *et al.* 2019: 865). The use of TCAM is a common feature of South African healthcare and was most often used in combination with Western medicine (Price *et al.* 2019: 865). In rural South Africa, approximately 50% of people rely on walking as the primary mode of transport to health facilities and transport costs make up a large proportion of overall healthcare costs. There are numerous factors that contribute to the perceived and evaluated need to seek care; the perception of symptoms as being severe or the presence of easily identifiable symptoms have been shown to prompt care-seeking for sick infants and children (Kagabo *et al.* 2018). In addition, preference for seeking informal care, such as self-medication or traditional healers can also delay seeking formal care. Traditional beliefs about disease aetiology, loss of confidence in formal medical treatment, stigma, ease of access and shorter waiting times all contribute to TCAM use. However, it remains unclear whether traditional medicine is used before, after or in parallel with formal care during the child's final illness, and why it is often associated with death at home. It is possible that traditional care is a marker for serious and chronic illness, and for discharge from a

health facility with inadequate follow-up, as parents try all options to treat their child (Price *et al.* 2019: 865). It is evident that the delay in seeking timeous conventional healthcare for children is crucial and a lifesaving intervention.

6.2.1.9 Use of TCAM during pregnancy, labour, and postnatal period

Although the researcher did not formally enquire about TCAM use in the peri-natal period, some participants reported the use of at least one type of TCAM during pregnancy with the most common indication being to facilitate a prompt labour and delivery of the baby. Some participants divulged that they would use TCAM while breastfeeding to improve the child's health. James *et al.* (2019) revealed that breastfeeding mothers use TCAM concurrently with conventional care, rather than as an alternative, which may increase the risks associated with unforeseen interactions that could be harmful not only to the mother but the baby as well. Results from our study also indicate that breastfeeding women may be hesitant to disclose this use voluntarily. However, with evidence of high usage of herbal medicines in the breastfeeding population, it is essential that healthcare providers treating this population are aware of, and ask about, TCAM practices in breastfeeding mothers (James *et al.* 2019). Participants of the focus group discussions were not asked about the use of TCAM during pregnancy but were emphatic about the need for caregiver education to actually commence during antenatal visits to ensure appropriate care seeking pathways for children from birth to childhood. Although IMCI guidelines makes provision for the assessment of children from the age of two months up to five years, a neonate may have complications from TCAM taken during labour and post-natal period and ultimately be cared for in paediatric wards since neonates who are discharged from maternity cannot be re-admitted to the nursery due to infection control measures. According to findings by Mawoza, Nhachi and Magwali (2019: 321), the use of TCAM during pregnancy and at labour was extensive as confirmed by the high prevalence rate of 69.9% and, in addition, a number of traditional medicines were reportedly used by pregnant women during pregnancy, at labour and for postpartum care. The challenge with such practices is that it might have deleterious effects on both the mother, the unborn foetus as well as the new-born baby. The main challenge with using TCAM still remains the unavailability of supporting scientific information

(Mawoza, Nhachi and Magwali 2019: 321). Shewamene, Dune and Smith (2017) found that TCAM had been used for various maternal health issues including the treatment of pregnancy related symptoms, induction of labour, facilitating breast milk secretion, inducing abortion, treatment of infertility and to maintain general wellbeing during pregnancy. Evidence generated from the current study as well as other studies pertaining to TCAM use in the peri-natal period provides compelling motivation for the need to commence with routine guided health education during ante-natal visits.

6.2.2 PROCESS

Donabedian's aspect of process pertains to the things that are done for the patients which aid in identification, prioritisation and addressing health problems, resources, and outputs (Ameh *et al.* 2017: 229). Process denotes every aspect of how care is actually provided for patients. In this study process pertained to the interactions that occur between caregivers and professional nurses.

6.2.2.1 Disclosure of TCAM use to professional nurses

The question to be answered to meet Objective 3 was: "What are the factors influencing caregiver's disclosure of TCAM use for childhood illnesses?" While a few participants in the face-to-face interviews were willing to disclose the use of TCAM to professional nurses, if they were asked about it, the majority were adamant that they would not disclose even when they were asked about TCAM. Participants in focus group discussions shared their challenges when trying to obtain information from caregivers about possible TCAM use for their children. It was significant to note that professional nurses would only ask about TCAM use for sick children in whom they, through experience, could identify certain clinical signs that would then prompt them to enquire about its use. They did not follow a guided questionnaire when asking about TCAM use, as there was none to refer to. Focus group participants also disclosed that in most instances they were only enquiring about TCAM use when the child being cared for was critically ill, or during the resuscitation period. They also divulged that there was no way to know whether caregivers were administering TCAM while the child was admitted to the ward. Healthcare professionals should ask about TCAM uses as well as inform their patients or their parents about TCAM. Also, parents should

inform healthcare professionals about herbal remedies used for their children during conventional treatment (Polat and Gürol 2020). Communication pertaining to TCAM use is imperative in order to support safe therapeutic decisions for patient care and this applies more so to nurses as they play a pivotal role regarding communicating with patients (Hall *et al.* 2018: 281). Although caregivers do not always disclose the use of TCAM for their children, Marais, Steenkamp and Du Plooy (2015: 8) believe that health care workers are equally to blame because they do not routinely enquire about it during history taking. Hence, if a standardised tool was developed for professional nurses to formally enquire about TCAM use at clinic visits and on admission to paediatric wards, TCAM use could be identified early, and guided caregiver education would reduce the risks of administering TCAM concurrently with conventional medicine.

6.2.2.2 Reasons for non-disclosure of TCAM use

The majority of the participants were of the opinion that professional nurses would be judgemental and shout at them if they were to disclose that they used TCAM for their children prior to seeking conventional health care. Communication clearly influenced caregivers' overall experience of care and more directly linked to their subsequent care-seeking behaviour. Most caregivers were afraid of professional nurses being judgemental towards them and placing blame on them for the child's ill health. One participant even verbalised the fear of being reported to the police and being arrested for TCAM administration especially if the child's condition deteriorated. According to James *et al.* (2018), some reasons for non-disclosure of TCAM use are that the health care providers have a negative attitude with lack of support and understanding that lead to mistrust and stigma. In particular, TCAM is thought by many people to be natural and safe to use, without adverse effects, therefore people use it in addition to conventional medicine and do not feel the need to disclose TCAM use to professional nurses. Similar findings were obtained by James *et al*. (2019) whereby the majority of mothers did not disclose their use of herbal medicine to their healthcare provider, even though approximately half of mothers reported that their health care provider did ask them. The primary reason for non-disclosure was that respondents thought it was not necessary to inform their healthcare provider of herbal medicine use. Perceptions of

herbal medicine being naturally safe – and therefore not particularly relevant to medical discussion – might partly explain this attitude. Fear of health provider's reaction to TCAM use as well as the potential undermining of the relationship and trust between patient and health care professionals, have also been put forward as potential reasons for non-disclosure (James *et al*. 2019). Participants in focus group discussions seemed to believe that caregiver's non-disclosure of TCAM use for their children was due to fear of being scolded and feeling embarrassed especially if confidentiality was not maintained.

6.2.2.3 Factors that promote disclosure of TCAM use

Features of good communication included professional nurses demonstrating respect for the caregiver's knowledge of their child, explaining what procedures or treatments are being administered and not shouting at or blaming caregivers. Although the majority of the caregivers explained that they would not want to disclose the use of TCAM for their child to professional nurses, there were some who felt they could disclose if they were spoken to kindly and with understanding. Caregivers needed to feel that they were understood and that their care seeking pathways were in the best interest for the child. James *et al*. (2019) explain that in order to improve communication about TCAM use at the health care facilities, it is important for healthcare professionals to be aware that their patients are likely users of TCAM and to routinely encourage and facilitate an open dialogue about TCAM use in their interaction with patients. Such communication regarding TCAM should create opportunities for the culture of shared decision making and promote patient satisfaction (James *et al*. 2018). In addition, it is important that practice guidelines should incorporate culturally sensitive caregiver education about the value of disclosure regarding TCAM use to their conventional healthcare providers.

6.2.3 OUTCOME

The aspect of 'outcome' has been described as the desired result of interventions by the health practitioner and ultimately satisfaction with the care rendered (Ameh *et al* 2017: 229). An outcome pertains to the results of health care provided and the impact it has on the individual patient, the family, the community as well as the care providers

(Ameh *et al.* 2017: 229). Kourtis and Burns (2019) explain that outcome in Donabedian's theory denotes the metrics that define the health status of patients who received care in a certain environment. In this study, the application of outcome reflects the effects of care-seeking pathways, routine caregiver education and the need for a framework to determine the use of TCAM in children.

As interviews and focus group discussions progressed, data suggested that the outcome of TCAM use for children had in some instances resulted in concurrent use with conventional medicine.

6.2.3.1 Concurrent use of TCAM and conventional medicine for children

The question to be answered to meet Objective 4 was: "What are professional nurses' perspectives regarding TCAM use for children?" Focus group discussions with professional nurses revealed that while TCAM use was prevalent in children, some caregivers were found to be administering TCAM and conventional medicine concurrently. This data from professional nurses was a true reflection because during face-to-face interviews with caregivers, some divulged that they do administer TCAM and conventional together and that they do not see any problem with that. It is evident that the use of combined therapies for children occur due to caregivers not receiving education on the potential dangers.

Ngere *et al*. (2022) explained that TCAM is often used in combination with conventional therapy, particularly for chronic, unexplained, or recurrent conditions as well as for those illnesses that defy conventional scientific treatment that may be attributed by caregivers to attacks by evil spirits, spellcasting, and witchcraft. While some caregivers did not feel that there were any risks with using combined therapies, Ozioma and Chinwe (2019) explained that toxicity can arise as a result of herb-drug interaction in situations where there is co-administration of TCAM with some conventional drugs or supplements as well as with incorrect identification and misuse of plants. According to a review by James *et al.* (2018), TCAM is often used concurrently with conventional medicine, indicating that TCAM is mostly used as a complementary therapy rather than an alternative to conventional care. This may be linked to a growing paradigm shift among patients towards a holistic attitude in health

that aligns with the standpoint of TCAM and recognises the insufficiencies of biomedical care.

6.2.3.2 Complications associated with TCAM use (dosing, labelling, route of administration, ingredients of TCAM)

Focus group discussions with professional nurses revealed that complications in a child's health were often linked to a history of TCAM use. Ghorani-Azam *et al.* (2018) concur with this because although it has been shown that TCAM, particularly medicinal plants, have fewer side effects than chemical drugs, studies have shown that not all TCAM are safe for direct human use, especially in paediatric patients since the prospect of acute poisoning is greater in children and especially younger children since their digestive and immune systems are not completely developed.

Professional nurses revealed that complications, from their experiences, included renal impairment, liver failure, neurological problems, respiratory distress as well as gastrointestinal disorders. Ozioma and Chinwe (2019) revealed that liver problems were the most prominent indices of toxicity as a result of chronic TCAM use. Another important source of toxicity of TCAM worth mentioning is microbial contamination due to poor sanitary conditions during preparation. Findings of a study in India by Mehta *et al*. (2019) concur: ayurvedic and herbal medicines have been widely used in India for centuries and most of these preparations are a mixture of different components produced in a crude unregulated method, and these medicines can cause severe liver injury including acute liver failure and even death. Frenzel and Teschke (2016) note clinical manifestations of herb induced liver failure which include abdominal distension and pain, malaise and body weight gain due to hepatomegaly and ascites, hepatotoxicity, fatigue, jaundice, anorexia, nausea, and fever, as well as signs such as rash, pruritus, and pale coloured stools.

Chami *et al*. (2019) found a significant association between herbal medication use and renal dysfunction whereby half of the children with renal dysfunction were using herbal medicines at the time of admission. Previous studies note that using traditional remedies is highly predictive of acute kidney injury, interstitial nephritis, and tubule

damage, and that when used for a long time these remedies can cause chronic kidney disease (Chami *et al*. 2019).

Professional nurses explained that in some instances TCAM users were not given details on correct dosing for children; one professional nurse explained that traditional healers provide measurement in relation to the size of a small finger, but this is different in people and therefore by no means accurate. Some caregivers also expressed concerns pertaining to dosing whereby they would give how much they assumed would be correct. Another area of concern expressed by both caregivers and professional nurses was that receptacles containing TCAM were not labelled or at times not properly labelled, which caused confusion and resulted in enemas being given orally. Amadi and Orisakwe (2018) explain that herbal product misidentification is often unknown by consumers who are of the belief that the product they ingest actually contains the correct herbal components as indicated on the label. Hence, herbal products containing incorrectly identified plants pose a high risk for the unassuming consumer.

6.3 CHAPTER SUMMARY

This chapter provided an interpretation of the study findings. The discussion shed light on the use of TCAM for children by caregivers, the effects of TCAM on child health, discussions about TCAM between professional nurses and caregivers, as well as the need to develop a framework that can be used to explore TCAM use in children. The next chapter presents a summary of the study findings, conclusions, limitations as well as recommendations.

CHAPTER 7: A FRAMEWORK TO EXPLORE TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE MEDICINE USE FOR CHILDREN AT HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

7.1 INTRODUCTION

The previous chapter provided a discussion of the findings from the data obtained during this study. This chapter presents and proposes a framework to explore traditional, complementary, and alternative medicine use for children at health care facilities in eThekwini district. This was the ultimate aim of the current study and fulfils the Objective 5 which was: Develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district.

7.2 CONTEXTUAL BACKGROUND

In developing this framework, the factors which were taken into consideration emanated from the in-depth qualitative interviews which took place with caregivers of children up to five years and professional nurses who were either trained as child nurse specialists, primary health care nurses or IMCI nurses. The findings from this study revealed that TCAM use for children was prevalent, however communication about it between caregivers and professional nurses was lacking. Hence there was a delay in early identification of TCAM use which ultimately led to incomplete care rendered to the child. Professional nurses were only asking about TCAM use when children were found to be critically ill. Currently, in eThekwini district there is neither an existing framework to guide professional nurses with regard to obtaining a history of TCAM use for their children, nor is there structured education that can be given to caregivers regarding TCAM use. Hence caregivers were not given adequate education on safely administering conventional medication in relation to TCAM.

The proposed framework to explore TCAM use for children at health care facilities could play a role in improving and positively influencing child health service delivery in eThekwini district.

7.3 PROCESS OF DEVELOPING THE FRAMEWORK

Frameworks are a particular set of ideas which can be used to deal with problems or decide on what to do (Collins Dictionary 2020). Partelow (2023) explains that frameworks serve as bridging tools for knowledge synthesis and communication. They can guide researchers in designing new empirical research by indicating which core concepts and relationships are of interest to be measured and compared. Thus, using a specific framework helps in part to position the work of a researcher in a field and its related concepts, theories, and paradigms (Partelow 2023).

The development of the framework to explore the use of TCAM in children at health care facilities in eThekwini was facilitated by an extensive literature review, analysis of data collected from caregivers and professional nurses, as well as application of Donabedian's theory of structure, process, outcome, that guided this study. This process is in keeping with McMeekin *et al.* (2020) who explain that the process of developing a framework encompasses evidence that arises from existing methods, literature reviews, and experience/expertise. For the purpose of developing the proposed framework for this study, the first step encompassed the reviewed literature as outlined in Chapter 2 of this study and incorporated her experience of working as a child nurse specialist in paediatric units of public health care facilities.

The second step related to developing the framework using the identified data, comprising: extracting data, and synthesising and amalgamating this data iteratively (McMeekin *et al*. 2020). The researcher presented the data obtained for this study in Chapter 5 and provided an analysis and discussion of the data collected in Chapter 6. The summary of the study findings are also presented in Chapter 7 of this study.

The third and final step was refining and validating the framework using the Delphi technique to engage experts in the field of study (McMeekin *et al*. 2020). The researcher explains the implementation of the Delphi technique to validate the

proposed framework to explore the use of TCAM in children at health care facilities in eThekwini district in section 7.5.

Figure 7.1 illustrates the process followed for the development of the proposed framework.

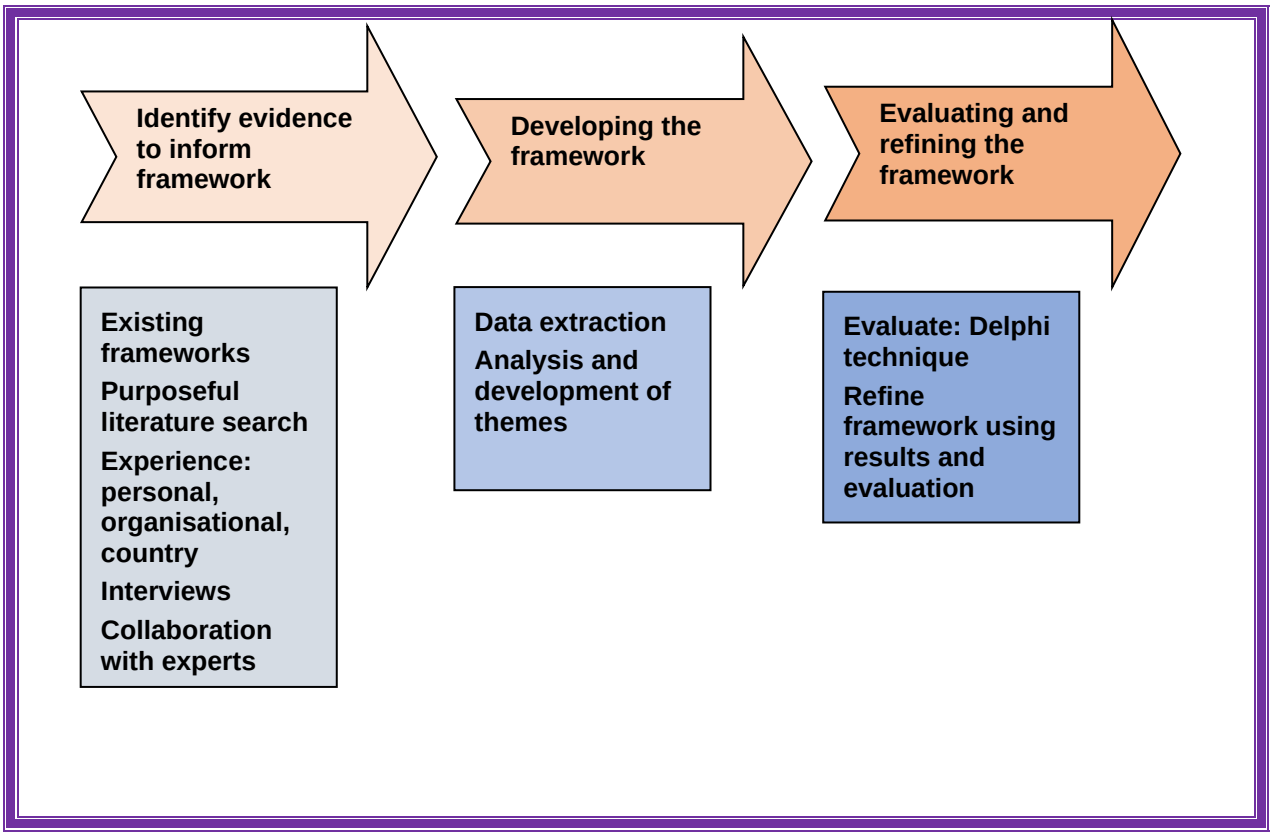


Figure 7.1: Process followed in developing the proposed framework for the current study
Source: Adapted from McMeekin *et al*. (2020)

7.4 PROPOSED FRAMEWORK TO EXPLORE THE USE OF TCAM IN CHILDREN AT HEALTH CARE FACILITIES

The proposed framework serves as a structure to routinely guide professional nurses who provide nursing care to children at health care facilities, to explore the use of TCAM by children prior to attendance. The framework proposes that the professional nurse ask the caregiver whether traditional, complementary, alternative medicine was given to the child prior to seeking health care. If the caregiver answers yes, the professional nurse proceeds to assess the child for possible complications by

observing for possible signs and symptoms of TCAM use. The possible signs and symptoms of complications were extracted from focus group discussions with professional nurses as well as the literature that was reviewed. The child should then be managed according to IMCI guidelines and referred to hospital urgently for continued investigations and treatment.

If the caregiver answers “no” to the initial question, the professional nurse should still observe the child for any possible signs and symptoms of TCAM use and if there are none, the professional nurse should proceed to advise the caregiver on safe compliance to prescribed medication and manage according to IMCI guidelines. The proposed framework could also serve to guide professional nurses working at primary health care clinics (PHCs), community health centres (CHCs), paediatric out-patient departments (POPD) at hospitals as well as the wards. Caregivers’ education on safe compliance to prescribed medication in relation to TCAM is relevant at all levels of child health care.

Figure 7.2 illustrates the proposed framework, to guide professional nurses to routinely explore TCAM use for children at health care facilities in eThekwini district.

Shanitha Pillay's Framework to explore traditional, complementary and alternative medicine use by children attending health care facilities.

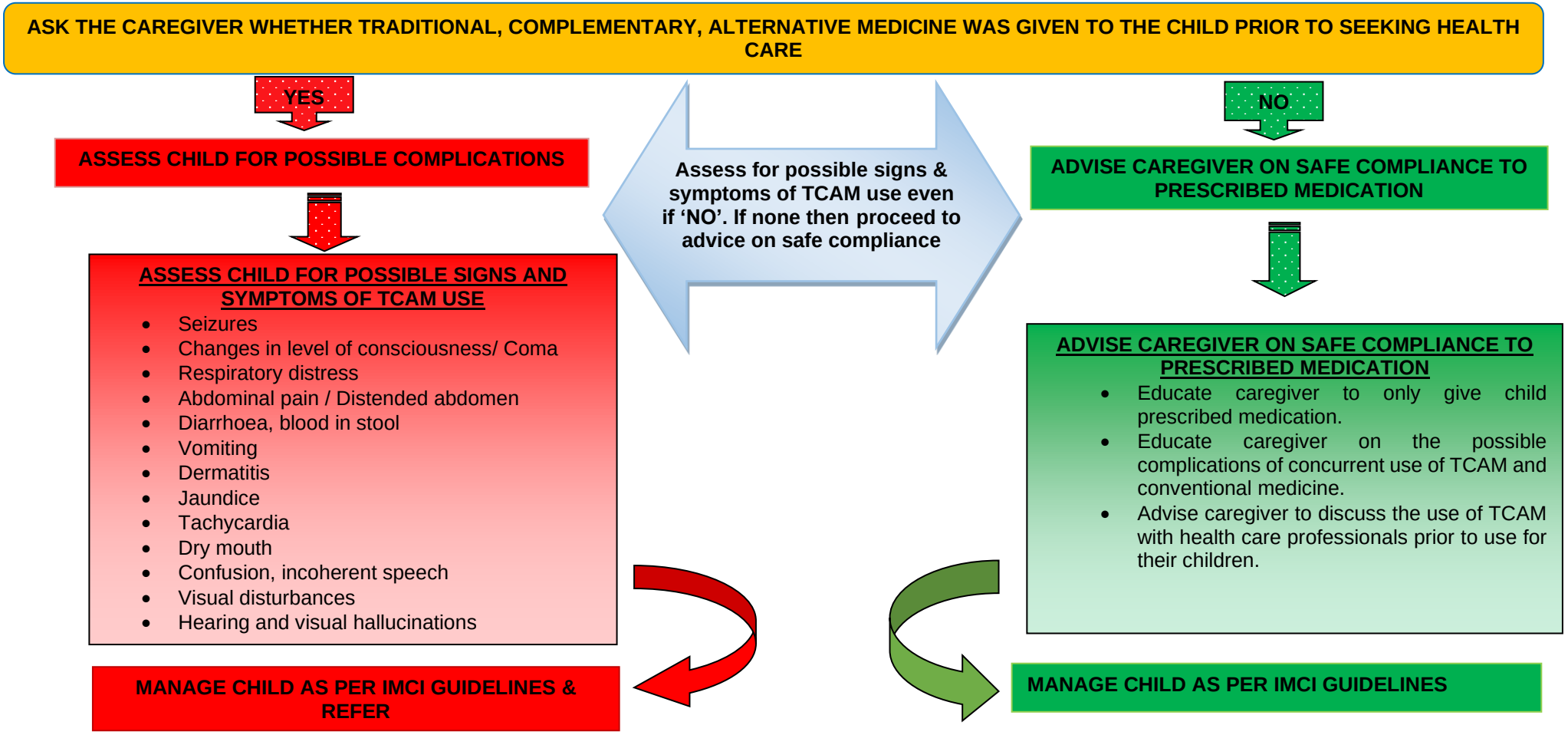


Figure 7.2: Proposed framework to explore TCAM use by children attending health care facilities in eThekwini district

7.5 VALIDATION OF THE FRAMEWORK TO EXPLORE TCAM USE FOR CHILDREN AT HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

The Delphi method is used intercontinentally to investigate a wide variety of issues, with the aim of developing expert-based judgement on an epistemological question (Niederberger and Spranger 2020). This approach assumes that a group of experts and the multitude of associated perspectives will produce a more legitimate result than a judgement given by an individual expert, even if this expert is the best in his or her field (Niederberger and Spranger 2020). The proposed framework was validated using the Delphi method involving five experts in the field who are professional nurses who have specialised in child nursing or primary health care. Niederberger and Spranger (2020) explain that cognitive diversity in the composition of the expert panel is important for the robustness and validity of the findings. A validation tool was designed to guide the professional nurses' input in relation to the developed framework. Consensus was achieved after two rounds of engagement with the experts regarding the proposed framework and the validation tool (Annexure U). A consensus is a general agreement or unanimity of opinions amongst a predetermined group of experts. Experts are knowledgeable, competent, and representative of the field of inquiry; thus, such a consensus is considered most reliable because it depends on the controlled feedback of experts via questionnaires (Naserrudin *et al.* 2022).

7.6 IMPLEMENTATION OF THE FRAMEWORK TO EXPLORE TCAM USE FOR CHILDREN ATTENING HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

In order to effectively implement any change in health care, it is imperative to consider factors that will ensure successful change. Nilsen *et al*. (2020) have identified three factors that are necessary for a change to be considered successful by health care professionals. The first is to have the opportunity to influence the change, for example that the change is initiated by the professionals themselves. In the current study this was considered the easiest and would not cause resistance on the part of health care professionals (Nilsen *et al*. 2020). The framework developed in this study has been designed partly in relation to data from focus group discussions with professional

nurses, as it is intended for their use. In addition, the framework to explore TCAM use for children was also validated by specialist nurses who provide care for children. The second factor, according to Nilsen *et al.* (2020) is for health care professionals to be prepared for the change through effective communication. If the proposed framework is adopted for implementation, in-service training on the use of the framework would be conducted to ensure that professional nurses are acquainted with it. The third factor is that it is important for health care professionals to understand the need for organisational change and how this will benefit themselves and/or the patients. The changes might otherwise be perceived as meaningless and unjustified, which may create change resistance (Nilsen *et al*. 2020). The proposed framework has been developed by recommendations from professional nurses who participated in this study with the main focus being on improving nursing interventions which will ultimately have a positive impact on child health and improved relations between caregivers and professional nurses. If the proposed framework is approved, it would be ideal for the implementation to occur at all public health care facilities in eThekwini district, where children up to five years are cared for. The implementation of this framework should ideally be incorporated into IMCI guidelines as this gold standard tool is currently used to assess, classify, and treat all children up to five years attending public health care facilities in eThekwini district. Incorporation of the proposed framework into IMCI would add to the holistic and culturally sensitive care for children while also providing a user-friendly tool for professional nurses. In addition, caregiver advice on safe compliance to prescribed medication in relation to TCAM use, could, as recommended by participants in this study, be added into the information provided to caregivers in the Road to Health Booklet.

7.7 CONCLUSION

This chapter presented the processes that led up to the development of the proposed framework to explore TCAM use in children at health care facilities in eThekwini district. The factors to be considered should the framework be implemented were explained. The process of validating the framework by expert professional nurses was also described. The proposed framework to explore the use of TCAM in children at health care facilities in eThekwini district was developed and presented.

The current study has shown that there is a gap in identifying the use of TCAM in children at health care facilities in eThekwini district. The omission of an enquiry about TCAM use can lead to the concurrent use of TCAM and conventional medicine with a risk of drug-drug interactions which can ultimately cause complications such as renal and liver impairment as well as neurological complications. This study highlighted that it is imperative to explore the use of TCAM in children at all health care facilities, as early identification of its use can lead to prompt referral as well as caregiver education on the safe compliance of prescribed medication.

The successful implementation of the framework to explore TCAM use in children at health care facilities in eThekwini, in conjunction with IMCI guidelines, will contribute to the provision of holistic, family centred, culturally sensitive care which could positively influence child survival in eThekwini district, and even South Africa as a country.

CHAPTER 8: SUMMARY OF FINDINGS, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS OF THE STUDY

8.1 INTRODUCTION

The previous chapter presented the proposed framework to explore the use of TCAM in children up to five years of age at health care facilities in eThekwini district. In this chapter, the findings of this study are summarised, a conclusion is provided, as well as the limitations and recommendations.

8.2 SUMMARY OF FINDINGS

Five study objectives were set to achieve the aim of this study which was to explore the use of TCAM in children with the ultimate aim of developing a framework, to guide professional nurses to conduct a routine guided enquiry during assessments, to determine TCAM use in all children up to the age of five years, attending health care facilities. Achievement of the first four objectives was by means of conducting face-to-face interviews with caregivers and focus group discussions with professional nurses. Achievement of the first four objectives informed the achievement of the final objective of the study. A summary of the main findings in relation to the study objective follows.

8.2.1 Summary of findings from the first four objectives of the study

The first four objectives of this study were to:

1. Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses,
2. Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses,
3. Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses, and to
4. Explore professional nurses' perspectives regarding TCAM use for children.

8.2.1.1 Caregiver's perspectives regarding the use of conventional medicine for childhood illnesses

The findings of this study revealed that there were some caregivers who preferred the use of conventional medicine instead of TCAM. The choice of conventional medicine by caregivers for their children could be related to their perceptions related to the child's health needs. In the current study, some participants were reassured that their children's illness would improve at health care facilities as they perceived certain ailments to require conventional medicine as first line of treatment. These participants were also fearful of giving their children TCAM.

8.2.1.2 Caregiver's perspectives regarding the use of TCAM for childhood illnesses

Participants believe that there are certain illnesses that do not require conventional healthcare but rather TCAM such as, fever, convulsions and fatigue. The interviews revealed that while some participants believed that conventional medicine was the first choice for their children, it was also evident that in the event conventional medicine would not help their children improve, their reasoning would steer them to TCAM use. In addition, some caregivers believe that the concurrent use of TCAM and conventional medicine was of benefit for their children.

8.2.1.3 Factors influencing caregiver's disclosure of TCAM use for childhood illnesses

While most caregivers were afraid of professional nurses being judgemental towards them and placing blame on them for the child's ill health, a few were comfortable to discuss TCAM use. One participant verbalised the fear of being reported to the police and arrested for TCAM administration especially if the child's condition deteriorated. Some caregivers said that they would disclose if they were spoken to kindly and with understanding. Caregivers needed to feel that they were understood and that their care seeking pathways were in their best interest for the child. An important factor was that practice guidelines should incorporate culturally sensitive caregiver education

about the value of disclosure regarding TCAM use to their conventional healthcare providers.

8.2.1.4 Professional nurses' perspectives regarding TCAM use for children

Professional nurses revealed that TCAM use was prevalent in children, and some caregivers were found to be administering TCAM and conventional medicine concurrently. Professional nurses explained from experience that complications of child's health was often linked to a history of TCAM use. Some of the complications that professional nurses experienced included renal impairment, liver failure, neurological problems, respiratory distress as well as gastrointestinal disorders. Discussions with professional nurses also unveiled the vital role that cultural beliefs play in the lives of people, hence the use of TCAM is inevitable, however, there is a need to advocate for safe practices such as not using it concurrently with prescribed conventional medicine. Safe use of TCAM could also encompass the provision of it by registered TCAM practitioners, which would ensure safe dosing, and use of ingredients related to the well-being of children. The need for a framework to explore TCAM use in children would not be complete if the professional nurse did not include education of the caregiver whether TCAM was used or not. Professional nurses explained that there was a dire need to provide specific education to caregivers on TCAM use in relation to conventional medicine.

These findings together with the Donabedian's structure, process, outcome theory, provided the guiding principles for the development of the proposed framework.

8.2.1.5 Conclusions drawn from the first four objectives of the study

The study findings revealed the gaps and challenges that existed with regard to the use of TCAM for children up to five years of age. It was apparent from the study findings that the use of TCAM for children is prevalent, however there was a lack of routine enquiry about it due to a gap whereby there is no structured tool to facilitate the enquiry. It was also evident that there was no structured outline of relevant aspects to assess to determine the potential use of TCAM. There was also a need for a framework to include aspects of health education to be provided to all caregivers

regarding the safe use of prescribed medication in relation to TCAM. Thus the aspects of health education was included as part of the framework.

8.2.2 Summary of achievement of the fifth objective

Achievement of the first four objectives of the study confirmed a need to develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use for children at health care facilities in eThekwini district, which was the final objective of the study.

8.2.2.1 Need for a framework to guide professional nurses to routinely explore TCAM use in children

The data collected, analysed, and interpreted clearly show that the use of TCAM for children is prevalent as indicated by caregivers and professional nurses. In addition, there is no standardised framework to guide professional nurses to enquire about TCAM use and provide relevant caregiver education on safe care seeking pathways as well as safe medication use for all children up to five years of age. Health education campaigns should pay attention to the symptoms that mothers themselves recognise as important (Haskins *et al*. 2017). For health care seeking practices to improve, it is important to understand the collective nature of decision-making in a family and the roles people play. Interventions need to be designed with this contextual understanding especially as TCAM methods are widely used and accepted (Haskins *et al*. 2017). Hence there was a need to develop a framework that would guide all professional nurses, who provide care to children up to five years of age, to routinely enquire about TCAM use as well as provide relevant education.

8.2.2.2 Need for structured, routine health education on TCAM use in children

The need for a framework to explore TCAM use in children would not be complete if the professional nurse did not include education to the caregiver regarding TCAM use. Professional nurses explained that there was a dire need to provide specific education to caregivers on TCAM use in relation to conventional medicine, and that this education should actually begin during the ante-natal period and continue into childhood. Haskins *et al.* (2017) explain that caregivers tend to move from one provider

to the next until the child's health improved. Therefore, messages given by health workers should emphasise that if there is no improvement the child should be brought back to the clinic. This is an important message within the IMCI treatment guidelines used by professional nurses in clinics. Community health workers (CHW) should also reinforce such messages in households if a child's symptoms do not resolve (Haskins *et al.* 2017). Knowledge and understanding of health care seeking behaviour for sick children by caregivers is an important aspect and interventions need to be designed with these contextual issues in mind (Haskins *et al.* 2017). There is a need for structured caregiver education in relation to whether they have used TCAM for their child or not, to ensure holistic, culturally sensitive care for every child attending a health care facility in eThekwini district.

8.2.2.3 Purpose and objectives of the framework

The proposed framework could serve as an instrument and provide guidance and strengthen communication between caregivers and professional nurses regarding the use of TCAM for children. If the framework is implemented, it would serve to ensure that every child up to the age of five years is assessed for the use of TCAM. Early identification of TCAM use as well as routine guided education will promote the provision of holistic and culturally sensitive child health care in eThekwini district. The objectives of the framework to explore TCAM use for children at health care facilities in eThekwini district are to:

1. Strengthen the quality of health history pertaining to socio-cultural practices to improve health care for children.
2. Enhance open and effective communication between caregivers and professional nurses.
3. Conduct appropriate nursing assessment all children, up to five years of age, attending health care facilities in eThekwini district.
4. Render effective nursing care for all children, up to five years of age, attending health care facilities in eThekwini district.
5. Provide effective caregiver education regarding TCAM use for children up to five years of age.

8.3 CONCLUSION

Ultimately this study yielded data that demonstrated the high prevalence of TCAM use in children, as well as the lack of disclosure to healthcare professionals during preliminary assessments, which could be attributed to the non-enquiry by professional nurses when routinely assessing children. The delayed identification of TCAM use in children was found to have consequences such as the concurrent use with conventional medicine, as well as the occurrence of serious complications to the child's health. Discussions with professional nurses also unveiled the vital role that cultural beliefs play in the lives of people, hence the use of TCAM is inevitable, therefore there is a need to advocate for safe practices such as not using it concurrently with prescribed conventional medicine. Safe use of TCAM may also encompass the provision of it by registered TCAM practitioners, which would ensure safe dosing, and use of appropriate ingredients related to the vulnerability of children in respect of their delicate liver and kidneys.

8.4 LIMITATIONS

This study did not include nurses in maternity units or pregnant women, however, the use of TCAM during the perinatal period emerged during interviews and focus group discussions.

8.5 RECOMMENDATIONS

The recommendations arising from this study have been structured in relation to the study findings.

8.5.1 Policy formulation and implementation

Access to healthcare facilities needs to be adequate and feasible for caregivers. Institutional management should monitor, through audits, the communication process between professional nurses and caregivers. Audits should also be conducted to monitor and ensure appropriate assessment, classification, management, and prompt referral of children at clinic level. At hospitals audits should measure the assessment, history taking and in-patient care of children. The successful implementation of the

proposed framework to explore TCAM use in children at health care facilities in eThekwini, in conjunction with IMCI guidelines contribute to the provision of holistic, family centred, culturally sensitive care which could positively influence child survival in eThekwini district, and even South Africa as a country.

8.5.2 Nursing practice

Open, two-way communication is crucial for obtaining relevant information to reach a classification and make appropriate referral at clinic level or render optimal care at hospital level. All professional nurses should have a sound understanding of caregivers' attitudes, beliefs and perceptions of health and illness. This would serve as a foundation to provide holistic care to children. The ultimate outcome of nursing interventions should be to deliver optimal, holistic, and culturally sensitive care to all children attending health care facilities in eThekwini district. Professional nurses at all levels of healthcare should incorporate an enquiry about the use of TCAM for children into the assessments, care, and referral, to ensure optimal child health and survival. The use of TCAM should be explored during the perinatal period, and education implemented during the antenatal visits, on safety pertaining to TCAM during pregnancy, labour, delivery, and post-natal periods. It was evident, arising from the data collected from caregivers and professional nurses, that TCAM use during the peri-natal period is prevalent and would have an impact on the young infant.

8.5.3 Nursing education and training

Nursing education is dynamic and evolves with revisions that are implemented to adapt to the changing needs of our communities. All nurses being trained in IMCI should also have their skills enhanced in good, open communication. Ongoing workshops and in-service programmes should be in place to promote an awareness among nurses regarding TCAM use for children. Nursing education should incorporate aspects that develop a nurse to provide holistic and culturally sensitive care for all children in eThekwini district. It is recommended that should the proposed framework be implemented, then it should be incorporated into nurse training programmes that teach IMCI. The proposed framework could also be incorporated into workshops and

in-service training to accommodate those nurses who have previously completed their training.

8.6 FURTHER RESEARCH

It is recommended that a broader study be conducted to include all the provinces in South Africa. This will explore the need for the implementation of a framework to explore TCAM use in children throughout South Africa. It is also recommended that studies be conducted to explore TCAM use during the perinatal period with the implementation of education on safe practices.

8.7 CHAPTER SUMMARY

This chapter presented the summary of the study findings in relation to the achievement of the study objectives. The limitations of this study were outlined. The recommendations of the study were presented.

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ANNEXURES

ANNEXURE A: PROVISIONAL ETHICS APPROVAL BY DURBAN UNIVERSITY OF TECHNOLOGY

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

10 October 2022

Mrs S Pillay
664A Stella Road
Queensburgh
4093

Dear Mrs Pillay

A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

I am pleased to inform you that **PROVISIONAL APPROVAL** has been granted to your proposal subject to:

- Piloting of the data collection tool. *Please note that should there be any changes to the data collection tool, in a letter signed by the researcher and supervisor, list the changes to the documents and submit to DUT-IREC with the final data collection tool. Even when there are no changes to the data collection tool, DUT-IREC has to be notified.*
- Obtaining and submitting the necessary gatekeeper permission/s to DUT-Institutional Research Ethics Committee (DUT-IREC).

PLEASE NOTE THAT THIS IS NOT A FINAL APPROVAL LETTER. KINDLY SUBMIT THE ABOVE MENTIONED DOCUMENTS WITHIN THREE MONTHS TO THE DUT-IREC OFFICE. DATA COLLECTION CAN ONLY COMMENCE WHEN DUT-IREC ISSUES FULL APPROVAL

The Proposal has been allocated the following Ethical Clearance number **IREC 244/22**. Please use this number in all communication with this office.

Approval has been granted for a period of **ONE YEAR**, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOP's] of the DUT-IREC. This form must be submitted to the DUT-IREC at least 3 months before the ethics approval for the study expires.

Yours Sincerely

Prof J K Adam
Chairperson: DUT-IREC

ANNEXURE B: FULL ETHICAL APPROVAL

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

31 January 2023

Mrs S Pillay
664A Stella Road
Queensburgh
4093

Dear Mrs Pillay

A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District
Ethics Clearance Number: IREC 244/22

The DUT-Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tools.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letters.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

Yours Sincerely

Professor J K Adam
Chairperson: DUT-IREC

ANNEXURE C: REQUEST FOR GATEKEEPER PERMISSION

Mrs Shanitha Pillay
351 Main Road
Queensburgh
Durban
4093
15 October 2022

THE CEO: Dr. L.J. Sobekwa
R. K. Khan Hospital
Private Bag X004
Chatsworth
4030

RE: REQUEST FOR GATE-KEEPER PERMISSION TO CONDUCT RESEARCH AT R. K. KHAN HOSPITAL

Dear Dr. L.J. Sobekwa

My name is Mrs Shanitha Pillay, a Doctoral Degree nursing student at the Durban University of Technology. I am writing to request approval to conduct a research study at R. K. Khan Hospital. The other institutions included are Addington Hospital as well as Beatrice Street Clinic and Township Center Clinic (PHC). The research I wish to conduct is for my Doctoral thesis and involves the development of:
"A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District."

I am conducting a qualitative study, which will involve the conducting of quality interviews in the form of focus group discussions with Professional Nurses of which 1 will be used to pilot the data collection tool and face to face interviews with caregivers of children up to 59 months who are admitted to the paediatric ward, of which 2 will be used to pilot the data collection tool.
I am hereby seeking your consent to conduct interviews at R. K. Khan Hospital Paediatric Ward. The interviews will be scheduled with minimum disruption to service delivery and all Covid 19 protocols of the institution will be complied with.

I have provided you with a copy of my proposal which includes copies of the data collection tools, letter of Information and consent to be used in the research process, Gate Keeper support letters from the various institutions, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on the following contacts: Cell Phone 0844451872, email shanithapillay12@gmail.com / Shanitha.Pillay@kznhealth.gov.za
Thank you for your time and consideration in this matter.

Yours sincerely,

_____

Shanitha Pillay (Student Number 21449552)
Supervisor: Prof. T.P. Ngxongo
Co-Supervisor: Dr. D. Sokhela
Durban University of Technology

ANNEXURE C1: APPROVAL LETTER: R.K.KHAN HOSPITAL

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address : R.K. Khan Circle
Physical Address : CHATSWORTH
Tel: [031] 4596001 Fax:[031] 4011247 Email:Dianne.naicker@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:
R.K. KHAN HOSPITAL
OFFICE OF THE SENIOR
MANAGER: MEDICAL SERVICES

ENQUIRIES: DR B.S. MADLALA

17 OCTOBER 2022

MRS SHANITHA PILLAY
664A STELLA ROAD
QUEENSBURGH
4093

Dear Mrs Pillay

RE: PERMISSION TO CONDUCT RESEARCH STUDY: TITLE: A FRAMEWORK TO EXPLORE TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE MEDICINE USE FOR CHILDREN AT HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

Permission is granted to conduct the above study at this institution.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures protocols and guidelines of the Institution with regards to this research.

2. Please ensure this office is informed before you commence your research and your University's Ethics approval must be attached.

3. **You will be expected to provide feedback on your findings to this institution.**

4. You will be liaising with: DR F. MAMDOO
HEAD: CLINICAL UNIT
DEPARTMENT OF PAEDIATRICS
Tel.: 031-4596204 / 6209

Yours faithfully

DR B.S. MADLALA
SENIOR MANAGER: MEDICAL SERVICES

ANNEXURE D: REQUEST FOR GATEKEEPER PERMISSION

Mrs Shanitha Pillay
351 Main Road
Queensburgh
Durban
4093
15 October 2022

THE CEO: Dr. M. Ndlangisa
Addington Hospital
P.O. BOX 977
Durban
4000

RE: REQUEST FOR GATE-KEEPER PERMISSION TO CONDUCT RESEARCH AT ADDINGTON HOSPITAL

Dear Dr. M. Ndlangisa

My name is Mrs Shanitha Pillay, a Doctoral Degree nursing student at the Durban University of Technology. I am writing to request approval to conduct a research study at Addington Hospital. The other institutions included are R. K. Khan Hospital as well as Beatrice Street Clinic and Township Center Clinic (PHC). The research I wish to conduct is for my Doctoral thesis and involves the development of:
"A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District."

I am conducting a qualitative study, which will involve the conducting of quality interviews in the form of focus group discussions with Professional Nurses working in the paediatric ward and face to face interviews with caregivers of children up to 59 months who are admitted to the paediatric ward.

I am hereby seeking your consent to conduct interviews at Addington Hospital Paediatric Ward. The interviews will be scheduled with minimum disruption to service delivery and all Covid 19 protocols of the institution will be complied with.

I have provided you with a copy of my proposal which includes copies of the data collection tools, letter of Information and consent to be used in the research process, Gate Keeper support letters from the various institutions, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on the following contacts: Cell Phone 0844451872, email shanithapillay12@gmail.com / Shanitha.Pillay@kznhealth.gov.za
Thank you for your time and consideration in this matter.

Yours sincerely,

_____

Shanitha Pillay (Student Number 21449552)
Supervisor: Prof. T.P. Ngxongo
Co-Supervisor: Dr. D. Sokhela
Durban University of Technology

ANNEXURE D1: APPROVAL LETTER ADDINGTON HOSPITAL

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

ADDINGTON HOSPITAL
OFFICE OF THE CHIEF EXECUTIVE OFFICER

P. O. Box 977, Durban, 4000
16 Erskine Terrace, South Beach, Durban, 4001
Tel: 031-324-2970 Fax: 031- 327-2453
Email address: reshma.boodhai@kznhealth.gov.za
www.kznhealth.gov.za

Reference: 9/2/3/R

Date: 19/12/2022

Principal Investigator:
- **Mrs S Pillay**

PERMISSION TO CONDUCT RESEARCH AT ADDINGTON HOSPITAL: A FRAMEWORK TO EXPLORE TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE MEDICINE USE FOR CHILDREN IN HEALTH CARE FACILITIES IN ETHEKWINI DISRICT

I have pleasure in informing you that permission has been granted to you by Addington Hospital Management to conduct the above research.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. The research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. Addington Hospital will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to Addington Hospital.

DR M NDLANGISA
CHIEF EXECUTIVE OFFICER
ADDINGTON HOSPITAL

/rb

ANNEXURE E: REQUEST FOR GATEKEEPER PERMISSION: ETHEKWINI MUNICIPALITY

Mrs Shanitha Pillay
351 Main Road
Queensburgh
Durban
4093
15 October 2022

The Health Manager
EThekwini Municipality Department of Health
Old Fort Road
Durban
4000
Dear Sir/ Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT TWO PRIMARY HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

Dear Sir/ Madam

My name is Mrs Shanitha Pillay, a Doctoral Degree nursing student at the Durban University of Technology. I am writing to request approval to conduct a research study at selected primary health care clinics (Beatrice Street Clinic and Township Center Clinic) in the eThekwini District. The other institutions included in my study are Addington Hospital and R.K. Khan Hospital. The research I wish to conduct is for my Doctoral thesis and involves the development of:
"A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District."
I am conducting a qualitative study, which will involve the conducting of quality interviews in the form of focus group discussions with Professional Nurses working in the paediatric wards of the selected hospitals and Clinics, as well we face to face interviews with caregivers of children up to 59 months who are admitted to the paediatric wards of the selected hospitals.

I am hereby seeking your consent to conduct interviews at Beatrice Street Clinic and Township Center Clinic. The interviews will be scheduled with minimum disruption to service delivery and all Covid 19 protocols of the institution will be complied with.

I have provided you with a copy of my proposal which includes copies of the data collection tools letter of Information and consent to be used in the research process, Gate Keeper support letters from the various institutions, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on the following contacts: Cell Phone 0844451872, email shanithapillay12@gmail.com / Shanitha.Pillay@kznhealth.gov.za
Thank you for your time and consideration in this matter.
Yours sincerely,

_____

Shanitha Pillay (Student Number 21449552)
Supervisor: Prof. T.P. Ngxongo
Co-Supervisor: Dr. D. Sokhela
Durban University of Technology

ANNEXURE E1: APPROVAL LETTER: ETHEKWINI MUNICIPALITY

ETHEKWINI MUNICIPALITY
Community & Emergency Services Cluster
Health Unit

9 Archie Gumede Place
Durban 4001
P O Box 2443
Durban 4000
Tel: (031) 311 3505
Fax: (031) 311 3710
Website:
http://www.durban.org.za

ETHEKWINI MUNICIPALITY
HEALTH UNIT
TELEPHONE NO:

Ref. No. 30/1/1 / 6/3/1

To: Shanitha Pillay

20 October 2022

Dear Researcher,

This letter serves to confirm that the Research Committee of the eThekwini Municipality Health Unit has received your proposed protocol titled**: "A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District."**

We have reviewed your protocol and are supportive of this study. We will however only be able to provide you with full gatekeeper approval once you have received ethical approval from your academic institution.

So, this letter will serve as a letter of acknowledgment of your study and a letter of support for your study. Full gatekeeper approval will follow once the ethical approval has been obtained.

Yours Sincerelv

Mrs. Rosemary Van Heerden
Head: Health Unit

ANNEXURE F: REQUEST FOR GATEKEEPER PERMISSION: ETHEKWINI DISTRICT OFFICE

Mrs Shanitha Pillay
351 Main Road
Queensburgh
Durban
4093
15 October 2022

The District Manager
Durban
4000
Dear Sir/ Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT TWO REGIONAL HOSPITALS AND TWO PRIMARY HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

Dear Sir/ Madam

My name is Mrs Shanitha Pillay, a Doctoral Degree nursing student at the Durban University of Technology. I am writing to request approval to conduct a research study at facilities of the KwaZulu-Natal Department of Health. The institutions included are Addington Hospital and R.K. Khan Hospital, as well as Beatrice Street Clinic and Township Center Clinic (PHC). The research I wish to conduct is for my Doctoral thesis and involves the development of:

"A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District."

I am conducting a qualitative study, which will involve the conducting of quality interviews in the form of focus group discussions with Professional Nurses working in the paediatric wards of the selected hospitals and Clinics, as well we face to face interviews with caregivers of children up to 59 months who are admitted to the paediatric wards of the selected hospitals.

I am hereby seeking your consent to conduct interviews at the identified Institutions. I have also sought permission from eThekwini Municipality Health Department in Old Fort Road for use of the selected clinics. The interviews will be scheduled with minimum disruption to service delivery and all Covid 19 protocols of the institution will be complied with.

I have provided you with a copy of my proposal which includes copies of the data collection tools letter of Information and consent to be used in the research process, Gate Keeper support letters from the various institutions, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on the following contacts: Cell Phone 0844451872, email shanithapillay12@gmail.com / Shanitha.Pillay@kznhealth.gov.za
Thank you for your time and consideration in this matter.

Yours sincerely,

_____
Shanitha Pillay (Student Number 21449552)
Supervisor: Prof. T.P. Ngxongo
Co-Supervisor: Dr. D. Sokhela
Durban University of Technology

ANNEXURE F1: APPROVAL LETTER: ETHEKWINI DISTRICT OFFICE

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE: DISTRICT DIRECTOR

Physical address: 83 King Cetshwayo Highway; Highway House; Mayville 4091
Postal Address: private Bag X 54318, Durban 4000 eThekwini District Office
Tel: 031 240 5309 Fax: 031 240 5555 Email: Thabisile.sakyi@kznhealth.gov.za
www.kznhealth.gov.za

Enquiries: Z Matyo
Date: 01/11/2022

Dear S. Pillay
Durban University of Technology
School of Nursing

RE: SUPPORT FOR RESEARCH STUDY ON A FRAMEWORK TO EXPLORE TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE MEDICINE USE FOR CHILDREN AT HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT

I have the pleasure in informing you that the District is granting you support to conduct the research study titled, 'A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.'

Please note the following:

1. Please ensure you adhere to all the policies, procedures, protocols, and guidelines of the department of health with regards to this research.
2. This research will only commence once this office has received confirmation from the provincial health research committee in the KZN department of health.
3. Please ensure this office is informed before you commence your research.
4. The District office/facility will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to the district office/facility

Thanking you.

pp (District Director) EThekwini Health District
Date:

DEPARTMENT OF HEALTH
eTHEKWINI DISTRICT OFFICE
01 NOV 2022
PRIVATE BAG X54318
DURBAN 4000

GROWING KWAZULU-NATAL TOGETHER

ANNEXURE G: REQUEST FOR PROVINCIAL RESEARCH PERMISSION

Mrs Shanitha Pillay
351 Main Road
Queensburgh
Durban
4093
15 October 2022

Dr. E. Lutge
Manager: Health Research and Knowledge Management Unit Kwazulu-Natal Department Of Health
330 Longmarket Street
Pietermaritzburg
3201

RE: REQUEST FOR APPROVAL TO CONDUCT RESEARCH AT THE KWAZULU-NATAL DEPARTMENT OF HEALTH

Dear Dr Lutge
My name is Mrs Shanitha Pillay, a Doctoral Degree nursing student at the Durban University of Technology. I am writing to request approval to conduct a research study at facilities of the KwaZulu-Natal Department of Health. The institutions included are Addington Hospital and R.K. Khan Hospital, as well as Beatrice Street Clinic and Township Center Clinic (PHC). The research I wish to conduct is for my Doctoral thesis and involves the development of:
"A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District."

I am conducting a qualitative study, which will involve the conducting of quality interviews in the form of focus group discussions with Professional Nurses working in the paediatric wards and face to face interviews with caregivers of children up to 59 months who are admitted to the paediatric ward.

I am hereby seeking your consent to conduct interviews at this identified Institution. The interviews will be scheduled with minimum disruption to service delivery and all Covid 19 protocols of the institution will be complied with.

I have provided you with a copy of my proposal which includes copies of the data collection tools letter of Information and consent to be used in the research process, Gate Keeper support letters from the various institutions, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on the following contacts: Cell Phone 0844451872, email shanithapillay12@gmail.com / Shanitha.Pillay@kznhealth.gov.za
Thank you for your time and consideration in this matter.

Yours sincerely,

_____

Shanitha Pillay (Student Number 21449552)
Supervisor: Prof. T.P. Ngxongo
Co-Supervisor: Dr. D. Sokhela
Durban University of Technology

ANNEXURE G1: PROVINCIAL APPROVAL

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address: 330 Langalibalele Street, Pietermaritzburg
Postal Address: Private Bag X9051
Tel: 033 395 2805/ 3189/ 3123 Fax: 033 394 3782
Email:
www.kznhealth.gov.za

DIRECTORATE:
Health Research & Knowledge Management

NHRD Ref: KZ_202212_007

Dear Mrs S. Pillay
(DUT)

Approval of research

1. The research proposal titled **'A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

   The proposal is hereby **approved** for research to be undertaken at Addington, RK Khan Hospital, Beatrice Street Clinic.

2. You are requested to take note of the following:
   a. ***Kindly liaise with the facility manager BEFORE your research begins.***
      This is to ensure that conditions in the facility are conducive to the conduct of your research. These include, but are not limited to, an assurance that the numbers of patients attending the facility are sufficient to support your sample size requirements, and that the space and physical infrastructure of the facility can accommodate the research team and any additional equipment required for the research.
   b. *All research conducted in KwaZulu-Natal must comply with government regulations relating to Covid-19. These include but are not limited to: regulations concerning social distancing, the wearing of personal protective equipment, and limitations on meetings and social gatherings.*
   c. *Please ensure that you provide your letter of ethics re-certification to this unit, when the current approval expires.*
   d. *Provide an interim progress report and final report (electronic and hard copies) when your research is complete to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za*
   e. *Please note that the Department of Health shall not be held liable for any injury that occurs as a result of this study.*

For any additional information please contact Mr X. Xaba on 033-395 2805.

Yours Sincerely

Dr E Lutge
Chairperson, Provincial Health Research Committee
Date: 14/12/2022.

Fighting Disease, Fighting Poverty, Giving Hope

ANNEXURE H: LETTER OF INFORMATION (PROFESSIONAL NURSES)

LETTER OF INFORMATION (PROFESSIONAL NURSES)

Title of the Research Study : A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

Principal Investigator/s/researcher: Shanitha Pillay

Co-Investigator/s/supervisor/s: Professor T. P. Ngxongo; Dr. D. Sokhela

Brief Introduction and Purpose of the Study: The researcher having worked in a regional hospital as a child nurse specialist, has observed children coming into hospital very sick and caregivers not readily disclosing the use of TCAM until a child has complicated to organ failure or even death. It is likely that many adverse reactions go unrecorded with caregivers failing to divulge information of TCAM use to health care workers hence, establishing a diagnosis of herbal toxicity can be difficult. There is currently no standardised framework for professional nurses to enquire about TCAM use formally and routinely in every child attending a health care facility, hence this vital information is missed, with the potential of the child's condition deteriorating. Thus, the researcher intends as part of the planned study to develop a framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

Greeting Good day, I trust that you are well. Thank you for affording me your valuable time.

Introduce yourself to the participant I am a 4th year student at Durban University of Technology and I am currently engaged in research towards my doctorate in nursing.

Invitation to the potential participant I would like to invite you to participate in the research that I am currently conducting

What is Research: Research is a systematic search or enquiry for generalized new knowledge. The researcher obtains information from other studies and goes on to collect own information from you which will be recorded, analyzed and interpreted. This information will assist in contributing to the aim of this study, which is to improve communication, regarding TCAM use in children, between caregivers and professional nurses.

You are most welcome to ask any questions at any time because it is important to the researcher that you fully understand the nature of this study. You are also entitled to discuss

your participation with a friend or family if you wish. For this purpose, a copy of the Letter of Information document can be given to you to take home.

Outline of the Procedures: The study will be conducted with Professional nurses working in the paediatric ward. Qualitative interviews in the form of focus group discussions will be used to collect data. Each focus group discussion would take approximately 45 minutes to 1 hour. The number of participants per focus group will be between five to seven participants. The group will consist of professional nurses who are trained in Integrated Management of Childhood Illnesses (IMCI), have worked in the paediatric ward for at least six months and are involved in taking history from caregivers pertaining to children up to five years. The researcher will conduct interviews on site, which will be at the hospital, in a private room which will be arranged by consultation and with the assistance of the institution's management. Interview times will be arranged to suit you and will be scheduled so that there is no interruption to the schedules or patient care. A semi-structured interview guide with open-ended questions will be used, and all interviews will be conducted in English. The researcher will request to audio record all interviews, as it will not be possible to capture all the data in notes during the interview process.

Risks or Discomforts to the Participant: There will be no risks or discomfort to you.

Explain to the participant the reasons he/she may be withdraw from the Study: You have the right to refuse to partake in the research at any stage of the study.

Benefits: The study is aimed at creating a better understanding of the use of traditional, complementary, and alternative medicine (TCAM) for children under the age of five years. The information obtained from you; the participant could contribute to the researcher developing a framework to routinely guide health care workers on taking a holistic history form caregiver when they assess children. The successful completion of this study may result in the researcher obtaining a Doctoral Degree in Nursing.

Remuneration: There will be no remuneration for the participant or the researcher during or on conclusion of the study.

Costs of the Study: You will not be expected to cover any costs related to this study.

Confidentiality: You will be expected to fill in a consent form. Your anonymity will be guaranteed, and you are not required to write your name on any interview forms.

Results: the results of this study will be made available to be accessed on the DUT library, as well as publishing a journal article.

Research-related Injury: I do not foresee any injuries occurring during the study.

Storage of all electronic and hard copies including tape recordings All notes will be kept in a lock up cupboard, and recordings will be transcribed onto a password protected computer. Only the researcher will have access to the password and information stored on the computer.

Persons to contact in the Event of Any Problems or Queries: Please contact the researcher Shanitha Pillay (031- 4596418), my supervisor Prof. T.P. Ngxɔngo (Tel no. 031 3732609) or Co Supervisor Dr. D. Sokhela (Tel no. 031-3732292). or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za.

ANNEXURE I: LETTER OF INFORMATION (CAREGIVERS)

LETTER OF INFORMATION (CAREGIVER)

Title of the Research Study : A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

Principal Investigator/s/researcher: Shanitha Pillay

Co-Investigator/s/supervisor/s: Professor T. P. Ngxongo; Dr. D. Sokhela

Brief Introduction and Purpose of the Study: The researcher has worked in regional hospital as a child nurse specialist, has observed children coming into hospital very sick and caregivers not readily disclosing the use of TCAM until a child becomes very sick. It is likely that many adverse reactions go unrecorded with caregivers failing to divulge information of TCAM use to health care workers who at times may not ask about TCAM use. There is currently no standardised framework for professional nurses to ask about TCAM use formally and routinely in every child attending a health care facility, hence this vital information is missed, with the potential of the child's condition becoming worse. Thus, the researcher intends as part of the planned study to develop a framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

Greeting Good day, I trust that you are well. Thank you for affording me your valuable time.

Introduce yourself to the participant I am a 4th year student at Durban University of Technology and I am currently engaged in research towards my doctorate in nursing.

Invitation to the potential participant I would like to invite you to participate in the research that I am currently conducting

What is Research: Research is a systematic search or enquiry for generalized new knowledge. The researcher obtains information from other studies and goes on to collect own information from you which will be recorded, analyzed and interpreted. This information will assist in contributing to the aim of this study, which is to improve communication, regarding TCAM use in children, between caregivers and professional nurses.

You are most welcome to ask any questions at any time because it is important to the researcher that you fully understand the nature of this study. You are also entitled to discuss your participation with a friend or family if you wish. For this purpose, a copy of the Letter of Information document can be given to you to take home.

Outline of the Procedures: The study will be conducted with caregivers of children up to 59 months in the identified paediatric wards. Qualitative interviews in the form of face-to-face interviews will be used to collect data. Each interview would take approximately 30 to 45 minutes. The researcher will conduct interviews on site, which will be at the hospital, in a private room which will be arranged by consultation and with the assistance of the institution's management. A semi-structured interview guide with open-ended questions will be used, and all interviews will be conducted in English, however if the participant speaks isizulu, then a translator will be present to assist. The researcher will request to audio record all interviews, as it will not be possible to capture all the data in notes during the interview process.

Risks or Discomforts to the Participant: There will be no risks or discomfort to you.

Explain to the participant the reasons he/she may be withdraw from the Study: You have the right to refuse to partake in the research at any stage of the study.

Benefits: The study is aimed at creating a better understanding of the use of traditional, complementary, and alternative medicine (TCAM) for children under the age of five years. The information obtained from you; the participant could contribute to the researcher developing a framework to routinely guide health care workers on taking a holistic history form caregiver when they assess children. The successful completion of this study may result in the researcher obtaining a Doctoral Degree in Nursing.

Remuneration: There will be no remuneration for the participant or the researcher during or on conclusion of the study.

Costs of the Study: You will not be expected to cover any costs related to this study.

Confidentiality: You will be expected to fill in a consent form. Your anonymity will be guaranteed, and you are not required to write your name on any interview forms.

Results: the results of this study will be made available to be accessed on the DUT library, as well as publishing a journal article.

Research-related Injury: I do not foresee any injuries occurring during the study.

Storage of all electronic and hard copies including tape recordings All notes will be kept in a lock up cupboard, and recordings will be transcribed onto a password protected computer. Only the researcher will have access to the password and information stored on the computer.

Persons to contact in the Event of Any Problems or Queries: Please contact the researcher Shanitha Pillay (031- 4596418), my supervisor Prof. T.P. Ngxɔngo (Tel no. 031 3732609) or Co Supervisor Dr. D. Sokhela (Tel no. 031-3732292). or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za.

ANNEXURE J: CONSENT

CONSENT

Full Title of the Study: A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

Names of Researcher/s: Mrs. Shanitha Pillay

Statement of Agreement to Participate in the Research Study:

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

_____	_____	_____	_____
Full Name of Participant	**Date**	**Time**	**Signature / Right Thumbprint**

I, _____ (name of researcher) herewith confirm that the above participant has been

fully
informed about the nature, conduct and risks of the above study.

Full Name of Researcher	**Date**	**Signature**
Full Name of Witness (If applicable)	**Date**	**Signature**
Full Name of Legal Guardian (If applicable)	**Date**	**Signature**

ANNEXURE K: LETTER OF INFORMATION TO CAREGIVERS – FACE TO FACE INTERVIEW (ISIZULU)

INCWADI YESAZISO

(UMBHEKI WENGANE: INGXOXO PHAKATHI KOMBHEKI WENGANE NOMCWANINGI)

Isihloko socwaningo:

Uhlaka lokubheka ukusetshenziswa kwemakhambi endabuko kanye nawaseNtshonalanga kubantwana baseThekwini namaphethelo

Umcwaningi

Mrs. Shanitha Pillay

Abaqondisi

Supervisor: Prof. T.P. Ngxongo

Co-Supervisor: Dr. D. Sokhela

Isingeniso Nenhloso Yocwaningo

Mmbambi qhaza othandekayo

Uyamenywa ukuba ube yingxenye yalolu cwaningo lokuhlaziya ukusetsheziswa kwamakhambi endabuko kanye nawaseNtshonalanga kubantwana abangaphansi kweminyaka eyisihlanu.

Ngiyabonga ukuba ungiphe isikhathi sokuqonda kangcono lolucwaningo engulenzayo lokusetshenziswa kwamakhimbi endabuko naweNsthonalanga kubantwana, nginethemba lokuthi lolucwaningo luzoba nomthelela omuhle ekulashweni kwabantwana.

Umhlahlandlela wocwaningo

Ucwaningo lizokwenziwa nababheki babantwana abeze emtholampilo kusukela kozelwe kuya ezinyangeni eziyishumi nanhlanu nesishagalolunye(59) engxoxweni ezothatha okungenani imizizu engamashumi amathathu kuya emashumini amane nanhlanu (30 kuya 45 yemizuzu.

Umcwaningi uzoxoxisana nombheki womntwana egumbini lasesibhedlela elizobe libekelwe lolucwaningo ngabaphathi besibhedlela.

Ukuxoxisana phakathi komncwaningi nombheki kumbe umgadi wengane kuzobe kwenzeka ngolimi lwesingisi kodwa uma umbheki womtwana ekhuluma isiZulu utolika uzoba khona.

Ukulindele ukuba umcwaningi uyocela ukuba inkulumo iqoshwe ukuze ayithole kahle yonke imininingwane.

Ubungozi kumbe ubuhlungu balolocwaningo:

Lolucwaningo alinabungozi nabuhlungu.

Luzosiza ngani lolucwaningo:

Luzosiza ukuba sibe nolwazi olunzulu ngokusetshenziswa kwamakhambi endabuko kanye nawaseNtshonalanga kubantwana abangaphansi kweminyaka eyisihlanu.

Imininingwane ezotholakala kuwe izosiza umcwaningi ukuba akhe uhlaka oluzosiza abasebenzi bezempilo ekuhloleni nasekuthatheni imininingwane ephelele kubabheki babantwana ngesikhathi belethe abantwana emtholampilo.

Ukuphumelela kwalolucwaningo kungaholela umcwaningi ukuba athole iziqu zobuDokotela.

Izizathu ezingaholela ukuba umbambiqhaza ayeke ukuqhubeka nokuzimbandakanya nocwaningo:

Umbambhiqhaza unelungelo lokuyeka ukuzimbandakanya nocwaningo noma inini ucwaningo lusaqhubeka.

Inkokhelo

Umcwaningi kanye nabambe iqhaza abazokhokhelwa mali ngalolucwaningo.

Izindleko zocwaningo:

Uma ubambe iqhaza kulolucwaningo awulindelekile ukuba ukhokhe.

Ukugcinwa kwemininingwane iyimfihlo

Yonke imininingwane yocwaningo, igama lakho kodwa awulindelekile ukuba ulibhale kuzogcinwa kuyimfihlo ngokuvalelwa emakhabetheni akhiywayo nakwicomputer esetshenziswa ngumcwaningi kuphela. Umcwaningi uyokunxusa ukuba usayine ukuthi uyamnika imvumo yokubamba iqhaza kucwaningo.

Ukulimala okungenzeka ngesikhathi socwaningo:

Ucwaningo luphephile akukho ukulimala okungenzeka

Ongabathinta uma kunezikhalazo kumbe imibuzo

Ungaxhumana nomcwaningi Shanitha Pillay (031- 4596418), Umphathi omkhulu Prof T.P. Ngxongo (Tel no. 031 3732609) Umqondisi Dr. D. Sokhela (Tel no. 031-3732292). ….. Isikhungo socwaningo 031 373 2375. Izikhalazo zingabikwa kubasunguli bocwaningo Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za.

ANNEXURE L: CONSENT (ISIZULU)

CONSENT

Isivumelwano sokubamba iqhaza kucwaningo

 Ngiyavuma ukuthi ngitsheliwe ngumcwaningi **Mrs Shanitha Pillay** ukuthi ucwaningo luzokwenziwa kanjani,nomthelela walo kanjalo nokuphepha kocwaningo.

Research Ethics Clearance

Number: _____

 Ngithole nolwazi olubhaliwe,ngalifunda ngaqondisisa kahle ngalolucwaningo.

 Ngiyazi ngemiphumela yalolucwaningo,imininingwane enjengegama nesibongo ubulili,usuku lokuzalwa kanye nesigulo kuyocashiswa kwenziwe kumbiko wocwaningo

 Ngiyavuma ukuba yonke imininingwane engiyitshele umcubunguli ukuba ingasetshenziswe ngobuchwepheshe becomputer.

 Ngivumelekile ukuba ngingaqhubeki nalolucwaningo noma inini.

 Nginikwe isikhathi esanele ukubuza imibuzo ngokuthanda kwami,ngiyavuma ukuthi sengikulungele ukubamba iqhaza kulolu cwaningo.

 Ngiyaqonda ukuthi imiphumela ezovela ngalolucwaningo eqondene nokubamba iqhaza kwami ngiyokwaziswa name.

_____ _____ _____ _____

Amagama aphelele kambambi Usuku Isikhathi Sayina/isithupha qhaza

Mina Mrs Shanitha Pillay ngiyavuma ukuthi umbambi qhaza wazisiwe ngocwaningo ukuthi lungani,lwenziwa kanjani nobungozi uma ngase kube khona.

_____ _____ _____

(Full Name of Researcher)
Amagama aphelele

omcwaningi	**Usuku**	**Sayina**
_____	_____	_____
Full Name of Witness (If applicable) **Amagama aphelele kafakazi**	**Usuku**	**Sayina**

ANNEXURE M: FOCUS GROUP DISCUSSION GUIDE FOR PROFESSIONAL NURSES DEMOGRAPHIC INFORMATION

FOCUS GROUP DISCUSSION GUIDE FOR PROFESSIONAL NURSES

DEMOGRAPHIC INFORMATION

Name: _____

Physical address: _____

Contact Number: _____

Enter Code

Health Authority: ☐

Healthcare Facility: ☐

Participant Number: ☐

BACKGROUND INFORMATION

Date:

Venue:

Time:

Gender:

Age:

Years of clinical experience:

Experience in Paediatric ward/ Clinic:

Highest qualification:

NB: The information on this page is confidential. Once filled in, remove immediately and store in safe place.

ANNEXURE N: FOCUS GROUP DISCUSSION GUIDE FOR PROFESSIONAL NURSES

FOCUS GROUP DISCUSSION GUIDE FOR PROFESSIONAL NURSES

Enter Code

Health Authority: ☐

Healthcare Facility: ☐

Focus Group Number: ☐

Date: _____

Grand tour question: Tell me about the use of Traditional Complementary and Alternative Medicine for children up to 59 months of age.

Objective 4: Explore Professional nurses' perspectives regarding TCAM use for children.	
Main question	**Probes**
1. How do you feel about caregivers using TCAM for their children?	a. What are your experiences of TCAM use for children? b. Tell me about the potential risks of TCAM use for children. c. Tell me about the potential benefits of TCAM use in children. d. What are the benefits of open communication about TCAM use by caregivers for their children?
Objective 5: Develop a framework to guide professional nurses on practicing a routine guided enquiry to explore TCAM use in children in eThekwini district.	
2. What are the advantages of a framework to guide professional nurses on practicing a routine guided enquiry to determine TCAM use in children?	a. What are the advantages of routinely asking caregivers about TCAM use for their children? b. How should a child with TCAM use be classified? c. What interventions can be taken should a caregiver is found to be administering TCAM to their child?

	d. Is there any routine education that can be given to caregivers about TCAM use for their children? e. Tell me about interpersonal skills that can promote honest and open communication between caregiver and health care worker about TCAM use?

THANK YOU FOR YOUR PARTICIPATION

ANNEXURE O: FACE TO FACE INTERVIEW GUIDE FOR CAREGIVERS

DEMOGRAPHIC INFORMATION

FACE TO FACE INTERVIEW GUIDE FOR CAREGIVERS
DEMOGRAPHIC INFORMATION

Name: _____

Physical address: _____

Contact Number: _____

	Enter Code
Health Authority:	
Healthcare Facility:	
Participant Number:	

BACKGROUND INFORMATION

Date:

Venue:

Time:

Gender:

Age:

Relationship to child:

Employment:

Religious beliefs:

Race:

NB: The information on this page is confidential. Once filled in, remove immediately and store in safe place.

ANNEXURE P: FACE TO FACE INTERVIEW GUIDE FOR CAREGIVERS

FACE TO FACE INTERVIEW GUIDE FOR CAREGIVERS

Enter Code

Health Authority: ☐

Healthcare Facility: ☐

Participant Number: ☐

Date: _____

Grand tour question: Tell me about the use of Traditional Complementary and Alternative Medicine for children.

Objective 1: Explore caregiver's perspectives regarding the use of conventional medicine for childhood illnesses.	
Main question	**Probes**
1. How do you feel about using clinic medicine for your child?	a. How do you feel about giving western/ clinic medicine to your child? b. How do you feel about giving a child TCAM and clinic/ hospital medicine together?
Objective 2: Describe caregiver's perspectives regarding the use of TCAM for childhood illnesses.	
1. How do you feel about using traditional (TCAM) medicine for your child when he/she is unwell?	a. What are your thoughts about using traditional medicine (TCAM) for your child if he/ she is unwell? b. What are the reasons for using TCAM in children when they are unwell? c. Tell me about the use of TCAM for normal growth in children?
Objective 3: Critically analyse the factors influencing caregiver's disclosure of TCAM use for childhood illnesses.	
2. How do you feel about talking to nurses about giving TCAM for your child?	a. How do you feel about discussing TCAM use for your child with nurses? b. What some factors that can make it better to talk about TCAM use when asked about it by nurses?

	c. What some factors that can make it difficult to talk about TCAM use when asked about it by nurses?

THANK YOU FOR YOUR PARTICIPATION

ANNEXURE Q: INDEMNITY MUNICIPALITY

No. M 1/1/2

Director: Health
Box 2443
DURBAN
4000

Researcher- Name: Shanitha Pillay
Institution- Name: Durban University of Technology
Institution- Address: 41/43 ML Sultan Road
Greyville, Durban
4001
Research Subject: A Framework to explore Traditional, Complementary & Alternative medicine use for... Children at health care facilities in eThekwini District.

Dear Sir/Madam

RESEARCH SITE : ETHEKWINI MUNICIPALITY HEALTH DEPARTMENT

I, the undersigned, hereby wish to apply for permission to attend the eThekwini Health Department to undertake research on Council property.

I understand that any permission granted to me will be subject to:
(a) there being no additional cost to the Council; and
(b) the exigencies of the eThekwini Health Department, and provided that no interference with its programme will ensue.

In consideration of the facilities given and to be given to me by the eThekwini City Council, as aforesaid, I hereby indemnify the said Council and its officers and hold it and them harmless against and hereby waive, renounce and abandon any claim for damages or compensation arising from injury or loss which I may sustain whilst on Council property or transport or on the way to or from any Council property or place of research or which I may sustain in any way whatsoever whilst conducting research.

I further indemnify the eThekwini Council and its officers against any claim whatsoever which may in any way result from the facilities afforded to me and be brought against the said Council or its officers.

Date: 06/02/2023

Researcher's Signature

Witness: _____

SHANITHA PILLAY
Researchers Name (in capital letters)

Permanent Address:
351 MAIN ROAD, QUEENSBURGH
4093

Period From: 01 FEBRUARY 2023 to 01 FEBRUARY 2024

ANNEXURE R: EDITING CERTIFICATE

DR RICHARD STEELE
BA HDE MTech(Hom)
HOMEOPATH
Registration No. A07309 HM
Practice No. 0807524
Freelance academic editor
Associate member: Professional Editors' Guild, South Africa

154 Magenta Place
Gxarha [Morgan Bay]
5292
Eastern Cape

082-928-6208
rsteele@vodamail.co.za
rsteele201@outlook.com

EDITING CERTIFICATE

Re: **SHANITHA PILLAY**
Doctoral thesis DUT: **A Framework to Explore Traditional, Complementary and Alternative Medicine use for Children at Health Care Facilities in eThekwini District**

I confirm that I have edited this thesis and the references for clarity, language and layout. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. The intellectual content of the document is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years and supervised many master's degree dissertations during that period.

Dr Richard Steele
27 September 2023
per email

ANNEXURE S: DATA ANAYSIS: FOCUS GROUP DISCUSSION

SAMPLE - TRANSCRIPTION OF FOCUS GROUP DISCUSSION 1- RH 1 WITH PROFESSIONAL NURSES

DATE: 01 FEBRUARY 2023

TIME: 14H00

NUMBER OF PARTICIPANTS: 5 (CHILD NURSE SPECIALISTS)

Interviewer: Good morning to you all thank you for agreeing to participate in this focus group discussion. As you have kindly agreed to my request, I will be recording this discussion. There are a few rules for our focus group discussion… it is important for all to participate actively and there is no right or wrong answer. We should all respect each other's views and please can we keep our cell phones on silent. Are we all okay with these rules?

Participants: Yes we are okay (All)

Grand tour question: Tell me about the use of Traditional, Complementary and Alternative Medicine for children up to 59 months.

Interviewer: What are your experiences of caregivers using TCAM for their children?

Participant 1: Different cultures use different kinds of alternative medicine. We as health care workers don't know the right and the wrong of this medicine. But from our experience we find that children are taken to traditional healers and are given stuff that… more of these children come to us toxic, ill and sometimes we lose these babies. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour, 1.2 Use of TCAM for childhood illnesses***)

So honestly from my perspective, I don't think the traditional healer is a valid person, has got a qualification, if he or she has studied to really dispense this medication. But again it now boils down to culture and tradition, what is right and what is wrong. It is a grey area.

Participant 3: Another thing is that most of the patients that we are nursing come from rural backgrounds where the nearest place for them is the traditional healer (***Theme 2: Reasons for TCAM use. Subtheme 2.1: Accessibility of TCAM)***, so if

there is a way of incorporating the two- the medical and the traditional care in a safe way, maybe you wouldn't be getting these kids in the first place. Maybe these traditional healers, if it is possible to take them for training – maybe teach them how to do the sugar salt solution in the correct way in a safe way maybe that can help. Most of the time they are the first contact for the patient so it makes it so hard for some as I've said in the rural area to come straight to hospital because the neighbour is a traditional healer, so he will run to the neighbour who is a traditional healer. (***Theme 2: Reasons for TCAM use***. ***Subtheme 2.1: Accessibility of TCAM***)

Participant 2: And sometimes most of the times the mothers don't have a say in what is given to their children, it's the grannies. And the grannies have this tradition that if the child is sick you must give the sunlight you must give the enema or you give whatever Colgate enemas and this is whats causing them to become so toxic. And the parents can't say anything because the grannies – they can't differ to the elders in the communities. (***Theme 2: Reasons for TCAM use***. ***Subtheme 2.2: Respect for elders and tradition***)

Participant 4: They will tell you, I raised you like this and nothing happened to you so why you telling me not to give the child (***Theme 2: Reasons for TCAM use***. ***Subtheme 2.2: Respect for elders and tradition***). And then they keep them at home for a long time that's the other issue. They give it to them then two to three days later the child rocks up here almost on death bed. There's a huge delay (***Theme 3: Effects of TCAM use for children***, *Subtheme 3.1 Delay in seeking conventional healthcare*). Because the child is sick they supposed to take the child to the clinic I guess the clinic is not accessible, so they can't just take the child over, so they try to treat them at home with their medication (***Theme 2: Reasons for TCAM use***. ***Subtheme 2.1: Accessibility of TCAM***) then when they end up eventually going to the clinic or hospital, it's too late.

Participant 5: It's also culture versus modern medicine. The child is kept in the home of the sangoma maybe they will treat with enema and stuff before releasing them to the parent when they are critical and need to be operated on or ventilated (***Theme 3: Effects of TCAM use for children***, *Subtheme 3.1 Delay in seeking conventional healthcare*).

Interviewer: What are your experiences of TCAM use in children, related to the potential risks of TCAM use for children?

Participant 2: A child was transferred to Albert yesterday at 17h30. Two weeks ago the child was given a sunlight enema, the child has now gone into liver failure so they did a pleural tap, on a little child probably one year old. A little child that drained out 800mls of fluid. What damage it has done (***Theme 3: Effects of TCAM use for children, Subtheme 3.3 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients***). Actually this was ascites, it was an ascitic tap, that's from detergent enema. This was a surgical emergency, and this child presented so late (***Theme 3: Effects of TCAM use for children***, *Subtheme 3.1 Delay in seeking conventional healthcare*). The history was not given on admission, because sometimes the parents don't even know that the child was given something (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.1 Disclosure of TCAM use to professional nurses***).

Participant 1: The doctor had to basically pry. It was only on Saturday that we found out that the child was constipated – because the mum said the child was having diarrhoea. She never spoke about constipation then she started giving history on Saturday when the child started becoming critical (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.1 Disclosure of TCAM use to professional nurses***). The child was already here about two or three days. He was not taking anything. He had like intussusception they were querying intestinal obstruction – that's how he was presenting on Saturday. And he was in liver failure as well done (***Theme 3: Effects of TCAM use for children, Subtheme 3.3 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients***).

Participant 4: Sometimes there are neurological signs as well like seizures, irritability, respiratory problems, upper GI (gastrointestinal) bleeds, lower GI bleeds, restlessness (***Theme 3: Effects of TCAM use for children, Subtheme 3.3 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients***).

Interviewer: Tell me about the potential benefits of TCAM use in children.

Participant 5: Unfortunately, every child that we've seen so far, even with the traditional markings – they turn septic that's what makes them so septic. Especially some come with like cuts around the chest, the abdomen and then we lose some of them. done (***Theme 3: Effects of TCAM use for children, Subtheme 3.3 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients***). **(all participants nodded in agreement)**

Interviewer: What are the benefits of open communication about TCAM use by caregivers for their children?

Participant 3: That's essential. All nursing staff out in the community need to filter this information it''s very important. It is difficult to filter information because people don't listen. (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.1 Disclosure of TCAM use to professional nurses***).

Participant 5: Not only that, it's the youngsters against the elders – who go by just the traditional medicine so again its cultural. (***Theme 2: Reasons for TCAM use. Subtheme 2.2: Respect for elders and tradition***).

Participant 4: Look at it realistically, our youngsters are not looking after their kids it's the gogos so its their call at the end of the day. and the mothers are taking the cards so where are those gogos going to get money from, so going with the easiest option as well. (***Theme 2: Reasons for TCAM use. Subtheme 2.2: Respect for elders and tradition***).

Participant 1: These mothers are young as well, they need care as well.

Interviewer: What are the advantages of professional nurses on practicing a routine guided enquiry to determine TCAM use in children?

Participant 2: That's very important, at least you can pick up and educate. Even if the child is not having side effects at that time, you can educate them on the consequences of having it. Especially when they go to sangomas we don't know what they mixing. I know one granny told me she went to the roadside and picked up some weeds and she made a concoction and gave the child. (***Theme 6: A framework to explore for TCAM use in children. Subtheme 6.1: Need for a framework to guide professional nurses to explore TCAM use in children***).

Participant 5: So, we don't know what we getting. Remember some years ago they were tarring the road, and he was given the tar and the child ended up with a rigid lung. Baby was being suctioned – there was black liquid – so they asked – they said they took the tar mixed it and gave the child.

Interviewer: How should a child with TCAM use be classified as?

Participant 2: As urgent referral. 9 out of 10 times these children are very ill so they would need to be attended to as soon as possible – the sooner the better (***Theme 6: A framework to explore for TCAM use in children***. ***Subtheme 6.1: Need for a framework to guide professional nurses to explore TCAM use in children***)./ **Recommendation**

Participant 3: Because we don't know what the child has been given, what the herbs are, from where its been mixed, how its been mixed. Because parents won't ask what ingredients he used. I also don't think they feel they have the right to question – he is in authority – so you questioning a big man or a big lady – in that area. That person is a respected person to ask all those questions (***Theme 2: Reasons for TCAM use***. ***Subtheme 2.2: Respect for elders and tradition***)..

Interviewer: What interventions can be taken should a caregiver be found administering/ administered TCAM to their child?

Participant 1: Health education should be ongoing, could refer to a social worker (***Theme 6: A framework to explore for TCAM use in children*** ***Subtheme 6.2 Need for structured, routine health education on TCAM use in children***).

Participant 2: But you can't refer every case to the social worker because it's a cultural thing.

Participant 5: But you know how the patients come in with burns, it's a common thing, the social worker can reaffirm what we are saying because sometimes they will heed to them over us it maybe will help for the social worker to speak to the mum while they are here (in ward). Like find out the reason why she didn't do something and advise and say this is what was wrong – do it like how we do and NAI (non-accidental injury) **Recommendation**

Probe: What specific health education can be given to mothers / caregivers regarding TCAM use for children?

Participant 3: I think about the dangers and try to tell them the correct ways of doing things and what's going to harm the child. Yes, they got their own beliefs but their beliefs should not interfere with the well-being of the child – so they need to know – child rights (***Theme 6: A framework to explore for TCAM use in children Subtheme 6.2 Need for structured, routine health education on TCAM use in children***).

Participant 2: Also they are going to sangoma which is their rights but most of them are not registered. Most of them going to roadside sangomas. The registered sangoma charge like R300- R400, while roadside ones you pay like R50 or whatever and you get treatment so that's where the issue is as well. (***Theme 2: Reasons for TCAM use. Subtheme 2.1: Accessibility of TCAM***)

Interviewer: Is there any routine education that can be given to caregivers about TCAM use for their children?

Participant 1: Encourage them to get clinic medicine first before you try TCAM. We need to start education in ANC that if your baby gets sick, take first to local clinic, it's free, if no joy then go alternate. (***Theme 6: A framework to explore for TCAM use in children Subtheme 6.2 Need for structured, routine health education on TCAM use in children***). (***Theme 5 TCAM use in Peri-natal period Subtheme 5.1 Use of TCAM during pregnancy, labour and postnatal period***)

Interviewer: Tell me about interpersonal skills that can promote honest and open communication between caregiver and health care worker about TCAM use.

Participant 1: Communication can be a problem because of language barriers, can be difficult to relay a message so mother may not be educated properly. Being non-judgemental. If she feels we are attacking her, she will shut off. ***(Theme 4: Communication about TCAM between caregivers and professional nurses. Subtheme 4.2 Reasons for non- Disclosure of TCAM use to professional nurses***).

Participant 3: Mothers, even if we are not judging them like if they in the hospital, they try by all means to avoid the topic, they not open. They know these people are going to judge me. I don't want to be here so let me just hide the truth. If I don't tell them they will send me home faster. ***(Theme 4: Communication about TCAM between caregivers and professional nurses. Subtheme 4.2 Reasons for non-Disclosure of TCAM use to professional nurses***).

Participant 4: You notice how a mother who comes in with herbal – for some reason she is very defensive from admission like we've already done something wrong to her. They shut off and they know what they did was wrong. ***(Theme 4: Communication about TCAM between caregivers and professional nurses. Subtheme 4.2 Reasons for non- Disclosure of TCAM use to professional nurses***).

Participant 2: They are afraid. They feel you going to phone the police, they feel you're going to do something to them. They also scared to say something because they feel what if the traditional healer does something to them. ***(Theme 4: Communication about TCAM between caregivers and professional nurses. Subtheme 4.2 Reasons for non- Disclosure of TCAM use to professional nurses***).

Participant 5: There is a risk also they can continue giving herbal medicine while in the ward. During visiting hours the visitors are bringing herbal medicines(***Theme 3: Effects of TCAM use for children, Subtheme 3.2 Concurrent use of TCAM and conventional medicine***)

Interviewer: Are there any additional related comments or suggestions that you would like to make pertaining to TCAM use in children?

Participant 1: Staff should have more knowledge on TCAM. We should have numbers of registered traditional healers maybe we can give it to mothers.

Participant 3: We should not tell mothers not to use TCAM because at the end of the day it is their culture. So, if we are educated a little bit more. We take it for granted that they are all bad. We only see the ones that are coming in sick, we don't know what is out there, we only seeing the end result. (***Theme 6: A framework to***

explore for TCAM use in children *Subtheme 6.2 Need for structured, routine health education on TCAM use in children).*

Participant 2: Bearing in mind, it's not just sangomas as well. You get old Indian people giving the baby a bath with hot water that can scald the child's skin, turning the baby upside down in front of lobhan (a fire is lit, and an incense powder that produces smoke). There are a lot of things that Indian people do that's quaint as well so every culture has its own traditional practices like jeera water in labour too. (***Theme 5 TCAM use in Peri-natal period*** *Subtheme 5.1 Use of TCAM during pregnancy, labour and postnatal period*)

Participant 4: We try to educate our mothers, but when they go out they forget what we said. If we had written information like health education, it will make it so much easier in clinic like how we do TB screening for every patient. It must be asked at every visit. It should be in a pamphlet form where we can give it to them as education. (***Theme 6: A framework to explore for TCAM use in children*** *Subtheme 6.2 Need for structured, routine health education on TCAM use in children).*

Participant 5: There is a question in our NCP asking "Is there any herbal ingestion – yes or no". But if you ask her "When last did you give TCAM it's better. Because they gave it maybe a month ago or 2 weeks ago but if you ask did you give any herbal medicine they assume you asking today, so they say 'no', but if you delve further they will say I gave it last week. Our language use is very important. (***Theme 4: Communication about TCAM between caregivers and professional nurses,*** *Subtheme 4.1 Factors that promote disclosure of TCAM use to professional nurses*)

Interviewer: I would like to thank each of you for your valuable contribution. Are there any questions before we conclude our session?

Participants: You're welcome. No we don't have any questions.

Interviewer: I would now like to conclude our focus group discussion. Thank you.

ANNEXURE T – DATA ANAYSIS: FACE - TO - FACE INTERVIEWS

ANNEXURE: - SAMPLE TRANSCRIPTION OF FACE – TO – FACE INTERVIEW WITH CAREGIVER

DATE: 09 FEBRUARY 2023

RH 2- PARTICPANT NUMBER 10

Interviewer: Good morning mam, how are you doing today?

Participant: I'm okay, just tired.

Interviewer: I understand, thank you for agreeing to answer a few questions for my study, and agreeing for me to record our interview. Do you have any questions, or can we start?

Participant: No mam, we can start

Grand tour question: Tell me about the use of Clinic medicine and Traditional Complementary and Alternative Medicine for children.

Interviewer: How do you feel about using clinic medicine for your child?

Participant: I'm okay most of the time, my side as soon as I went to the clinic he became better so for me I prefer the clinic medicine. (***Theme 1: Healthcare seeking pathways of caregivers***, ***Subtheme 1.3 Use of conventional medicine***)

Interviewer: How do you feel about giving a child Traditional, Complementary and Alternative Medicine and clinic medicine together?

Participant: Yes we can give, but I would rather go to the hospital first and then ask the doctor if I can stop that medicine or maybe if I can mix. Or maybe how long it will take that medicine to heal his body or come out – what are the effects will be happening in his body if I give another medicine (***Theme 3: Effects of TCAM use for children, Subtheme 3.2 Concurrent use of TCAM and conventional medicine***)

Interviewer: What do you feel about using TCAM for children?

Participant: For me I can say traditional medicine some are very good, they are very good. I can use it for like evil spirits or from you see, we are here ne, these children they are sick but not in the same disease so we've got that thing to protect, if he can

play with everybody but he is not going to be affected by other disease. (***Theme 2: Reasons for TCAM use. Subtheme 2.3 Perception of illness***)

Participant: Ya, there's something we can give. We call it ***UMHLONYANE***. Once he drink ***UMHLONYANE*** even if the other children got high fever he won't be affected. Even if they are coughing – he won't be affected. So while he is in the ward he can drink it but once a day, yes. (***Theme 2: Reasons for TCAM use. Subtheme 2.3 Perception of illness***)

Interviewer: what are some of the reasons for giving your child TCAM when he is sick?

Participant: Like my children, some of kids when having fever they so tired they don't want to eat so mine if he is sick he eats. We give – you get it by the river ***MAHOWHOW***. Whenever he feels hungry he must eat even if he like won't eat the way he used to be, but there's something in his stomach. That is those things I use. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour, 1.2 Use of TCAM for childhood illnesses***)

Participant: For diarrhoea I usually use glucose for thee running stomach. For constipation I just put Vaseline on his bum and I too drink ***UMHLONYANE*** because I am breastfeeding. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour, 1.2 Use of TCAM for childhood illnesses***)

Interviewer: do you give your children TCAM for normal growth? Even if they are not sick.

Participant: no mam, only if they are sick and I will see.

Interviewer: How do you feel about talking to nurses about TCAM for your child?

Participant: YOH! (Laugh) I don't even start. Because most of the nurses they find a mistake in the baby's body, they will always blame traditional medicine. (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.2 Reasons for non-disclosure of TCAM use***)

Participant: And you see us, we don't measure the traditional medicine we just let the children drink. That is the thing we are scared of. They will say it is because of the medicine you give. (***Theme 3: Effects of TCAM use for children, Subtheme 3.3 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients***)

Participant: But inside I know the traditional medicine is helping.

Interviewer: What are some factors that can make it better to talk about TCAM use when asked about it by nurses?

Participant: There is like the only way I see is to make them understand the other medicine (TCAM) are working. It's like my son, you see, my son now he had a running stomach the strong one. Yesterday about 8 diapers I change from 06h00 to 12h00. But if I was home, I was going to drink ***UMHLONYANE*** then breastfeed him same time. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour, 1.2 Use of TCAM for childhood illnesses***)

Participant: In the hospital I don't mix. If I'm home and I know I am not near to go to a hospital.

(Probe: If you give traditional medicine at home, how long will you wait before coming to hospital?) – I can take even 3 months to wait. The thing is that the traditional ones are very fast. (***Theme 3: Effects of TCAM use for children***, *Subtheme 3.1 Delay in seeking conventional healthcare*)

Participant: But also the clinic because sometimes you give the child the traditional one but you will know sometimes they won't have the strength to do anything – they will be tired so when you here they can see why he is tired. Sometimes you will see he is tired, you keep on giving that medicine but maybe his body doesn't need it, maybe he needs a drip – something to pick up his strength. That is why I'm on this side (hospital) but I'm on this side (Traditional medicine) too. (***Theme 2: Reasons for TCAM use***. *Use of TCAM if conventional medicine does not help*)

Participant: I will see if this one (traditional medicine) is not going to work I must go to the clinic.

(Probe: are there any illnesses baby can have that you feel is not for hospital?

Participant: Yes, like how he had a seizure for 1 day, and the way he was! We came to the hospital. It was helping – he didn't have it again and now since we here it's like he is normal, he's playing. But I will love to go check with them – traditional healer- what was the problem for that. (***Theme 2: Reasons for TCAM use. Subtheme 2.3 Perception of illness***)

(Any other illnesses?) –

Participant: you see some babies the stomach will be growing, because of witchcraft. The evil and once you go to the hospital they will say maybe there's water, there's what what, they will drain. But every time you here you keep on coming back, keep on coming back, they keep on draining the water or do whatever they do – but once you go there (traditional healer) they won't see like what was happening but they can make it stop for good, yes. (***Theme 2: Reasons for TCAM use. Subtheme 2.3 Perception of illness***)

Interviewer: what makes it difficult to speak to nurses about using TCAM?

Participant: But once I'm here at the clinic I won't tell you the truth. I will only tell you the right side so you can help my baby. And at the end of the day I will keep on standing here and you only know the right side of me. (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.2 Reasons for non-disclosure of TCAM use***)

Interviewer: Is it important for nurses and mothers to talk about traditional medicine?

Participant: It is very important. Like you see my son had a seizure now since we came he is fine, he is playing. And if results come to me clean, they will send me home. They don't know where I am staying, they don't know the environment where I am staying like how dirty or how evil, you see? (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.24.1 Disclosure of TCAM use to professional nurses***)

Participant: So once I get home, if that thing is strike again (seizures) lets say it's normal, he'll be down, because his body now got some injection and if it's evil spirit, you put injection, you did things like he's been drinking the medicine. (***Theme 2: Reasons for TCAM use. Subtheme 2.3 Perception of illness***)

Participant: Now I must go to the traditional and explain that I already took him to the clinic then he (Traditional healer) will say that was wrong of me, because I started at the clinic. So now the healing will take long. . (***Theme 2: Reasons for TCAM use***. *Use of TCAM if conventional medicine does not help*)

Participant: And I did the right thing to come to the hospital too. Some of the situations you must start there (traditional healer) and some of the situation at the hospital. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour***)

Participant: Like mine I decided to start at the hospital because he was shaking I just realize that he is going to be affected in the head or neck maybe something will go wrong. Out of his mouth the foam was coming out.There are some situations you just see this one doesn't need hospital, I will see the hospital later. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour***)

Participant: But some, straight to the hospital.I used traditional medicine for all my children but when they 2 or 3 years. (***Theme 1: Healthcare seeking pathways of caregivers Subtheme 1.1 Use of TCAM as first line of care seeking behaviour, 1.2 Use of TCAM for childhood illnesses***)

Interviewer: Are there any additional related comments or suggestions that you would like to make pertaining to TCAM use in children?

Participant: I would love for some of the medicine from the traditional healer, they must be mixed. It will help a lot of children, because some of us mothers we go at night – we do wrong things and those things they affect children. (***Theme 3: Effects of TCAM use for children, Subtheme 3.2 Concurrent use of TCAM and conventional medicine***)

Participant: Once I go to the traditional healer where they use our medical ne, even if I didn't go to traditional, there's someone who can tell you about the kids. He will tell you this- the baby maybe ate something wrong or he was affected by evil spirits, or it's just a passing spirit. Because they say kids say things we don't see. (***Theme 2: Reasons for TCAM use***. *Subtheme 2.3 Perception of illness*)

Participant: Then you know okay, if it's not an evil spirit they can mix things in 1 bottle then the time he is drinking he will heal 3 or 4 things one time. (***Theme 3: Effects of TCAM use for children, Subtheme 3.3 Complications associated with TCAM use (Dosing, labelling, route of administration, ingredients***)

Participant: Some of that medicine, children's medicine it must be mixed. (***Theme 3: Effects of TCAM use for children, Subtheme 3.2 Concurrent use of TCAM and conventional medicine***)

Interviewer: If sister says you must stop traditional medicine while on clinic medicines, will you?

Participant: I will cos maybe he will see the clinic medicine not working because of the traditional medicine now I want my child to be fine. So if I see traditional medicine is not responding fast but the clinic one is fast, I will use the clinic one and stop traditional medicine. (***Theme 4: Communication about TCAM between caregivers and professional nurses, Subtheme 4.24.1 Disclosure of TCAM use to professional nurses***)

Participant: For me both sides (laughter).

Interviewer: Thank you so much for sharing your knowledge with me. Do you have any questions before we end?

Participant: thank you mam, no I don't have any questions.

ANNEXURE U: VALIDATION OF FRAMEWORK

VALIDATION: DELPHI EXPERT FEEDBACK ON FRAMEWORK

Introduction: Good day, I have identified you as an expert on my research topic and I would like your opinion on a framework I developed as part of my studies towards a Doctorate in Nursing. Please can you evaluate my attached framework against the points below and there is a space provided for additional comments. I really appreciate your time and assistance.

Title of the study: A Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities in eThekwini District.

Framework being evaluated: "Shanitha Pillay's Framework to explore Traditional, Complementary and Alternative Medicine use for children at health care facilities".

Area of expertise: (Please Place an X in the appropriate box)

Child Nursing Science specialist	Professional Nurse trained in IMCI	Professional nurse with Primary Health Care

Review round:(Please Place an X in the appropriate box)

1 X	2	3

Evaluation:

Information	Appropriate	Amendments required	Comments/ Suggestions
Name of the Framework			
Colours of the framework			
Structure of the framework			
Language clarity			

Relevance of content			

Additional comments:

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Experts code …… Date: ……