UNIVERSITY OF ZULULAND

RESEARCH DESSERTATION

For the fulfilment of the degree in

MASTER OF NURSING SCIENCE

In the field of

NURSING SCIENCE

With the title:

EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL

FACULTY OF SCIENCE AND AGRICULTURE

Candidate**: Mpilo Ndumiso Shange**

Student number: 201264624

Supervisor: Dr. S.T. MADLALA

Estimated date of submission: November 2021

TABLE OF CONTENT.

DECLARATION

This is to certify that the work is entirely my own and not of any other person unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the University of Zululand or to any other institution for assessment or for any other purpose.

02/12/2021

Signature of student Date

Approved for final submission

02/12/2021

Dr. S.T. Madlala Date

D: Nursing

Abstract

Introduction

The prevalence of herbal medicine (isihlambezo) use is on the rise worldwide, more especially amongst pregnant women. Most women believe that traditional medicine use has significance and advantages to them and their unborn babies during pregnancy. There are few scientific studies about its safety for pregnant women and their babes, regardless of possible teratogenic effects that may result in fatalities amongst pregnant women, who continue to consume isihlambezo.

Aim of the study

The study aimed at exploring and describing the experiences of pregnant women regarding the use of isihlambezo at King Cetshwayo healthcare District (KCD) in KwaZulu-Natal.

Methodology

A qualitative descriptive phenomenology research design was used to conduct this study. The study was guided by the Dorothy Johnson Behavioral System Model. Face-to-face individual unstructured interviews collected data from 10 participants, with an additional two participants to ensure data saturation was reached. All participants were purposefully sampled to participate in the study. Colaizzi Phenomenological analytic method analysed the data.

The study findings

Several themes and sub-themes emerged from the study, which consisted of myths about isihlambezo, traditional and cultural beliefs, indication and effects of isihlambezo and economic impact on the use of isihlambezo. The study revealed that most pregnant women consume traditional herbal medicine (isihlambezo) for various reasons, such as financial affordability, cultural beliefs and benefits of isihlambezo to them and their unborn babies.

Key words: Traditional herbal medicine; isihlambezo; pregnant women; pregnancy; traditional healers

Dedication

I would like to dedicate this dissertation to my entire family, especially my grand-mother and my mother, my supervisor and my friends. If you want to study love, study the aforementioned as they sacrificed for me and supported me to accomplish this study.

ACKNOWLEDGEMENTS

For I know the plans I have for you, declares the LORD, plans to prosper you and not to harm you, plans to give you hope and future (Jeremiah 29:11).

- First of all, I thank my creator, the one above, Jesus Christ my Lord and saviour for being faithful to what he had promised, to give me hope and future. Indeed, I have seen his power manifesting during the cause of my study.
- Dr. S.T. Madlala, my study supervisor, I am short of words but I would like to dedicate to you the highest gratitude and appreciation for your magnificent contribution and continuous support, together with your family, for sacrificing their time for me to accomplish this qualification. May God bless your generosity. Please accept my utmost gratitude.
- To the woman who gave birth to me, my mother, Mrs R.S. Shange; I am grateful for the things you did for me while I was busy doing my work and thank you for your love and kindness to me.
- A special dedication to my friend, Mr. L.N. Mgobhozi, what a blessing you have been. I cannot thank you enough for your help. You have no idea how much you have helped me, thank you for your time.
- Mrs N.L. Shange, my grandmother, thank you for praying for me. The world is full of wonderful things if it has people like you. You have been nothing less than a blessing from God.
- To my little sister, Aphiwe Ndlovu, I humbly appreciative what you have done at home on my behalf while I was busy with my studies.
- I acknowledge the University of Zululand for giving me the chance to study with them. I really appreciate it.
- I would like to acknowledge every single individual who contributed to this study; your input is highly appreciated.

LIST OF TABLES.

LIST OF FIGURES

ANNEXURES

ACCRONYMS

ANC- Antenatal Care

BCUR- Baccalaureus Curations

CBH- Catherine Booth District Hospital

CPD- Cephalopelvic Disproportion

FSB- Fresh Still Birth

GDM- Gestational Diabetes Mellitus

HIV- Human Immune Virus

IMCI- Integrated Management of Childhood Illness

IUGR- Intra-Uterine Growth Restriction

JBSM- Johnsons Behavioural System Model

KCD- King Cetshwayo District

KZN- Kwa-Zulu Natal

KZNDoHRU- Kwa-Zulu Natal Department of Health Research Unit

MSL- Meconium Stained Liquor

PHC- Primary Healthcare

SSC- Sub-Saharan African

TB- Tuberculosis

TM- Traditional Medicine

US- United States

UTI- Urinary Tract Infection

UZREC- University of Zululand Research Institutional Ethics Committee

WHO- World Health Organization

GLOSARY OF TERMS

Traditional Medicine: Refers to a systems of medicine developed before the era of modern medicine, based on cultural beliefs and practices handed down from generation to generation (Collins English Dictionary, 2015). In relation to the study, Traditional Medicine (TM) is a medicine used by pregnant mothers, which they believe it has some benefits.

Pregnant Woman: The condition of a woman or female mammal from conception of a developing offspring within the body until birth (Stedman's Medical Dictionary, 2020). In relation to the study, pregnant woman are those females using TM during their period of pregnancy.

Midwife: A person trained to assist women in childbirth (Oxford Languages). In this study, midwives are those individuals who assist pregnant women from pregnancy, during childbirth and after delivery.

Herbal Intoxication: The pathological state produced by a drug, serum, alcohol, or any toxic substance (Stedman's Medical Dictionary, 2020). In relation to the study, that is the state of pregnant women after consumption of herbal medicines since they do not have standard measurements.

Post-Natal: Period of time occurring immediately after birth an infant *(*Merriam-Webster.com Dictionary, 2021*).*

Meconium: A dark greenish mass that accumulates in the bowel during foetal life and is discharged shortly after birth *(*Merriam-Webster.com Dictionary, 2021*).* In relation to the study, meconium is a sign that the infant has a complication due to herbal medicine use.

CHAPTER 1

1.1 INTRODUCTION AND BACKGROUND OF THE STUDY

The prevalence of herbal medicine (isihlambezo) use is on the rise worldwide, more especially amongst pregnant women. Laisha and Shantakumari (2015:229) discovered that the prevalence of herbal medicine use among pregnant women during pregnancy varies between 22.3% and 82.3% globally. Most women believe that traditional medicine use has significance and advantages for them and their unborn babies during pregnancy. Women are culturally and traditionally motivated to believe that the use of traditional medicine during pregnancy yields a positive effect by protecting both mothers and babies from adverse events, including believing that it facilitates the normal psychological process of pregnancy and birth (Laisha and Shantakumari, 2015:229).

In many developing countries across the world, pregnant women prefer to consume traditional medicine (isihlambezo) during pregnancy, as opposed to modern western medicine, due to the belief that western medicines are derived from traditional medicines (Barnes and Andrew, Catherine and Elena,2016:905). The World Health Organization (WHO) estimated approximated 80% of populations living in rural areas believe and depend on traditional medicines for their wellbeing, including during their pregnancy period, despite the lack of knowledge about the potential side effects and that some of these products may have a teratogenic effect (Nyeko, Mbona and Halage, 2016:296). Between 2002—2005 the World Health Organization developed a policy whereby its area of interest was to reduce the mortality and morbidity rate among pregnant women who are using traditional medicine during pregnancy(Mordeniz, 2019:11). This policy was developed in-order to integrate traditional medicine with complementary alternative medicine into national health care system, to ensure guidance on regulatory and quality assurance standards in-order to promote safety, to increase availability and affordability of alternate medicine to the poorest populations and to promote appropriate prescribers and safety consumers in traditional medicine (Mordeniz 2019:11).

According to Laelago, Yohaness and Lemago (2016:5), pregnant women have minimal knowledge and attitude about herbal medicine use. Approximately 87% of pregnant women have insufficient knowledge regarding traditional herbal medicine (isihlambezo) use during pregnancy. This lack of knowledge involved knowing that these medicines can cause an increase in the number of abortions, excessive number of contractions and uterine rapture are possible complications of herbal medicine use during pregnancy (Laelago, Yohaness and Lemago, 2016:5). Therefore, it is evident that pregnant women worldwide consume traditional herbal medicines and have inadequate knowledge

regarding the possible side effects that may result. Hence the study intended to explore and describe the experiences of pregnant women regarding the use of tradition medicine (isihlambezo) within King Cetshwayo healthcare District in KwaZulu-Natal.

1.2 PROBLEM STATEMENT

Historically, the majority of people worldwide, including pregnant women, used and are still using traditional herbal medicines to meet their health needs (Laelago *et al.* 2016:2). Despite the unknown side effects, teratogenic effects and dangers that may be caused by the use of isihlambezo to pregnant women and their unborn babies, women continue to consume this medicine during pregnancy. Statistics shows that approximately 65% to 80% of pregnant women worldwide believe in using traditional herbal medicines (isihlambezo) as their primary healthcare (Laelago *et al.* 2016:2). In South Africa, maternal and child mortality rates are increasing, particularly in low- and middle-income communities, such as in KwaZulu-Natal. Pilane and Malan (2018:12) revealed that in 2018, 134 per 100 000 live births died in South African public hospitals.

The use of traditional herbal medicine (isihlambezo) is associated with induced heartburn, pre-mature labour, miscarriage, increased blood flow, abortion and allergic reactions during pregnancy, which could pose danger to the pregnant woman and the foetus (Laelago, 2018:45). Study conducted by Soudabeh, Mohammad, Abbas, Mahmood, Hadi, Gholamreza and Adel (2022:824) agrees that herbal medicines used during isihlambezo have teratogenic effects to the mother and the foetus because of the ingredients that can pass through the placenta and reach the foetus. Furthermore, herbal medicine can result in severe adverse effects including potential abortions especially during first trimester (Soudabeh *et al.* 2022:824). Many studies have been conducted regarding the phenomenon but the gap which is the usage of isihlambezo during pregnancy regardless of its adverse effects still exists within the body of knowledge. Hence the study intended to explore and describe the experiences of pregnant women regarding the use of traditional medicine (Isihlambezo) within King Cetshwayo healthcare District in KwaZulu-Natal, and the findings will assist pregnant women, their spouses and families, including their prescribing traditional healers, to consider reviewing their opinions and the use of isihlambezo during pregnancy.

1.3 AIM OF THE STUDY

The aim of the study was to explore and describe the experiences shared by pregnant women with regard to the use of isihlambezo within King Cetshwayo healthcare District (KCD) in KwaZulu-Natal.

1.4 OBJECTIVES OF THE STUDY

The objectives of the study were to:

- Explore the experiences of pregnant women regarding to the use of isihlambezo within King Cetshwayo healthcare District in KwaZulu-Natal.
- Describe factors contributing to the use of isihlambezo by pregnant women in King Cetshwayo healthcare District in KwaZulu-Natal.

1.5 SIGNIFICANCE OF THE STUDY

Although herbal traditional medicines such as isihlambezo are considered comparatively safe by some pregnant women, this claim is not based on proven scientific evidence and may be incorrect. This is due to lack of sufficient data on safety, risks of side effects and possible teratogenic effects (Zamawe, King, Jennings and Fottrell, 2018:2). Therefore, the findings of this study will contribute to the existing research body of knowledge and assist the maternal healthcare policymakers in the Department of Health in KwaZulu-Natal to consider reviewing existing policies. Furthermore, the findings of the study intend to assist pregnant women, their spouses and families, including their prescribing traditional healers, in reviewing their opinions and the use of isihlambezo during pregnancy. The study findings intend to contribute to midwifery practice and midwifery education of pregnant women regarding the impact of the use of isihlambezo during pregnancy. Moreover, the study findings can be used by other researchers for further research in midwifery regarding the phenomenon.

1.6 STRUCTURE OF DISSERTATION

1.6.1. Table: 1 represents the structure of the dissertation.

Chapter	**Title**	**Chapter outline**
Chapter 1	Introduction and background	This chapter focuses on problem statement, purpose of the study, objective of the study, significance of the study, structure of the dissertation and conclusion.
Chapter 2	Literature review	Introduction, Historical view of traditional medicine (isihlambezo) during pregnancy, Review of global, Sub-Saharan African

		countries and the South African, factors contributing towards traditional medicine during pregnancy and the theoretical framework that guided the study.
Chapter 3	Research methodology	Research design and methodology including population, sampling, collection and analysis of data, ethical considerations and trustworthiness.
Chapter 4	Presentation of the study findings.	Presentation of findings from analysed data.
Chapter 5	Discussion of the results, conclusions, limitations of the study and recommendations.	Discussions of findings and summary conclusion about experiences of pregnant women regarding the use of traditional medicine (isihlambezo) at King Cetshwayo district in KwaZulu-Natal and recommendations base on the findings obtained after data analysis.

1.7 CONCLUSION

The focus of Chapter 1 was mainly on the circumstances or situations prevailing the use of traditional medicine, particularly among pregnant women within King Cetshwayo District. Additionally, Chapter 1 discussed the problem statement, aim and objectives of the study, significance of the study, structure of the dissertation and the study area. Chapter 2 discusses existing literature on the research topic and a theoretical framework that guided the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The centre of interest in the previous Chapter 1 was discussing the introduction and the background of the study. Chapter 2 focuses on the particular attitude towards use of herbal medicine during pregnancy globally, in Sub-Saharan African (SSA) countries and in South Africa, including factors contributing to the use of isihlambezo. Facts provided were investigated systematically. There were more than 300 potential sources of information the researcher recognised, however a comprehensive inclusion and exclusion criteria and specific words utilized during searches resulted in less desirable references to conduct the study. This depletion of sources led to an information search using the Internet to access Google Scholar articles, journals, books and peer review studies specifically on experiences of pregnant women regarding the use of traditional medicine (isihlambezo) worldwide.

In addition, the aforementioned sources of information that were bracketed for use were corroborated with excellent targeted academic searches. Studies that were not validated, without references and that were not written in the universal language of communication were excluded from the study. Studies older than 5 years after publication were also excluded, except for those with the information necessary for the study phenomenon.

2.2 GLOBAL PERSPECTIVE ABOUT THE USE OF HERBAL TRADITIONAL MEDICINE DURING PREGNANCY.

The World Health Organization (WHO) describes traditional medicine as health practices, health approaches, knowledge and beliefs by certain groups of individuals (Laelago, Yohannes and Lemango, 2016:2). Traditional medicines incorporate plants, animal based medicines, spiritual therapies, manual techniques and exercises applied regularly or in combination to treat, diagnose, prevent illness and maintain wellbeing (Laelago *et al.* 2016:2). This concurs with the notion that indigenous people believe that preparation and use of plant derived material, has therapeutic benefits to their health. Many people, including pregnant women, globally used and are still using traditional medicine to meet all their cultural and holistic needs (Laelago *et al.* 2016:2).

Makuria, Erku, Gabresillassie, Birru, Tizazu and Ahmedin (2017:2) revealed that approximately 65% - 80% of the world's population use herbal medicine as their primary form of healthcare. Some people, including pregnant women, believe in using traditional medicines as first aid prior to seeking western medicine (Makuria *et al*. 2017:2). However, community members are likely to suffer from adverse

effects from herbal intoxication, which include among others, unborn babies, infants, elderly as well as pregnant women and breastfeeding mothers (Makuria *et al*. 2017:2); this could be due to high strengths and doses of medicines, including the ingredients which one might be allergic to. Worldwide there are various reasons driving pregnant women to use herbal medicines. These include, among others, pregnancy related ailments, which could range from the common cold, respiratory illness, skin problems as well as nutritional benefits. According to Makuria *et al*. (2017:2) most pregnant women use traditional medicines because it is easily accessible, assumed to have a better efficacy compared to modern medicine, and tradition and cultural beliefs in herbal medicine to cure ailments at a low cost.

Australia has seen a steady growth in the usage of complementary and alternative medicine, including herbal supplements by pregnant women across the country despite its limited safety data (Gilmatrin, Vo-tran and Leung, 2018:2). In Australia, despite the knowledge of possible benefits or adverse events of herbal medicine use, particularly in connection with its use in pregnancy, limited numbers of women are using herbal medicines during their partum period. An Australian statistic revealed that 10% of women use traditional herbal medicine during pregnancy, 56% use herbal tea and about 46% use well known pure herbal products, such as ginger, peppermint and raspberry leaf (Forster, Denning, Wills, Bolger and McCarthy, 2006:2).

In the United States (US), the use of herbal medicine during pregnancy ranges from 4% to 45% compared to Australia, which ranges between 10% to 56%, and in Canada it ranges between 61% and 96%, while in Norway 36% of pregnant women believe in the usage of traditional herbal medicines (Forster *et al.* 2006:5). Moreover, factors affecting the use of herbal medicines include age, tertiary education, English speaking women, non-smokers and prim-gravida women. In the United States trends were observed towards greater use of traditional herbal medicines among White women, and women with at least a college education, but not associated with age group or income level states (Gibson, Powrie and Star, 2009:288).

In Norway, women between the ages of 26 - 35 years who have a previous history of herbal traditional medicine use and full useful information about herbs, are more prone to use herbal medicines during pregnancy (Kennedy, Lupattelli, Koren and Nordeng, 2013:355). It is evident that a large percentage of pregnant women worldwide use herbal medicines during pregnancy for various reasons; this includes, among other reasons, protecting themselves from bad spirits during pregnancy to enhancing the progress and augmentation of labour. Barnes, Barclay, McCaffery, and Aslani

(2019:271) revealed that the families and friends of pregnant women are supportive of the use of traditional herbal medicines during pregnancy.

According to Lisha and Shantakumari (2015:229), the use of herbal medicine in the Middle East is on the rise. The wide range of herbal medicine use during pregnancy is represented by the traditional and geographical diversity of the region (John and Shantakumari, 2015:229). Some herbs, including green tea, and unlicensed food supplements with documented outcomes for mothers and the foetus, are frequently used. These products are mostly used during the first trimester, which is believed to be the most critical period during pregnancy. Furthermore, the prevalence of traditional herbal medicine use among pregnant women in the Middle East varies between 23.3% and 82.3%, and mostly used by women from rural areas (Lisha and Shantakumari, 2015:235). Although some of the traditional herbal medicines are used to counteract minor ailments, such as morning sickness, they can result in severe complications when used in some pregnant women (Lisha and Shantakumari, 2015:235), such as threatened abortions and pre-term labour. Therefore, it is evident that pregnant women do use traditional herbal medicines worldwide despite its unknown safety to their health and the health of their unborn babies.

2.3 THE USE OF TRADITIONAL HERBAL MEDICINE DURING PREGNANCY IN SUB-SAHARAN AFRICAN (SSA) COUNTRIES

In most Africa countries, cultural and traditional health practices play an important part in maternal healthcare. Communities tend to adhere to traditional beliefs, such as during pregnancy and delivery women have to attend birth traditional healers. Most African pregnant women perceive traditional healers as their primary healthcare workers. This is supported by Makuria *et al.* (2017:2), who revealed that traditional health practices of African women is believed to enhance fertility, and promote health during pregnancy and after delivery. Makuria *et al.* (2017:2) further state that the use of traditional herbal medicine is common for both maternal as well as reproductive health issues among African women. Shewaneme, Dune and Smith (2017:2) concur with the notion that there is a great prevalence of traditional medicine usage among African pregnant women due to its easy access from traditional health practitioners, including medicines, compared to the accessibility to western healthcare practitioners. This might be due to economic issues, including consultation fees, which cost less at traditional healers than at western doctors.

In countries such as Northern Ghana, during pregnancy, traditional practices involve the use of herbal medicine and spiritual beliefs in some rural areas (Bassoumah and Adam, 2018:32). This is due to the belief that traditional herbal medicines protect pregnant women from bad spirits during their

pregnancy. Different stages of pregnancy and post-delivery are characterised by the use of herbal medicine for care, treatment of complications and process of delivery (Bassoumah and Adam, 2018:32). It has been noted that traumatic birth injuries and certain complications are usually a result of unsafe indigenous birthing practices caused by the use of herbal medicine called Kalugotim (Bassoumah and Adam, 2018:32). This medicine is used for induction of labour, it enhances contractions without corresponding dilatation of the cervix, which may result in the rupture of the uterus. It is evident that some traditional medicines are used for certain purposes, but have severe adverse events.

Bassoumah and Adam (2018:32) reported that in countries such as Zambia and Gambia, traditional medicines and magic waters are used for rapid delivery of babies or placentas, and are performed concurrently in pregnant women during labour. Some pregnant women believe in combining both traditional herbal medicines and western pharmaceuticals during pregnancy; this combination may yield serious life-threatening results to human health, especially in pregnancy. This could be due to drug interaction that may have a negative impact and cause drug toxicity, which is dangerous to the mothers, foetus and newborn babies (Bassoumah and Adam, 2018:33).

In countries such as Rwanda, traditional herbal medicine use by pregnant women is associated with various beliefs, including having an effect in the prevention of foetal malformation, inducing labour, augmentation of contractions and the prevention of abdominal pain during pregnancy (Beste, Asanti, Nsabimama and Anastors, 2015:3). Some pregnant women believe the use of traditional herbal medicines during pregnancy prevent husbands from infidelity while their wives are pregnant, and serve as a protection against witchcraft (Beste *et al.* 2015:3).

In Rwanda, pregnant women commonly use the traditional herbal medicine called phytomedicine, which results in complications such as an absence of respiratory drive in newborns, an abnormally bright green meconium stained liquor, abnormal foetal heart rate, placental abruption and neonatal death (Beste *et al.* 2015:3). In Ethiopia, approximately 80% of the population believes in using traditional medicine rather than western medicine during pregnancy (Makuria *et al*. 2017:2); it is believed to be more satisfying among Ethiopian women, and serves the purpose of observing women's culture and religion during pregnancy (Makuria *et al*. 2017:2).

2.4 THE USE OF TRADITIONAL HERBAL MEDICINE DURING PREGNANCY SOUTH AFRICA.

According to Binkowski (2016:01), South Africa has seen an increase in the use of traditional herbal medicine due to the belief that these medicines have been assisting women with child bearing and during pregnancy for the past century. Binkowski (2016:01) further argues that the safety of traditional herbal medicine use during pregnancy remains unknown, due to the fact that very few of these medicines have been scientifically tested.

During the apartheid era in South Africa, the use of traditional herbal medicine was deemed unscientific and illegal, uncivilised and seen as practising witchcraft, according to the Witchcraft Suppression Act of 1957 and Witchcraft Suppression Amendment Act of 1970. These acts subsequently led to the use of traditional herbal medicine being declared as unconstitutional and its practice was prohibited across the provinces except in the Natal province, which is now known as KwaZulu-Natal (Mothibe and Sibanda, 2012:5). KwaZulu-Natal Province was the exception and had a different law on licencing and controlling of traditional medicine, which was covered by KwaZulu-Natal in the code of Zulu law (Mothibe and Sibanda, 2012:5).

Most pregnant women use traditional herbal medicine (isihlambezo) for various reasons, such as its affordability and easy accessibility. Traditional healers specialise in treatment of various conditions, including maternal healthcare, using traditional herbal medicines. Consequently, pregnant women are also catered for by traditional healers, hence they believe in using traditional herbal medicines (isihlambezo) during pregnancy.

According to Shewaneme, Dune and Smith (2017:8), during pregnancy most women believe in the use of one traditional therapies, which is a mixture of plants and minerals called Kgaba. Kgaba is a mixture of about 18 different traditional medicinal herbs, believed to be a crucial component during pregnancy and labour in protecting pregnant women from evil spirits, harm and also effective in the induction of labour (Shewaneme, Dune and Smith, 2017:8). Conversely, most Zulu pregnant women believe in using isihlambezo, which is a traditional herbal mixture used during pregnancy as a preventative measure against bad spirits towards a mother and a child (Naidu, 2014:8). This is supported by Shewaneme, Dune and Smith (2017:8) who concurred that isihlambezo is a powerful traditional medicine believed to have been given by ancestors to pregnant women to protect both the mother and the foetus against evil spirits and harm.

The isihlambezo is usually taken during the last trimester of pregnancy to ensure an easy confinement, and healthy foetal and neonatal growth. Among the plants used by South African pregnant women as an antenatal care (ANC) medicine to either induce or augment labour at the end

of pregnancy, some have been reported to be toxic. Veale, Oliver, Arangies and Furman (1989:341) revealed that foetal meconium passage was more common in African women who had recently ingested isihlambezo. Foetal meconium usually indicates foetal distress due to uterine hypertonia. Veale *et al.* (1989:342) agree that these traditional herbal medicines, such as isihlambezo, are used to augment labour and delivery by increasing the contractions, causing them to be stronger, but may result in complications in the wellbeing of the foetus and the mother.

Safety and good maternal health is important because the risk and adverse effects caused by traditional herbal medicines exist throughout the pregnancy and not just limited to the first trimester (Maputle, Mothiba and Maliwichi, 2015:68). In KwaZulu-Natal, isihlambezo is the most popular traditional herbal medicine used among pregnant women, as it is believed to benefit mothers for counteracting against swelling, which is common during pregnancy, and a benefit to the baby, as it reduces the vernix that the baby is born with (Oyama, 2016:6). Moreover, isihlambezo is also believed to have an effect in women with difficult labour by stimulating contractions, including being effective in postdate pregnancies (Oyama, 2016:6). Despite the side effects caused by the use of isihlambezo, there is an increase in the use of this traditional herbal medicine by pregnant women; however, there is no scientific test regarding this concoction to prove its safe use during pregnancy. Hence the study explored and described the experiences of pregnant women regarding the use of tradition herbal medicine (isihlambezo) within King Cetshwayo healthcare District in KwaZulu-Natal.

2.5 FACTORS CONTRIBUTING TO THE USE OF TRADITIONAL MEDICINE AMONG PREGNANT WOMEN.

2.5.1 Traditional and Cultural influences.

Health seeking behaviour amongst pregnant women in South Africa is different from that in most other Sub-Saharan countries, due to differences in culture, traditions, and climate. It is actually expected that herbal medicines used during pregnancy vary across countries and regions. Traditional medicine has a significantly longer history than western medicine in South Africa because of its deep routed cultural trust in traditional medicine (Kooi and Theobald, 2005:12).

In Africa, reliance on herbal medicines is relatively high among rural populations, and is associated with a lack of access to public healthcare (Shewamene *et al.* 2017:13). The use of herbal medicine may also be associated with social and cultural influences. Tradition, culture and religion play an enormous part in motivating pregnant women to use traditional medicines during their partum period. In other cultures, pregnant women do not consent to consume traditional medicine but are forced by culture, because it is said by elders that it is their traditional culture passed on from generation to

generation (Illamola, Amaeze, Krepkova, Birnbaum, KaranamJob, Bortnikova, Shewrwin and Enioutina, 2020:10). According to Setswana culture, usually the grandmothers or mothers make the decision about the ingesting of traditional medicine by their daughters-in-law, especially where mothers-in-law are involved and refusal would be difficult as it would be appearing disrespectful (Kooi and Theobald, 2006:11).

The study also revealed that many religious women stated their church forbids them from using traditional medicine (Kooi and Theobald, 2006:17), whilst several other churches were in favour of the use of traditional medicine, as they would give herbal tea to pregnant women. A minority group of women make their own decision about whether to consume this herbal tea or not during their pregnancies. In the remote rural areas of Africa, communities tend to adhere to the traditional beliefs that pregnancy and delivery is the principal of traditional birth attendants, which automatically involves the ingestion of traditional herbal medicines (Ngomane and Mulaudzi 2010:30). Hence, most African women perceive traditional healers as primary healthcare workers who enhance fertility, promote healthy pregnancy, ensure a normal birth, promote and maintain health during the post-natal period.

2.5.2 Lack of access to healthcare facilities.

According to Varga and Veale (1997:13), dissatisfaction of pregnant mothers about the behaviour of clinic staff contributes to encouraging the pregnant mother to consider using traditional medicine rather than western medicine. The study reveals that the reluctance of clinic staff to give drugs to pregnant women is a contributing factor that discourages pregnant women from attending their ante-natal care visits, and focus on using traditional medicines regardless of the fact there is little literature to support its safety, especially during the critical first trimester period (Kooi and Theobald, 2006:17). Authors continue to argue that lack of privacy within the clinic environments, especially during the times of delivery, contributes to pregnant women abstaining from attending health facilities and abiding with traditional healers who will prescribe herbal medicines during pregnancy until post-delivery. Moreover, limited accessibility, availability and affordability of modern medicine drives pregnant women to consume traditional medicine, especially in low- and middle-income communities, such as KwaZulu-Natal, as they need to travel long distances to reach the clinics (Shewamene, *et al.* 2017:13).

2.5.3 Lack of health awareness.

John and Shantakumari (2015:229) stated that studies have shown that advice from friends, families, and spouses are more trusted by the community members, including pregnant women, compared to

other sources of information. Most pregnant women are convinced that the use of traditional medicine during pregnancy has advantages of treating pregnancy related sickness, including nausea, vomiting, nutritional deficiencies, swollen feet, back pain, digestive problems, fever, cold, abdominal pains, oedema, urinary tract infections (UTI), tiredness, headaches and waist pain (John and Shantamakuri, 2015:229). Post-delivery pregnant women believe that using traditional medicine assists in facilitating the process of getting back the shape of the mother after delivery, increases breast milk secretions and reduces pain during pregnancy (Shewamene, *et al*. 2017:29). Lack of health awareness results in pregnant women continuing with the assumption that traditional medicine during pregnancy is safe to use, not knowing there is little evidence of its safety having been tested.

Other studies revealed lack of communication between health professionals and pregnant women resulting in a combination of pharmaceuticals and herbal medicines (Bruno, Simoes, Girao and Grundmann, 2018:621). This practice may pose danger to pregnant women and their unborn babies. The majority of pregnant women fail to disclose to their midwives and physician that they consume traditional medicine because they feel that health professionals are judgemental and dismissive about cultural and traditional health practice (Shewamene, *et al*. 2017: 13). This may contribute to pregnant women continuing to use the traditional herbal medicine despite the unknown safety of its use during pregnancy.

2.6 THEORETICAL FRAMEWORK GUIDING THE STUDY.

In 1968, Dorothy Johnson published the Behavioral System Model, which is her most popular model system (George, 1985:126). Throughout her career, Dorothy Johnson was greatly motivated by Florence Nightingale's book about nursing. Johnson's Behavioral System is a model of rendering nursing services that mainly focus on and ensure effective and efficient behavioral functioning in the patient to prevent the onset and occupancy of illness through an accepted behavior (George, 1985:126). Johnson's Behavioral Model System (BMS) focuses on integrating human physical and social health influence on their behavior, which can result in illness. She further explains that a specific man's behavioral system is also made up of a routine, certain aims and by different ways of doing things.

Therefore, this study adopted the Behavioral Model System as a framework to guide the study. The Behavioral Model System was regarded as the most suitable and applicable framework to guide this study, as its main focus is on the significant contributions to the wellbeing of society by positively intervening, and also by modifying society from unhealthy habits, which when unhealthily practiced may lead to all that is archived through the good work of nurses (Johnson, 1980:207). According to

Johnson (1980:148), nurses are used as an indirect regulatory force that is significantly used to assist society with modification of toxic physical or social health through which illnesses are found.

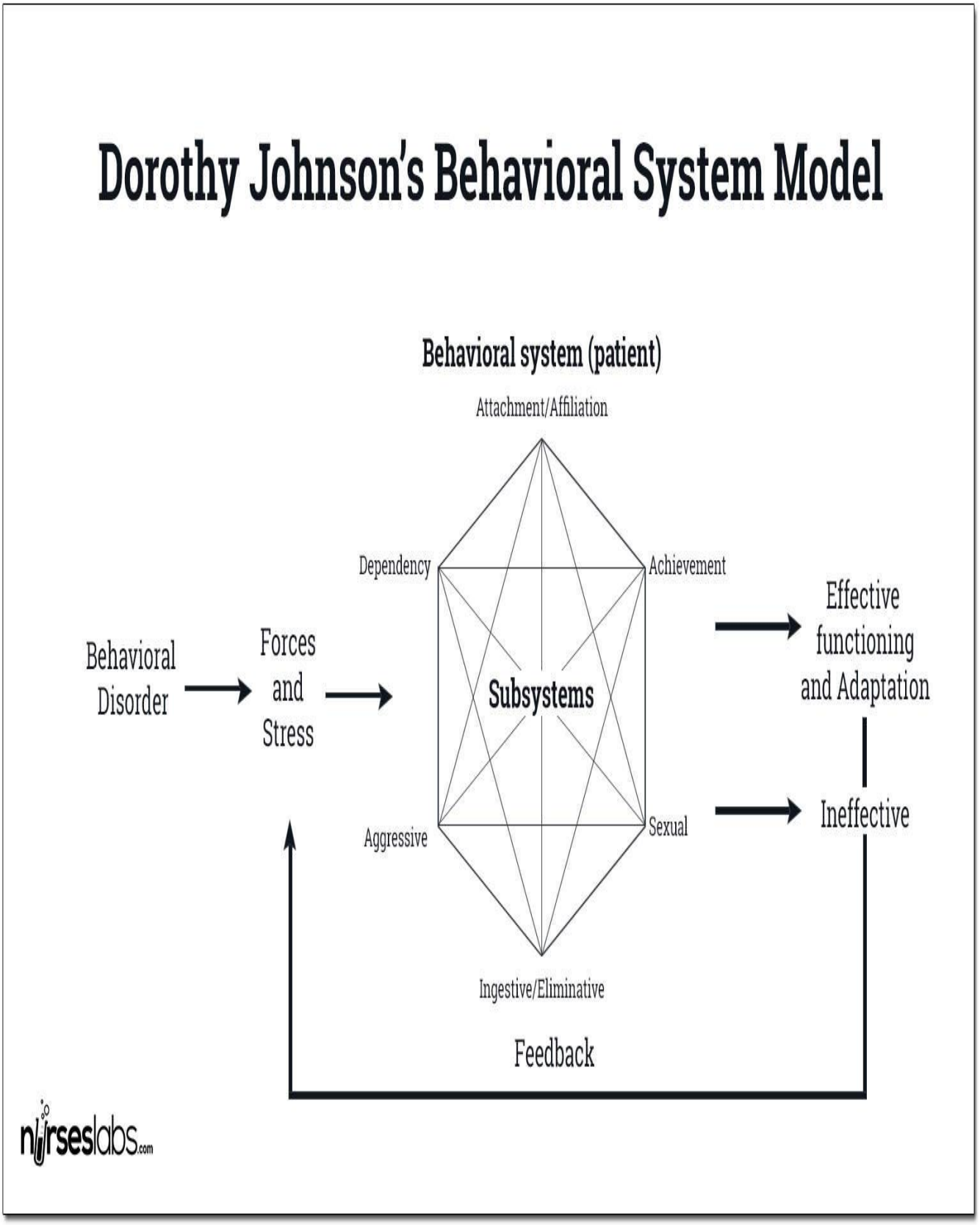
The Behavioral Model System consists of four goals of nursing, which are also significant for this study.

i. To assist the patient whose behaviour is proportional to social demands.
ii. To assist the patient who is able to modify his behaviour in ways that it supports biological imperatives.
iii. To assist the patient who is able to benefit to the fullest extent during illness from the physician's knowledge and skill.
iv. To assist the patient whose behaviour does not give evidence of unnecessary trauma as a consequence of illness.

This behavioral system model also assists patients to be knowledgeable and to have a clear understanding about certain illnesses they may suffer from (George, 2010:149). According to Johnson (1980:150), there are seven subsystems of the Behavioral System Model:

- Attachment or affiliative subsystem
- Dependency subsystem
- Ingestive subsystem
- Eliminative subsystem
- Sexual subsystem
- Aggressive subsystem
- Achievement subsystem

2.6.1. **Figure: 1** represents the Johnson Behavioral System Model



Johnson's Behavioral System Model (1968).

2.6.1.1 SEVEN SUBSYSTEMs OF JOHNSONS BEHAVIORAL MODEL RELATED TO THE STUDY

2.6.1.1.1 Attachment or affiliative subsystem

This is identified as the social inclusion intimacy, and the formation and the attachment of a strong social bond. It is probably the most critical because it forms the basis of all social organizations. It provides individual with survival and security (Johnson, 1980:212). In relation to the study, most pregnant women develop pregnancy related illnesses due to various changes during pregnancy and their unhealthy practices, which can include consumption of traditional medicines during pregnancy. They use these traditional medicines due to the fact they are more attached to culture. Beliefs, religions and norms contribute to the use of traditional medicines during pregnancy as it is part of their lifestyle regardless of the complications that may result afterwards.

2.6.1.1.2 Dependency subsystem

This is approval, attention, recognition and physical assistance. It also focuses on behaviors that participate in nurturing behaviors from other individuals in the environment. Developmentally, dependency behaviors evolve from self-dependency or from dependency to others. The application to the study is that pregnant women, especially those living and found in deep rural areas, depend on traditional medicine because they believe that for a successful pregnancy and for the wellbeing of the foetus and post-partum life, traditional medicine must be consumed. Consequently, they depend on traditional medicine rather that western medicine due to the fact that traditional medicine is just a mixture of plants and minerals and comprises natural ingredients. They depend on traditional medicine because it is easily accessible at no cost, regardless of its toxicity and that it has never been tested for safe use.

2.6.1.1.3 Ingestive subsystem

This relates to the behavior surrounding the intake of food related to the biological system. The emphasis of Johnson's perspective (1980:150) is the meaning and structure of the events socially surrounding the occasion when food or medicines are used. In relation to the study, traditional medicines are consumed during certain periods of pregnancy and under certain conditions. It is said that some pregnant mothers ingest Isihlambezo daily in small amounts from the day they are diagnosed with pregnancy, up to three months after delivery. Some cultures believe that it should be ingested in greater amounts on the expected month of delivery. It is a stipulated condition for almost all pregnant mothers to consume traditional medicine during pregnancy and it all lies on the prescriber

as to how, when, how much and on what conditions should these medications be ingested for the well-being of both the mother and the baby.

2.6.1.1.4 Elimination subsystem

The elimination subsystem is related to the surrounding of the excretion of waste product from the body. It addresses when, how and under what conditions we eliminate. In relation to the study, when pregnant women consume traditional medicine some of them do not have a specific measurement or a standardized dosage, and its overdose leads to increased bowel movements and diarrhoea. The over-dosage may lead to impairment of the renal system due to high toxicity of herbal medicine that needs to be excreted through kidneys, and failure of kidney functioning leads to oliguria and kidney failure.

2.6.1.1.5 Sexuality subsystem

This involves both the biological and social factors that affect behavior. The behaviors are related to culture and they differ amongst cultures and according to the individual's gender. In relation to the study, the sexual subsystem clarifies that biologically, the usage of traditional medicine is concerned with females as the target group for this study is females. They are the ones who fall pregnant and are at high risk of consuming isihlambezo. Socially, women believe that when they are pregnant their husband may lose interest and start looking for other partners outside the marriage or relationships. The study shows that traditional medicines have a great impact when consumed by pregnant mothers, causing the man to be more interested in the mother and never look outside their marriage.

2.6.1.1.6 Aggression subsystem

This subsystem is related to the behavior concerned about people's protection and self-preservation. It generates defensive responses from individuals when life is threatening. It does not include behavior that leads to injuries, but the purpose of protecting and preserving individuals and society. In relation to study, traditional medicine is taken by pregnant mothers to ensure safe pregnancy. They are taken because they are believed to protect the mother from antenatal sicknesses, which might be morning sickness, oedema of extremities, pre-eclampsia, Gestational Diabetes Mellitus (GDM) and others. This subsystem protects the society because as pregnant mothers consume isihlambezo, believing that it protects both mother and the foetus, there will be a reduced percentage of maternal deaths, foetal deaths, intra-uterine deaths, fresh still births (FSB) and neonatal deaths.

2.6.1.1.7 Achievement subsystem

This subsystem attempt to manipulate environments. Its function is to control aspects of self-environment. It provokes the behavior that rises to control the environment. In the application of the study, isihlambezo, and any other traditional medicines, are consumed because pregnant mothers believe they will achieve the following purposes after use: it is believed to assist women with easy extraction of the baby and the placenta during delivery, it prevents the occurrence of threatened miscarriages, and assists mothers with the induction of labour, especially those that are post-date and post-term.

2.7 CONCLUSION

The center of interest for Chapter 2 was reviewing literature about the experiences of pregnant women with regard to consumption of traditional herbal medicine. Literature unveiled information that there are number of factors driving pregnant women to consume traditional herbal medicine during their pregnancy, regardless of the adverse effects they are likely to experience post usage of the herbal medicine. This literature review is supported by the reported statistics of pregnant women who consumed traditional herbal medicine and suffered from its adverse events, and the use of isihlambezo amongst pregnant women in Sub-Saharan African countries and in South Africa, where it increasing. Johnson's Behavioral System Model was discussed as a theoretical framework guiding the study. Chapter 3 discusses research methodology selected for the research study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 2 focused on the literature review, factors contributing the use of isihlambezo and the theoretical framework that guided the study. Chapter 3 discusses the research design and methodology applied in this study including research trustworthiness and ethical considerations.

3.2. WORLDVIEW APPLICATION

Four worldviews can guide the study design, namely: positivism, constructivism, participatory and pragmatism (Creswell, 2014:40). The researcher adopted the constructivism paradigm to inform the study based on the study qualitative phenomenological approach. Polit and Beck (2014:9) state that for the naturalistic enquirer, reality is not a fixed entity but rather a construction of the individuals participating in the research; reality exists within a context, and many constructions are possible. Creswell (2014:8) indicates that individuals develop subjective meanings of their experiences – meanings directed towards certain objects or things. A constructive worldview was adopted whereby the participants developed their own views through face-to-face unstructured interviews as a method of data collection. According to Creswell (2014:8). the constructivist's research goal relies as much as possible on the participants' views of the phenomenon under study. Therefore, the researcher made sense of the experiences of the participants regarding the use of isihlambezo among pregnant women in King Cetshwayo District in KwaZulu-Natal.

3.3. STUDY METHODOLOGY AND DESIGN

Harvey and Land (2017:46) describe research methodology as the philosophy or principles of an approach to research, which actually determines the way in which the research methods are carried out, whereas Brink, van der Walt and van Ransburg (2014:73) define research methodology as the category whereby the researcher is concerned about information and methods of conducting a study. Similarly, Polit and Beck (2014:8) describe research methodology as the techniques that the researcher uses to structure a study, to gather and analyse the relevant information. This study employed a qualitative descriptive phenomenology research approach. Harvey and Land (2017:73) alluded that qualitative research methodology allows the researcher to obtain a clear understanding of behaviours, attitudes, interactions, beliefs, experiences and opinions of individuals or groups of people. Harvey and Land (2017:266) describe the following characteristics of qualitative research methodology.

- Is flexible and elastic, capable of adjusting to what is being learned during the data collection
- Often involves a merging together of various data collection strategies (i.e. triangulation)
- Tends to be holistic, striving for an understanding of the whole
- Requires researchers to become intensely involved and can necessitate remaining in the field for lengthy periods of time.
- Benefits from ongoing analysis of the data to formulate subsequent strategies and decisions to determine when data collection is done

3.3.1 RESEARCH DESIGN

A qualitative approach is important when dealing with lived experiences of patients, families and professionals (Brink, Van Der Walt and Van Rensburg, 2019:15). Qualitative descriptive phenomenology research design was the choice to conduct this study.

3.3.1.1 Descriptive phenomenology design.

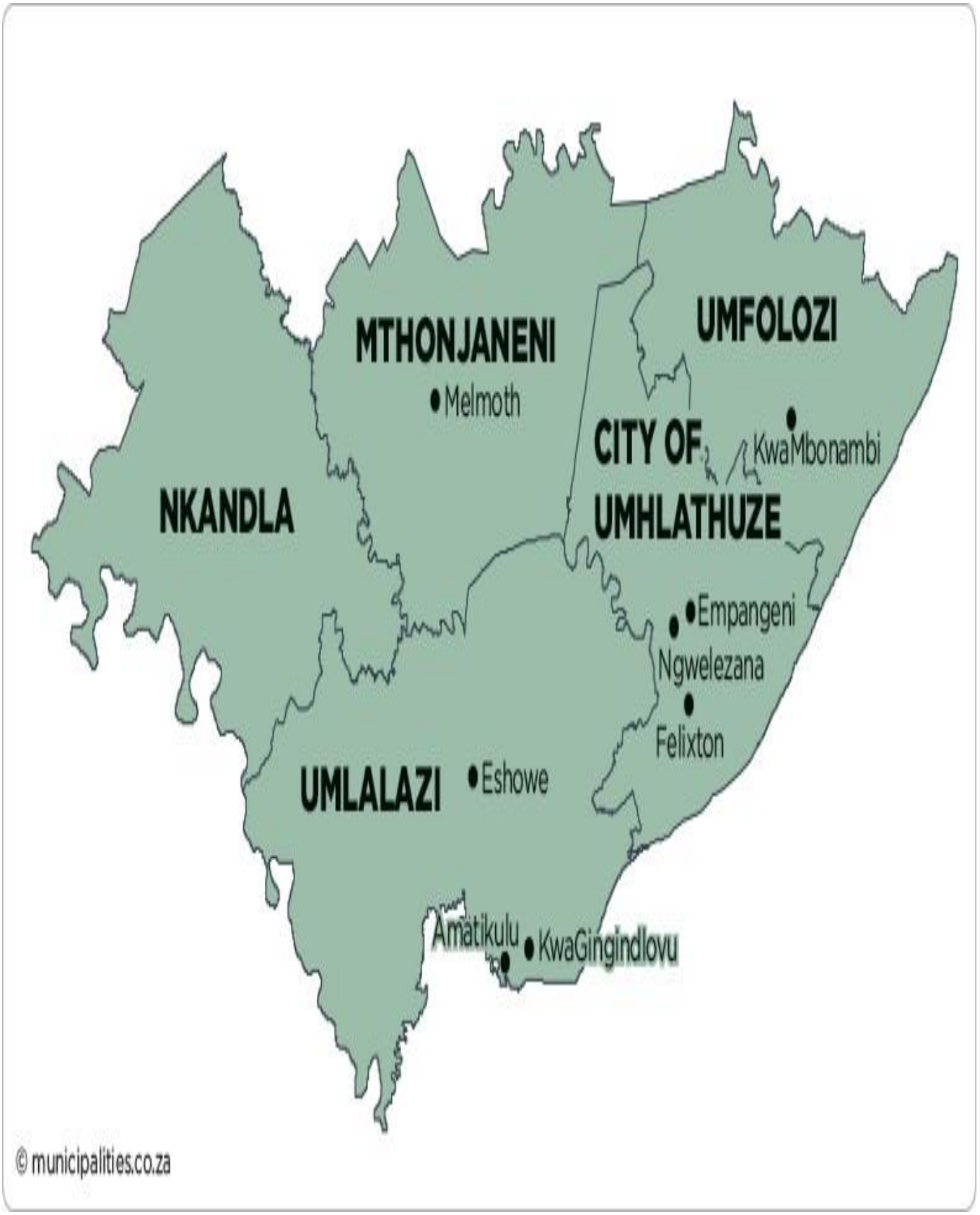
Descriptive phenomenology insists on the careful description of ordinary conscious experience of everyday life – a description of things as people experience them (Polit and Beck, 2014:471). Descriptive phenomenology stimulates the researcher's experiences of lived experiences of the participants while emphasising the richness, breadth, and depth of those experiences (Streubert and Carpenter, 2007:85). The descriptive phenomenological study encourages bracketing (Polit and Beck, 2014:471). Therefore the researcher intended to keep a reflective journal by making notes of interests that he may take for granted, clarify personal values and identify areas that are biased: identify role conflict; identify feelings that may indicate lack of neutrality; after data analysis is completed, reflect on how findings were written; reflect on whether the literature review truly supported the findings; consider interviewing participants for the second time and re-analyse data to address bias in data collection to ensure bracketing. This design assisted the researcher to describe the experiences of pregnant women regarding the use of isihlambezo during pregnancy at King Cetshwayo healthcare District in KwaZulu-Natal.

3.4. AREA OF THE STUDY

The study was conducted in three Primary Healthcare facilities and one regional hospital that were offering Ante-Natal Care and Post-Natal Care services to pregnant women. These four facilities are on the North coast of KwaZulu-Natal Province, at King Cetshwayo District Municipality under uMhlathuze sub-district. King Cetshwayo District is approximately 189.9 kilometres from Durban and

has a population of about 972 856 people, according to the latest statistical report of June 2017 (Statistic South Africa 2017). The district covers areas from Umfolozi River to its North, Gingindlovu in the South and Inkandla, inland. The District has five local municipalities, namely City of Umhlathuze, Umlalazi, Mthonjaneni, Inkandla and Umfolozi.

The clinics offer different services to the public, including Integrated Management of Childhood Illness (IMCI), Family Planning, Tuberculosis (TB) and Human Immune Virus (HIV) Care and Maternal Healthcare services. The hospital offers Maternal Healthcare, Gynaecology and Paediatric services. During the time of data collection the clinics were seeing about 150 patients a day, including pregnant and non-pregnant women, paediatrics, and males. The study's particular attention was on pregnant women who were using herbal medicine (isihlambezo) during their pregnancy period. Below is the map indicating where the study was done.



3.4.1. Figure 2: King Cetshwayo District Map (municipalities.co.za).

3.5. SAMPLING PROCESS

Sampling is a process that includes selecting a part of the population to represent the total population, and the findings from the sample represent the rest of the group (Polit and Beck, 2014:177). Pregnant women attending ANC at King Cetshwayo District, in KwaZulu-Natal, whom met the inclusion criteria were purposefully sampled for inclusion in the study. Purposeful sampling is a technique based on the judgement of the researcher regarding participants who will represent the study phenomenon (Brink *et al.* 2017: 141). The use of purposeful sampling approach was to draw a sample of the population for the study.

3.5.1 Population

Polit and Beck (2014:258) describe population as the total number of people or elements that fit a specific set of specifications of the study. Similarly, Brink *et al.* (2014:131) explain population as an entire group of persons or objects of interest to the researcher. In this study, the target population was all pregnant women in their third trimester attending ANC and post-natal women who had used herbal medicine, isihlambezo, in King Cetshwayo District in KwaZulu-Natal.

3.5.2. Sample size

Polit and Beck (2014:181) describe sample size as the number of study participants in the research study. In this study, sampling size was determined by the study data saturation. Polit and Beck (2017:521) state there are no fixed rules for sample size in qualitative research, but the guiding principle is data saturation. Brink *et al.* (2014:141) indicate that data saturation is a point at which no new data emerges during data collection. During data collection, eight pregnant women participated from three Primary Healthcare facilities and four from the regional hospital that renders ante-natal care services, making a total of 12 participants. Data saturation occurred after the 12th participant was interviewed. The sample size for this study was not pre-determined, guided by data saturation.

3.5.3. Inclusion criteria.

All pregnant women above 18 years, in their third trimester of pregnancy and post-delivery at post-natal units, who were using the traditional herbal medicine isihlambezo, who delivered either natural or by caesarean section at King Cetshwayo District in KwaZulu-Natal.

3.5.4. Exclusion criteria.

All pregnant women who did not attend ANC, below the age of 18 years, not using the traditional herbal medicine isihlambezo at King Cetshwayo District in KwaZulu-Natal, and in their first and second trimester of pregnancy.

3.6. Pre-testing of data collection tool.

The data collection tool was pre-tested before commencement of the main study. According to Polit and Beck (2014:195), pre-testing assists the researcher to trial run the data collection tool on a small scale before its use on a larger scale, preventing costly and flawed studies. Two unstructured interviews were undertaken with participants who met the inclusion criteria and purposively sampled. The researcher posed a grand tour question, followed by probes regarding the phenomenon. Field notes and an audio recording tape were used to collect data to test the data collection tool. Data was analysed and the findings included in the main study. The method of data collection was seen to be useful for application in the main study because during pre-testing there were no challenges faced by the researcher. Therefore, there was no adjustment made to the data collection tool.

3.7. IDENTIFICATION OF STUDY PARTICIPANTS.

The University of Zululand Research Ethics Committee (UZREC) (Annexure 6) granted ethical clearance post faculty presentation of the researcher's proposal. The researcher continued to request permission to conduct a study from the KwaZulu-Natal Department of Health Research Unit (KZNDoHRU) (Annexure 8). After requesting permission directly from the King Cetshwayo Health District Manager to collect data from the participants in the identified facilities of uMhlathuze Sub-District, the research committee responded and officially agreed to the researchers request to conduct a study (Annexure 7). The researcher identified the participants initially by visiting the identified clinics that met the study inclusion criteria to assess and have an idea of how they book their patients for ante-natal clinics and the stipulated dates of visits, especially those in their third trimester and those who were post-natal. The head of each facility was requested to confirm if the dates identified were correct and accurate for the benefit of the researcher to achieve data collection on the stipulated days for the participants' visits to the clinics.

3.8. RECRUITMENT PROCEDURE.

Since the researcher was aware of the clinics' visit days, and the pregnant mothers who came for first time booking and the specific days for the advanced pregnant women, the researcher targeted Mondays to Fridays, which were the conducive days for data collection. The researcher identified the

participants who met the study's inclusion criteria to participate in the study. The researcher gave adequate information to the participants in their language of choice, and those who volunteered to take part in the study received information letters to read (Annexures 2A and 2B). The researcher continued to give more information to the volunteered participants specifically about what was expected of them and about how the researcher was going to ensure privacy and confidentiality. The participants did not change their minds and requested to sign the consent form (Annexures 3A and 3B). The researcher informed participants they had the right to withdraw from participating in the study at any time without penalties.

Due to study sample size, which depended on data saturation, and those participants who were still undecided whether to participate in the study, they were urged to take time and think about it. The moment they decided to take part in the study they informed the researcher about their change of mind as per the researcher's request. The researcher gave them the information letter (Annexure: 2A and 2B) in their language of choice that had all the information about the study and their expectations, for them to decide if they wanted to participate or not.

3.9. DATA COLLECTION PROCESS

The most popular method of data collection in qualitative research is interviewing. This study adopted face-to-face unstructured interviews as a method of data collection. According to Brink *et al.* (2014:158), unstructured interviews allow the researcher to ask a tour guide question followed by additional probes. The researcher obtained permission from the clinics and hospital manager to use private isolated rooms in the facility. The researcher prepared the private room where data was to be collected to ensure confidentiality and allow comfort for the participants, without any distraction. The researcher disinfected and cleaned the interview room, and set it in such a manner that ensured 1.5 metre distance between the researcher and the participants to comply with social distancing and adherence to Covid-19 healthcare guidelines. The researcher and the participants did a Covid-19 symptom monitoring and temperature checks to exclude Covid-19 symptoms, and they sanitised their hands with hibitaine, containing 70% alcohol, made available for continuous utilisation during the session. The researcher ensured that masks were worn in a proper way that covered both the nose and the mouth throughout the session.

The researcher ensured uniformity and consistency by preparing an interview guide consisting of a tour guide question that assisted with facilitating the flow of the face-to-face individual interviews, one in English and another in IsiZulu (Annexures 1A and 1B) depending on the language chosen by participant; however, additional questions or probes were used to obtain more information regarding

the phenomenon. All 12 interviews were conducted in isiZulu because the majority of the population were isiZulu speaking and preferred its use in communicating.

The participants were located during their ANC visits at the selected study areas during the stipulated clinic visits days, and the follow up interviews to validate data took place during their post-natal visits at the same study areas. Before commencement of the data collection process, the participants were given an information letter (Annexure: 2A) explaining the purpose of the study and a consent form (Annexures 1A or 1B) to sign as they agreed to participate in the study without any coercion. The information letter and the voluntary participation consent form were in English (Annexures 2A & 3A) and translated into IsiZulu (Annexures 2B & 3B) because the clinic was dominated by isiZulu speaking people. The researcher ensured that the participants' names were not written on the data collection tools, only a number or letter of the alphabet representing the participants' name to ensure anonymity and confidentiality.

The researcher requested the participants to wear cloth face masks, and provided hand sanitisers. The data collection sessions lasted for about 30-45 minutes, and the researcher disinfected and cleaned the interview room after each one. The researcher requested permission from the participants to use a tape recorder during the interview session to capture the participant's actual words, which was used during data analysis. Furthermore, the researcher requested permission to take notes during the interviews to capture participants verbal and non-verbal responses. The data collected was kept with the researcher until it was locked in a safe cupboard, and data stored in the computer was protected by a password; only the researcher and the study supervisor had access to this raw data. All information obtained during data collection was kept in the study supervisor's office for the duration of 5 years in case of verification, thereafter it would be deleted.

3.10. DATA ANALYSIS

Data analysis occurred at the same time as data collection, just after the completion of the interview sessions. This was done to ascertain understanding and to ensure that the researcher had the clear sense of the shared information. Creswell (2016:109) indicates that analysis of data in a qualitative study is usually based on descriptive philosophy, which is aimed at examining meaningful and symbolic content of qualitative data. Data analysis entails categorising, ordering, manipulating and summarising the data and by describing them in meaningful terms (Brink *et al.* 2014:178). This is where the researcher analysed the collected data, trying to get more understanding of the information presented and acquired in different ways. Due to the descriptive phenomenology design of the study, the researcher extracted significant statements, categorised them and made sense of the essential

meanings of the phenomenon while remaining open to the meanings attributed to the phenomenon by those who experienced it to ensure intuiting (Polit and Beck, 2014:472). The researcher listened to descriptions of quality of life and dwelt on the data, until common themes or essences began to emerge.

Under the direction and supervision of the researcher's supervisor, the researcher analysed the data guided by Colaizzi's steps of Phenomenological Analytic Method (Polit and Beck, 2014:540):

- The researcher read all the data obtained, the information on the field notes and listened attentively to the recorded information to acquire a feeling of the participants.
- The researcher reviewed each data by comparing the information recorded in field notes with the actual verbatim recorded in the audiotape and extracted significant statements.
- The researcher formulated the meanings of each significant statements and the series of action was repeated for the rest of the interviews.
- The researcher organised the formulated meanings into clusters of themes and sub-themes from the participant's experience, feelings, experiences, knowledge and attitude. This assisted the researcher to describe and explore different experiences of the participants and relate the information and make one meaningful idea.
- The researcher had a deeper understanding of the participant's perceptions through integrating the findings into an exhaustive description of the phenomenon under study.
- The researcher formulated the exhaustive description of the phenomenon under study to have one clear possible interpretation and one meaning of statement identified.
- The researcher returned to the participants for validation of the description at the post-natal units. The researcher incorporated the new data revealed during the validation into the exhaustive description.

3.11. TRUSTWORTHINESS

Trustworthiness was by observing credibility, dependability, conformability transferability and authenticity (Polit and Beck, 2014:72).

3.11.1 Credibility

Polit and Beck (2014:323) describe credibility as a confidence in the truth value of the data and interpretation of such. The researcher ensured credibility by prioritising privacy and truthfulness. In this study, the researcher initially established a good rapport with the participants and provided a private environment during sessions that assisted the participants to be calm and secure;

automatically those actions developed trustworthiness between the researcher and the respondents. The researcher explained and obtained consent from the respondents to use a tape recorder to capture the participant's verbatim responses and take field notes during interviews to ensure credibility.

3.11.2 Dependability

Dependability refers to provision of evidence, in that if it were to be repeated, with the same or similar participants in the same or similar context, its findings would be similar (Brink *et al.* 2014:172). The data used in this study was the only data obtained directly from the participant's perception through integrating the voice recorder and the field notes taken during data collection sessions (Brink, 2014:11). To further ensure dependability, all the information was kept in a locked cupboard in the study supervisor's office, and soft copy data was on a password-protected computer for a period of 5 years in case verification of data was required.

3.11.3 Transferability

Brink *et al.* (2014:173) describe transferability as an ability to apply the findings of the study to other contexts or to other participants. Polit and Beck (2014:560) agree with the notion by stating that the researcher will achieve transferability by providing sufficient descriptive data so that other researchers can evaluate its applicability to other contexts. In this study, the researcher provided thick description to enable someone interested in making a transfer to reach a conclusion about whether transfer could be a possibility. Transferability assists researchers to provide the evidence of the data collected to readers and other researchers who could test validity in terms of context, population and times.

3.11.4. Confirmability

Confirmability refers to the potential for congruency of data in terms of accuracy, relevance and meaning (Brink *et al*. 2014:173). Furthermore, it is concerned with establishing whether the data presented is not influenced by the researcher's imagination. Confirmability in this study was achieved using direct quotations from the raw data in appropriate places in the research report to convey the participants' experiences about the use of the traditional medicine isihlambezo during pregnancy. Possible bias of the researcher was eliminated through the evaluation, relevance of the data by the supervisor and two independent study examiners.

3.11.5 Authenticity

Authenticity refers to the extent to which a researcher fairly and faithfully shows a range of realities (Polit and Beck, 2014:560). An audit trail established this, which allowed the reader to clearly follow the line of thinking that the researcher used during data analysis. Final descriptions were prepared in such a way that the line of thinking and interpretation that occurred is clear to understand to the reader and true to the data.

3.12. ETHICAL CONSIDERATIONS

Polit and Beck (2014:380) state that ethics is a moral value system that focuses on and is concerned with the degree to which research procedures adhere to professional, legal and social obligations of the study participants. Participants' rights and welfare were protected during the study by following the ethical rights to self-determination, right to privacy, informed consent, anonymity and confidentiality.

The proposal was sent to the University of Zululand Research Ethics Committee (UZREC) for ethical clearance (Annexure 6). Permission was also requested from the KwaZulu-Natal Department of Health Research Unit (KZNDoHRU) before the commencement of the study data collection (Annexure 5) and from the King Cetshwayo Health District Manager in KwaZulu-Natal to conduct the study (Annexure 5). The researcher received permission from the aforementioned committees to commence the collection of data, which was undertaken successfully.

3.12.1 Right to self-determination

In this study, the researcher gave participants an information letter that explained all the details about the study and what was expected from them in their preferred language of choice. The researcher allowed the participants to ask questions and gave them the opportunity to decide if they wanted to participate in the study. Participants were further informed that they had the right to withdraw from the study at any time if they wish to do so without coercion.

3.12.2 Right to privacy.

Burns and Grove (2017:114) indicate that privacy is a freedom to determine the time, extent and general circumstances under which private information will be shared with or withheld from others. The researcher ensured that the sessions are took place in a secure and private room in order to maintain privacy. The researcher reassured the participants that the information shared would only be discussed with the supervisor, and their identities would not be revealed as they would receive a number or letter of the alphabet representing their name.

3.12.3 Informed consent

Informed consent is an ethical principle that requires researchers to obtain people's voluntary participation in a study after informing them of possible risks and benefits (Polit and Beck, 2014:382). An informed consent is an agreement by a prospective subject to participate voluntarily in a study after he/she has assimilated essential information about the study. The researcher gave adequate information to the participants and outlined all the requirements for them to decide if they wanted to continue participating or withdraw. The participants had a clear understanding and those willing to participate in the study received consent forms to sign, which served as evidence that permission was granted to the researcher from each participant to audio record the interviews and to take field notes. Win instances where participants were unable to read or write, the researcher read the information letter and a consent form in their preferred language, then thumb prints were used to sign the consent form.

3.12.4 Anonymity and confidentiality

Polit and Beck (2014:374) indicate that the protection of participants' confidentiality is such that even the researcher cannot link individuals with the data they provided. The participants' names were not written on the data collection tools, only a number or letter of the alphabet representing the participants' name was written to ensure anonymity and confidentiality. Furthermore, data collecting tools was coded by the researcher to further safeguard anonymity and confidentiality.

3.13. CONCLUSION

The focus of Chapter 3 was mainly on research methodology and design including worldview application, research design, study area, sampling process, identification of study participants, recruitment procedure data collection process and analysis. Chapter 3 also outlined trustworthiness and ethical considerations. Chapter 4 presents the study's findings.

CHAPTER 4.

PRESENTATION OF THE STUDY FINDINGS.

4.1. INTRODUCTION.

Chapter 3 outlined the research methodology employed to conduct the research study. This chapter will outline the findings of data acquired during face-to-face unstructured interviews conducted with eight pregnant women at ANC and four post-delivered women in the clinics and hospital at the selected facilities in King Cetshwayo Health District that met the inclusion criteria during weeks one to week four of March 2021.

4.2. SAMPLE REALISATION.

This research study was conducted in four different facilities meeting the inclusion criteria located in the North coast area of KwaZulu-Natal within the King Cetshwayo District. These facilities consisted of three Primary Healthcare clinics and one Regional Hospital, which were purposefully sampled. The researcher conducted face-to-face unstructured interviews with the participants as determined by data saturation, which was reached after the tenth interview and, an additional two more interviews were added to corroborate data saturation. Table 2 illustrates the sample realisation based on the study area where participants were purposefully sampled.

4.2.1. Table 2 Sample realisation for the whole study (n=12).

Study Area	**Participants**	**Total**
Clinic A	**AP1**	**03**
	AP2	
	AP3	
Clinic B	**BP1**	**03**
	BP2	
	BP3	
Clinic C	**CP1**	**4**
	CP2	
	CP3	
	CP4	
Hospital D	**DP1**	**2**
	DP2	

4.3. DEMOGRAPHIC DATA

Demographic data comprises of arrays of socioeconomic information including the breakdown of population by gender, gender, age, ethnicity, income, employment status, home ownership and even internet access. The demographic data was captured to indicate whether the participants represented the target population for the research study. The researcher collected data from eight pregnant women during ANC and four post-delivered women attending their care at King Cetshwayo Health District facilities. All participants sampled for the study were Africans (n=12), within the age groups 19-42 years old. Seven (n=7) participants reported to be Christians, three (n=3) were Nazareans, also known as Shembe religion, one (n=1) was a Jehovah witness and one (1=n) did not belong to any religion. Four (n=4) of were married and eight (n=8) were single. Five (n=5) were multigravida and seven (7=n) primigravida. Table 3 presents the demographic data of the participants.

4.3.1. Table 3 Demographic data of the participants (n=12).

Participants number	Age	Race	Marital status	Gender	Parity	Religion	Employment status	Education level
AP1	22 years	African	Single	Female	1	Nil	Unemployed	Grade 12
AP2	37 years	African	Married	Female	4	Christian	Employed	Grade 11
AP3	33 years	African	Married	Female	2	Jehovah witness	Employed	Grade 12
BP1	41 years	African	Married	Female	3	Nazareth	Employed	Grade12
BP2	24 years	African	Single	Female	2	Christian	Unemployed	Tertiary
BP3	42 years	African	Married	Female	3	Christian	Employed	Tertiary
CP1	31years	African	Single	Female	2	Christian	Unemployed	Grade 12
CP2	19 years	African	Single	Female	0	Christian	Unemployed	Grade 04
CP3	30 years	African	Single	Female	2	Christian	Employed	Grade 12
CP4	28 years	African	Single	Female	1	Christian	Unemployed	Tertiary
DP1	31 years	African	Single	Female	3	Nazareth	Unemployed	Grade 12
DP2	27 years	African	Single	Female	1	Nazareth	Unemployed	Grade 08

4.4. THEMES AND SUBTHEMES.

Various sub-themes emerged from major themes during data analysis, which are represented in section 4.4.1.

4.4.1. Table 4 presents the major themes and sub-themes

THEMES	SUB-THEMES
Theme 1: Myths about isihlambezo	1. Prevention of surgical intervention during delivery
	2. Prevention of pregnancy ailments
	3. Foetal growth and maturity
Theme 2: Traditional and cultural beliefs	1. Protection powers against bad spirit
	2. Cultural beliefs about pregnancy
Theme 3: Indication and effects of isihlambezo	1. Effects on the duration of labour
	2. Effects on contractions and labour pains
	3. Time frames for the use of isihlambezo
Theme 4: Economic impact on the use of isihlambezo	1. Financial affordability of isihlambezo.
	2. Access to isihlambezo

4.5. PRESENTATION OF STUDY FINDINGS.

4.5.1. Major theme1: Myths about Isihlambezo

After the interviews were conducted in the four different facilities, participants chosen to participate in the research study shared their experiences regarding the use of isihlambezo during pregnancy, delivery and post-delivery. During the interview sessions, numerous experiences that were advantageous and not scientifically proven were shared by the participants, which led to the emerging of myths about isihlambezo as a major theme with several sub-themes, such prevention of surgical intervention during delivery, prevention of pregnancy ailments, and foetal growth and maturity.

4.5.1.1 *Sub-theme 1: Prevention of surgical intervention during delivery.*

Most of the participants seemed motivated to use Isihlambezo because of the belief that it assisted them to give birth naturally, and not to undergo caesarian section. This was captured in these excerpts:

"….mnumzane… isihlambezo umuthi wesintu osetshenziswa abaningi besifazane abazithwele, unemiphumela emihle ekuqinisekiseni ukuthi owesifazane owusebenzisile ezithwele akabelethi ngokuhlinzwa kodwa uzitetela ngokwemvelo" [BP2]

'…Sir…. isihlambezo is the traditional medicine that is used during pregnancy by most pregnant women, which is useful and very effective in ensuring that pregnant women who used Isihlambezo during their antenatal period do not give birth by operation but naturally." [BP2]

"Ehh… isihlambezo is effective when used properly… meaning it prevent delivery complications that might arise during labour, which might lead to operational delivery in theatre, for the matter of fact I am a leaving proof of that because I used isihlambezo in my first pregnancy and I was never referred to theatre for delivery." [AP3]

"Well… isihlambezo is very helpful in preventing from undergoing delivery by being operated upon, especially when you have a big baby which cannot pass through naturally, …. this traditional medicine helps a lot in this regard." [CP2]

4.5.1.2. *Sub-theme 2:* Prevention of pregnancy ailments.

Study participants revealed that isihlambezo assisted them during their pregnancies in averting popular pregnancy ailments. This is evident in these responses:

"…Actually…I was told that isihlambezo will help me from pregnancy ailments such as morning sickness, nausea and vomiting. Since I am using isihlambezo I experienced few occasional morning sicknesses especially in my early pregnancy stage but now I don't have any of them, …. hence I am convinced that it does prevent those pregnancy sicknesses." [AP1]

"Isihlambezo is very powerful and help pregnant women who are suffering from pregnancy sicknesses. … eh, it aids pregnant women from those sicknesses successfully. With me, … during my second pregnancy I was suffering from constant nausea and vomiting, but after I was advised to use isihlambezo by my mother in-law all those sicknesses disappeared." [BP3]

4.5.1.3. *Sub-theme 3:* Foetal growth and maturity

Most participants were of a view that the use of isihlambezo during pregnancy assisted with foetal growth and maturity. Most of them based their argument on the fact they had never had pre-term babies in their previous pregnancies because of the use of isihlambezo. This was captured in this verbatim:

‘’*Sir… isihlambezo helps in the baby growth and development without any complications…. I have been using isihlambezo for my past two pregnancies and I delivered healthy babies not that needed to be in the bottle at the hospital because they came before time.’’* [CP1]

“okuseqinisweni mnumzane… ngisebenzisa isihlmbezo nje kungenxa yokuthi ngiyakholelwa ekutheni sizosiza ingane ikhule ngokushesha ngaphakathi ingazalwa bese ikhulela ebhodleni, lokho kuzonciphisa isikhathi engingasihlala esibhedlela.” [CP3]

“In fact sir… I am currently using isihlambezo because I am inspired that it will help my baby to grow quick and not to be a pre-term baby, this will lessen my stay at the hospital.’’ [CP3]

‘’…I was told by my mother that if I do not use isihlambezo I might end up having a preterm baby, so I am using the isihlambezo to ensure that my baby grows well until the date of delivery.’’ [DP2]

4.5.2. Major theme 2: Traditional and Cultural beliefs.

During the interview sessions, the researcher noted that pregnant women were culturally and traditionally sensitive towards the use of isihlambezo. It emanated from the interviews that during pregnancy most pregnant women believed in their traditional and cultural practices, which led to the emergence of the main theme and the sub-themes: protection powers against bad spirit and cultural beliefs about pregnancy.

4.5.2.1. *Sub theme 1: Protection powers against bad spirit.*

During the interview sessions with participants the researcher observed the commonalities in the participant’s responses, that the majority of them believed in using isihlambezo during pregnancy because it would protect them from bad spirits. This is what they said:

“…. *Sir Isihlambezo protects me and my unborn baby from being attacked by bad spirits, that is what I was told by my elderlies.”* [DP1]

“…. *Isihlambezo is a powerful medicine that I am using to protect myself and my unborn baby against bad and evil spirts. We are also encouraged by our church leaders to use it.”* [CP2]

“Well…. I believe that isihlambezo serves as a shield that prevents bad spirits from attaching myself and my unborn baby hence I’m using it.” [BP2]

4.5.2.2. *Sub- theme 2: Cultural beliefs about pregnancy.*

During interview sessions, pregnant women revealed that isihlambezo has been used for decades, their knowledge and beliefs have been passed from one generation to the other, hence the majority

of women believed in the use of isihlambezo during their pregnancy. This is noticeable in their responses:

> *"...In fact…. My mother and my mother in law advised me to use isihlambezo during my pregnancy because they also used it during their pregnancy."* [CP1]

> *"According to our cultural belief practices, it is important that when one is pregnant they use isihlambezo as it was used during our parents and grandparent's era."* [BP3]

> *"The use of isihlambezo during pregnancy is our cultural practice and is encouraged by our elders to consume during pregnancy."* [AP1]

4.5.3. Major theme 3: Indication and effects of isihlambezo

The researcher ascertained during data collection sessions that a substantial number of pregnant women were motivated to use isihlambezo as they argued it had positive effects for them, hence there is a rise in its consumption. They concurred in their responses that isihlambezo had an advantageous effect towards their pregnancy as indicated in the following sub-themes, effects on duration of labour, effects on contraction, labour pains and time frames for the use of isihlambezo that came into view.

4.5.3.1. *Sub-theme 1: Effects on the duration of labour*

The study participants illustrated their common feelings about the effects that isihlambezo endeavors during labour. Most of them were in agreement that isihlambezo shortens the duration of labour, as captured in these excerpts:

> *"…. mmm…. Previously I used isihlambezo expecting it to help me not to experience difficulties and reduced number of hours in labour and to avoid prolonged labour, which is why I am still using it even in this pregnancy."* [BP2]

> *"……. My mother informed that isihlambezo shortens the duration of labour hence it is my firsts pregnancy I am fearful of prolonged labour and I want my laboring process to be short as a result I am using isihlambezo."* [CP2]

> *"Sir…. I am currently using isihlambezo because I do not want to take long to deliver as I used isihlambezo and my delivery process was very short, I believe that isihlambezo assisted with shortening the process of delivery."* [DP1]

4.5.3.2. *Sub-theme 2: Effects on contractions and labour pains.*

During data collection sessions, most of the participants ascertained their use of isihlambezo as being effective towards the duration of contractions and labour pains. It emanated from most of their responses that isihlambezo had a positive effect towards contractions and pains. They concurred that isihlambezo causes contractions to be stronger and more intense, therefore the more labour pains the quicker the process of delivery. This is what they had to say:

> *"Sir…. what I can say is…. although the use of Isihlambezo result in strong contractions during delivery but those strong contractions work to my advantage because the more the contractions are strong, the quicker is the process of delivery. That is why I used isihlambezo because of its effect on contractions and the process of delivery."* [BP3]
>
> *"..engakuqaphela ukuthi.. ekukhulweni kwami okudlulile nganginesiko eqinile kakhulu, lokho kwenza ukuba kusheshe kakhulu ukuteta ingane." [BP3]*
>
> *"…. what I noticed is…., In my previous pregnancy I used isihlambezo and I experienced strong contractions and that speeded up the process of delivery."* [BP3]
>
> *"I delivered my baby immediately after I arrived at the hospital because I was having strong contractions and intense pains due to the use of isihlambezo."* [DP1]

4.5.3.3. *Sub-theme 3: Time frames for the use of isihlambezo*

The majority of the participants commonly agreed that isihlambezo is prescribed for consumption in different trimesters of pregnancy. This was discovered, as most participants indicated, that it depends on what the prescriber's intensions are when dispensing isihlambezo; some are given it to consume throughout pregnancy and some are given towards the last trimester. This was alluded to in these quotes:

> *"Sir I have been using isihlambezo since I noticed that I was pregnant and I will use it until my date of delivery because as it protects me and my baby. "*[CP4]
>
> *"Well… I used isihlambezo during my first trimester according to my traditional healers' instructions that it prevents the morning sicknesses which I was experiencing during my first trimester."* [BP1]
>
> *"…Sir…I stared to use isihlambezo during my third trimester to start preparing my body for delivery as isihlambezo augment labour and ensures speedy delivery."* [CP3]

4.5.4. Major theme 4: Economic impact on the use of isihlambezo.

During interviews participants shared similar ideas on how their standard of living had strong effect on use of isihlambezo. Most of the participants were of the view that their economic backgrounds played a major role towards their use of isihlambezo, which became evident in the following sub-themes; financial affordability and access to isihlambezo.

4.5.4.1 *Sub-theme 1: Financial affordability of isihlambezo*

The majority of the participants stated that due to poverty, financial constraints, unemployment and financial pregnancy demands they are faced with, leads to unaffordability of private healthcare services. They seem to rely on the use of isihlambezo because of its affordability. This was evident in the interviewees actual responses:

> *"…. Sir…I am using isihlambezo because I do not have medical aid, which means I cannot afford to visits gynecologist or private clinic because I will have to pay a lot of money off which I do not have."* [DP1]

> *"With me…. Honestly speaking, as you see me today in this facility I had to do a lot of sacrifices including waking up early, taking two different buses to reach the clinic, eh… I don't even have money to visit the private doctor. I find it difficult for me because I am unemployed. Therefore, I prefer to use isihlambezo because it is sold three houses away from my household …. I just take a walk and get it without any bus fare involved."* [AP2]

> *"I am using isihlambezo because is unlike western medicine that you have to have a lot of money to afford buying medicines to assist with pregnancy sicknesses, with isihlambezo you pay little money to get it."* [CP4]

> *"You know what Sir…. I am using isihlambezo because at church we get it for free we do not have to pay for it like visiting a doctor for consultation…. Mind you I am not employed."* [CP2]

4.5.4.2. *Sub-theme 2: Access to isihlambezo*

The study participants revealed that they prefer to consume isihlambezo due to its easy accessibility. According to their corresponding responses, it became evident that absolute access to isihlambezo impacts its consumption by pregnant women. These are some of their supporting quotes:

''…. It is very easy to get isihlambezo due to the fact that there are so many recommended prescribers in our rural area who prepares it and give it to pregnant women, for that reason I am inspired to use it." [CP3]

"Ngisebenzisa isihlambezo ngenxa yokuthi sithakwe ngamakhambi emvelo nokuthi asipheli ngenjemithi yasemakhemesi, isihlambezo siwumuthi esiwukhokhela imali encane kwesinye isikhathi siwuthole ngaphandle kokuba sikhokhe." [CP1]

"I am using isihlambezo because it constitutes of natural ingredients and it has never been out of stock like western medication. It is a medicine that we get with little money sometimes without even paying." [CP1]

"Sir… to get isihlambezo it is easy without any terms and conditions including waiting for office hours or standing in long ques, you just get it at any time of the day, …. hence I am driven to use it." [DP2]

4.6 CONCLUSION.

Chapter 4 presented the study findings supported with actual participants' verbatim quotes. This was to ensure that the main aim and the objectives of the study were achieved. Chapter 5 will focus on the discussion of study findings, limitations, conclusion and recommendations.

CHAPTER 5

DISCUSSION OF THE STUDY FINDINGS

5.1 INTRODUCTION

Chapter 4 analysed data collected during interview sessions with the participants. This chapter will focus on the discussion of the study findings, as supported with literature, and the application of Johnson's Behavioral System Models as a theory guiding the study. The chapter discusses the conclusion, study limitations and recommendations.

5.2. OVERVIEW OF THE RESEARCH STUDY.

The aim of the study was to explore and describe the experiences of pregnant women with regard to the use of isihlambezo at King Cetshwayo Healthcare District (KCD) in KwaZulu-Natal. A qualitative descriptive phenomenology research approach was adopted to collect data from the participants. To ensure bracketing, a reflective journal with notes of interests that may be taken for granted, clarification of personal values and identify areas that are bias, an identify role conflict, identify feelings that may indicate lack of neutrality, after data analysis is completed reflection on how findings were written, reflect on whether the literature review truly supported the findings, consider interviewing participants for the second time and re-analyse data to address bias in data collection, were all taken into consideration.

The researcher's discussion in this study was based on the emergent themes and sub-themes from data analysis. The purpose of the study was to achieve the following study objectives:

- To explore the experiences of pregnant women regarding to the use of isihlambezo within King Cetshwayo Healthcare District in KwaZulu-Natal.
- To describe factors contributing to the use of isihlambezo by pregnant women in King Cetshwayo Healthcare District in KwaZulu-Natal.

5.3 DEMOGRAPHIC DATA OF THE STUDY

The study participant's demographic data comprised of the participants' ages, race, marital status, gender, parity, religion, employment status and their educational level. Demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population. The researcher interviewed twelve (n=12) participants in this research study; most of them were pregnant women (n=10) and two (n=2) post-delivered women. All participants were Africans (n=12). The participants

ages ranged from 18-20 years (n=1), 21-30 (n=4), 31-40 (n=5) and 41-45 (n=2). The majority of the participant's marital status was single (n=8) and four (n=4) were married. Study participant's parity was P0 (n=1), P1 (n=3), P2 (n=4), P3 (n=3) and P4 (n=1). Participants included seven (n=7) Christians, three (n=3) Nazareans, one (n=1) Jehovah witness and one (n=1) who did not have a church congregation. Seven (n=7) of the participants were unemployed, and five (n=5) were employed. Three (n=3) of the participants held a tertiary education qualification, six (n=6) had grade 12, one (n=1) had grade 11, one (n=1) grade 8 and one (n=1) grade 4.

5.4. DISCUSSION OF THE FINDINGS

5.4.1. MYTHS ABOUT ISIHLAMBEZO

There is controversy and myths around the use of isihlambezo during pregnancy. This was corroborated by participant's responses during the data collection session, where several sub-themes emerged demonstrating clear evidence that there are myths about isihlambezo. Most of the participants agreed that they consume isihlambezo because it provides advantages that prevents pregnancy ailments. This is similar to the study findings conducted by Mamakoko (2017:16), which revealed that the majority of pregnant women were found to be consuming traditional herbal medicine (isihlambezo) in their first trimester of pregnancy, with the belief that it aids gastrointestinal disorders including nausea, vomiting, bloating and stomach aches related to pregnancy. Nyeko *et al*. (2016:15) support this by stating that pregnant women consume isihlambezo for the relief and treatment of pregnancy related problems, such as backache, exhaustion, burning and struggling to urinate.

Johnson's Behavioral System Models (1980:212) describes attachment sub-system as social inclusion intimacy, formation and the attachment of a strong social bond, which also provides individuals with survival and security. In relation to the study, most pregnant women develop pregnancy related illnesses due to various hormonal changes occurring during pregnancy and unhealthy practices, which can include consumption of traditional medicines (isihlambezo) with the belief that it prevents pregnancy sicknesses. Most of the participants are attached to using the isihlambezo during pregnancy, with the belief that it eases them from pregnancy related ailments despite the unproven belief about the effects and the safety of use. The study conducted by Fayeke, Adisa and Musa (2009:53) revealed that respondents who had used isihlambezo prior or during pregnancy had experienced adverse/side effects, this included vomiting, dizziness, general body malaise, headache, rashes and diarrhea. This concludes that an individual can still suffer from pregnancy related ailments in spite of using the traditional medicine (isihlambezo).

The use of isihlambezo is on the rise despite the undocumented safety use during pregnancy. The findings of the study show that pregnant women who are using traditional medicine are driven by beliefs and experiences shared with them by their elderlies. Participants believe that consuming traditional medicine has benefits to them and their unborn babies to promote their growth. This was also revealed in the study conducted by Ngene (2019:1), which stated that isihlambezo actually assists in the good development and growth of the foetus, including maintenance of pregnancy. Makuria *et al.* (2017:2) agree that African pregnant women consume isihlambezo as a traditional health practices because it is believed to enhance good development of the baby, while preventing malformation of the foetus, and ensuring health of a mother even post-delivery.

Pregnant women use isihlambezo because it supposedly had positive effects on the growth of the unborn baby and advantageous to the mother during delivery. This was evident in this study's participants' responses, that they were currently using isihlambezo because they were inspired that it would help their babies to grow quick and not be pre-term babies, which would lessen their stay in the hospital. The study conducted by Shewamene, Dune and Smith (2017:382), revealed that pregnant women using traditional medicine during pregnancy were recommended by their close friends and family members because it was believed to have an effect on the promotion of foetal growth and ensure general wellbeing off the foetus. Chaung, Lai, Wang, Chang and Chen (2006:185), agree that traditional medicine use during pregnancy does not have any effects on foetal growth even if the child is suffering from a commonly known complication called Intra-Uterine Growth Restriction (IUGR), and it is not caused by the effects of isihlambezo.

According to Johnson's Behavioral System Models (1980:212) dependency is defined as the approval, attention, recognition and physical assistance, which also focuses on behaviors that nurturing behaviors from other individuals in the environment. In relation to the study, most pregnant women living in deep rural areas depend on the use of traditional medicine during pregnancy because they believe that for a successful pregnancy, and foetal wellbeing and growth pregnant women must consume isihlambezo. Although, traditional medicine is strongly believed to warrant maturity of the unborn baby, 95% of foetal growth depends on genetic, nutrition, environment and foetal factor support (Ernst, 2002:223). Furthermore, major factors determining the growth and development of the foetus are foetal genotype, which includes both parents genetically and utero environment that are maternal size and the capacitor of placenta to provide nutrients to the foetus, explains Ernest (2002,223). Therefore, normal growth of the unborn baby does occur despite the use of isihlambezo.

Most participants indicated they were using isihlambezo because it prevented them from delivery complications that might arise during labour, which might lead to caesarean section delivery in the operating theatre. Ahmed, Nordeng, Sundby and Aragwa (2018:293) argue that isihlambezo alone does not pose any complications to pregnant mothers and their babies that might result in operational delivery, nevertheless it provides safer pregnancy, good development of the foetus and better health for the mother while stimulating labour and facilitation of normal childbirth. According to Kekana and Sebitloane (2020:71), 90% of pregnant women in rural communities of South Africa use isihlambezo as they find it helpful in giving birth naturally without any surgical interventions. Furthermore, isihlambezo was recommended for consumption because it is believed to have positive effects on the wellbeing of the foetus, augmentation of labour and causation of smooth delivery, with no surgical interventions (Kekana and Sebitloane 2020:71).

According to Johnson's Behavioral System Models (1968), achievement sub-system is regarded an as attempt to manipulate environment, controlling an aspect of self-environment while provoking the behavior that rises to control the environment. Most pregnant women use isihlambezo with the aim of manipulating and controlling the process of pregnancy and labour in achieving a healthy pregnancy and delivery without any complications that will require surgical interventions. In spite of the participants' beliefs about isihlambezo, it was passed on to them by their elderlies. Mabina, Pits and Moodley (1997:3) disagree with pregnant women's beliefs about the use of isihlambezo during pregnancy. Their (1997:3) findings revealed that most pregnant women who gave birth at one of the hospitals in KwaZulu-Natal, and who used isihlambezo during their pregnancies, delivered by caesarian section with the indications of foetal distress, meconium stained liquor (MSL), poor labour progress and cephalopelvic disproportion (CPD), and they were referred to theatre for more than one indication. Therefore, isihlambezo does not have any effect on eradicating the need of surgery, as a result pregnant women can still be referred for operational delivery, regardless of the usage of isihlambezo, if there is need.

5.4.2. TRADITIONAL AND CULTURAL BELIEFS.

Owonikoko, Tijani, Bajova and Atanda (2017:19) noticed that pregnant women worldwide are influenced by several cultural beliefs and traditional practices to consume traditional medicine, and the practice has been passed from generation to the next. It became evident that traditional and cultural beliefs play a significant role in motivating pregnant women to consume traditional medicine during their pregnancy. The majority of participants mentioned during data collection that honoring their traditions and obeying their cultural beliefs is a factor resulting in the use of isihlambezo. Shole

(2017:53) is of an opinion that traditional and cultural beliefs do not motivate and render good health to pregnant women, but instead it destroys the health of pregnant women and the foetus. Furthermore, Shole (2017:53) revealed that traditional healers and those who prescribe isihlambezo for pregnant women prohibited them from utilising hospitals and clinics for checkups, which resulted in poor maternal health developments due to lack of professional advises. These practices can put most women at risk and may lead to maternal mortality

Most of the participants stated that they used isihlambezo during their pregnancy because it is believed to provide protection against evil spirits. Mamakoko (1997:70) agrees that pregnant women receive ready-made traditional medicine prepared by traditional healers because of its advantage that it will protect both the mother and the unborn baby by repelling evil spirits. In South Africa, despite the fact that pregnant women have full access to conventional medicine, the majority still believe in using traditional medicine for many reasons, including protection against evil spirits (Ngene, 2019:1). This was further revealed by Ngene (2019:1) who stated that in KwaZulu-Natal, most pregnant women during their first pregnancy ingest isihlambezo with the belief that this will protect them and their unborn-babies from evil spirits.

Johnson's Behavioral System Model (1980:212) explains aggression sub-system as a behavior concerned about people's protection, self-preservation and generating defensive responses from individuals when life is threatening. The majority of pregnant women consume isihlambezo for the purpose of protecting, preserving the pregnancy and generating defense responses for them and their unborn babies against evil spirits. This is beneficial to pregnant women as they are convinced that traditional medicine prepares them for any attack from bad spirits that might provoke and challenge their pregnancy. Mogawane, Mothiba and Malemba (2015:1553) support this notion by stating that once pregnant women abide and respect their inherited traditional and cultural beliefs they believe that bad spirits can be prevented from attacking them. Furthermore, the act of bad spirits is believed to be ineffective if pregnant women use isihlambezo (Mogawane, Mothiba and Malemba, 2015:1553).

The findings of this study revealed that cultural beliefs about pregnancy is a contributing factor leading to the consumption of traditional medicine, isihlambezo, during pregnancy. It became evident in the participant's responses that it is crucial to obey their cultural beliefs and practices when one is pregnant, which motivates them to use isihlambezo as it was used from generation to generation. The study conducted by Makuria *et al.* (2017:86) revealed that consuming isihlambezo during

pregnancy has become a tradition to most pregnant woman, hence they consume it once they become aware that they are pregnant as part of honoring their cultural beliefs.

The majority of the participants were in agreement that they consume isihlambezo because it is their cultural belief, which they believe in about pregnancy. Bourke, Wright, Dunbar and Raymond (2018:27) stated that it is a good behavior for a woman to follow cultural beliefs once she realizes she is pregnant; this includes the use isihlambezo and any other traditional medicines available as practiced by various communities.

Johnson's Behavioral System Model (1980:212) explained dependency subsystem as developmentally, dependency behaviors that evolve from self-dependency or from dependency to others, and also focuses on behaviors of individuals in the environment. In this study, most women believed pregnancy was based on the use of isihlambezo, as this was a generational practice. Their grandparents and parents used isihlambezo during their pregnancies, hence it is regarded as a generational practice in many communities (Laelago *et al.* 2016:2). This is supported by Barnes, Barclay, McCaffery and Aslani (2018:229) who stated that shared cultural knowledge and cultural beliefs about pregnancy and practices encourages more women to consume isihlambezo during pregnancy. According to Shewaneme, Dune and Smith (2017:382), approximately 80% of pregnant women across Africa use isihlambezo or other herbal traditional medicine during pregnancy as one of their generational practices and beliefs about pregnancy.

5.4.3. INDICATION AND EFFECTS OF ISIHLAMBEZO.

In this study, it emanated that the use of traditional herbal medicine (isihlambezo) by pregnant women is on the raise due to the fact that it is believed to impact positively from antenatal period, throughout delivery until post-delivery. According to Illamola *et al.* (2020:1), approximately 80% of pregnant women consumed traditional medicine and herbal products because of its perceived advantages and effects on them. The World Health Organization (2017:18) revealed that in the last two decades, there is a massive increase in the usage of traditional herbal medicine and indigenous herbs by pregnant women worldwide. This shows there is a form of great affiliation, as a sub-system discussed in Johnson's Behavioral System Model (1980:212). This affiliation is motivated by a strong bond between pregnant women and their culture, beliefs, religions and norms to use traditional herbal medicines, as it is part of their lifestyle regardless of the complications that may result afterwards. Despite the unknown complications that might be caused by the use of isihlambezo, most pregnant women are attached to its use due to its perceived benefits and effects during labour, which leads to speedy delivery. This notion also emanated in the study conducted by Mamakoko (2018:3), which

revealed that most pregnant women consume isihlambezo during their third trimester because it is believed to facilitate labour and speedup the process of delivery.

Among other reasons that motivate pregnant women to consume isihlambezo is that there is a strong belief that it has positive effects on the duration of labour. This was evident by the participant's responses that isihlambezo shortens the duration of labour. Mawoza, Nhachi and Magwali (2019:321) state there is a high prevalence rate (about 69.9%) of traditional herbal medicine use during pregnancy, mainly because it is believed to facilitate labour during delivery. Mudonhi, Nunu, Sibanda and Khumalo (2021:11) revealed that traditional herbal medicine utilization during pregnancy is more sensitized during the last trimester, and has been on the increase in most countries due to the fact it is believed to quicken the process of delivery. This was also attested by most women in this study who revealed that consuming isihlambezo during the third trimester had positive effects during delivery as it ensures quick delivery. Therefore, in most African countries the use of isihlambezo and other traditional medicine among pregnant women is practiced as one of pregnancy management measures that are applied to induce and shorten the duration of labour (Mudonhi *et al.* 2021:11).

The majority of the participants agree they used isihlambezo as a solution that would assist them to achieve their goal of shorter labour process and fasten delivery. According to Johnson's Behavioral System Model (1980:212), which described achievement sub-system as an attempt to manipulate environments, controlling an aspect of self-environment and provoking the behavior that rises to control the environment. Therefore, most pregnant women consume isihlambezo with an intention of interfering with the natural functioning of the body, thus manipulating the environment and the natural process of delivery to be in their favour in-order to achieve a short process labour period. This was confirmed in their responses that the use of isihlambezo would enhance the normal functioning of their bodies and the process of normal delivery leading to a short process of labour due to the intake of isihlambezo.

Although the majority of pregnant women believe that isihlambezo is effective in reducing the duration of labour, thus ensuring fast delivery, it has not yet been scientifically proven. The use of isihlambezo during pregnancy is not yet approved scientifically due to the fact there is insufficient data available about its safety. Panganai and Shumba (2016:25) indicate that over 85% of pregnant women depend on traditional herbal medicine during their pregnancy as they claim isihlambezo is beneficial and ensures fast delivery and shortens labour. The same authors further revealed that although the traditional herbal medicine is used by most pregnant women to shorten the duration of labour, about 55% of pregnant women experienced prolonged labour that led to caesarean section delivery due to

foetal distress caused by the prolonged labour (Panganai and Shumba, 2016:25). This is contradictory to most of the study participants regarding their beliefs about the use of isihlambezo.

Elderlies, mothers, mothers-in-law and those who prescribe isihlambezo play a significant role in influencing and motivating pregnant women to use isihlambezo during their pregnancy period, because of their strong belief that it results in strong contractions that lead to fast delivery and reduces labour pains, even though there is not enough data and studies to prove their theory. This arose during the data collection session, that most of the participants and the generation of today consume isihlambezo because they believe that out of the many claimed advantages of isihlambezo, it is also believed to have a good effect on contractions and reduces labour pains.

Findings of the study indicated that most pregnant women use isihlambezo during different trimesters of their pregnancy because it is believed to exact different effects in different periods. According to the participants, some pregnant women use isihlambezo during their first trimester, throughout pregnancy or during the last trimester, depending on what the intention and the beliefs they intend to achieve and on the complainant. Beste, Asanti, Nsabimama and Anastors (2015:3) state that traditional herbal medicine used by pregnant women is associated with various beliefs, including that it has an effect in natural induction of labour and augmentation of contractions during pregnancy. Hence, some of pregnant women consumed isihlambezo during their third trimester, which is closer to their delivery period. It has been noted that some traditional medicine is used in different trimesters of pregnancy, some throughout pregnancy or even post-delivery (Bassoumah and Adam, 2018:32); this could result in certain complications, including the rupture of the uterus, severe adverse events and traumatic birth injuries as a result of the use of traditional herbal medicine due to unproven safety measures (Bassoumah and Adam, 2018:32).

5.4.4. ECONOMIC IMPACT ON THE USE OF ISIHLAMBEZO.

The study conducted by Shewaneme *et al.* (2017:2) revealed that economic factors faced by most pregnant women lead to the consumption of isihlambezo during pregnancy. This is because western doctor’s consultation fees are more expensive compared to traditional healers. During the interview sessions, the majority of pregnant women concurred that financial constraints, unemployment and poverty forces them to use any medicines they can afford in order to achieve the wellbeing of themselves and of their unborn babies (Hajj and Holst, 2020:4).

The findings of the study revealed that most of the study participants were attached to the use of isihlambezo during pregnancy due to its affordability. This strong attachment pregnant women have with the use of isihlambezo is similar to an attachment sub-system explained by Johnson (1980:212),

who stated that it provides individuals with survival and security. In relation to the study, pregnant women believe that for their survival and security of their unborn babies they are bound to consume some medicines as a result being able to afford isihlambezo, which serves the purpose of providing security and survival. High cost of quality clinical care is a contributory factor to the popular use of isihlambezo among pregnant women due to fact it is a popular option and reasonably priced (Varga and Veale, 1997:911).

During the interview sessions, pregnant women alluded that their poor socio-economic status has an effect in promoting the consumption of traditional herbal medicine (isihlambezo). Most of the participants agreed they use isihlambezo for its financial affordability and availability during pregnancy. The study conducted by Shewaneme *et al.* (2017:382) revealed that the prevalence of traditional herbal medicine use among African pregnant women is approximately 80%, and frequently used by pregnant women with little or no income. This is due to the fact they do not have good jobs to afford medical aid or private doctors, their financial affordability forces them to use isihlambezo, which is available and affordable to them (Shewaneme *et al.* 2017:382). Hajj and Holst (2020:10) agree with the notion that traditional herbal medicine use among pregnant women is associated with low income, self-employment and unemployment, especially in rural residents. While Mudonhi *et al*. (2021:10) states that in some healthcare facilities pregnant women are expected to pay registration fees during ANC visits, while not every woman is expected to pay for the services of traditional healers.

Furthermore, the participants stated that with traditional practitioners there are various affordable ways to pay other than monetary, therefore their flexibility motivates them to access their services. Poor socioeconomic status, unemployment and poverty play a significant role in driving pregnant women to use the traditional medicine isihlambezo to meet their health needs because of its financial affordability, as the findings of the study reveals they get it cheap, sometimes without even paying.

Dependency sub-system discussed by Johnson (1980:212) focuses on developmental and dependency behaviors, which evolve from self-dependency or from dependency to others. One of the contributory factors resulting in an increase of consumption of isihlambezo among pregnant women, according to the participants, is the fact that most of the participants depend on isihlambezo due to its easy accessibility to them. Most of the participant's state they are motivated to use isihlambezo due to the fact that it is easy to obtain in their surroundings without having to travel or walk long distances to get medical assistance during antenatal care.

Traditional medicine is widely used by the majority of African pregnant women for their maternal health issues; this is due to lack of access to mainstream maternity care states (Shewaneme *et al.,* 2017:382). Their findings indicate that more than 80% of pregnant women use traditional medicine because of its easy accessibility and regard as a primary healthcare option that is available, particularly for rural African populations. Mudonhi *et al.* (2021:10) agree that traditional health system has been reported to be most accessible in resource poor settings, more especially in Sub-Saharan countries among pregnant women. The majority of the participants indicated they perceive traditional healers as their primary healthcare due to the fact they are easily accessible and always available for assistance at any given time, without even having to stand in long queues to get medical assistance. This concludes that challenges pregnant women face in our health facilities predisposes them to access traditional medicine, regardless of the fact there are few studies done on its safety.

5.5 CONCLUSION

In conclusion, this qualitative study explored and described the experiences of pregnant women with regard to the use of isihlambezo, within King Cetshwayo Health District in KwaZulu-Natal. During data collection interviews, participants divulged the circumstances that contribute to the use of isihlambezo, which resulted in four major themes and several sub-themes that became apparent about the study phenomenon. These circumstances included myths about isihlambezo, traditional and cultural beliefs, indication and effects of isihlambezo and economic impact on the use of isihlambezo. The study's results reveal that unemployment, poverty, lack of education, tradition and beliefs contribute to the high uptake of traditional medicine (isihlambezo) among pregnant women. Therefore, most pregnant women consume traditional herbal medicine (isihlambezo) during pregnancy due to various contributing factors despite the unknown safety of isihlambezo to the health of pregnant women and their unborn babies.

5.6 THE STUDY LIMITATIONS

This study has limitations, due to the fact it was conducted on the selected institutions at King Cetshwayo Health District in the North Coast of KwaZulu-Natal. Therefore, the findings of the study cannot be generalised to other health districts and the whole province. The study was limited to all pregnant women 18-42 years attending antenatal and post-natal care who used traditional medicine (isihlambezo) during their pregnancies. The study was limited to a small sample size because data saturation was reached after 12 interviews, therefore the study could have yielded different findings with larger sampling size.

5.7 RECOMMENDATIONS

The following recommendations are made with special reference to maternal healthcare policy, guidelines development and implementation, pregnant women and their families, traditional healers, and further research**.**

5.7.1 Maternal healthcare policy, guidelines development and implementation.

- Strengthen the community health programmes that provide one-stop comprehensive services offered by the community health workers to include health education regarding the use of isihlambezo and other traditional herbal medicines during pregnancy by pregnant women, highlighting its possible danger during antenatal visits.

- Develop and review guidelines of practice, policies, and models of care for pregnant women that can be implemented at community level. These policies and guidelines must be based on management of pregnant women who are using traditional medicine during pregnancy, labour and post-natal care.

- Implement a reporting system that allows healthcare practitioners to report all cases of pregnant women using traditional herbal medicine (isihlambezo) in the form of a statistical report on a monthly basis.

- Implement a case investigation on each case where there is adverse event resulting into death of a mother or/and child, or critical or life-threatening situation of mother or child who consumed traditional herbal medicine (isihlambezo) during pregnancy, labour and post-natal care.

- Consider developing guidelines on how to incorporate the traditional healers in maternal healthcare for their learning and safety prescriptions of this traditional herbal medicines to pregnant women.

- More maternal healthcare outreach policies and guidelines addressing maternal health, including the use of traditional herbal medicine (isihlambezo), during pregnancy should be developed and implemented.

5.7.2 Pregnant women and their families.

- Pregnant women and their families must be given adequate information about the potential teratogenic effects that might be caused by the use of traditional herbal medicine (isihlambezo) to both the mother and their unborn babies.

- Elders, mothers and mothers-in-law of pregnant women should be educated about the disadvantage and dangers of influencing pregnant women to consume traditional herbal medicine (isihlambezo) and the effects on most pregnant women, unborn babies and new-born babies.

- Pregnant women should be taught during ANC visits about the process of labour to prevent them from using un-scientific tested traditional herbal medicines during pregnancy.

- Education about the services rendered at the maternal healthcare institutions and the charges/free availability should be stressed during ANC visits by healthcare workers to pregnant women to prevent them from using untested traditional herbal medicines during pregnancy.

5.7.3 Traditional healers as the prescribers of isihlambezo.

- Strengthen the relationship with multisector stakeholders (pastors, traditional healers, prophets) by opening a platform to conduct training and workshops and further addressing the issue of using traditional herbal medicines (isihlambezo) by pregnant women.

- Traditional healers should be taught about the serious life-threatening result that might be caused by combining Western and traditional medicine for the treatment of pregnant woman during pregnancy.

- Traditional healers who prescribe isihlambezo should be taught about negative impacts of drug toxicity that might be caused by high strengths and high doses of isihlambezo taken by pregnant women.

- Traditional healers should be encouraged to collaborate with researchers to test their traditional herbal medicines safety use for consumption by humans, especially during pregnancy.

5.7.4 Further research

- The researcher recommends that further studies should be conducted regarding the phenomenon.
- It is recommended by the researcher that traditional herbal medicine (isihlambezo) should be scientifically tested for its safety use by pregnant women.

6. REFERENCES

Ahmed, S. M, Nordeng, H, M.E., Sundby, J. S., Aragwa, Y. A., and Boer H, J. 2018. The use of medical plants by pregnant woman in Africa*, Journal of Ethnopharmacology.* Available at: http://doi.org/10.1016/j.jep.2018.05.032, (Accessed: 17 December 2020).

BaiJames, P., Taidy-Leigh, L., JawoBah, A., SamKanu, J., Kangbai, B.J., and Sevalie, S. 2018. Prevalence and Correlates of Herbal Medicine Use among Women Seeking Care for Infertility in Free town, *Evidence-Based Complementary and Alternative Medicine Journal.* Available at: https://doi.org/10.1155/2018/9493807 , (Accessed: 10 May 2021).

Barnes, L.A.J., Barclay, L., McCaffery, K. and Aslani, P. 2018. Complementary medicine products used in pregnancy and lactation and an examination of the information sources accessed pertaining to maternal health literacy: a systematic review of qualitative studies, *Bio Medical Complementary and Alternative Medicine*, doi https://doi.org/10.1186/s12906-018-2283-9. (Accessed: 15 January 2021).

Barnes, L.A.J., Barclay, L., McCaffery, K. and Aslani, P. 2019. Factors influencing women's decision-making regarding complementary medicine product use in pregnancy and lactation*, Boston Medical Centre Pregnancy Childbirth*, Available at: https://doi.org/10.1186/s12884-019-2396-2, (Accessed: 02 May 2021).

Bassoumah, A. M. and Adam, A. 2018. Indigenous Maternity Care-Giving Practice: Implications for Maternal, Foetal and Neonatal Health in Northern Ghana, *Journal of Health and Translational Medicine*, 21(1):32-38.

Beste, J., Asanti, D., Nsabimama, D., Anastos, K., Mutimura, E., Merkatz, R.I. Sirotin, N. and Nathan, M.N. 2015. Use of traditional botanical medicines during pregnancy in rural Rwanda, *Journal of Global Health Perspective*. Available at: (Accessed: 12 February 2021).

Binkowski, B.H. 2016. Herbal and homeopathic remedies used during pregnancy*, PubMed Central Journal*, Available at: https://pubmed.ncbi.nlm.nih.gov/27246791/ , (Accessed: 13 April 2021).

Bourker, S, Wright, A, Guthrie, J, Russell, L, Dunbar, T. and Lovett, R. 2018. Evidence review of indigenous culture for health and wellbeing, *The International Journal of Health, Wellness, and Society*, 8(4):13-27.

Brink, H., van der Walt, C. and Van Rensburg, G. 2014. *Fundamentals of Research Methodology for Healthcare Professionals,* 4th edition, Cape Town: Juta.

Brink, H., van der Walt, C. and Van Rensburg, G. 2019. *Fundamentals of Research Methodology for Healthcare Professionals,* 4th edition, Cape Town: Juta.

Bruno, L.O., Simoes, R.S., Girao, M.B.C., and Grundmann, O. 2018. Pregnancy and herbal medicines: An unnecessary risk for women's health, A narrative review, *Phytotherapy Research Journal*, Available at: https://doi.org/10.1002/ptr.6020, (Accessed 08 February 2021).

Burns, N. and Grove, S.K. 2017. *The practice of nursing research*, 8th edition, Saunders: Elsevier.

Brookes, I. and Neill, M.O. 2016. *English Language Dictionary*, tenth edition, Glasgow.

Chaung, C.H., Lai, J.N. Wange, J.D. Change, P.J. and Chen, P.C. 2006. Use of coptidis rhizome and foetal growth, *PubMed Journal articles,* Available at, https://doi.org/10.1002/pds.1170 , (Accessed: 05 December 2020).

Creswell, J.W., Ebersöhn, L., Eloff, I., Ferreira, R., Ivankova, V.N., Jansen, J.D., Nieuwenhuis, J., Pietersen, J. and Plano Clark, V.L. 2014. *First Step in Research*, 2nd edition, Pretoria: Van Schaik.

Department of Health, 2015. Annual Report, Available at: .www.doh.gov.za, (Accessed 19 May 2018).

Department of Health. 2019. King-Cetshwayo Health District map. Available at: www.kznhealth.gov.za, (Accessed: 01June 2021).

Ernst, E. 2002. Herbal medicine products during pregnancy, *International Journal of Obstetrics and Gynecology*, Available at: DOI: 10.1111/j.1471-0528.2002.t01-1-01009.x. (Accessed 11July 2021).

Fayeke, T. O., Adisa, R. and Musa, I. E. 2009. Attitude and the use of traditional medicines among pregnant woman in Nigeria*, BioMedical Complementary and alternative medicine*, Available at: doi: 10.1186/1472-6882-9-53, (Accesses 07 July 2021).

Forster, D. A., Denning, A., Wills, G. Bolger. M. and McCarthy, E. 2006. Herbal medicine use during pregnancy in a group of Australian women*, Bio-Medical Complementary Pregnancy Childbirth*, Available at: DOI: 10.1186/1471-2393-6-21, (Accessed: 24 May 2021).

George, J.B. 1985. *Nursing theories: the base for professional nursing practice*. London: Prentice Hall.

Gibson, P. S., Powrie, R. and Star, J. 2009. Herbal and alternative medicine use during pregnancy: A cross-sectional survey, *Obstetrics and Gynaecology*, Available at: DOI: 10.1016/S0029-7844(01)01250-9, (Accessed: 15 June 2021).

Gilmartin, C. E., Vo-Tran, T. and Leung, L. 2018. Complementary medicines in pregnancy: Recommendations and information sources of healthcare professionals in Australia, *International Journal of Clinical Pharmacy*, 40(2):421–427.

Harvey, M. and Land, L. 2017. *Research methods for nurses and midwives Theory and Practical*, 1st Edition, Scientific Advisory Group for Emergencies Publication Ltd.

Hajj, E.I. and Holst, L. 2020.Herbal Medicine use During Pregnancy, frontiers in Pharmacology, Available at: https://dx.doi.org/10.3389%2Ffphar.2020.00866 (Acessed: 12 December 2020).

Illamola, S.M., Amaeze, O.U., Krepkova, L.V., Birnbaum, A.K., Karanam, A., Job, K.M., Bortnikova, V.V., Sherwin, C.M.T. and Enioutina, E.Y. 2020. Use of Herbal Medicine by Pregnant Women: What Physicians Need to Know. *Frontiers in Pharmacology*, Available at: https://doi.org/10.3389/fphar.2019.01483 , (Accessed: 14 May 2020).

Jewkes, R. 2007. Facts, beliefs and fiction on pregnancy, *Sunday Independent*. Available at: http://www,sundayindepepndant.co.za, (Accessed 12 March 2014).

John, L. J. and Shantakumari, N. 2015. Herbal Medicines Use During Pregnancy: A Review from the Middle East, *Oman Medical Journal*, 30(4):229–236.

Johnson, D.E. 1980. *The Behavioral Systems Model of Nursing, Nursing theories in practice*, New York: National League for Nursing.

Kekana, L.S and Sebitloane, H.M. 2020. Ingestion of herbal medicine during pregnancy and adverse perinatal outcomes, *South African Journal of Obstetrics and Gynecology,* Available at: https://doi.org/10.7196/SAJOG.2020.v26i2.1615 , (Accessed 11 April 2021).

Kennedy, D. A., Lupattelli, A., Koren and Nordeng, H. 2013. Herbal medicine use in pregnancy: Results of multi-national study, *Bio-Medical Complementary Alternate Medicine*. Available at: doi: http://www.biomedcentral.com/1472-6882/13/355 . (Accessed 04 August 2021)

Kooi, R. and Theobald, S. 2005. Traditional medicine in late pregnancy and labour, *South African Journal Traditional Complementary and Alternative Medicine*, 3(1):11-22.

Laelago, T., Yohannes, T., and Lemango, F. 2016. Prevalence of herbal medicine use and associated factors among pregnant women attending antenatal care at public health facilities in Hossana Town, Southern Ethiopia: Facility-based cross sectional study, *Archives of Public Health*, Available at: https://archpublichealth.biomedcentral.com/articles/10.1186/s13690-016-0118-z. (Accessed 02 March 2021).

Laelago, Tariku. 2018. Herbal medicine use during pregnancy: Benefits and untoward effects, Social Science and Humanities, *Research Gate Journal.* Available at: https://doi.org/10.3389/fphar.2020.00866 ,(Accessed 15 February 2021).

Latifnejad, R.R, Zakerihamidi, M., Merghati, K. E. 2015. Socio-Cultural Beliefs, Values and Traditions Regarding Women's Preferred Mode of Birth, North of Iran, *International Journal of Community Based Nursing and Midwifery*, 3(3):165-176.

Lisha, J., and Shantakumari, N. 2015. Herbal medicines use during pregnancy*: Oman Medical Journal*, 30(4):229-236.

Mabina, M.H., Pitsoe, S.B., and Moodle, J. 1997. The effect of traditional herbal medicines on pregnancy outcome, *South African Medical Journal*, 8(87):1008-1010.

Malan, F., and Neuba, F.R. 2011. Traditional Practices and Medicinal Plants Use during Pregnancy, *African Journal of Reproductive Health*, 15(1):85-93.

Mamakoko, C.M. 1997. The use of herbs in late pregnancy in Gauteng provincial hospital, *Creative commons,* 1(1):1-105.

Maputle, M.S., Mothiba, T.M. and Maliwichi, L. 2015. Traditional Medicine and Pregnancy Management: Experiences of Traditional Health Practitioners in Capricorn District, Limpopo Province, *Journal of Ethnopharmacology Medicine*, Available at: https://doi.org/10.1080/09735070.2015.11905422 , (Accessed 22 August 2021).

Maputle, M.S., Mothiba, T.M. and Maliwichi, L. 2015. Traditional Medicine and Pregnancy Management: Experiences of Traditional Health Practitioners in Capricorn District, Limpopo Province,

Journal of Ethnopharmacology Medicine, Available at: https://doi.org/10.1080/09735070.2015.11905422, (Accessed 22 August 2020).

Mordeniz, C. 2019. *Traditional and Complementary Medicine*. Available at: http://dx . doi. Org/10.5772/intechopen.78452, (Accessed 22 February 2022).

Marsh, M. 2002. Herbal medicinal products during pregnancy*, International Journal of Obstetrics and Gynaecology,* 109(3): 227–235.

Mawoza, T, Nhachi, C, and Magwali, T. 2019. Prevalence of traditional medicine use during pregnancy, at labour and for postpartum care in rural area, *Clinical Mother Child Health*. Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6656403/pdf/nihms-1036101.pdf , (Accessed 15 May 2021).

Makuria, A.B., Erku, A.D., Gebresillassie, M.B., Birru, M.E., Tizazu, B. and Ahmedin, A, 2017. Prevalence and associated factors of herbal medicine use among pregnant women on antenatal care follow-up, *Biomedical Research International*, Available at: https://dx.doi.org/10.1186%2Fs12906-017-1608-4 ,(Accessed: 15 July 2021).

Mogawane, M.A., Mothiba, M.T., and Malema, N.R. 2015. Indigenous practices of pregnant women at Dilokong hospital in Limpopo Province, South Africa, *PubMed Journals*, 17;38(2):1553.

Mojtaba, V., Jacqueline, J., Hannele, T., Sherrill, S. 2016. Development in qualitative content analysis and thematic analysis: *Journal of Nursing Education and Practice*, 6(5):100-110.

Mothibe, M.E. and Sibanda, M. 2012. African Traditional Medicine: South African Perspective, *Traditional and Complementary Medicine,* Available at: doi: http://dx.doi.org/10.5772/intechopen.83790, (Accessed: 20 September 2019).

Mudonhi, N, Nunu, W.N, Sibanda, N and Khumalo, N. 2021. Exploring traditional medicine utilisation during antenatal care*, Scientific American Mind.* Available at: DOI: https://www.nature.com/articles/s41598-021-86282-3?proof=t. (Accessed: 25 March 2021).

Merriam, W. 2021. *International dictionary*, unbridged.

Ngene, N.C. 2019. Adverse pregnancy outcomes associated with maternal prenatal ingestion of traditional medicine, *South African Journal of Obstetrics and Gynaecology.* Available at: https://doi.org/10.7196/SAJOG.2019.v25i1.1423 (Accessed 01 June 2020).

Ngomane, S. and Molaudzi, F.M. 2010. Indigenous beliefs and practices that delayed attendance by women in Bohlabelo District in Limpopo, South Africa*, PubMed Journal Midwifery*, Available at: https://doi.org/10.1016/j.midw.2010.11.002 ,(Accessed 02 March 2021).

Nyeko, R., Mbona, N. and Halage, T.A. 2016. Prevalence and factors associated with use of herbal medicines during pregnancy among women attending postnatal clinics in Ugu district, Northern Uganda, *Bio Medical Complementary Pregnancy and Childbirth.* Available at: https://bmcpregnancychildbirth.biomedcentral.com/track/pdf/10.1186/s12884-016-1095-5.pdf (Accessed: 21 November 2018).

Naidu M. 2014. Understanding African indigenous approaches to reproductive health: beliefs around traditional medicine. *Stud Ethno-Med*. 8(2): 147–56.

Owonikoko, K.M, Tijani, A.M, Bajowa, A.G and Atanda O.O. 2017. A belief and cultural practice with potential harmful effects, *Open Access Journal Public Health*, available at: https://doi.org/10.3389/fphar.2019.01483 , (Accessed: 16 January 2021).

Oyama, M, 2016. A Preliminary Study of Intergenerational Differences in Masxha: Regarding Practice and Attitudes Towards Zulu Traditions During Pregnancy and Birth, *Independent Study Project (ISP) Collection, Unpublished dissertation*, Available at: https://digitalcollections.sit.edu/cgi/viewcontent.cgi?article=3457&context=isp_collection ,(Accessed: 31 December 2020).

Phangani, T. and Shumba, P. 2016. The perception of women on the use of herbs in pregnancy and labour in Zimbabwe Grewu, *The Pan African Medical Journal*, Available at: https://doi.org/10.11604/pamj.2016.25.9.7876 , (Accessed 19 September 2021).

Pilane, P. and Malan, M. 2018. Giving birth has become less dangerous in South Africa, *South Africa Medical Journal*, Available at: https://bhekisisa.org/health-news-south-africa/2018-03-28-00-maternal-mortality-ratio-south-africa-decreased-by-29/ , (Accessed: 2 June 2021).

Polit, D.F. and Beck, C.T. 2017. *Generating and assessing evidence for nursing practice,* 10th edition, Philadelphia, Lippincott Williams and Wilkins.

Polit, D.F. and Beck, C.T.2014. *Essentials of Nursing Research*, 8th edition, Lippincott.

Shewamene, Z., Dune, T. and Smith, C.A. 2017. The use of traditional medicine in maternity care among African women in Africa, *Bio-Medical Complementary and Alternative Medicine*, https://bmccomplementmedtherapies.biomedcentral.com/track/pdf/10.1186/s12906-017-1886-x.pdf (Accessed 31 December 2020).

Shole, R.N. 2017. Impact of socio-cultural practices on maternal mortality Masasi District, Tanzania*, Malaysian Journal of Medical and Biomedical Research,* Available at: https://i-proclaim.my/journals/index.php/mjmbr/article/view/424/381 (Accessed: 15 July 2021).

Streubert Speziale, H.J and Carpenter, D.R. 2007. *Qualitative Research in Nursing. Advancing the Humanistic Imperative*, 4th edition, Lippincott.

Stedman, H., 2020. Stedman Medical Dictionary, 28th edition, Amazon publisher.

Soudabeh, B., Mohammad, D., Abbas, J., Mahmood, M., Hadi, Z., Gholamreza, K. and Adel G.A. 2022*. Potential benefits versus hazards of herbal therapy during pregnancy; a systematic review of available literature.* 63(2):824-841.

Tamuno, I. I, Omole-Ohonsi, A, Fadare, J. 2010. Use of herbal medicine amongst pregnant women attending a tertiary hospital in Northern Nigeria. *The International Journal of Gynaecology and Obstetrics,* 15(2):1-8.

Varga, C. A. and Veale, D, J. H. 1997. Isihlambezo: Utilization patterns and Potential health effects of pregnancy - Related traditional herbal medicine, *Science Direct*, 44 (7): 911-924.

Vaughn, L. M., Jacquez, F., and Baker, R.C. 2009. Cultural Health Attributions, Beliefs, and Practices: Effects on Healthcare and Medical Education, *Medical Education Journal*. Available at DOI: 10.2174/1876519X00902010064. (Accessed: 01 June 2021).

Veale, D.J.H., Oliver, D.W., Arangies, N.S. and Furman, K.I. 1989. Preliminary isolated organ studies using an aqueous extract of Cliviaminiata leaves, *Journal of Ethnopharmacology Medicine*, 27(3):341-346.

WHO: World Health Organization. General guidelines for methodologies on research evaluation of traditional medicine document. 2010.

Zamawe, C., King, C, Jennings, H.M., and Fottrell, E. 2018. Associations between the use of herbal medicines and adverse pregnancy outcomes in rural Malawi, *Bio-Medical Complementary and*

Alternative Medicine. Available at https://doi.org/10.1186/s12906-018-2203-z, (Accessed: 20 March 2021).

7. ANNEXURES

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

7.1 ANNEXURE 1A: INTERVIEW GUIDE FOR PREGNANT WOMEN

Date: …… **Participant no**: …….

Institution code: ☐

SECTION A: DEMOGRAPHIC DATA

Age: …… Religion: ……

Race: …… Marital status: ……

Gender: …… Your level of education: ……

Employment status: ……...

SECTION B: GRAND TOUR GUIDE

1. Tell me more about your experiences in using traditional medicine (isihlambezo) during your previous pregnancies or this current pregnancy?

Any other probing questions following the participants' responses will be used to facilitate the discussion.

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

7.2. ISIHLOMELO 1B: Isiqondisi se-ngxoxo yocwaningo sabesifazane abakhulelwe

Usuku: ……Inombolo yomhlanganyeli: ……..

Ikhodi yezikhungo:

ISIQEPHU A: Imininingwane yomhlanganyeli

Iminyaka: …….. .Inkolo: ……

Ubuhlanga: ……Isimo somshado: …….

Ubulili: …… Izinga lakho lemfundo: ……

Isimo somsebenzi: ……...

ISIQEPHU B: UMBUZO WESIBILI OBUHLEKILE

1. Ngixoxele kabanzi ngesipiliyoni onaso ngokusebenzisa isihlambezo ngesikhathi ukhulelwe phambilini noma kulokhu kukhulelwa kwamanje?

Eminye imibuzo ephenya ngokulandela izimpendulo zabahlanganyeli izosetshenziselwa ukulungiselela ingxoxo.

7.3 ANNEXURE 2A LETTER OF INFORMATION

Title of the Research Study: **EXPERIENCES OF PREGNANT WOMEN RGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL**

Principal Investigator/s/researcher: Mpilo Ndumiso Shange (BCUR)

Co-Investigator/s/Supervisor: Dr. S.T. MADLALA (D-NURSING)

Brief Introduction and Purpose of the Study: The aim of the study is to explore and describe the experiences of pregnant women regarding the use of isihlambezo at King Cetshwayo healthcare District in KwaZulu-Natal.

Outline of the Procedures: You will be asked few questions during the interview in a private room at the clinic or hospital. Permission is requested to use a voice recorder and take field notes during the interview. The interview will take about half an hour to forty-five minutes, and there may be some follow up interviews to clarify certain issues if necessary.

Risks or Discomforts to the Participant: The study and the procedure involve no foreseeable risk or discomfort for you.

Benefits: The findings of the study will be used to make recommendations regarding the safe use of traditional medicine (isihlambezo) during pregnancy. Furthermore, the findings of the study will be harvested in the form of articles, which will be published in the Department of Higher Education & Training (DHET) accredited journals.

Reason/s why the Participant May Withdraw from the Study: You are allowed to withdraw from the study as a participant at any time without bearing any negative consequences towards you as a participant.

Persons to contact in the event of any problems or queries:

Whom to contact about your rights in this research, for questions, concerns, suggestions, or

complaints that are not being addressed by the researcher, or research-related harm: University of Zululand Research Ethics Committee [UZREC], Research & Innovation Office: 035 902 6887 or the researchers department/Supervisor, Dr. S.T. Madlala, 035 902 6512 or madlalas@unizulu.ac.za

7.4. ANNEXURE: 2B INCWADI ECHAZA KABANZI

Isihloko Sesifundo Sokucwaninga: **ISIPILIYONI SABESIFAZANE ABAKHULELWE MAYELANA NOKUSETHSENZISWA KWEMITHI YENDABUKO YAMAKHAMBI(ISIHLAMBEZO) E-DISTRICT INKOSI CETSHWAYO KWISIFUNAZWE SAKWAZULU-NATAL**.

Umphenyi: UMpilo Ndumiso Shange (BCUR Nursing Honors)

Umphenyi / Umphathi omkhulu: UDokotela ST MADLALA (D-NURSING)

Isingeniso esifushane nenhloso yalolu cwaningo: Inhloso yalolu cwaningo ukuthola nokuchaza izinto ezinomthelela ekuthatheni isihlambezo kwabesifazane abakhulelwe ngaphakathi kweKing Cetshwayo Healthcare District KwaZulu-Natali.

Uhlaka lwezinqubo: Uzobuzwa imibuzo embalwa ngesikhathi kuqhubeka ingxoxo egumbini elifihlekile elingaphansi komtholampilo. Imvume iyacelwa ukusebenzisa irekhoda yezwi futhi uthathe amanothi endawo ngenkathi kuxoxwa naye. Ingxoxo izothatha cishe isigamu sehora ibe imizuzu engamashumi amane nanhlanu futhi kungabakhona okulandelayo okuzocacisa ngezinkinga ezithile uma kunesidingo.

Izingozi noma ukwehluleka kumhlanganyeli: Ucwaningo nenqubo akubandakanyi ubungozi nobubi kuwe.

Izinzuzo: Okutholakele ocwaningweni kuzosetshenziswa ukwenza isincomo mayelana nokusetshenziswa kokuphepha kwemithi yendabuko (isihlambezo) ngesikhathi sokukhulelwa. Ngaphezu kwalokho, ukutholwa kwalolu cwaningo kuzovunwa ngohlobo lwemibhalo ezoshicilelwa kumaphephabhuku agunyaziwe we-DHET.

Izizathu zokuthi kungani Umhlanganyeli Engahoxiswa esifundweni: Uvunyelwe ukuhoxa ocwaningweni njengomhlanganyeli nganoma yisiphi isikhathi ngaphandle kokuthola imiphumela emibi kuwe njengomhlanganyeli.

Abantu abangaxhumana uma kwenzeka kuba nezinkinga noma imibuzo:

Ongathintana naye ngamalungelo akho kulolu cwaningo, imibuzo, ukukhathazeka, iziphakamiso, noma izikhalazo ezingalungiswa umcwaningi, noma ukulimala okuhlobene nocwaningo: University of Zululand Research Ethics Committee [UZREC], iHhovisi Lokucwaninga Nokubumba enombolweni ethi 035 902 6887 noma uMnyango wabacwaningi / umphathi. UDokotela ST Madlala, inombolo ithi 035 902 6512 noma imeyili ethi madlalas@unizulu.ac.za

7.5. ANNEXURE 3A: INFORMED CONSENT DECLARATION

Participant informed consent

(Participant)

Project Title: **EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL**

……. from the Department of Nursing Science, University of Zululand has requested my permission to participate in the above research project.

The nature and the purpose of the research project, and of this informed consent declaration, have been explained to me in a language that I understand.

I am aware that:

1. The purpose of the research project is to describe and explore experiences of pregnant women regarding to the use of traditional herbal medicine (isihlambezo) in King Cetshwayo District in Kwa-Zulu Natal.
2. The University of Zululand has given ethical clearance to this research project and I have seen/ may request to see the clearance certificate.
3. By participating in this research project I will be contributing towards safe practice during pregnancy.
4. I will participate in the project by contributing information on the topic to the researcher during interviews.
5. My participation is entirely voluntary, and should I at any stage wish to withdraw from participating further, I may do so without any negative consequences.
6. I will not be compensated for participating in the research, but my out-of-pocket expenses will be

reimbursed. (*There will be no compensation for the participants*).

7. There may be risks associated with my participation in the project. I am aware that there will be no risks associated with my participation and there is a 0% chance of risks materialising.
8. The researcher intends publishing the research results in the form of articles, However, confidentiality and anonymity of records will be maintained and my name and identity will not be revealed to anyone not involved in the conduct of the research.
9. I will receive feedback in the form of published articles regarding the results obtained during the study.
10. Any further questions that I might have concerning the research or my participation will be answered by Mr. Mpilo Shange; 0646872257 and Dr. S.T. Madlala; 0359026512
11. By signing this informed consent declaration, I am not waiving any legal claims, rights or remedies.
12. A copy of this informed consent declaration will be given to me, and the original will be kept on record by Mpilo Shange in the supervisor's office.

I, …….. have read the above information/confirm that the above information has been explained to me in a language that I understand, and I am aware of this document's contents. I have asked all questions that I wished to ask and these have been answered to my satisfaction. I fully understand what is expected of me during the research.

I have not been pressurised in any way and I voluntarily agree to participate in the above-mentioned project.

……. …….

Participant's signature **Date**

7.6. ANNEXURE: 3B IFOMU LOKUZIBOPHEZELA

UNIVERSITY OF ZULULAND
RESTRUCTURED FOR RELEVANCE

(obambe iqhaza)

Isihloko socwaningo:

..... ovela ku Mnyango wemfndo ephakeme eqeqesha abongikazi, University of Zululand ube nesicelo semvume yokuzibandakanya kulolucwaningo olulotshwe ngenhla.

Imvelaphi kanye nenhloso yalolucwaningo, nalolu lwazi nophawu lokwamukela ukuzibophezela ngichazeliwe ngalo ngolimi engilwaziyo.

Ngiyakuqonda ukuthi:

1. Inhloso yalolucwaningo uku …….

2. Inyuvesi yakwaZulu inikezele ngemvume kubenzi balolu cwaningo ukuba benze loluhlelo futhi ngiyibonile leyomvume/ngingacela ukubona isitifiketi semvume.

3. Ngokubamba iqhaza kulolucwaningo ngizonikezela iqhaza ngoku …… **(chaza ubungako obulindelekile noma inzuzo emphakathini noma abantu abangaphumelela ngalolucwaningo)**

4. Ngizobamba iqhaza kulolucwaningo ngoku …… **(chaza imininingwane ephelele yokuthi ozimbandakanyile uzobe enzani)**

5. Ekuzibandakanyeni kwami angizukubheka nzuzo futhi akukho lapho engizotholakala ngihoxa ocwaningweni, umakwenzeka ngeke kube nemiphumela emibi ocwaningeni.

6. Mina angizukunxephezelwa ngokuzibandakanya kwami kulolucwaningo, kodwa izindleko ephume kwelami iphakethe zizokhokhelwa. (asikho isinxephezelo).

7. Kuzoba nezimo ezibucayi ekuzibandakanyeni kwami kulolucwaningo, ngiyakuqonda ukuthi:

   a. Lobu bungozi obulandelayo kuxhumene nokuzimbadakanya kwami …… **(chaza imininingwane yonke ngobungozi okungaba khona kumuntu ozimbandakanye nalolucwaningo**)
   b. Lezi zitebhu ezilandelayo zithathiwe ukuvikela ubungozi: ……
   c. Angu 0 % amathuba okuvela kobungozi.

8. Umphequluli uzoshicilela imiphumela yalolucwaningo ngohlelo loku……. Nokho, ubhalomfihlo, nofihlo-gama lwemininingwane izobe igciniwe nokuthi igama lami nobutho kwami angeke kubonakaliswe kumona yimuphi umuntu obengayona inhlangano yocwaningo.

9. Angeke ngiyamukele imiphumela/ngizoyamukela imiphumela engaloluhlelo……. emayelana nemiphumela etholakale ngesikhathi sesifundo.
10. Eminye imibuzo ephathelene nalolucwaningo noma mayelana nokuzibandakanya kwami ingaphendulwa ngu …… **(Mnumzane Mpilo Shange; 0646872257 and Dokotela ST Madlala; 0359026512)**
11. Ngokusayina lamafomu angiqubuli ubuthi noma amalungelo kwezomthetho
12. Ikhophi enolwazi oluphelele nophawu lokwamukela ukuzibophezela kwami ngizonikezwa, bese okungungqo kuyagcinwa.

Mina ……. ngilufundile loku okubhalwe ngenhla/ ngiyavuma ukuthi lolulwazi olungenhla ngichazelwe ngolimi lwami engiluqondayo futhi ngiyakuqonda okuqukethwe nokubhaliwe. Ngiyibuze yonke imibuzo engifunayo ukuyibuza, futhi yaphendulwa ngendlela engenelisayo. Ngiyayiqonda kahle ukuba kulindelekile ini kimi kulolucwaningo.

Angiphoqwanga nakancane ukubamba iqhaza kulokhu kulolucwaningo

---------- ----------

isishicilelo kobambe iqhaza **usuku**

7.7. ANNEXURE 4A: RESEARCHER'S DECLARATION

I, **Mpilo Ndumiso Shange,** declare that:

- I explained the information in this document to

……..

- Requested him/her to ask questions if anything was unclear and I have answered them to the best of my ability.
- I am satisfied that s/he sufficiently understands all aspects of the research so as to make an informed decision on whether or not to participate.
- The conversation took place in isiZulu/English.
- I used/did not use an interpreter.

…… ……

Researcher's signature **Date**

7.8. ANNEXURE 5: ACCESS LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH STUDY

University of Zululand
PO Box X1001
KwaDlngezwa
3886

The King Cetshwayo Health Municipal Manager
Local Municipality
Private Bag

Date: ----------

Dear Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a registered Master of Nursing student in the Faculty of Science and Agriculture, Department of Nursing Science at the University of Zululand. My supervisor is Dr. S.T. Madlala.
The proposed topic of my research is **EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) IN KING CETSHWAYO DISTRICT IN KWAZULU-NATAL**
The objectives of the study are to:

- Explore the experiences of pregnant women regarding to the use of isihlambezo within King Cetshwayo healthcare District in KwaZulu-Natal.

- Describe factors contributing to the use of isihlambezo by pregnant women in King Cetshwayo healthcare District in KwaZulu-Natal.

I hereby seek your consent to conduct the research study. To assist you in reaching a decision, I have attached to this letter:

(a) A copy of an ethical clearance certificate issued by the University
(b) A copy the research interview guide, which I intend using in my research

Should you require any further information, please do not hesitate to contact me or my supervisor.

Our contact details are as follows:

Mr. Mpilo Ndumiso Shange, Cell number: 0764 687 2257, email: mpiloshange80@gmail.com, and my Supervisor Dr. S.T. Madlala, office number: 035 902 6512, email: madlalas@unizulu.ac.za

Upon completion of the study, I undertake to provide you with a bound copy of the dissertation.

Your permission to conduct this study will be greatly appreciated.

Yours sincerely,

Signature: …….

Name: Mpilo Ndumiso Shange
Student number: 201264624

7.9 . ANNEXURE 6: ETHICAL CLEARANCE CERTIFICATE (UZREC)

UNIVERSITY OF ZULULAND
RESEARCH ETHICS COMMITTEE
(Reg No: UZREC 171110-030)

RESEARCH & INNOVATION
Website: http://www.unizulu.ac.za
Private Bag X1001
KwaDlangezwa 3886
Tel: 035 902 6273
Email: ViljoenD@unizulu.ac.za

ETHICAL CLEARANCE CERTIFICATE

Certificate Number	**UZREC 171110-030 PGM 2020/33**								
Project Title	**EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (*ISIHLAMBEZO*) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL**								
Principal Researcher/ Investigator	M Shange								
Supervisor and Co-supervisor	Dr S.T Madlala								
Department	Nursing Science								
Faculty	Science and Agriculture								
Type of Risk	Low Risk – Desktop, field work or laboratory								
Nature of Project	Honours/4th Year		**Master's**	x	Doctoral		Departmental		

The University of Zululand's Research Ethics Committee (UZREC) hereby gives ethical approval in respect of the undertakings contained in the above-mentioned project. The Researcher may therefore commence with data collection as from the date of this Certificate, using the certificate number indicated above.

Special conditions:

(1) This certificate is valid for 1 year from the date of issue.
(2) Principal researcher must provide an annual report to the UZREC in the prescribed format [due date-25 August 2022]
(3) Principal researcher must submit a report at the end of project in respect of ethical compliance.
(4) The UZREC must be informed immediately of any material change in the conditions or undertakings mentioned in the documents that were presented to the meeting.

The UZREC wishes the researcher well in conducting research.

Professor Nokuthula Kunene
Chairperson: University Research Ethics Committee
Deputy Vice-Chancellor: Research & Innovation

24 August 2021

CHAIRPERSON
UNIVERSITY OF ZULULAND RESEARCH ETHICS COMMITTEE (UZREC)
REG NO: UZREC 171110-30
24 -08- 2021
RESEARCH & INNOVATION OFFICE

7.10 . ANNEXURE 7: PERMISSION LETTER TO CONDUCT A RESEARCH STUDY (KZNDOH)

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Postal Address: Private Bag X9051
Physical Address: 330 Langalibalele St, PM Burg, 3201
Tel: 033395 3189/3123/2805 Fax: 033-3943782
Email address: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:
Health Research & Knowledge Management Unit

NHRD Ref: KZ_202101_019

Dear Mr M N Shange
(University of Zululand)

Approval of research

1. The research proposal titled '**EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL**' was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

   The proposal is hereby **approved** for research to be undertaken at Khandisa Clinic, Queen Nandi hospital, Ngwelezana Clinic and Thokozani Clinic.

2. You are requested to take note of the following:

   a. *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.*
   b. *Kindly liaise with the facility manager BEFORE your research begins in order 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.*
   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 Ms G Khumalo on 033 395 3189.

Yours Sincerely

[signature]

Dr E Lutge
Chairperson, Health Research Committee
Date: 05/04/2021

GROWING KWAZULU-NATAL TOGETHER

7.11 . ANNEXURE 8: EDITING CERTIFICATE

Gill Smithies

Proofreading & Language Editing Services

59, Lewis Drive, Amanzimtoti, 4126, KwaZulu Natal

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

Work Certificate

To	Mr. M. N. Shange
Address	Faculty of Science & Agriculture, University of Zululand
Date	18/11/2021
Subject	Dissertation: EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL
Ref	MNS/gs/01

I certify that I have edited the following for language, grammar and style,

Dissertation: Experiences of pregnant women regarding the use of Traditional Medicine (Isihlambezo) at King Cetshwayo District in KwaZulu-Natal, by M.N. Shange,

to the standard as required by the University of Zululand.

Gill Smithies

7.12 ANNEXURE 9: TURNITIN REPORT

EXPERIENCES OF PREGNANT WOMEN REGARDING THE USE OF TRADITIONAL MEDICINE (ISIHLAMBEZO) AT KING CETSHWAYO DISTRICT IN KWAZULU-NATAL

ORIGINALITY REPORT

9%	9%	%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	pdfs.semanticscholar.org Internet Source	2%
2	hdl.handle.net Internet Source	1%
3	www.unizulu.ac.za Internet Source	1%
4	www.frontiersin.org Internet Source	1%
5	nurseslabs.com Internet Source	1%
6	openscholar.dut.ac.za Internet Source	1%
7	bmccomplementmedtherapies.biomedcentral.com Internet Source	1%
8	wiredspace.wits.ac.za Internet Source	1%
	ir.dut.ac.za	