THE USE OF HERBAL MEDICINE BY PREGNANT WOMEN DURING INTRAPARTUM PERIOD AT SELECTED PUBLIC HOSPITALS IN SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE, SOUTH AFRICA.

by

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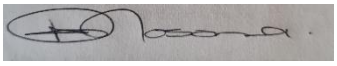
DECLARATION

I, Antoinette Mosoma, declare that the dissertation "**The Use of Herbal Medicine by Pregnant Women during Intrapartum Period at Selected Public Hospitals in Sekhukhune District, Limpopo Province, South Africa** "hereby submitted to the University of Limpopo, for the degree Masters of Nursing Science has not previously been submitted for a degree at this or any other university; that it is my work in design and execution, and that all reference materials contained herein have been duly acknowledged.

Signature: 

Mosoma A (Ms) Date 08/06/2021

DEDICATION

I dedicate this research to:

- My husband, Khumbelo Sirakalala, and my two sons Wanga and Roanda Sirakalala for putting up with a studying mother.
- My late parents Cyril Mathebula and Gladness Nika Mosoma this is for you.
- My dear Aunt Lefa Malemela who gave me the foundation of this discipline and covered my fees throughout my studies.
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ABSTRACT

Black South African women use herbal medicine during the intrapartum period. Research has proven that some herbal medicine may have a negative impact on both the mother and the fetus during labour and delivery. The aim of the study was to investigate the use of herbal medicine by pregnant women during the intrapartum period, at selected public hospitals in the Sekhukhune District, Limpopo, South Africa. The objectives of the study were to determine the use of herbal medicine by pregnant women during the intrapartum period and to develop a health education programme for communities around the Sekhukhune District, Limpopo, South Africa.

Quantitative research method was used, and data were collected using self-designed questionnaire. Total of 192 respondents out of 370 population participated in the study. Simple random sampling was used. The questionnaire was piloted in a different setting to ensure reliability. Data were analysed using SPSS version 24. The outcome of the analysis was presented as frequencies and percentages in tables, pie charts and bar graphs. Ethical standards were adhered to throughout the study.

One hundred and ninety-two (192) women were invited to participate in the study all of which were from surrounding areas. None of the women declined participation. A total of 192 post-partum women answered the questionnaires. Of the 192, 76% used herbal medicine during the intrapartum period. The mean age is 19 years. Mostly, those who are Sepedi speaking are dominant in the area (at 76%). Pregnant women commonly ingested herbal medicine to induce labour or during labour to accelerate delivery at 56%.

The result highlighted that the prevalence of the use of herbal medicine during the intrapartum period was high among women in the Sekhukhune District. Therefore, healthcare professionals should have knowledge about herbal medicine used by pregnant women during the intrapartum period and educate them about the dangers and effects of the herbal medicines, both to the mother and the fetus.

KEY WORDS: Herbal medicine, Intrapartum, Pregnancy and Women

LIST OF ABBREVIATIONS

APGAR	Appearance, Pulse, Grimace, Activity, Respiration
ANC	Ante-Natal Care
DENOSA	Democratic Nursing Organization of South Africa
DoH	Department of Health
IP	Indigenous Practices
MSL	Meconium Stained Liquor
NVD	Norman Vaginal Delivery
OTC	Over the Counter
PHC	Primary Health Care
SA	South Africa
TPH	Traditional Health Practitioners
WHO	World Health Organization

DEFINITION OF CONCEPTS

Herbal medicine: A plant or plant part or an extract or mixture of this to make medicine (Webster, 2010). John and Shanta Kumari, 2015 define herbal medicine as herbs, herbal preparations and finished herbal products that contain active ingredients derived from plants or plant materials that are perceived to have therapeutic benefits. In this present study, 'herbal medicine' means the traditional concoctions (herbs, herbal preparations and finished herbal products) used to induce or augment labour during the intrapartum period.

Intrapartum: The period from the onset of labour to the end of third stage of labour (Fraser, Cooper & Nolte, 2009). In this present study, 'intrapartum' refers to the period from which women experience labour pains until delivery of the placenta and membranes.

Pregnancy: The state of carrying a developing embryo or fetus within the female body (Sellers, 2006). Tiran, (2012) defines pregnancy as the period from conception to the delivery of the baby. In this present study, 'pregnancy' refers to the nine months of which a woman carries a developing embryo and fetus in her uterus.

Women: Refers to adult female persons (Webster, 2010). In this present study, 'women' refers to all females of child-bearing age.

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CHAPTER1
OVERVIEW OF THE STUDY

1.1 Introduction and Background

The use of Herbal medicine among pregnant women has grown significantly worldwide particularly widespread in sub-Saharan Africa (Hajj & Holst, 2020). Pregnancy is a condition associated with immense physiological alterations resulting in many pregnancy-related common discomforts, including nausea, vomiting, constipation, and heartburn (Lindzon et al., 2011). These discomforts usually result in pregnant women self-medicating using over the counter (OTC) medications, seeking prescribed medications, herbs or products (Nyeko, 2016). Herbal products are preferred over prescribed medications due to the belief that herbs are safer for the fetus than modern medicine (Dogoua, 2010).

Globally the prevalence estimates of herbal medicine use in pregnancy varies across countries, ranging from 52-58% in the United Kingdom (Frawley, Adams, Subritt, Steel & Broom, 2013) to 40-48% in Norway and Italy (Nordeng, Beyne, Haven & Pausen, 2011) and 6-9% in Canada and the United States. In Dajak, Roje, and Maglics (2014) study based in England ,57.8% of the respondents used herbal remedies during pregnancy and this includes herbs such as ginger, cranberry and raspberry leaf.

World Health Organisation (WHO) has reported the use of herbal medicine at about 80% in Kenya. In the African context, herbal medicine still plays an important role in pregnancy and labour even after the introduction of western oriented medicine, about 80% of the population uses traditional medicine for the treatment of different illnesses and this includes pregnant women (Mapfumira, 2012).

Several studies conducted in Sub-Saharan Africa indicated that the use of traditional herbal medicine is common. In Nigeria, 31.4% of women uses herbal medicine in pregnancy (Tumano, Osmo-Ohosi & Fadare, 2010). Another study reported a higher prevalence at 43% (Fakaye, Adisa & Musa, 2012). Gharoro and Igbafe (2013) reported a lower prevalence at 10% and that contributing factors include poverty, inaccessibility of health facilities, not being able afford western services and

acceptability of traditional medicine as part of African culture. Mugomeri, Chatanga, Seliane and Maibvise (2015); Mugomeri, Chatanga, Seliane and Maibvise (2015) report that 42% of pregnant women in Lesotho use herbal medicine during pregnancy. In sub-Saharan Africa, the maternal mortality rate is high because of the use of herbal medicine. According to Chinkhumba De Allegri, Muula and Robbersad (2014), it is the highest region with maternal and foetal mortality ratio (500 deaths per 100,000 live birth) and perinatal mortality rate (56 deaths per 1000,00 live births).

Results from a study by Matambirwa (2012) reported that most pregnant women preferred traditional delivery care even in areas of Zimbabwe with easy access to western facilities. In a study done in Zimbabwe a prevalence of 52% was reported supporting the trend that use of herbal medicine in pregnancy and labour is common in sub-Saharan countries (Mureyi, Morena & Maponya, 2012).Such statistics regarding the use of herbal medicine is a concern as it is known that use of herbal medicine may lead to maternal and foetal death, complications during labour and decreased foetal survival and congenital abnormalities (Nyeko, Tumwesigye & Halage 2016). Mekuria, Erku, Gedresillase, Birru and Ahmedin (2017) found that the use of herbal medicine in Ethiopia is influenced by social and cultural norms.

The South African government introduced free antenatal care and delivery services for all South African women. However, the use of the herbal medicines in pregnancy among South African women has not yet subsided (WHO, 2009). As of 2010 South Africa had an estimated mortality rate of approximately 300 deaths of 100 000 live births (WHO, 2013). This further indicated that some of the deaths due to cultural beliefs such utilization of the herbal medicines in pregnancy.

Studies have been conducted on the prevalence of the use of herbal medication in South Africa and it was found that the majority of women use herbal medicines, but limited research was done on the effects the use has on the mother as well as the fetus (WHO, 2009). Surveys on the use of herbal medicine during pregnancy have reported a wide range of herbal medicine use (WHO 2014).

The majority of herbal medicines used in South Africa are provided by traditional healers who live within the community and have been trusted over years; and are often willing to assist the patients with their knowledge and skills, sometimes at a minimal cost. Women who are likely to use herbal medications are usually those from rural areas, less educated and had used herbals before (Mkhize, 2015).

Herbal medicine ingested by South African pregnant women, are usually a mixture of species. Some examples of plants include *Agapanthus Africanus* or Blue Lillys, mainly used to prepare what is known as 'Sewasho' in Northern Sotho. Other herbal medicines that can be mixed and ingested that are very popular include a baboon's urine mixed with crushed ostrich eggshells. These are usually ingested intrapartum to speed up labour and some are ingested with a belief that they are for protection for both the mother and her fetus against evil spirits (Mkhize, 2015).

The use of herbal medicine is also influenced by patients' fear of labouring for longer hours and the belief that the baby has to be delivered fast to be protected from evil spirits; some of which are based on cultural beliefs and philosophical views of life and health(Lealego, 2018). In Africa, the use of herbal medicine is relatively high in rural areas. It is known that 65 to 80% of the world's population uses herbal medicines as their primary source of health care (WHO, 2009). In a study conducted at a hospital in the Eastern Cape, it was identified that 37% of pregnant women use herbal medicine during pregnancy and labour. Pregnant women around the area delayed attending the antenatal clinics due to indigenous beliefs and practices (Ngomane & Mulaudzi, 2012).

According to a study conducted by Mogawane, Mothiba and Malema (2015) at the Dilokong Hospital on Indigenous Practices of pregnant women, the study identified that oral herbal medicines were minimally prescribed or used. However, since 2016 to date, herbal medicine use has been on the rise.

According to the *SOWETAN* newspaper (2018), the use of herbal medicine in pregnancy is common in the Sekhukhune District. It is associated with bad obstetric outcomes which include foetal distress that lead to Caesarean Section and uterine

hyper stimulation which leads to uterine rupture. This outcome may ultimately lead to death. Any factor that may lead to maternal or neonatal death is important and needs to be researched.

The researcher noted significant adverse events in clinical practice resulting from ingestion of herbal medicine by pregnant women. Therefore, the researcher believed that a development of health education programme to equip and educate midwives and pregnant women about adverse effects following use of herbal medicines will optimize safe practices among pregnant women. Moreover, the developed programme will ensure continuum professional development in clinical practice among midwives. This was achieved through the determination of use herbal medicines by pregnant women during intrapartum period.

1.2 Problem Statement

Three hundred and eighty (380) babies and 16 mothers have died at Limpopo hospitals in less than three years from 2015 to 2017, because of herbal medicine meant to induce and hasten childbirth (*SOWETAN, 2018*). According to the Hospital A management, statistics from the hospital shows that 141 babies died in 2016;164 in 2017; and 75 between January and February in 2019.

There has also been an increase in babies admitted in the Neonatal Intensive Care Unit due to their mothers' use of herbal medicine; and some of the mothers use herbal medicines even in worse cases such as previous Caesarean Sections, with the belief that they will have a normal vaginal delivery and thus avoid going for another Caesarean Section (Mkhize, 2015). Most of the patients use herbal medicines without informing their physicians and, in most cases, the results are not pleasant during delivery. The relative depth of either their efficacy or safety is an important concern that was to be addressed by researcher.

Interest in the study was developed whilst the researcher was working as a Registered Professional Nurse at Hospital A Maternity Ward from 2015 to 2020. On the researcher's first day in the Labour Ward, a patient came in the ward with no sign of

labour but complaining of excruciating abdominal pains and she delivered within two hours. What shocked the researcher was the Meconium Stained Liquor passed during labour. As days went by, common cases continued to occur. When researcher asked other health-care workers, they all gave a common answer that women from the Sekhukhune community ingest herbal medicine during labour. They even had samples in the ward of herbal medicines retrieved from the patient's room lockers. That is why the researcher was interested in conducting a research on the use of herbal medicine by pregnant women during intrapartum period.

1.3 Theoretical Framework

A theoretical framework is a structure that can hold and support a theory of a research study by focusing on specific variables and defining the specific viewpoint or framework that will guide the researcher (Ravitch & Matthew, 2017). This present study was guided by Madeleine M. Leininger's theory (1991), namely, Theory of Cultural Care Diversity and Universality. This theory emphasizes the fact that human beings are influenced by cultural values and beliefs from the society where they come.

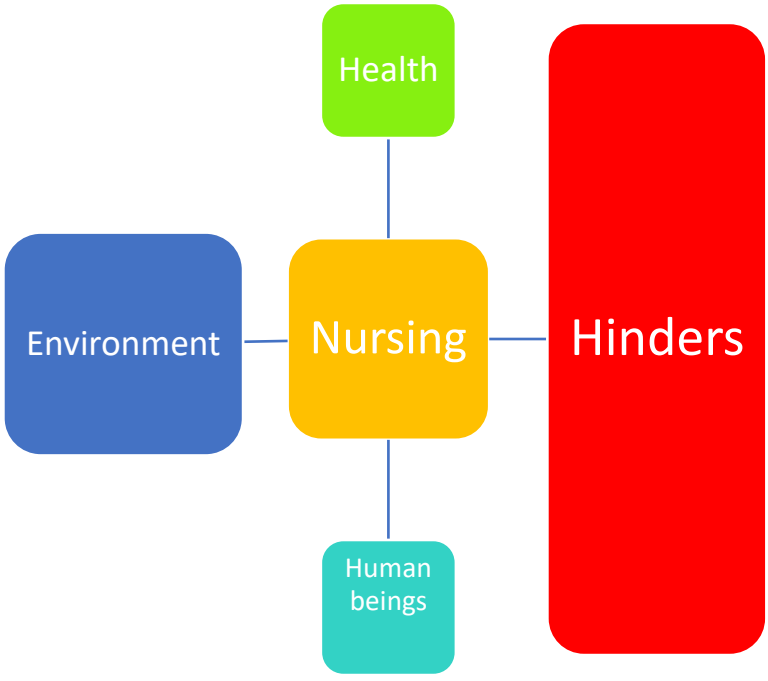

Figure 1.1: Leininger's Four Concepts of the Theory (1991)

Concepts in this theory included the following: health, nursing, environment, and human beings and are discussed as follows:

- Health

Leininger (1991) defines health as a state of well-being that is culturally defined and constituted; a state of being to maintain, and the ability to help individuals or groups to perform their daily role activities. Health is an important concept of transcultural nursing because the emphasis is on the need for nurses to have knowledge of the culture where nursing is being practised. Health is universal in all cultures, which differ based on the beliefs, values, and practices of a particular community. In this study, the total health of a pregnant woman is of outmost importance in all rural communities. The belief is that a pregnant woman needs to remain as healthy as possible for safe and healthy delivery. Traditionally, there are certain practices that need to be performed to maintain health. Such include the use of herbal medicines during the intrapartum period.

- Nursing

Nursing is defined by Leininger (1991) as a learned and humanistic, scientific profession and discipline, focused on the human-care phenomenon and caring activities in order to assist, supply and facilitate or enable individuals or groups to maintain or regain their health and well-being in a cultural and meaningful manner, or to help individual to face handicap or death. She emphasises that nurses have the mandate to serve the people. But if nurses do not have adequate preparation for a transcultural perspective as they neither have values or practice from such a perspective, this causes cultural stress and conflict between the client and the care giver. This observation supports the current study because most professional healthcare workers have little or no knowledge regarding herbal medicines used during the intrapartum period, and this in turn causes stress and conflict between patients and health-care providers (Leininger, 1991).

- Environment

Leininger speaks of a social structure as the totality of geophysical and ecological settings of cultures. Leininger's (1991) definition of culture focuses on a particular society and the pertaining of actions. She emphasises that behaviour is learned within the society. Thoughts and decisions that occur are learned, shared, and transmitted values and beliefs. This learning, sharing, transmitting, and patterning occur within a group of people who function in an identifiable setting or environment. The current

study concurs with the theoretical framework because research has proven that most women who ingest herbal medicine are mostly those from rural areas influenced by the setting in which they live in, as well as other surrounding factors. These practices are based on learned behaviour that is passed on from one generation to the next.

- Human beings

Leininger believes a human being is believed to be caring and to be capable of being concerned about the needs, wellbeing and survival of others. Humans have survived within cultures through time because they have been able to care for infants, children and the elderly in many ways. Therefore, they are universally caring beings. They care for each other culturally to sustain life and promote health. Leininger (1991) also indicates that nursing, as a caring science, should focus beyond traditional 'Nurse-patient interactions' and include families, groups and communities, and find ways to develop nursing-care policies and practices.

In this current study, human beings included the patient and the prescriber traditional healer, a relative or a priest. When they prescribe remedies or herbal medicines, their aim is the concern for the needs of wellbeing of both the mother and the fetus, and they choose to protect the mother and the fetus based on their cultural beliefs.

1.4 Aim of the Study

The aim of the study was to investigate the use of herbal medicines by pregnant women during the intrapartum period at selected public hospitals in the Sekhukhune District, Limpopo Province, South Africa.

1.5 Research Question

How is the use of herbal medicines by pregnant women during the intrapartum period at selected public hospitals in the Sekhukhune District, Limpopo Province, South Africa?

1.6 Objectives of the Study

Research objectives are formulated to link the identified problem with the purpose and design of the study (Brink, van der Walt & Rensburg 2018)

The objectives of the study were:

- To determine the use of herbal medicines by pregnant women during the intrapartum period at in the Sekhukhune District, Limpopo Province, South Africa;
- To identify the common types of herbal medicines used and the prescriber/source to patients in the Sekhukhune District, Limpopo Province, South Africa; and

- To develop a health education programme for communities around Sekhukhune District, Limpopo Province, South Africa.

1.7 Overview of the Research Methodology

A quantitative research method approach was used to conduct this present study. According to Babbie and Mouton (2011), quantitative research refers to the systematic empirical investigation of social phenomena via statistical, mathematical and computational techniques. This method is suitable as the researcher intends to identify the use and effects of herbal medicine by pregnant women during the intrapartum period at selected public hospitals in Sekhukhune District, Limpopo Province, South Africa.

The study was conducted at two level one hospitals A and B both of which are level one hospitals that provide care for patients, among others are pregnant women. They are situated in the Greater Tubatse Municipality of the Sekhukhune District, Limpopo Province in South Africa. A descriptive, cross-sectional design was used in this study. The purpose of the research design is to ensure that the research question is answered. In this study, the use of herbal medicine by pregnant women during the intrapartum period was identified and described. In this study, Cross Sectional Descriptive Design is used.

Simple random sampling technique was used as well as questionnaires for collecting data. The population comprised of three hundred and seventy (370) women who delivered at these hospitals. Data collection was done by means of a self-

administered questionnaire written in both English and Sepedi. The questionnaire comprised of five sections. The sections consisted of demographic data; values and beliefs; accessibility; disclosure; and obstetric data, with each section having its own questions. Data were analysed with the assistance of a statistician using the IBM SPSS 24 (Statistical Package for Social Sciences).

1.8 Significance of the Study

The current study might provide valuable information on the effects of the use of herbal medicines to accelerate delivery during intrapartum. Healthcare professionals will be assisted to play a role in identifying the dangers or benefits of the use of herbal medicines by discussing the contradictions and the potential drug-herb interactions with patients. Healthcare professionals will consult with traditional healers and try to explain the impact the medication has on both pregnant women and the foetus, and subsequently assist each other in integration of care. The mothers will benefit by acquiring information that will make them aware that herbal medicines are unsafe for pregnant women. The women will make informed decisions about their health and that of the developing fetus.

Body of knowledge will be increased. This present study will also assist in lowering the statistics of child and maternal mortality rates in Limpopo province, South Africa.

1.9 Outline of the Dissertation

Chapter 2: Literature Review

It covers the literature on the use of herbal medicine by pregnant women during the intrapartum period as well as the theoretical framework.

Chapter 3: Research Methodology

It presents the research methodology, research design, study site, population and sampling, data collection method, data analysis, validity and reliability and ethical considerations.

Chapter 4: Presentation and discussion of the research findings

Chapter 4 deals with the presentation and discussion of the research findings in the context of the aim and objectives of the study.

Chapter 5: Summary, Limitations, Recommendations and Conclusions

This chapter discusses the summary, limitations, recommendations and conclusions based on the findings of the study.

1.10 Conclusion

This chapter presented an overview of the study, introduction and background, problem statement, aim of the study, research question, theoretical framework, methodology and description of research design, ethical considerations, significance of the study and bias in the study. The next chapter presents the literature review related to the study.

CHAPTER2
LITERATURE REVIEW

2.1 Introduction

A literature review refers to the summary of theoretical and empirical sources used to generate a picture of what is known about a particular problem (Burns & Grove, 2011). This chapter includes a brief description of herbal medicine in developing countries, Sub-Saharan Africa, South Africa; culture and ethnic group; common causes of maternal mortality; and herbal medicine accessibility.

2.2 Brief Description of Herbal Medicine

The World Health Organization (WHO) defines herbal medicine as the sum of knowledge, skills, and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in maintenance of health as well as in prevention, diagnosis, improvement or treatment of physical and mental illness. Herbal medicine may include plants, animals or mineral-based medicines. Traditional medicine use remains widespread in developing countries, yet the safety of these medicines is not well researched or monitored. Some pharmacological medicines have been found to be teratogenic and most pregnant women are aware of those medicines and take precautionary measures such as refraining from Over the Counter medicines or self-prescriptions.

2.3 Studies on Use of Herbal Medicine in Pregnancy in the Developed Countries

About 80% of the population worldwide use a variety of traditional medicine, including herbal medicines, for the diagnosis, prevention and treatment of illnesses, and for the improvement of general well-being (Lisha & Nisha, 2015). Even though evidence on the safety profile of herbal products is inadequate to substantiate their use in pregnancy, it is increasingly used by expectant mothers (Dogoua, 2010). Few studies on the pattern of use of herbal medicines during intrapartum showed that more than 10% of pregnant women reported the use of herbal medicinal products in Finland, Australia, and United States (Forster, 2016).

2.4 Studies on the Use of Herbal Medicine in Pregnancy in Sub-Saharan Africa

According to Mothupi (2014), in a study conducted in Nairobi, the use of herbal medicine is a significant part, and it is relatively high in Africa. The World Health Organization (WHO, 2009) reports a prevalence of herbal medicine use of about 80% of the sub-Saharan population. In Africa, reliance on herbal medicine use is relatively high among rural populations and is associated with lack of access to public health facilities (WHO, 2009). Even though knowledge of potential side effects of many herbal medicines in pregnancy is limited and that some herbal products may be teratogenic in human and animal models (Dogoua, 2010). Data on the extent of women's use of herbal medicines during intrapartum are scanty, especially on sub-Sahara Africa where the legislation for distribution and purchase of herbal medicines is not as stringent as it is for conventional medicines (Dogoua, 2010)

Lisha and Nisha (2015) concluded that widespread use of herbs during pregnancy was observed in the Middle East, like other parts of the world. The wide ranges of herbal products used were representative of the traditions and geographical diversity of the region. Jon (2009) concluded that the use of herbal medicines by pregnant women in Nigeria was seen to be quite high. Many patients have confidence in the efficacy of herbal remedies and found them helpful, cost effective and accessible alternative treatment. Most women took herbal medication to ensure proper bleeding following birth and cleansing the womb. The herbals are given in a form of burnt powder which is blown into the vagina to the cervix or taken orally to prevent retained placenta.

In a study conducted by Truter (2007), it was identified that herbal medicines are therapeutic methods used by traditional healers to protect from evil spirits and for quick and easy delivery. However, little research has been done on the effectiveness and safety of these herbal medicines.

2.5 Studies on the Use of Herbal Medicine in Pregnancy in South Africa

Health-care professionals, especially those that are involved in antenatal, intrapartum and postpartum care, should be aware of the potential benefits or harm of herbal

medicinal agents when used by pregnant women, since many of these herbal remedies are self-prescribed based on the women's own information or belief.

Mothupi (2014) concluded that the health-seeking behaviour of women who use herbal medicine during intrapartum suggests that they rely on it as a resource even if public health facilities are available. Thus, there is an opportunity for the involvement of healthcare providers in patient education about the appropriate use of herbal medicine and pharmaceuticals. There is inadequate knowledge among respondents about the safety of both herbal and western medicine during pregnancy. Mothupi (2014) indicates that there is a necessity for women to be adequately informed of the potential risks of simultaneous use of herbal medicine and pharmaceutical drugs during pregnancy (Mothupi, 2014).

Herbs with documented outcomes for pregnancy and fetus were also frequently used, which is a matter of concern. Most women used these herbs during the first trimester, which is the most critical period in pregnancy. The relative dearth of evidence of either their efficacy or safety is an important concern to be addressed by researchers.

2.6 Culture and Ethnic Group

The use of herbal medicine may also be associated with social and cultural influences (Sindiga, Nyaogotti & Kununa, 1995), perceived efficacy, beliefs about safety and general ease of access. However, even in countries with great access to public health-care facilities such as urban areas, Africa still relies on traditional systems of care (Boder & Kronnburg, 2007). Patients with access to western medicine may use herbal medicine simultaneously and often without the knowledge of health-care providers (Mothupi, 2014).

2.7 Common Causes of Maternal Mortality

In 2016, WHO estimated that 830 women died from preventable causes related to childbirth; 99% of those are from developing countries. Maternal mortality is higher in women living in rural and poor communities. It was established that roughly 303 000 women died during childbirth; all of whom could have been prevented. WHO also

established that most complications causing mother and child deaths include the following:

- severe bleeding (before and after birth);
- infection; and
- Other complications from the delivery.

All these three causes are mainly aggravated using herbal medicines intrapartum, especially postpartum haemorrhage or antepartum haemorrhage. These herbal medicines are believed to precipitate labour and some of the deaths are due to cultural beliefs, which include the use of herbal medicines during the intrapartum period (Lale, 2016).

2.8 Herbal Medicine Accessibility

In a study conducted by Mogawane, Mothibi and Malema (2015), it was noticed that, in the early 1990s, it was established that over 200 000 traditional healers practiced in South Africa, as compared to the 30 000 modern doctors at the time. Towards the end of the 1990s, around the year 2000, the estimated number increased to 350 000. Currently, herbal medicines are distributed and processed by commercial firms and this increased their availability and accessibility outside professional practitioners.

Mogawane et al (2015) also recommended that communication and understanding of cultural practices by health-care providers and Traditional Health Practitioners (THPs) would increase knowledge of earlier attendance of pregnant women at health facilities. South Africans should have global knowledge of, as well as respect for and accept the function of Indigenous Practices (IPs) as cultural beliefs. Health-care professionals should respect and protect IPs by formulating programmes for Ubuntu meetings with the THPs.

2.9 Conclusion

This chapter dealt with the literature review of the study. Furthermore, it discussed the use of herbal medicines by pregnant women during labour, literature review explored and emphasised adverse effects likely to occur as result of the use of the herbal

medicines. Moreover, the literature review included accessibility of the herbal medicines, culture and ethnic group and common causes of maternal mortality.

CHAPTER3
RESEACH METHODOLOGY

3.1 Introduction

This chapter consists of the research method and design, which includes research question, study setting, population and sampling, used inclusion and exclusion criteria and respondent's selection, data collection and data analysis method, ethical considerations were adhered to throughout the study, validity and reliability were sought.

3.2 Research Method

The researcher adopted a quantitative research method, using a Cross Sectional Descriptive Design to describe the factors contributing to the use of herbal medicine by pregnant women during the intrapartum period. This method is appropriate as the researcher's aim is to identify and describe the use of herbal medicine by pregnant women during the intrapartum period at selected hospitals in Sekhukhune district, Limpopo province. Quantitative method emphasises objective measurements and the statistical and mathematical or numerical analysis of data collected through questionnaires using computation techniques (Babbie & Earl, 2014). In this study, a computer software (viz., SPSS version 24) was used to analyse the data. Data were represented as frequency tables and percentages and bar graphs.

3.3 Research Setting

Figure 3.1: Geographical Map Showing the Site of the Study Hospitals

Limpopo province is situated in the northern parts of the republic of South Africa. It is named after the Limpopo river which forms the provinces western and northern boarders. The capital and largest city is Polokwane. It comprises of five districts namely Mopani, Vhembe, Capricorn, Waterberg and Sekhukhune. Several languages spoken around the province include Northern Sotho, Sepedi, Khelobedu, Setokwa, Xitsonga, Venda, Afrikaans and Southern Ndebele.

Limpopo is one of the nine provinces in South Africa. It is said to be one of the biggest in the country, it is rural with semi urban areas. The study was conducted in maternity units of the Sekhukhune districts which are the districts designated research settings. The maternity units are the midwifery practice environments in which midwives are executing their skills. They also serve as experiential learning areas for learner midwives.

Figure 2 shows a geographical map of the study site, the study was conducted at two Level one hospitals namely:

- Hospital A and Hospital B, both of which are level one hospitals that provide care for patients, among others are pregnant women. They are situated in the Greater Tubatse Municipality of the Sekhukhune district, Limpopo province in South Africa. Hospital A is along the R37 road, approximately 140km from Polokwane town and 20km from the Burgersfort town.
- Hospital A is just 42km away from the Hospital B, also along the R37 road, serving patients from 14 Primary Health Care Centres. The envisaged study was conducted in the Maternity units. The hospitals serve communities and pregnant women staying at Driekop, Ga-Makofane, Ga-Phasha, Ga-Mampuru, Penge and Mooihoek. Normal vaginal deliveries are conducted by midwives, but complications are attended to by medical practitioners as well as advanced midwives. The researcher conducted the study at these two hospitals. The location for conducting research could be in a natural and a controlled setting (Grove et al., 2013)

3.4 Research Designs

Research design involves a set of decisions regarding what topics to be studied among what population with what research methods and for what purpose (Babbie &

Mouton, 2014). A research design is a comprehensive plan for obtaining answers to research questions (Polit & Beck, 2018). LoBiondo -Wood and Haber (2010) define research design as the blueprint for conducting a study. The purpose of the research design is to ensure that the research question is answered.

In this study, the use of herbal medicine by pregnant women during the intrapartum period was identified and described. According to Babbie and Mouton (2014), research design refers to all the decisions we make in planning the study, decision not only about overall type of design to use, but about sampling and sources of collecting data measurement issues and data analysis plans. In this study, Cross sectional Descriptive design was used. Simple random sampling technique was used to select the respondents and questionnaires for collecting data. The research design was selected so that it could answer the research question which was:

"How is the use of herbal medicines by pregnant women during the intrapartum period at selected public hospitals in the Sekhukhune District, Limpopo Province, South Africa?"

- *Descriptive Design*

  The cross-sectional research design involves obtaining data from a cross-section of population at one point in time (Brink, Van der Walt & Van Rensburg, 2017). In a cross-sectional study, the researcher measures the outcomes and the exposures in the study respondents at the same time and are selected based on the inclusion and exclusion criteria set for the study. Once the participants have been selected for the study, the researcher follows the study to assess the exposure and the outcomes (Seita, 2016). A descriptive design was used to describe the factors that influence the use of herbal medicine during the intrapartum period by pregnant women. Descriptive research aims to describe and document a process, event or an outcome in detail (Houser 2015).

Descriptive design was used to help the researcher give an accurate portrayal of the characteristics of target groups (Polit & Beck, 2018). According to Wood and Haber (2010) descriptive designs collects a detailed description of the existing variables and use the data to justify and assess the current condition and practices to make plans

for improving the health-care system. In this present study, the descriptive design was used to identify and describe herbal medicines used by pregnant women during the intrapartum and their effect on the outcome at Health Care Centres, selected hospitals in the Sekhukhune district, Limpopo province, South Africa**.**

- *Cross-sectional Design*

Cross-sectional design was used to collect data at one point in time (Brink, Van der Walt & Van Rensburg, 2017). Furthermore, cross sectional design was used to determine the use of herbal medicines by pregnant women during the intrapartum period at selected hospitals in Limpopo province, South Africa at one point in time. This design was used to collect data from post-delivered women in Postnatal units for both hospitals and data were collected in 8 consecutive days at each hospital.

3.5. Population and Sampling

3.5.1. Population

Population is defined by Brink et al., (2017) as a complete set of persons who possess some common characteristics that are of interest to the researcher. Population refers to a total of all subjects that conform to a set of specifications (Pilot & Beck, 2012). In this present study, population refers to post-delivered women admitted in postnatal units at both hospitals. Given that there are 340-380 deliveries per month and 42 000 a year, sampling was done for two months with a rate of 340-380 deliveries per month.

The population was 370 mothers post-delivery; which was 185 patients from each hospital. The population comprised of three hundred and seventy (370) women who delivered at these hospitals with no illnesses and had the wiliness to participate post-delivery.COVID 19 precautionary measures were followed which included social distancing, masks distribution and sanitizing.

3.5.2. Sampling

According to LoBiondo-Wood and Haber (2010), sampling is a process of selecting representative units of a population for a study. Sampling means the process of selecting a portion or subset of the designated population to represent the entire population so that inferences about the population are made (Pilot & Beck, 2012).

Simple random sampling was used to select the population women who have delivered at these hospitals, which means that each element of the population had an equal chance to be included in the study.

Participants were selected based on their willingness to participate in the envisaged study. Cresswell (2009) suggests that random sampling is best when the selected respondents have knowledge of a particular setting that can assist the researcher to answer the research question. A table of random numbers was used to draw a sample size. The researcher assigned a number to each respondent. The Simple random samples were drawn using the Container/Fishbowl technique (Brink et al., 2017). The researcher wrote on separate pieces of papers.

All the pieces of paper were folded and placed in a bowl, and then each number code was picked up, one by one. The number code chosen was written down and replaced in the bowl before choosing the next one, so that each respondent had an equal chance of being included in the sample, this was done depending on the number of patients available in each hospital (Brink et al., 2017). The procedure continued until the desired sample of the study was reached, which was 192.

3.5.3. Sample Size

Sampling involves selecting a group of people, events, objects, or other elements with which to conduct a study (Grove et al., 2015). Simple random sampling technique was used in the study to ensure that all patients in Postnatal unit are given an equal chance to participate in the study. To accomplish this Simple random sampling, the researcher defined the population, created a sample frame and created a technique to sample the population (Brink et al., 2017).

The sample size was calculated using the following Slovin's formula which allows a researcher to sample the population with a desired degree of accuracy (Stephine, 2013).

n = sample size

N = population size

e = error of margin (0.05)

$$n = \frac{\mathrm{N}}{1+Ne^{2}}$$

$$n = \frac{370}{1+370(0.05)^{2}}$$

$$n = \frac{370}{1+370(0.0025)}$$

$$n = \frac{370}{1.925}$$

$$n = 192$$

The sample size was 192 of the population post-delivered women in post-natal unit. Questionnaires were distributed to the patients and collected before they were discharged. All questionnaires were completed and returned because the researcher was there to give clarity to those who failed to understand some of the concepts.

- *Inclusion criteria*

  All women who delivered at hospital A and B. These women were given full permission based on being granted full knowledge about the study and having signed the consent form.

- *Exclusion criteria*

  All those mothers who used herbal medicine but were very ill during the time of the study. Respondents have the right to refuse to take part in a study and the right to withdraw at any time. This right was granted also to those who were very ill and thus were not in a good state of mind to participate in the study.

3.6. Data Collection

A self-administered questionnaire was used to collect data from the identified sample (patients) who have agreed to participate in the study and who signed the consent form (appendix 8).

- **Preparation for data collection**

Before actual data collection, the researcher received a clearance certificate from the Turfloop Research Ethics Committee (TREC/224/2019: PG), see Appendix 1;

permission to conduct the study was also obtained from Limpopo Department of Health (see Appendix 2*)*. Consequently, the researcher submitted the research proposal, ethical clearance certificate and DoH permission from the two selected hospital's CEOs and Nurse managers for their approval (Appendices 3*)*. The researcher ensured that data collection did not interfere with the planned patient care programs by the researcher and other essential activities for the day. The matter was referred to organizational Research Committees and Nurse managers of Postnatal units, and data collection dates were later communicated to the researcher.

A statistician was consulted to assist in assessing the relevance of the questions, i.e., if such would answer the research questions against the purpose and the objectives of the study. Questionnaires were given to the respondents in Maternity units of all the two hospitals according to the inclusion criteria and took 20-30 minutes to complete. The researcher was around the hospitals during data collections so that in case respondents had questions or needed any clarity about the questionnaire, she could immediately answer or clarify them.

The researcher first set up an appointment with the hospital's CEOs and a date and time was granted. On arrival on that date for the appointment the study presented to the CEOs and handed a copy of the study as together with the letter of permission to conduct the study from the Department of Health. The CEOs advised the researcher to also speak to the nursing service managers for easy access to the units. The nursing service managers granted permission and advised to wait for a permission in writing from the CEOs. Within a few days' permission was granted and at Mecklenburg hospital the researcher was introduced to the maternity unit staff and explained that they should expect the researcher in the ward for collection of data. The midwives explained the duration which their patients are kept in the wards post-delivery and how they carry their daily routine so that there wouldn't be interference with the patient care. An agreement was reached that the researcher would come for 10 consecutive days for data collection at 11:00.

The data was collected between May and August 2020 at Dilokong and Mecklenburg hospitals at Sekhukhune district by the researcher. In May 22, data was collected at Dilokong hospital and 100 questionaries were designated for the hospital. Data was

collected throughout the month of May and June whereby 10 questionnaires were completed per day. July 15, 2020 data collection commenced at Mecklenburg hospital 100 questionnaires were designated for the patients and 10 questionaries were completed on each day data was collected until the end of August 2020. The researcher was there to clarify any misunderstanding about the questionnaires. The questionnaires were 192 and process was done in a private room of the hospital whereby 10 questionnaires were given to the respondents and pens were provided as well to fill in the questionnaires. All questionnaires were completed, and none were returned. The questionnaire was designed using a Likert scale that comprised of the same set of questions and was written in both English and Sepedi.

The patients voluntarily agreed to participate in the research after explanation, gave informed consent (Appendices F–H*)* and the anonymity was ensured on the questionnaires using codes. Patients gave the completed copies of questionnaires to the researcher and the entire batch of completed questionnaires indicated a response rate of 100%. Response rate = number of people who completed the questionnaire X 100. The number of people in the sample = 192/192 X100 = 100%

The questionnaire consisted of six sections with a total of 66 questions indicated as follows:

- **Section A: Demographic data (5 questions);** In this section the demographic profile of the respondents was explored which included age, ethnicity, marital status, educational level and residence.

- **Section B: Values and beliefs (13 questions);** In is section the respondents were to respond to the values and believes that they live by at their communities.

- **Section C: Accessibility (5 questions);** In this section the respondents were to respond to how they gain access to herbal medicine.

- **Section D: Disclosure (7 questions);** In this section the respondents were to respond to if they were able to disclose to health care workers about the use of herbal medicine.

- **Section E: Obstetric data (7 questions);** In this section the respondents were to respond about their obstetric data both current and previous data.

- **Section f: knowledge (13 questions)**. In this section the respondents were to respond about where they find information about herbal medicine.

- **Section G: Types of herbal medicines used and reasons for use (16 questions);** In this section the respondents were to respond about the types of herbal medicines used and reasons why they used herbal medicine.

Variables in the questionnaire are as follows:

- Age;
- Ethnicity;
- Marital status;
- Educational level;
- Area of residence.
- Accessibility.
- Knowledge.
- Disclosure; and
- Values and beliefs.

- **Procedure for data collection**

The researcher went to both hospitals on different months, first hospital was Dilokong hospital in May 2020. The researcher went to postnatal unit wherein the health care workers assisted her with identifying the patients and providing a quiet private room for collection of data. The respondents agreed to participate in the study after explaining the aim and objectives of the study and they signed and gave consent.

All the questionnaires distributed were organised in an open room usually used for the hospitals high risk clinic days. Instructions on how to complete the questionnaires were explained to the respondents. The completion of questionnaires was done after the health care workers were done with their daily routine, so the study couldn't affect patient care. A total of 96 questionnaires were completed by the respondents and completion time took about 20-30 min. The questionaries were collected from the respondents and grouped according to the setting and submitted to the statistician for analysis.

3.7 Pilot Study

The pilot study refers to a trial run of research (Nieswiadomy, 2012). A pilot study was done with minimal populations that have similar attributes to the research population to test the questionnaires before it was used in the main study to prevent bias. Hospital C in Makhuduthamaga Municipality, Sekhukhune district, Limpopo province, is a context where the pilot study took place and conducted with a convenience sample of 10 postnatal patients at hospital C post-delivery. The questionnaires were analysed and interpreted by the researcher. The questionnaire was tested for internal validity by questioning respondents about use of herbal medicine during intrapartum period for the researcher to give results on the readability, difficult questions and time taken for completion of the questionnaires.

Purpose of the pilot study

The purpose of the pilot study was to:

- Assess the practicality of the main study.
- Assess respondent's recruitment.
- Test the validity and reliability of the study.
- Ensure clarity of questions.

- Assess the respondents understanding to the questionnaires.

- Ensure that the aim and objectives are answered by the study.

Results of the pilot study

Results of pilot study post-analysis were:

- Questions asked were all clear and easy and the respondents were able to complete all the questions in time without leaving any empty spaces.
- From piloting, there were few corrections to be made.

- The pilot study results also rendered the study tool to be reliable.

- Time taken by respondents to complete the questionnaires was about 20-30 minutes and the duration was not adjusted.

3.8. Data Analysis

According to Babbie and Mouton (2014), quantitative data analysis is the numerical representation and manipulation of observations for the describing and explaining the phenomenon that those observations reflect. Data analysis was done using the descriptive and inferential statistical procedure to facilitate impartial interpretation of the findings (Rudd & Johnson, 2010; Thashankhori & Newman, 2010). For this study, data collected from the questionnaires was collated and analysed with the assistance of a statistician using SPSS 24 (Statistical Package for Social Sciences).

- This is the statistical method that enabled the researcher to reduce, summarize, organize, manipulate, evaluate, interpret, and communicate quantitative data using frequencies, graphs and tables. Descriptive frequencies and percentages were applied in the analysis of data obtained in this study, and the data were presented using frequency tables, bar graphs and pie charts. Data was analysed according to the questionnaire's

categories. A questionnaire was developed to collect data from the patients. The questionnaire included the following variables.

- Age;
- Ethnicity;
- Marital status;
- Educational level;
- Area of residence.
- Accessibility.
- Knowledge.
- Disclosure; and
- Values and beliefs.

3.9. Validity and Reliability

To assess and evaluate the accuracy of the instrument, which is the questionnaire, such are test for reliability and validity before data collection. This was ensured by performing a pre-test on the respondents who were not part of the main study.

3.9.1. Validity

Validity refers to the ability of an instrument to measure what it intends to measure (Brink et al*.,* 2017). In this present study, the researcher ensured validity by doing a thorough literature review to determine the use of herbal medication and its effects intrapartum as well as the outcome. The questionnaire's content validity, face validity and external validity were tested.

- Content validity

Content validity refers to the degree to which an instrument covers the scope and range of information that is sought (Brink et al*.*, 2017). The researcher gave the supervisor the questionnaire to review and it was submitted to the University Statistician for evaluation before the tool was used. The questionnaire was reviewed by the University of Limpopo Health Studies Higher Degrees Committee. The items that were agreed upon were used and those rejected were not used. Concepts and sentences that needed to be corrected were corrected.

- Face validity

Face validity refers to whether the instrument looks like measuring the target construct (Polit & Beck, 2018). A pre-test was done whereby 10 respondents were invited to respond to the questionnaires and the respondents did not form part of the main study. All questionnaires in the instrument focused on the use of herbal medicines antepartum on the outcome in public health hospitals in Limpopo province, South Africa. Therefore, such was considered to meet the requirements of face validity.

- External validity

External validity refers to the degree to which the study results can be generalised to other people and other research settings (Brink et al., 2017). In this present study, the researcher provides a detailed database for other researchers to determine whether the study is applicable in other settings.

- Criterion-related validity

Criterion-related validity refers to a pragmatic approach to establishing the relationship between scores and the instrument in question and another external criterion (Brink et al., 2017). In this present study, the relationship between variables was established.

3.9.2. Reliability

Reliability refers to consistency, establishing and repeatability of the informant accounts, as well as a researcher's ability to collect and record information accurately (Brink et al., 2017). In the current study, reliability was ensured by ensuring consistency of questionnaires by other researchers in determining the use of herbal medicines intrapartum and its effect on the outcome. Pre-testing was done using 10 respondents who did not part of the main study to prevent biasness.

3.10 Ethical Considerations

The ethical standards for Nurse researchers as outlined by SANC (South African Nursing Council) were adhered to throughout the research. Permission to conduct the

study was obtained from the University of Limpopo Turfloop Research Ethics Committee, Limpopo Provincial Department of Health, Dilokong Hospital, Mecklenburg Hospital. Permission was obtained from all respondents and their informed consent was obtained prior collection of data. The respondents were assured that their names would not reflect on the study and the respondents were also informed that they could withdraw at any time.

- Ethical clearance

Research ethical clearance (appendix 1) was obtained from the Turfloop Research Ethics Committee before commencing with the envisaged study.

- Permission

Permission for collecting data at the health facilities was sought from the Limpopo Provincial Department of Health (appendix 2).

- Informed consent

A subject voluntarily agrees to participate in a study before the study begins (Brink et al., 2017). Written informed consent (appendix 7) was obtained voluntarily from each respondent after the respondents had been adequately given an outline of risks and benefits involved in the research project and before commencement of the interview sessions. They had the right to ask questions. A consent form was provided for the respondents to sign. Respondents were informed of their right to withdraw from the study anytime without any punishment. Sufficient information about the nature of the study as suggested by Beckman (2017) was provided to allow them to make an informed decision about whether they wanted to participate.

The researcher informed the respondents that the information shared will not be divulged to unauthorized personnel. The respondents who agreed to participate in the study were requested to sign a consent form which included the name of the researcher and the research topic (Appendix 7). The respondents were also informed

that they had the right to terminate or withdraw from the study without the researcher's consent at any time. The researcher ensured that the respondents signed consent forms were treated with utmost discretion and stored away in a correct manner so that a form can easily be found if the need arises (De Vos et al., 2014).

- Confidentiality and Privacy

To ensure confidentiality, respondents were informed that the information that they would provide during the interview sessions will not be revealed, and this was done in a private room (Brink et al., 2017).

- Anonymity

No respondents' names were used (Brink et al., 2017) to ensure anonymity. Patient information leaflets and consent forms were free from grammatically errors and spelling mistakes and were written in a language that was understood by respondents. Nothing was included that might have been insensitive to all known cultural values and beliefs.

- Harm

This refers to any physical, psychological, social, or emotional discomfort of the research respondents, inflicted by the researcher during the research process. This study had minimal risks or harm to the respondents. The researcher ensured that the respondents were not harmed in any way by obtaining informed consent, ensuring confidentiality by not writing their names on the questionnaires , and giving respondents the right to withdraw from the study at any given time (Polit & Beck, 2018).

3.11 Bias

'Bias' refers to a quality of a data collection instrument that may result in the misinterpretation of what is being measured (Babbie & Roberts, 2018). According to Brink et al. (2017), bias is an influence that produces distortion, which can affect the

quality of evidence in the research study. In this study, the researcher avoided asking leading questions to respondents and did not react to any answers that the respondents provided.

The participation was determined randomly, using the random number generator to ensure that there is no systemic bias in either group. All respondents were given the same questionnaire to answer and the researcher ensured that all respondents understood all questions and clarified questions that were not clear. Pre-testing was done in a different setting at the Jane Furse Hospital, using 10 respondents who were not participating in the main study.

3.12 Conclusion

This chapter presented the methodology adopted to complete the study. A quantitative cross-sectional descriptive research design was chosen, and a self-administered questionnaire was used to collect data. The instrument was used to test for validity and reliability. The respondents were postnatal patients who delivered at the hospital. The respondents' right was respected as well as their cultural values.

CHAPTER4
PRESENTATION AND DISCUSSION OF THE RESEARCH FINDINGS

4.1 Introduction

This chapter presents the results that have emerged during data analysis. Data gathered are presented through frequency tables, pie charts and bar graphs for entire variables which formed part of the analysis. The presentation of the findings based on descriptive statistics was used to present the findings which allow for genuine optimization, organization, evaluation, interpretation, and communication of numeric data. Descriptive statistics helps in making of a huge volume of data reasonable. The results are divided into six sections as outlined below.

- Section A: Demographic data (5 questions).
- Section B: Values and beliefs (13 questions).
- Section C: Accessibility (5 questions).
- Section D: Disclosure (7 questions).
- Section E: Obstetric data (7 questions).
- Section F: knowledge (13 questions)
- Section G: Prevalence of herbal medicine use (2 questions)
- Section H: Types of herbal medicines used and reasons for use (16 questions)

4.2 Respondents' Response Rate

Questionnaires were given to a total number of 192 women post-delivery and all the questionnaires were fully completed and returned thus a 100% response rate.

4.3 SECTION A: Demographic Data

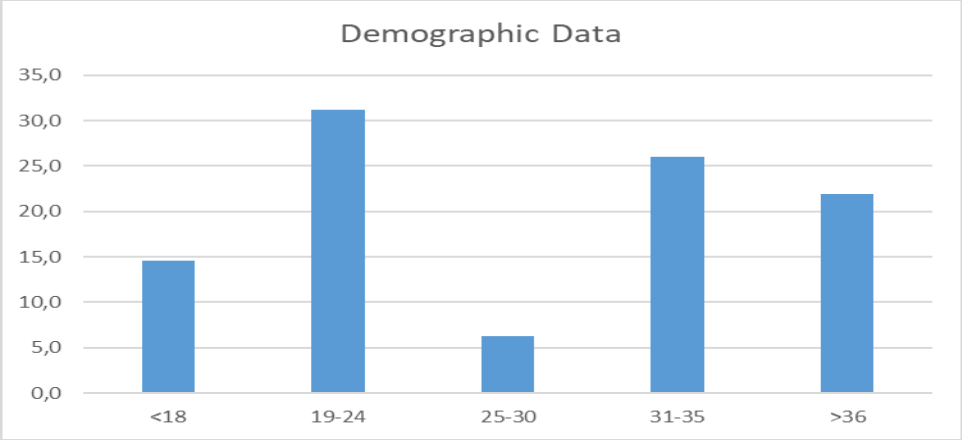

Figure 4.1: Age (YEARS)

Figure 4.1 shows that most women 31.3%, (n=31) belonged to the age group of 19-24 years. The use of herbal medicine was associated with women over the age of 18.

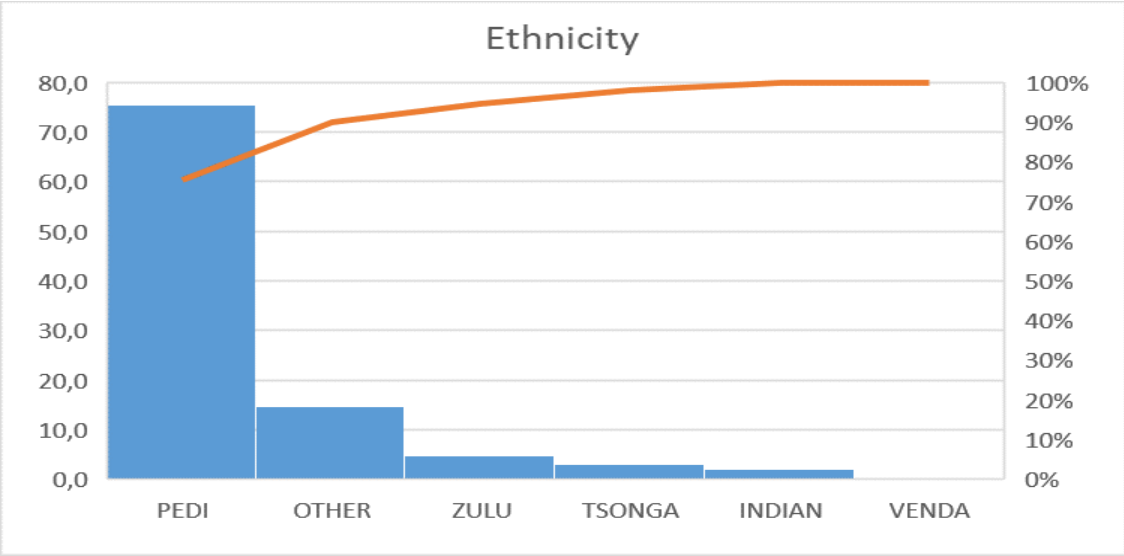

Figure 4.2: Ethnicity

Figure 4.2 indicates that the highest ethnic group was Pedi 75.5%, (n=76), followed by others, which included foreign women from our neighbouring countries, respectively. There was a statistically significant association between the use of herbal medicine during pregnancy and the status of belonging to the Pedi ethnic group.

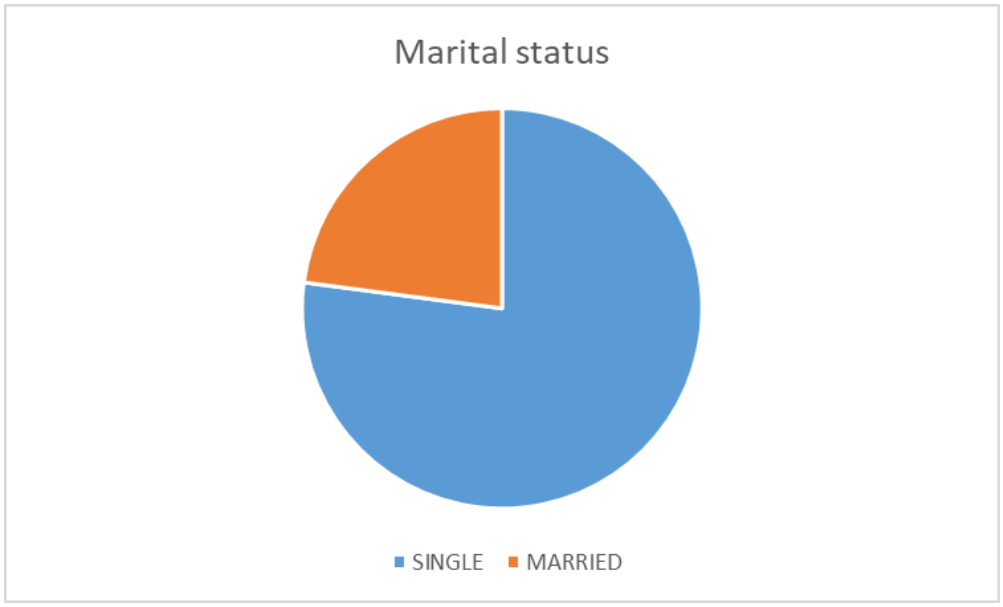

Figure 4.3: Marital Status

Figure 4.3 indicates that of all the respondents, 77.1%, (n=77) is not married and 22.9%, (n=23) is married.

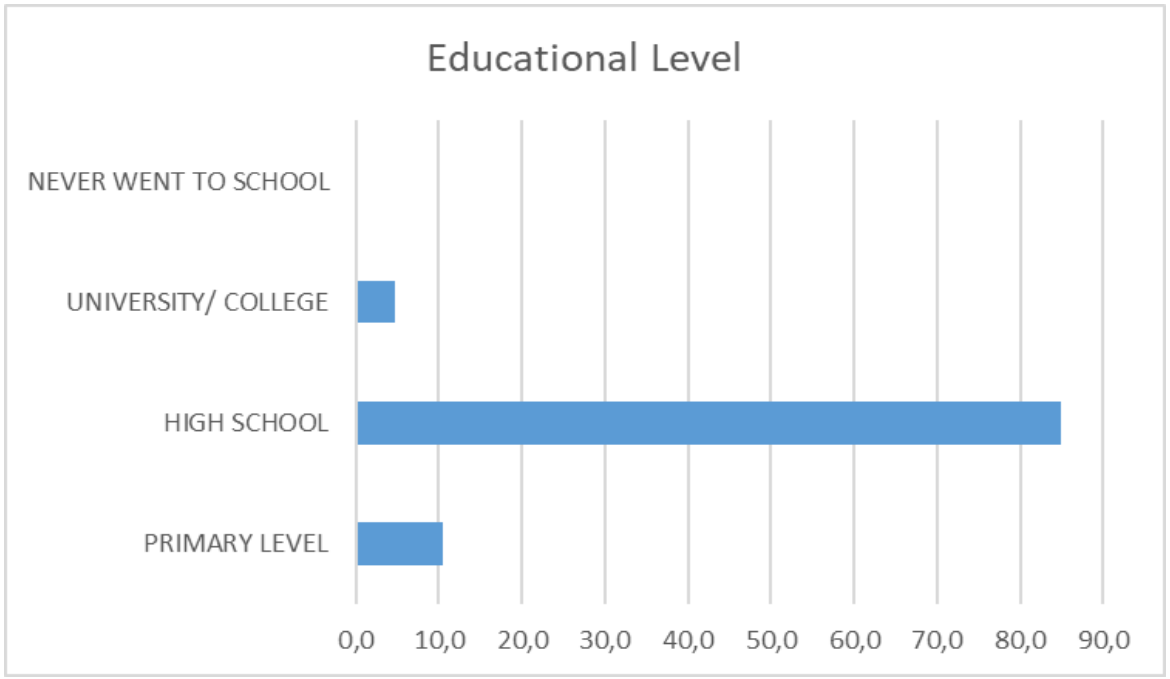

Figure 4.4: Educational Level

Figure 4.4 shows that of all the respondents 84.9%, (n=85) obtained high school level; 10.4%, (n=10) obtained primary level; and only 4.7%, (n=5) obtained tertiary level.

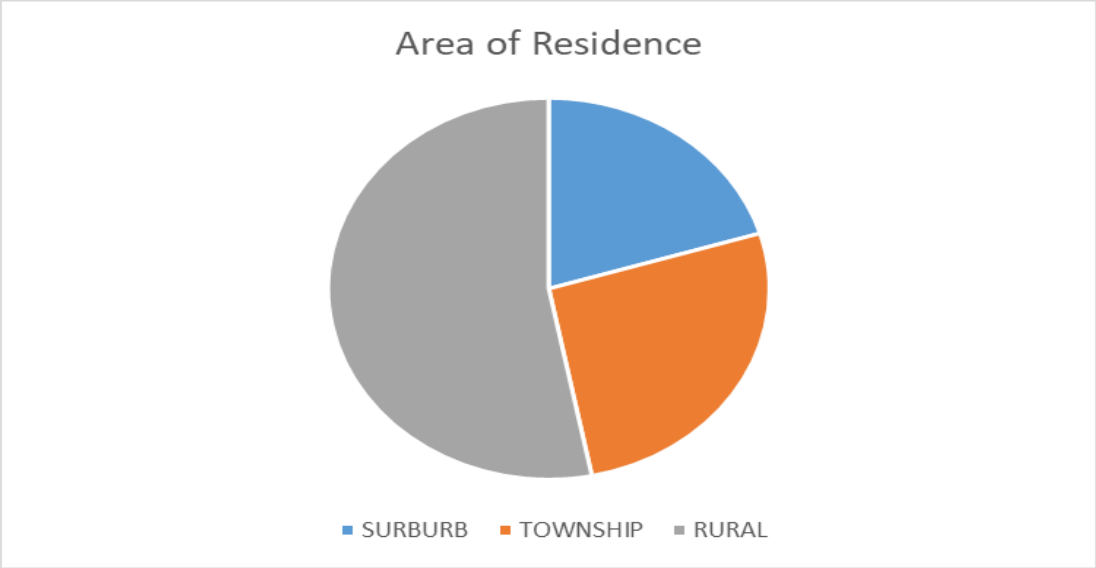

Figure 4.5: Area of Residence

Figure 4.5 indicates that most of the respondents were from rural areas as manifested by 53.1%, (n=53); 26.6%, (n=27) from townships; and only 20.3%, (n=23) from suburbs.

4.4 SECTION B: Values and Beliefs

TABLE 4.1: Values and Beliefs about the Use of Herbal Medicine during Intrapartum

	Agree %	Disagree %
6. I prefer consulting prophets than traditional healers.	44,8	55,2
7. I prefer consulting traditional healers than prophets.	41,7	58,3
8. I feel more comfortable using herbal medicine.	62,5	37,5
9. I am accustomed to using herbal medicine.	75,5	24,5
10. Herbal medicines are safe.	84,4	15,6
11. Herbals have fewer side effects compared to modern medicine.	52,6	47,4
12. I believe in traditional healers than western doctors.	49,0	51,0
13. Herbal medicine helped me as expected.	45,8	54,2
14. Doctors or western medicine can't help.	60,4	39,6

15. Environment influences me to use herbal medicine.	62,5	37,5
16. Family and friends introduced me to herbal medicine.	79,7	20,3
17. Herbal medicine help protect the baby from evil spirits.	63,5	36,5
18. It is helpful to consult a prophet or a traditional healer.	75,0	25,0

Table 4.1 shows that of all the respondents, 44.8 % (n=49) pointed out that they prefer consulting prophets for herbal medicine. It was also indicated that 62.5% (n=66) of the respondents feels more comfortable with using herbal medicine. Most of the respondents are accustomed to using herbal medicine and this was reflected by 75.5% (n=76) answers of the respondents. Of all of the respondents, 84.4% (n=84) feels herbal medicines are safe; 45.8% (n=46) feels herbal medicine helped them as expected; whereas 54.2% (n=54) felt it did not help as expected. Of all the respondents, 60.4% (n=60) believes that western doctors cannot help as much as traditional healers can. Of all the respondents, 62.5% (n=63) pointed out that the environment they live in influenced them to use herbal medicine. Of all the respondents, 79.7% (n=80) was introduced by friends and family to herbal medicine. Seventy-five percent 75.0% (n=75) feels it is helpful to consult prophets and traditional healers during pregnancy. Of all the respondents, 63,5% (n=64) uses herbal medicines to protect the baby from evil spirits. This indicates that the community uses herbal medicine, either from a prophet or a traditional healer, during the intrapartum period.

4.5. SECTION C: Accessibility

TABLE 4.2: Accessibility

	Agree %	Disagree %
19. Herbal medicine providers give full information regarding herbal medicine.	60,4	39,6
20. Most pregnant women use herbal medicine.	51,0	49,0
21. Herbal medicines are cheap.	62,5	37,5
22. Herbal medicine can interfere with western medicine prescribed by a doctor.	28,1	70,8

23. It's important to consult a health professional before using herbal medication.	15,6	84,4

Table 4.2 indicates that 60.4% (n=60) of the respondents pointed out that herbal medicine providers gave them full information regarding the use of herbal medicine during the intrapartum. Fifty-one percent 51.0% (n=51) is of the opinion that pregnant women use herbal medicine. Of all the respondents, 70.8% (n=71) indicated that it disagrees that herbal medicine interferes with western medicine. Of all the respondents, 84.4% (n=84) pointed out that it is not important to consult health-care professionals before using herbal medicine. This indicates that pregnant women believe that when one is pregnant, one must use herbal medicine, and it is easily accessible as they believe it is cheap.

4.6. SECTION D: Disclosure

TABLE 4.3: Disclosure

	Agree %	Disagree %
24. It is important to inform healthcare workers about herbal medicine used.	25,0	75,0
25. Herbal medicine should be brought along to the hospital.	49,0	51,0
26. I have recommended herbal medicines to my family and friends.	68,8	31,3
27. I personally used herbal medicine.	67,7	32,3
28. Herbal medicine is safe for the developing baby.	61,5	38,5
29. Herbal medicine helped me to deliver quickly.	57,8	42,2
30. Health-care professionals ask about herbal medicines on admission.	81,3	18,8

Table 4.3 shows that majority of the respondents disagreed that it is important to inform healthcare workers about herbal medicine used upon admission this is manifested by 75.0% (n=75). Of all the respondents, 49% (n=49) pointed out that it is important to bring the herbal medicine to the hospital upon admission. Of all the respondents,

68.8% (n=69) has recommended herbal medicine to their friends and family. Sixty-seven-point seven percent 67.7% (n=68) has agreed to have personally used herbal medicine. Of all the respondents, 61.5% (n=62) pointed out that herbal medicine is safe for the developing baby. Fifty-seven-point eight percent 57.8% (n=59) agreed that herbal medicine helped them to deliver quickly. Of all the respondents, 81.3% (n=81) pointed out that health-care professionals do ask about herbal medicine during admission. This indicates that pregnant women do use herbal medicine during the intrapartum period and most choose not to disclose to health-care professionals regardless of being asked because the majority agrees it is not important.

4.7. SECTION E: Obstetric Data

TABLE 4.4: Obstetric Data of Respondents

	Agree %	Disagree %
31. This is my first pregnancy.	25,0	75,0
32. I have more than two children.	70,8	29,2
33. I delivered through normal vaginal delivery.	55,2	44,8
34. I delivered through a Caesarean Section.	57,8	42,2
35. After delivery the outcome was an active good crying baby.	53,1	46,9
36. When my water broke it was clear white in colour.	31,3	68,8
37. After delivery my baby was helped to breathe.	62,0	38,0

Table 4.4 depicts that the majority of the respondents was not primigravida's, as indicated by 75.0% (n=75), most had two or more children; only 25.0% were primigravida, which is less to prove the use of herbal medicine based on parity. Of all the respondents, 55.2% (n=55) had a normal delivery, whereas 57.8% (n=58) delivered through caesarean section. Of all the respondents, 68.8% (n=69) pointed out that, when the water broke, it was MSL stained; meaning, they experienced foetal distress as compared to nonusers. Sixty-two percent 62.0% (n=62) pointed out that its babies post birth were helped to breathe as compared to nonusers. This indicates that herbal medicine influences the baby, thus resulting in complications and emergency caesarean sections.

4.8. SECTION F: Knowledge

TABLE 4.5: Knowledge about the use of herbal medicine during intrapartum

	Agree %	Disagree %
38. Patients who admit to taking herbal medication are treated rudely by nurses.	62,5	37,5
40. Herbal medicine is safe for the unborn baby.	60,4	39,6
41. Herbal medicine is safe for a pregnant mother.	62,5	37,5
42. I know the constituents of herbal medicine.	27,1	72,9
43. Herbal medicine did damage during labour.	58,9	41,1
44. Traditional medicine is more helpful during labour.	75,5	24,5
45. Traditional healers provided me with enough information regarding herbal medicine.	31,3	68,8
46. I feel unsafe if nurses take away herbal medicine from me.	47,4	52,6
47. I know how herbal medicine works.	57,8	42,2
48. It is risky to use herbal medicine.	22,9	77,1
49. I was forced to use herbal medicine.	27,1	72,9
50. I was given herbal medicine but not told it was herbal medicine.	36,5	63,5

Table 4.5 depicts that of all the respondents, 62.5% (n=63) pointed out that nurses treat them rudely if they disclose that they took herbal medicine. Sixty-point four percent 60.4% (n=60) pointed out that herbal medicine is safe for the unborn baby, 62, 5% (n=63) pointed out that it is safe for the mother. The majority disagreed to knowing the constituents of the herbal medicine as indicated by 72.9% (n=73). Of all the respondents, 75.5% (n=76) indicated that herbal medicine is helpful during labour. 57.6% (n=58) pointed out that herbal medicine works. Of all the respondents, 77.1% (n=77) disagrees that it is risky to use herbal medicine during intrapartum. Seventy-two point nine percent 72.9% (n=73) disagrees to being forced to use herbal medicine; and 63.5% (n=64) pointed out they knew what it was given was herbal medicine; whereas 36.5% (n=37) agrees they had no knowledge it was herbal medicine. This

indicates that most of the respondents disclosed that they were treated rudely by staff members. Some of them pointed out that herbal medicine is safe for both the mother and the unborn baby. The majority also pointed out that herbal medicine is helpful during labour and it works.

4.9. SECTION G: Prevalence of herbal medicine use during pregnancy

Figure 4.6: Prevalence of herbal medicine use during pregnancy

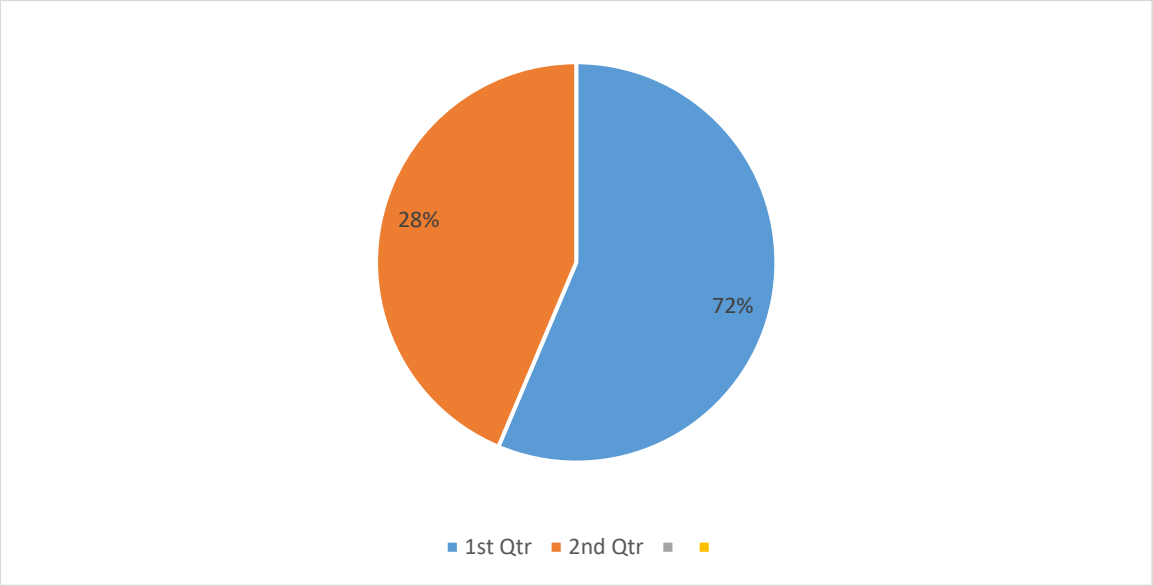

Figure 4.6 shows that (72%) of the respondents use herbal medicine during pregnancy and 28% don't use herbal medicine.

4.10. SECTION H: Types of herbal medicines used and reasons for use.

TABLE 4.6: Types of herbal medicine used by pregnant women (n=192)

Types	Number	Percentage
Monkey urine	63	32,8%
Old record	42	21.8%
Mercury	9	4.6%
Ostrich egg	29	15.1%
Castor oil	2	1.0%

Sewasho	25	13.0%
Home remedies	1	0.5%
Snuff (NTSU)	1	0.5%
Termite mould	20	10.4%

The most common type of herbal medicine used is monkey urine (32.8%) followed by an old vinyl record (21.8%). Some of these remedies are mixed with herbal medicines to give the effect it intends to and others are home remedies of unknown origin and mixtures. The ostrich egg at (15.1%) is also used by pregnant woman and most get it from traditional healers and local pharmacies.

TABLE 4.7: The reasons for use of herbal medicine during pregnancy.

Reasons for use	**Number**	**Percentage**
Faster Delivery	94	48.9%
Baby growth	29	15.1%
Baby protection	13	6.7%
Induce labour	33	17.1%
Safe delivery	16	8.3%
Protect the mother	3	1.5%
Cleanse the womb	4	2.0%

Table 4.7 shows that most pregnant women use herbal medicines for quick delivery (48.9%). Others use herbal medicines for the baby's growth enhancement. (17.1%) use herbal medicine for induction of labour and (8.3%) use herbal medicine for safe delivery.

4.10 Conclusion

In this chapter the analysed data was presented in graphs, tables and charts following the use of self-administered questionnaires in collection of data from the study respondents, moreover descriptive statistics were used for the data as percentages. However, the results of study were critically analysed and further explained above.

CHAPTER5
DISCUSION OF RESEARCH FINDINGS AND THE DEVEOPMENT OF AN EDUCATIONAL PROGRAMME

5.1 Introduction

In this chapter the research findings are discussed and integrated with the reviewed literature, to determine whether the literature contradicts or supports them. The discussion is structured according to the categories.

5.1.1 Values and Beliefs

Believes and practices are rooted in cultural behaviours and are passed from one generation to the next (Ngomane & Mulaudzi 2012). Beliefs have a strong influence on people's behaviour. For an example, Mcntyre, Saliba and Moran (2015) found that people with anxiety use herbal medicine because they believe it is safe and possess natural healing powers. From the study most pregnant women reflected that they use herbal medicines during the intrapartum period due to anxiety.

The Bapedi people believe that pregnancy is prone to bewitchment, hence they use the herbal medicine to protect themselves from bad spirits. These beliefs are widespread in African culture. In South Africa, a study conducted at Dilokong in Limpopo province, Mogawane et al. (2015) found that once a woman discovers she is pregnant, she starts taking herbal medicines to protect herself from witches and evil spirits. In a qualitative study conducted among Yoruba people in Nigeria, Borokini and Lawal (2014) found that people consult traditional healers because they believe all illnesses are caused by evil superpowers.

The importance of being aware of people's cultural beliefs and practices regarding the use of herbal medicines, especially for nurses is emphasised by Mugomeri et al. (2015). Nurses could include the possible effect of the use of herbal medicines during pregnancy in the health education given to pregnant women as the interaction is not fully known. This is also emphasized by the theoretical framework; Leininger (1991) emphasises that nurses have the mandate to serve the people. But if nurses do not have adequate preparation for a transcultural perspective as they neither have values

or practice from such a perspective, this causes cultural stress and conflict between the client and the caregiver. This observation supports the current study because most professional healthcare workers have little or no knowledge regarding herbal medicines used during the intrapartum period, and this in turn causes stress and conflict between patients and health-care providers (Leininger, 1991).

Herbal medicine is used by different countries for a variety of illnesses. These illnesses include digestive problems, muscular pains, allergies, insomnia and anxiety (McIntyre et al., 2015). Semenya and Potgieter (2014) found that in Limpopo province the Bapedi use herbal medicines to treat other chronic illnesses such as diabetes mellitus, hypertension, erectile dysfunction, sexually transmitted infections, malaria and tuberculosis. In Korea, herbal medicines are used for mental health problems, such as anxiety and depression (Hwang, Han, Yoo & Kim, 2014). Some of the pregnant mothers have chronic illnesses as well which they feel need herbal medicine to treat such as hypertension.

5.1.2 Accessibility

The respondents were from poor rural areas around Sekhukhune. They used herbal medicines because they were easy to access and affordable. In these areas most people resort for herbal medicines to treat ailments because they are affordable. Some respondents lack the money to travel to health care facilities. In a study conducted by Oyirinde (2013) antenatal visits are of outmost important because they have been proven to be effective in reducing the mortality rate.

Similar evidence was found by Mekuria et al. (2017) and Shewamene et al. (2017), who indicate that pregnant women in Africa often use herbal medicines due to its accessibility and low cost, as well as because it is assumed to be more efficient. Mothupi (2014) further supports these findings, stating that in general, rural populations in Africa rely on herbal medicines. Though most studies found accessibility and low cost as one important factor in Africa for people to choose herbal medicine, Aziato and Antwi (2016) points out that Ghanaians people use herbal medicine because they regard it as safe with less side effects.

5.1.3 Disclosure

Patients did not feel comfortable with disclosing to nurses about the use of herbal medicine or about having one in position during admission. If patients could disclose this information, nurses could caution them about the possible effects and would be able to closely monitor the mother while being sensitive to cultural beliefs and practices.

The use of herbal medicine during pregnancy constitute a major challenge for health care providers, who are often not aware of such use. This is because the women hide their use of herbal medicine since the practice is not supported by health care providers (John & Shanta Kumari 2015). Health care providers should encourage disclosure because herbal medicines may have certain effects on a labouring mother and the fetus. It is the total responsibility of the midwife to provide antenatal and postnatal quality care for both the mother and the newborn.

Midwives should respect cultural values and beliefs of their patients. According to the theoretical framework Leininger (1991) states that Health is an important concept of transcultural nursing because the emphasis is on the need for nurses to have knowledge of the culture where nursing is being practised. Health is universal in all cultures, which differ based on the beliefs, values, and practices of a particular community. In this study, the total health of a pregnant woman is of outmost importance in all rural communities. The belief is that a pregnant woman needs to remain as healthy as possible for safe and healthy delivery.

Mekurai et al. (2017) emphasize that communication between the health care providers and patients is important. It should be known that pregnant women may use herbal medicine and active conversation regarding the harmful effects on both the mother and the fetus should be encouraged (Aziato et al., 2016). The developed health education programme will also educate health care providers to improve communication and understanding between the health care providers and the patients.

5.1.4 Obstetric data

John and Shanta Kumari (2015) state that herbal medicine is used more frequently during the first trimester, which is probably due to the high incidence of pregnancy related problems during this period, and that mothers who are not giving birth for the first time are commonly the ones who opt for the use of herbal medicine. The findings of the current study can be compared to those of Mekurai et al. (2017) from a study conducted in Northwest Ethiopia at a referral hospital, where it found that the use of herbal medicines and remedies as well as traditional practices concerning pregnant women were followed as prescribed by their culture.

Most of the women in the current study who believed in the use of herbal medicines and remedied were multiparous women. Most of the primigravids did not believe in the use the herbal medicines. Some of the multiparous had previous unpleasant experiences, some had lost their babies, and some delivered babies which needed to be helped to initiate respiration. This could be due to the society they belong in. Leininger (1991) states that behaviour is learned within the society. Thoughts and decisions that occur are learned, shared, and transmitted values and beliefs. This learning, sharing, transmitting, and patterning occur within a group of people who function in an identifiable setting or environment.

The current study concurs with the theoretical framework because research has proven that most women who ingest herbal medicine are mostly those from rural areas influenced by the setting in which they live in, as well as other surrounding factors. These practices are based on learned behaviour that is passed on from one generation to the next. That Antenatal care in relation to the use of herbal medicines is extremely important, as antenatal care for pregnant women by qualified health professionals reduces maternal and perinatal morbidity and mortality, and development of pregnancy related complications (WHO 2016)

5.1.5 Knowledge

The patients learn about the use of herbal medicines from their elders, these practices are transferred from one generation to the next. Some of the respondents did not question this practice because they believed that if it was effective for their elders then

it will be effective for them as well. Women are expected to show respect for the families they marry into following the family's cultural practices. According to Leininger's theoretical framework the theory supports this finding because it emphasises that behaviour is learned within the society. Thoughts and decisions that occur are learned, shared, and transmitted values and beliefs. This learning, sharing, transmitting, and patterning occur within a group of people who function in an identifiable setting or environment. The current study concurs with the theoretical framework because research has proven that most women who ingest herbal medicine are mostly those from rural areas influenced by the setting in which they live in, as well as other surrounding factors. These practices are based on learned behaviour that is passed on from one generation to the next.

In the current study mothers and mother in laws show to play a role in the use of herbal medicines during pregnancy. These women acquire the herbal medicines from old women and traditional healers as well as prophets. The older people and traditional healers are the ones who are knowledgeable regarding herbal medicines. From the study 72,9% were forced to use herbal medicine and 63,5% were given herbal medicine without them knowing it was herbal medicines.

A study conducted in Limpopo reports that indigenous practices to protect pregnant women are guided by their elders (Mogawane et al., 2015). Ngubane (2014) found that pregnant women mostly found the knowledge from their mothers. A Kenyan study found that friends and families are the key advisors on the use of herbal medicine during the intrapartum period (Mothupi 2014). In contrast, a study conducted in Australia, Europe, North and South America, found that women use their own initiative to use herbal medicine (Kennedy et al., 2013). The developed health education programme will also include traditional healers and prophets who will be educated about the complications that occurs when herbal medicines are used during pregnancy.

5.1.6 Prevalence

This study shows that pregnant women use herbal medicine during pregnancy. These participants use herbal medicine due to different reasons and use different types of herbal medicine. The most common type used to be the monkey urine and the most common reason indicated as for quick delivery. This is generally unsafe for both the mother and the developing fetus because it usually led to complications such as meconium stained liquor, asphyxia and caesarean deliveries, Mafumari (2012).

Moreyi et al. (2012) also found that most pregnant women use herbal medicine because of the believe that they have on the remedies. The prevalence of herbal medicine use in Sekhukhune women is 72% which is very high, however it is expected because it is a rural area and a large community catered for by two hospitals. The socio-economic status is considerably low, and most communities are far from local health facilities.

The theoretical framework concurs with the findings because Leininger (1991) believes a human being is believed to be caring and to be capable of being concerned about the needs, wellbeing and survival of others. Humans have survived within cultures through time because they have been able to care for infants, children and the elderly in many ways. Therefore, humans are universally caring beings. humans care for each other culturally to sustain life and promote health. Leininger (1991) also indicates that nursing, as a caring science, should focus beyond traditional 'Nurse-patient interactions' and include families, groups and communities, and find ways to develop nursing-care policies and practices.

In this current study, human beings included the patient and the traditional healer, a relative or a priest. When they prescribe remedies or herbal medicines, their aim is the concern for the needs of wellbeing of both mother and fetus, and they choose to protect the mother and the fetus based on their cultural beliefs.

5.1.7 Types of herbal medicine used and reasons for use.

The respondents use specific herbal medicine and remedies during pregnancy. They indicated that several types of herbal medicines used during pregnancy include the

ostrich egg, monkey urine, termite mould, old record, sewasho, mercury and are used for different reasons during different stages of pregnancy. The reasons for using herbal medicines is related to respondents believe in the effectiveness of treatment in pregnancy-related conditions, they are affordable, and easy to access (as respondents mostly reside at a distance from local health care facilities). Leininger (1991) also indicates that nursing, as a caring science, should focus beyond traditional 'Nurse-patient interactions' and include families, groups and communities, and find ways to develop nursing-care policies and practices.

In this current study, human beings included the patient and the prescriber traditional healer, a relative or a priest. When traditional healers give remedies or herbal medicines, their aim is the concern for the needs of wellbeing of both mother and fetus, and they choose to protect the mother and the fetus based on their cultural beliefs. Using herbal medicine during pregnancy is also practised in other parts of the world. Shewamene, Dune and Smith (2017) found that herbal medicine is used widely in African countries to treat pregnancy-related problems.

Mekuria et al. (2017) report that in Ethiopia herbal medicines are used to treat minor disorders of pregnancy, which include nausea, vomiting and respiratory illnesses. Mothupi (2014) states that in Kenya, pregnancy-related conditions such as swollen feet, back pain and digestive problems are 50% treated with herbal medicine. Using different herbs during pregnancy is also common amongst Ghanaian women, who use herbs that are more familiar to the rest of the world, such as ginger, peppermint, thyme, chamomile, aniseed, green tea, tealeaf, raspberry, and echinacea (Peprah, Agyemang-Duah, Arthur-Holmes, Budu, Abalo, Okwei & Nyonyo, 2019).

In Australia, a Westernised country, breastfeeding mothers who had been diagnosed with insufficient breast milk supply and had been prescribed mainstream medicine, refused to use them because they regarded them as harmful and dangerous to take during breastfeeding. These mothers preferred to use herbal medicines because they regarded herbal medicines as safe and natural (Sim et al., 2013). The respondents reported mixing various substances "home remedies" (referred to as Makgorometsa) to prevent complications during pregnancy and for a quick delivery.

In some cultures when a woman is discovered that she is pregnant she is given Sewasho, which helps to ‘settle’ the pregnancy, meaning that it prevents miscarriages and abortions. A study conducted by Thakanyane (2021) it was discovered that when the pregnancy advances, women are advised to take Phetola, which means ‘to rotate’. This herbal medicine is believed to ensure a cephalic presentation at birth to make delivery easier. Herbs are mixed with eggshell to prevent membranes from bulging during labour, which is a very painful experience that even leads to premature bearing down. During delivery, Phakisane is given (herbs mixed with mercury to speed up contractions).

Mercury is a highly toxic substance and may lead to cellular malfunction (Bjørklund, Chirumbolo, Dadar, Pivina, Lindh, Butnariu & Aaseth, 2019), therefore should be avoided. Most of the respondents in the current study who believed in the use of herbal medicine and remedies were multiparous women. The respondents who did not use herbal medicine and remedies perceived them as unsafe or unsure of the effect. They had previous unpleasant experiences with these substances and were some of the multiparous women. Some had lost babies because of using herbal medicine during pregnancy, while others indicated that their babies were assisted to initiate respiration.

Antenatal care in relation to the use of herbal medicines and remedies is therefore extremely important, as antenatal care for pregnant women by qualified health professionals reduces maternal and perinatal morbidity and mortality, and the development of pregnancy-related complications (WHO, 2016). The development of a health education programme will assist health care providers to understand the different cultural believes and values in the community that they work in and therefore will consider the practices for effective management and care.

The respondents used herbal medicine and remedies because they were easy to access and were affordable. The respondents were from areas of Sekhukhune with high levels of poverty. In these areas the Sekhukhune people resort to using herbal medicine and remedies to treat many illnesses, as they lack funds to travel the long distances to health care facilities. Similar evidence was found by Mekuria et al. (2017) and Shewamene et al. (2017), who indicate that pregnant women in Africa often use

herbal medicine due to its accessibility and low cost, as well as because it is assumed to be more efficient than mainstream medicine.

Mothupi (2014) further supports these findings, indicating that in general, rural populations in Africa rely on herbal medicines. Though most studies found accessibility and low cost to be the most important factors in African people choosing to use herbal medicine. Aziato and Antwi (2016) point out that Ghanaian people use herbal medicine because they regard it as natural and as having no or minimal side effects, and they lack faith in mainstream medicines.

5.2 DEVELOPMENT OF AN EDUCATIONAL PROGRAMME

5.2.1 Introduction

The World Health Organization has highlighted a vital role of the health educational programme in improving the populations' health. Educational programmes are vital in educating the communities around health care facilities with regards to health issues and are useful in providing first-hand information to health care users.

The programme is developed, firstly by identifying the programmes objectives and vision, which will serve to guard the whole programme. The educational programme will serve to address the outcomes and complications faced by pregnant mothers who use herbal medicine during pregnancy. This programme illustrates the objectives, environment, recipients, agent, procedure and topics to be covered during the programme.

5.2.2 Objective of the educational programme

The objectives of the programme are:

- To educate the mothers on the risks of herbal medicines during pregnancy.
- To educate the mothers on the effect of herbal medicine during pregnancy.
- To educate the mothers on the importance of visiting health care facilities than traditional healers.

5.2.3 The environment where the programme will be presented.

The environment where the programme will be presented should be appropriate for participants. A quiet location is of importance to avoid distractions, the area should be big enough to accommodate a large group of the community members. Local clinic hall will be suitable for the programme. Targeted days will be high risk clinic days to convey the message to larger groups, a sitting arrangement will be established to allow participants to have eye contact with each other to help with interactive discussion. Choosing a location with flexible seating is optional because it will allow the facilitator to arrange the seating to maximize group interaction. (Hennik, Hutter & Bailey, 2011).

5.2.4 Recipient as the woman who is pregnant and midwives.

Selecting recipients who will benefit from the study is very important. Midwives from hospitals and surrounding clinics at the Sekhukhune area will be approached to assist with their scheduled dates for their weekly high-risk clinic days. The purpose of the programme will be explained to the midwives to aid assistance into planning for implementation of the programme. The recipients will be pregnant woman from early to late pregnancy stages.

5.2.5 Agent as the midwife

The midwife should use group counselling skills, group facilitation skills and provide health education. And build a therapeutic relationship with the recipients, the midwife should communicate in a therapeutic and effective manner.

5.2.6 Procedure of the educational health care programme

The programme has goals and planned activities that it aims to achieve, the approach that will be used is as follows:

5.2.6.1 The teaching approach

A core lecture can be given together with a discussion to achieve optimal interaction between the midwife and the participants. The programme will be structured according to the experiential learning approach.

- *Experiential learning approach*

The recipients will share their experiences that they had with their first pregnancies and using herbal medicines with the group, the outcomes of labour will be discussed and shared among the group.

- *Small group discussion*

A discussion will be held amongst the group where the mothers will share information that they have learned or observed before as well as the outcomes. The mothers will form or be divided into small groups and the agent will facilitate the discussions.

Table 8. Illustrating the planned topics for the educational programme.

TOPICS	DURATION	OBJECTIVES	TEACHING METHOD	OUTCOME EXPECTATIONS
Risks of herbal medicine during pregnancy	50 min	To outline the risks associated with the use of herbal medicines	Educational slides and a projector	The mothers should understand the risks associated with the use of herbal medicines during pregnancy
Safety of modern medicine vs herbal medicine	45 min	To emphasise the importance and safety of modern medicine	Pamphlets distribution	The mothers should understand that modern medicine is safe and most recommended during pregnancy
Disclosure of use of herbal medicine to	45 min	To emphasise the importance of disclosing to	Lecture	Pregnant women to disclose when visiting health

health care workers		health care professionals if herbal medicines were used during pregnancy		care facilities to health care professionals.
Importance of opting for health care services as first line when seeking assistance during pregnancy	30 min	To minimize late or unbooked patients during pregnancy	Presentation	Mothers to seek hospital treatment as the first line of contact during pregnancy.
Benefits of normal labour vs self-induced labour	45 min	To reduce maternal and neonatal mortality rates as well as adverse effects associated with the use of herbal medicine during pregnancy	Presentation and pamphlets handouts	Mothers should stop self-induction and choose hospital and health care professionals opinions
Cultural believes and values	1hr 30min	To educate health care professionals about different	Lecture	Health care professionals should be aware of the cultural

(Health care workers)		cultural values and believes		values and believes of the community that they work in.
Outcomes of herbal medicine use during pregnancy	60 min	To educate traditional healers about the effect of herbal medicines during pregnancy	presentation	Traditional healers and prophets should understand the complications associated with the use of herbal medicines during pregnancy

5.3. Conclusions

This chapter has presented the discussion of finding based on the questionnaires categories and integrated with literature. An educational programme was developed as well to address the findings and for future educational purposes. The following chapter will present the conclusion, limitations and recommendations of the study.

CHAPTER6
SUMMARY, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

This chapter encompasses the summary, limitations, recommendations, and conclusions of the research study. This includes restatement of the problem statement, research aim and objectives, achievements of objectives and study findings. Limitations of the study are the gaps identified during the execution of the research project. Recommendations and conclusions were formulated based on the findings of the study.

6.2 Restatement of Research Aim

The aim of the study was to investigate the use of herbal medicines by pregnant women during the intrapartum period in the Sekhukhune district, Limpopo province, South Africa.

6.3 Restatement of Research Objectives

- To determine the use of herbal medicines by pregnant women during the intrapartum period in the Sekhukhune district, Limpopo province, South Africa.

  This objective was achieved by:
  Section 7 of the questionnaire on the prevalence of the use of herbal medicine indicated that (72%) of the mothers used herbal medicine and (28%) did not use herbal medicine during pregnancy this determines that the Sekhukhune district people generally believe in using herbal medicine during pregnancy because of their believes and cultural values. Some believe herbal medicine protects both them and the fetus from evil spirits and assist them to carry to term. These cultural believes are initiated once the mother notices that she is

pregnant. They believe herbal medicine prevents harm and spontaneous abortions.

The results of the study suggested that most pregnant women in the Sekhukhune district choose to use herbal medicine during pregnancy rather than western medicine as a result to believe and values. However not all respondents agreed to this practice.

Leininger's theory of cultural care diversity and universality indicates that behaviour is learned within the society, thoughts and decision that occur are learned, shared, and transmitted values and believes. The current study concurs with the theoretical framework because research has proven that most women who ingest herbal medicines have been taught or inherited this behaviour.

- To identify the common types of herbal medicines used and the prescriber/source to patients at selected public hospitals in the Sekhukhune district, Limpopo province, South Africa.

This objective was achieved by;

Various mixtures of mostly herbal substances that include toxic substances are used such as mercury, the monkey's urine, and an ostrich egg or a vinyl record, which causes strong uterine contractions and precipitates the labour progress as illustrated by section H of the questionnaires on types and reasons for herbal medicine use during pregnancy. There remedies are easily accessible as they cost less. Some of the respondents believe that these remedies had a positive impact on their pregnancy. The women use these remedies for their own health and wellbeing.

Leininger's theory indicates that health is universal in all cultures, which differs based on believes, values and practices of a particular community. These women believe that to keep healthy during their pregnancy they must use herbal medicines.

- To develop a health education programme for communities around Sekhukhune district, Limpopo province, South Africa.

This objective was achieved by;
Developing a health education programme to address the risks and complications associated with the use of herbal medicine on pregnant women as well as educating midwives about the cultural believes and values of this pregnant women because as midwives they need to understand the type of community in which they work in. This will aid in assisting to reduce the maternal and fetal mortality rate. Communication between health care professionals is important, it should be accepted that pregnant women use herbal medicine and active communication should be encouraged and practiced regarding the harmful effects on both the mother and the developing fetus.

Leininger's theory indicate that nurses have the mandate to serve people but if the nurses do not have adequate preparation for a transcultural perspective as they as they neither have values or practice from such a perspective, this causes cultural stress and conflict between the client and caregiver.

6.4 Achievements of Research Objectives

The objectives of the study were achieved by the following:

- A quantitative research method was used to execute the process that was followed in this study. The total population was 370 patients who are seen at the 2 hospitals in postnatal wards after delivery. The sample size of 192 was guided by Slovin's sampling method.

A self-administered questionnaire was used for data collection to obtain information from the respondents and it consisted of six sections (Sections A-F) with a total of 50 questions written in Sepedi and in English. Data were analysed using SPSS Version 24. A cross-sectional descriptive design was utilized to identify the use of herbal medicine by pregnant women during intrapartum period at selected public hospitals in

Sekhukhune district, Limpopo province. The results were presented in the form of tables, bar graphs and pie charts to determine the distribution of the variables.

- *Study findings*

One hundred and ninety-two (192) women were invited to participate in the study all of which were from surrounding areas. None of the women declined participation. A total of 192 postpartum women answered the questionnaires. Of the 192, 76% used herbal medicine during the intrapartum period. The mean age is 19 years of age. Mostly, those who are Sepedi speaking are dominant in the area (at 76%). Pregnant women commonly ingested herbal medicine to induce labour or during labour to accelerate delivery at 56%.

6.5 Limitations

The researcher conducted the study at two selected hospitals in the Sekhukhune District. As such, the results cannot be generalized to other hospitals that have postnatal units in Limpopo province. Women of below 18 years of age also must be included in future research as they also give birth. The implications of the research study may not be applicable to patients of other areas. Future studies should try overcoming the limitations in this study. For purposes of widening the coverage for the study, other hospitals must be included across Limpopo province in the upcoming research.

6.6 Recommendations

6.6.1 The midwifery discipline

The following is recommended:

- The findings of the study should be presented to healthcare professionals working in Maternity units in both hospitals and clinics at the Sekhukhune district.

- These cultural beliefs and practices regarding herbal medicine use should be included in health education packages to educate pregnant women on the effect of herbal medicine on the fetus and the mother.
- Whenever public gatherings are held in the community, nurses should include health education talks about the possible effects of the use of herbal medicines during pregnancy.
- Policy makers should consider these results regarding cultural beliefs and practices related to using herbal medicine during pregnancy when revising policies, to provide the best maternal and childcare.
- A weekly outreach should be organised and scheduled between healthcare professionals and local traditional healers and prophets.

6.6.2 Nursing education

The following is recommended:

- Information on the use of herbal medicine during the intrapartum period should be included in the nursing curriculum to empower student nurses to provide culturally sensitive health education.
- Nurse educators could facilitate this topic by using role play, discussions, and debates.
- Students could also initiate a project with community leaders to create an awareness of the disadvantages and effects of using herbal medicine during the intrapartum period.

6.6.3 Research

The following is recommended:

- A follow-up study could be conducted at the same setting to determine the use of herbal medicine after a culturally sensitive health education has been put in place.
- An experimental study could be conducted whereby the researcher collects samples of the medicine used to the laboratory to check if the medicine constitutes a form of any agent that may be harmful for use during pregnancy.

6.7 Conclusion

Chapter 6 outlined the summary of the study limitations and recommendations. The result highlighted that the prevalence of the use of herbal medicine during the intrapartum period was high among women in the Sekhukhune district. Hence healthcare professionals should have knowledge about herbal medicine used by pregnant women during the intrapartum period and educate them about the dangers and effects of the herbal medicines both to the mother and the fetus.

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Appendix 1: Turfloop Research Ethical Committee Certificate

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: anastasia.ngobe@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: **4 September 2019**

PROJECT NUMBER: **TREC/224/2019: PG**

PROJECT:

Title:	The use of herbal medicine by pregnant women during Intrapartum Period at selected public hospitals in Sekhukhune District, Limpopo Province, South Africa
Researcher:	A Mosoma
Supervisor:	Prof MK Thopola
Co-Supervisor/s:	Mrs GM Mathebula
School:	Health care science
Degree:	Master of Nursing Science

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:

i) **This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.**

ii) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.**

iii) **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

Finding solutions for Africa

Appendix 2: Department of Health Permission Letter

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Department of Health

Ref	:	LP - 201912 - 017
Enquires	:	Ms PF Mahlokwane
Tel	:	015-293 6028
Email	:	Kurhula.Hlomane@dhsd.limpopo.gov.za

A Mosoma

PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

The use herbal medicine by pregnant women during Intrapartum Period at selected public hospitals in Sekhukhune District, Limpopo province, south Africa.

1. Permission to conduct research study as per your research proposal is hereby Granted.
2. Kindly note the following:
    a. Present this letter of permission to the institution supervisor/s a week before the study is conducted.
    b. In the course of your study, there should be no action that disrupts the routine services, or incur any cost on the Department.
    c. After completion of study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
    d. The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
    e. The approval is only valid for a 1-year period.
    f. If the proposal has been amended, a new approval should be sought from the Department of Health
    g. Kindly note that, the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated

Head of Department **Date** 10/02/2020

Private Bag X9302 Polokwane
Fidel Castro Ruz House, 18 College Street. Polokwane 0700. Tel: 015 293 6000/12. Fax: 015 293 6211.
Website: http/www.limpopo.gov.za

Appendix 3: Dilokong Permission Letter

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
SEKHUKHUNE DISTRICT
DILOKONG HOSPITAL

Gowe Village

Cnr R37 & Modikwa Road

Driekop

P O Box 2783

SOVENGA

0727

RE: APPROVAL FOR THE REQUEST TO CONDUCT RESEARCH IN MARTINITY

WARD: Mosoma A

1. The above matter bears reference:
2. Your application to conduct research at **MATERNITY on "THE USE OF HERBAL MEDICINE BY PREGNANT WOMEN DURING INTRAPARTUM PERIOD AT SELECTED PUBLIC HOSPITALS IN SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE, SOUTH AFRICA."**
3. Permission is hereby granted to be done at Maternity ward **DILOKONG HOSPITAL.**
4. Hope you shall find the above-mentioned information in good order

Thanks

MMashilwi

CEO: DILOKONG HOSPITAL

07/05/2020

DATE

Appendix 4: Mecklenburg Permission Letter

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HEALTH

Mecklenburg
Hospital
Private Bag X1012
Burgersfort

1150

Date: 11/07/2020

ATT: MOSOMA A

P O Box 2783

SOVENGA

0727

RE: **THE USE OF HERBAL MEDICINE BY PREGNANT WOMEN DURING INTRAPARTUM PERIOD AT SELECTED PUBLIC HOSPITALS IN SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE, SOUTH AFRICA.**

1. The above matter refers:
2. It is with pleasure to inform you that the Chief Executive Officer has approved your application to conduct a research study for the **THE USE OF HERBAL MEDICINE BY PREGNANT WOMEN DURING INTRAPARTUM PERIOD AT SELECTED HOSPITALS IN SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE, SOUTH AFRICA.**
3. You will be placed under nursing management.
   Starting time: 07H30
   Lunch time: 13H00 -14H00
   Knock off time :16H30
4. **NB**: Please note that you will not be remunerated/compensated during your research study.

Yours in Service

CEO: Mecklengburg Hospital

11/07/2020

DATE:

Appendix 5: Letter from the Statistician

University of Limpopo
Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3982, Fax: (015) 268 2306, Email: peter.mphekgwana@ul.ac.za

To: To whom it may concern

From: Mr MP Mphekgwana
University Biostatistician
Date: 08 June 2021

Letter of Confirmation

Dear Sir/Madam

I hereby confirm that I have read the protocol and rechecked the analysis section of Antoinette Mosoma (200901991) titled "*THE USE OF HERBAL MEDICINE BY PREGNANT WOMEN DURING INTRAPARTUM PERIOD AT SELECTED PUBLIC HOSPITALS IN SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE, SOUTH AFRICA*" in School of Health Care Sciences, Faculty of Health Sciences.

Hope you find everything in order.

Kind Regards,

Mphekgwana, MP

Mr Peter Mphekgwana, University Biostatistician

Appendix 6: Letter from the Language Editor

Mr MM Mohlake
University of Limpopo
Turfloop Campus
Private Bag x 1106
Sovenga
0727

29 December 2020

To Whom It May Concern

EDITING CONFIRMATION: Ms A MOSOMA's DISSERTATION

This letter is meant to acknowledge that I, MM Mohlake, as a professional editor, have meticulously edited the dissertation of Ms Antoinette Mosoma (Student Number 200901991) entitled "The Use of Herbal Medicine by Pregnant Women during Intrapartum Period at Selected Public Hospitals in Sekhukhune District, Limpopo Province, South Africa".

Thus I confirm that the readability of the work in question is of a high standard.

For any enquiries please contact me.

Regards

Mosimaneotsile M Mohlake
Freelance Professional Editor
(015) 268 2464
072 1944 452
<mosimaneotsile.mohlake@ul.ac.za>

Disclaimer: Subsequent alterations remain the responsibility of the author.

Appendix 7: Consent Form for Respondents

INFORMED CONSENT:

I hereby confirm that the researcher has given me all the necessary information on this study, and I am satisfied. I understand the purpose of the study, risks and benefits and my rights as a participant in this study. Any question that I have has been answered to my satisfaction.

I have been informed that any information will be kept confidential and that the information will be anonymously developed into a research report that may be published. I am aware that the report and any publications from it will be shared with other departments. The researcher will keep me informed on the progress of the research if I wish to know.

I am aware that I can withdraw my participation from this study at any time and I willingly give my consent to participate in the study.

Participants Signature …….

Researcher's name (Print)……

Researcher's signature…….

Appendix 8: Questionnaire for Respondents

Questionnaire on:

THE USE AND EFFECT OF HERBAL MEDICINE DURING INTRAPARTUM

Mark your response with an X in the appropriate box.

Patient's signature: …….. Date: .....

Section 1: Demographic Data

1. Age (years)

<18	
19-24	
25-30	
31-35	
>36	

2. Ethnicity

1. Pedi	
2. Zulu	
3. Tsonga	
4. Venda	
5. Indian	
6. Other, Specify	

3. Marital status

1.Single	
2.Married	

4. Education level

1. Primary level	
2. High school	
3. University/collage	
4. Never went to school.	

5. Area of residence

1 Suburb	
2 Township	
3 Rural	

Section 2: Values and Beliefs

A=Agree, B=strongly agree, C=Disagree, D=strongly disagree

	A	B	C	D
6. I prefer consulting prophets than traditional healers.				
7. I prefer consulting traditional healers than prophets.				
8. I feel more comfortable using herbal medicine.				
9. I am accustomed to using herbal medicine.				
10. Herbal medicines are safe.				
11. Herbals have less side effects compared to modern medicine.				
12. I believe in traditional healers than western doctors.				
13. Herbal medicine helped me as expected.				
14. Doctors or western medicine can't help.				
15. Environment influences me to use herbal medicine.				
16. Family and friends introduced me to herbal medicine.				
17. Herbal medicine help protect the baby from evil spirits.				
18. It is helpful to consult a prophet or a traditional healer.				

Section 3: Accessibility

	A	B	C	D
19. Herbal medicine providers give full information regarding herbal medicine.				
20. Most pregnant women use herbal medicine.				
21. Herbal medicines are cheap.				
22. Herbal medicine can interfere with western medicine prescribed by a doctor.				
23. It's important to consult a health professional before using herbal medication.				

Section 4: Disclosure

	A	B	C	D
24. It is important to inform healthcare workers about herbal medicine used.				
25. Herbal medicine should be brought along to the hospital.				
26. I have recommended herbal medicines to my family and friends.				
27. I personally used herbal medicine.				
28. Herbal medicine is safe for the developing baby.				
29. Herbal medicine helped me to deliver quickly.				
30. Health-care professionals ask about herbal medicines on admission.				

Section 5: Obstetric Data

	A	B	C	D
31. This is my first pregnancy.				
32. I have more than two children.				
33. I delivered through normal vaginal delivery.				
34. I delivered through a Caesarean Section.				
35. After delivery the outcome was an active good crying baby.				
36. When my water broke it was clear white in colour.				
37. After delivery my baby was helped to breathe.				

Section 6: Knowledge

	A	B	C	D
38. Patients who admit to taking herbal medication are treated rudely by nurses.				
40. Herbal medicine is safe for the unborn baby.				
41. Herbal medicine is safe for a pregnant mother.				
42. I know the constituents of herbal medicine.				
43. Herbal medicine did damage during labour.				
44. Traditional medicine is more helpful during labour.				
45. Traditional healers provided me with enough information regarding herbal medicine.				
46. I feel unsafe if nurses take away herbal medicine from me.				
47. I know how herbal medicine works.				
48. It is risky to use herbal medicine.				
49. I was forced to use herbal medicine.				
50. I was given herbal medicine but not told it was herbal medicine.				

Section 7: prevalence of herbal medicine use, please select using an (X)

67.Have you used herbal medicine for this pregnancy	**yes**	**no**

Section 8: Types of herbal medicines used and reasons for use.

Types of traditional medicines used during pregnancy please choose any that you have used by means of a cross on the space provided.

Types	**Choose (X)**
Monkey urine	
Old record	
Mercury	
Ostrich egg	
Castor oil	
Sewasho	
Home remedies	
Snuff (NTSU)	
Termite mould	

The reasons for use of herbal medicine during pregnancy

Reasons for use	**Choose (X)**
Faster Delivery	
Baby growth	
Baby protection	
Induce labour	
Safe delivery	
Protect the mother	
Cleanse the womb	

Appendix 9: Questionnaire for Respondents (Sepedi Version)

Dipotšišo tša Baarabi

DIPOTŠIŠO mabapi le:

The Use and Effect of Herbal Medicine during Intrapartum.

Kgetha karabo o šomiša leswao (X) go dikarabo.

Patient's signature: …….. Date .....

KAROLO YA A: DEMOGRAPHIC DATA

1. **Ngwaga**

<18	
19-24	
25-30	
31-35	
>36	

2. Serafe

1. Pedi	
2. Zulu	
3. Tsonga	
4. Venda	
5. Indian	
6. Tše dingwe, laetša	

3. Seemo sa lenyalo

1. Ga ka nyalwa	
2. Ke Nyetšwe	

4. Bogodimo ga thuto

1.Primary level	
2. High school	
3.Yuniversity/collage	
4. A se ke tsene sekolo	

5. Tikologo

1 Suburb	
2 Township	
3 Rural	

Karolo Ya 2: Tshepo Le Tumelo

A=Dumela, B=Dumela ka maatla, C=Gana, D=Gana ka maatla

	A	B	C	D
6. Ke rata go hwetša thušo go dingaka tša setšo.				
7. Ke rata go hwetša thušo go dingaka tša Sesotho go na le baporofeta.				
8. Ke dumela go dithlare tša setšo.				
9. Ke swanetše go šomisa dithlare tša setšo.				
10. Dithlare tša setšo di bolokegile.				
11. Dithlare tša setšo a di na le ditlamorago.				
12. Ke dumela go dingaka tša setšo go nale tša sekgowa.				
13. Dithlare tša setšo di nthusitše go ya ka ge ke be ke lebeletše.				
14. Dingaka tša sekgowa a di na le tsebo.				
15. Tikologo e dira gore ke šomiše ditlhare tša setšo.				
16. Ba lelapa le bagwera ba ntsibišitše dithlare tša setšo.				

17. Dithlare tsa setšo di thibela ngwana go memoya e mebe.				
18. Go a thuša go etela dingaka tša Sesotho le baporofeta.				

Karolo Ya 3: Tumelelo

	A	B	C	D
19. Di ngaka tša setšo di refa tsebo ka dihlare tša setšo.				
20. Bomme ba leng mmeleng ba šomiša dithlare tša setšo.				
21. Dithlare tša setšo di a rekega.				
22. Dithlare tša setšo di thibela go šoma botse ga dithlare tša sekgowa.				
23. Go bohlokwa go botšiša ka dithlare tša setšo go baoki ba sepetleleng.				

Karolo Ya 4: Tsweletšo

	A	B	C	D
24. Go bohlokwa go botša baoki ba sepetlele ka dithlare tša setšo.				
25. Dithlare tša setšo go bo hlokwa gore di tsene ka sepetlele.				
26. Ke file ba lelapa le bagwera tsebo ka dithlare tša setšo.				
27. Ke šomišitše ditlhare tša setšo.				
28. Ditlhare tša setšo di loketše ngwana.				
29. Dithlare tša setšo di nthušitše gore ke belege ngwana ka pela.				
30. Baoki ba botšiša ka dithlare tša setšo ge ke tsena sepetlele.				

Karolo Ya 5: Pelego

	A	B	C	D
31. Ke boimana bja mathomo.				
32. Ke nale bana ba go feta ba babedi.				
33. Ke belege gabotse.				
34. Ke belege ka Caesarean Section.				
35. Ke belege ngwana o phelegileng.				
36. Nkgo ge e thubega meetse a be a le a mašweu.				
37. Ngwana o thušitšwe go hema ge a seno belegwa.				

Karolo Ya 6: Tsebo

	A	B	C	D
38. Balwetši ba dumelang gore ba šomišitše sethlare sa setšo ga ba swariwe ga botse ke baoki.				
40. Dithlare tša setšo di loketše ngwana o a so tšo belegwang.				
41. Ditlhare tša setšo di loketše mme wa ngwana.				
42. Ke nale tsebo ya gore ditlhare tša setšo di dirilwe ka eng.				
43. Dithlare tša setšo di sentše ka leshoko.				
44. Dithlare tša setšo di thuša leshoko.				
45. Dingaka tša setšo di mphile tsebo ka dithlare tša setšo.				
46. Ke kwa ke sa bolokega ge baoki ba ntšeyela sethlare sa ka sa setšo.				
47. Ke nale tsebo ya gore sethlare sa setšo se bereka byang.				
48. Dithlare tša setšo ga se di bolokege.				
49. Ke gapeleditšwe go šomiša dithlare tša setšo.				
50. Kefilwe setlhare sa setšo ke sa tsebe gore ke sa setšo.				

Karolo ya 7: Mihuta ya ditlhare tsa setso le mabaka a sebediso.

Kgetha go tse latelang ka leswao la (x)

Mehuta	**Kgetha (X)**
Monkey urine	
Old record	
Mercury	
Lee la mphye	
Castor oil	
Sewasho	
Tsa maitirelo	
Snuff (NTSU)	
Seolo	

The reasons for use of herbal medicine during pregnancy

Reasons for use	**Choose (X)**
Go belega ka pela	
Go godisa ngwana	
Tshireletso ya ngwana	
Go thoma leshoko	
Go tshireletsa pelego	
Go tshireletsa mma	
Go hlatswa popelo	