

The Treatment Practices of Homoeopaths, Phytotherapists and Traditional Healers with Regards to Female Infertility in the KwaZulu-Natal Province

By

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I, Xoliswa Princess Mtolo, declare that this work is entirely my own and not that of any other person, unless explicitly acknowledged (including citations of published and unpublished sources). This work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

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DEDICATIONS

Teddy Xoliswa Princess Maria Mtolo, see what the Goodness of God has done? I lack the right words to describe how proud I am of you. Throughout this journey, I have seen you at your best and at your lowest, but most importantly, I have seen you continuously showing up, and for that I celebrate you ntombazane. This is dedicated to you Princess, usebenzile sisi.

To my mother, Nobuhle Precious Mtolo, waze wangithwala mama, ngaphandle kwakho konke lokhu ngabe akukho. You believed in me when no one else did, you did everything right by me mama. I will forever be grateful for your constant prayers and endless support. Ngiyabonga Ndlangamandla! I dedicate this dissertation to you.

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For the vision awaits an appointed time, it speaks of the end and will not prove false. Though it lingers, wait for it, it will certainly come and will not delay. - Habakkuk 2:3

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ABSTRACT

Background

David Hoffmann (1997: 97) writes: "More than any of the other systems, the reproductive system shows the miracle of life at work. It is a miracle that we can wonder at, can analyse in terms of tissue and hormone function, write poetry about, but which in the end will leave us speechless." Reproduction is an important biological event in human beings, so anything that threatens reproduction, for example infertility, will trigger a significant response.

Infertility is a disorder of the reproductive system and is defined as an inability to achieve and keep a pregnancy after a year or more of consistent, non-contraceptive and unprotected sexual intercourse involving a biological male and female of reproductive age. There are different treatment approaches to female infertility depending on several factors including the aetiology and the duration of the infertility.

South Africa has different healthcare approaches, comprising allopathic medicine, complementary medicine and traditional medicine. Homoeopathy and phytotherapy fall under complementary medicine, while traditional medicine is also a recognised form of medicine that is culturally very accepted and popular.

Aim of the study

The study aimed to explore different treatment practices of homoeopaths, phytotherapists and traditional healers with regards to female infertility, with the objective of expanding the treatment options that are available for women diagnosed with infertility.

Methodology

A qualitative and explorative study design was utilised. Twelve participants were selected by virtue of their capacity to provide precise information, with the aim of increasing the efficiency of the study. Respondents were interviewed individually using an interview guide and each of the interviews were audio recorded and

transcribed. The transcripts were analysed using Tesch's (1992) 8-step approach to qualitative research, whereby specific recurring themes are extracted from the data.

Results

After the 12 participants were interviewed, data was analysed, and four major themes emerged. The participants demonstrated a strong understanding of female infertility, including its causes, contributing factors and diagnostic procedures. The practitioners interviewed in the study described various treatments or management strategies for female infertility. Findings were that the main treatments of three modalities were: homoeopathy – *Natrum muriaticum*, *Sepia officinalis* and *Pulsatilla pratensis*; phytotherapy – *Agnus castus*, *Actaea racemosa* (black cohosh), and *Asparagus racemosus* (shatavari); traditional medicine – *imbiza* and *isihlambezo*. All participants confidently stated that their treatment methods were safe and had a high success rate in helping women achieve pregnancy and eventually parenthood.

Conclusion

The salient themes of this study strongly suggest that homoeopaths, phytotherapists and traditional healers have an in-depth understanding of female infertility with a wide range of trusted and safe treatment methods that have proven to help females achieve a longed-for pregnancy and parenthood. Based on these findings the researcher recommends that interprofessional interaction and referrals between conventional and CAM practitioners be broadened so that treatment practices evolved from this study can be pursued.

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LIST OF ABBREVIATIONS

Abbreviation	Full term
AHPCSA	Allied Health Professional Council of South Africa
CM	Complementary Medicine
WHO	World Health Organisation
FSH	Follicle-stimulating Hormone
LH	Luteinising Hormone
hCG	Human chorionic gonadotrophin
BMI	Body Mass Index
ART	Assisted reproductive technology

DEFINITION OF TERMS

Allied Health Professions Council of South Africa (AHPCSA): a statutory health body established in terms of Act 63 of 1982 to control all allied or complementary health professions in South Africa. Homoeopathy and phytotherapy are controlled by this body.

Allopathy: also called conventional medicine, orthodox medicine or Western medicine is a system of medical practice which treats symptoms and diseases using treatments that produce effects different to those produced by the disease. Treatments include drugs, radiation and surgery.

Complementary Medicine (CM): According to the World Health Organisation CM refers to a broad set of healthcare practices that are not part of conventional medicine.

Dr Samuel Hahnemann: the 17th century German physician who discovered, developed and systematised the science of homoeopathy and its fundamental laws of cure (Vithoulkas 1990).

Female infertility: a disease of the female reproductive system defined by failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse with a biological male and without the use of any contraceptives.

Holistic approach: An approach characterised by the treatment of the whole person, with emphasis on the importance of the whole and the interdependence of its parts, and where the mental and emotional aspects of a patient's health are considered along with physical symptoms.

Homoeopathy: A medical science that uses natural substances to stimulate the body's own healing mechanisms. It is based on the idea of "like cures like", whereby any substance that can produce a certain set of symptoms in a healthy person can cure those same symptoms in a sick person.

Homoeopathic remedy: Substances used in homoeopathy that are prepared by means of a process of serial dilution and succussion aimed at giving the solutions a greater therapeutic effect.

Menarche: the first menstrual bleeding in the adolescent age of a female. It typically occurs between the ages of 10 and 16.

Miasm: Miasm is a concept that is specific and central to homoeopathy, it offers a valuable understanding of the particular nature and character of a case. It was developed by Hahnemann from theories of diseases that were widespread in his time, however, this concept continued to further develop amongst homoeopaths after Hahnemann (Fraser 2008).

Phytotherapy: the practice of using medicines derived from plants or herbs to treat or prevent health conditions.

Qualitative Research: A research approach which seeks to discover information from a thorough interaction with the subject interviewed, and from this, learn something new that will benefit greater society, and allow for the generation of new understandings through insight into the subject matter.

Traditional medicine: Indigenous medicine involving the use of herbal medicine, animal parts and plant roots applied alone or in combination to manage, prevent and treat illness or maintain well-being.

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 Introduction and background

Infertility is medically defined as a disorder of the reproductive system in which pregnancy does not occur after a year or more of non-contraceptive and unprotected regular sexual intercourse, involving a biological male and a biological female of reproductive age (World Health Organisation [WHO], 2013). For women over the age of 35, this timeframe is often shortened to 6 months. Some sources further specify that sexual intercourse must be satisfactory and occurring on a frequent basis, preferably at least three times per week (Akhter and Jebunnaherr 2012). Furthermore, if a biological woman keeps having miscarriages, it is still defined as infertility.

Globally, about a third of the time, infertility can be traced to women-related disorders, while the remaining cases involve male factors, a combination of both partners, or remain unexplained, as highlighted by Sharma *et al.* (2011). In South Africa, clinical observations and regional studies indicate that female fertility has continued to decline, impacting a considerable number of individuals and families across diverse communities (Stats SA, 2011).

1.1.1 Types of infertility

There are two types of infertility: primary infertility and secondary infertility.

Primary infertility is the inability to achieve a pregnancy in a biological female who has never conceived previously in her life.

Secondary infertility is the inability to conceive or carry a pregnancy to full term after having previously conceived and given birth (Sharma *et al.* 2011). Furthermore, in

secondary infertility the previous birth must have occurred without any help from fertility medications or treatments.

1.1.2 Causes of female infertility

For a pregnancy to happen, all the steps of the human reproduction process must occur correctly (Hanson *et al.* 2017). In females, there are several factors that can interrupt the reproduction process at any stage, therefore causing female infertility. These factors include ovulation disorders, tubal disorders, cervical disorders, and hormonal imbalances.

There are other common factors that contribute to female infertility, including medication, lifestyle as well as the general health of the woman, as discussed by Waller and McPherson (2003).

1.1.3 Consequences of female infertility

The consequences of infertility extend far beyond the biological inability to conceive. Infertile women usually suffer from a variety of conditions because of their fertility issues. In some religions and cultures, infertile women are isolated, emotionally vulnerable and face unbearable suffering with some cultures going as far as considering infertility a curse (Patel *et al.* 2016).

Some of the consequences of infertility in women include changes in sex drive and desire, interpersonal relationship problems, marital strain and domestic violence, decreased self-esteem, social isolation, depression, anxiety, despair, guilt, and a feeling of worthlessness. Infertile women may engage in extramarital sex and other high-risk sexual behaviours due to the desperation associated with wanting to fall pregnant (Obeagu, Njar and Obeagu 2023). These impacts underscore the urgent need for accessible and effective treatment options and support.

1.2 Allopathic, Complementary and Traditional Medicine

South Africa (SA) has various healthcare approaches, comprising allopathic medicine, complementary medicine, and traditional medicine, all of which are formally recognised in the SA healthcare system. This means that the population has the choice to choose their preferred medicinal therapy.

Allopathic medicine, also called conventional medicine, orthodox medicine or Western medicine is a system of medical practice which treats symptoms and diseases using treatments that produce effects different to those produced by the disease. Treatments include drugs, radiation and surgery. The regulatory body for allopathic practitioners in South Africa is the Health Professions Council of South Africa (HPCSA). According to Majola (2015), the majority of the population uses allopathic medicine, which is offered by the government and is provided for free.

Complementary medicine (CM) refers to a broad set of healthcare practices that are not part of conventional medicine. Homoeopathy and phytotherapy, regulated by the Allied Health Professions Council of South Africa (AHPCSA), are forms of complementary medicine and they are becoming better known. According to the World Health Organisation (WHO) complementary medicine has shown significant growth, with homoeopathy being the second fastest growing complementary medicine in the world (Khumalo 2015).

African traditional medicine refers to the knowledge, skills and practices rooted in the cultural beliefs used to treat or prevent different conditions and maintain health (Pujol 1990). It is a recognised form of medicine that is culturally accepted and popular in South Africa and the continent of Africa at large. The interim Traditional Health Practitioners Council of South Africa is an existing national professional body that regulates traditional practitioners and traditional practices that was established through the Traditional Health Practitioners Act 22 of 2007 (Government Gazette 2007). This council is established by law; however, it is still temporal and not yet fully regulated. The South African government intends to regulate it (Rees, 2015).

The most common route for patient access to these three modalities is via registered practitioners operating in private practices and patients book appointments directly to them. Traditional healers are deeply located within communities, and access is primarily through word-of-mouth referrals, family tradition or direct community knowledge of a practitioner. Practitioners of these modalities can and are expected to refer patients to medical specialists, such as gynaecologists, if needed.

1.3 Problem statement

Female infertility presents a significant challenge, impacting individuals, families, and communities. While conventional medical approaches exist, many women seek or consider a diverse range of treatment options from different health care practitioners. However, there is a notable gap in existing research regarding the understanding of the treatment practices employed by different healthcare providers for female infertility.

This lack of understanding of their respective methodologies, rationales, and outcomes creates several critical issues, such as limiting the ability of both healthcare professionals and infertile women to make informed decisions about the most appropriate and effective treatment pathways. The absence of understanding hinders potential collaborative or referral networks between allopathic and complementary medical professions, potentially limiting holistic care. Without this knowledge, opportunities to enhance the overall success rates of female infertility treatments, through increased awareness and integration of diverse approaches, may be missed.

1.4 Aim of the study

This research study aimed to explore the experiences and investigate the treatment practices of registered homoeopathic practitioners, phytotherapists as well as traditional healers with regards to female infertility, in order to find the similarities and differences in approaches. Information was collected on alternative methods to treat female infertility with the intention of expanding the options that are available

for infertile women. This study provides information regarding the chances of success, possible side effects and possible medical risks of the various treatments the participants reported to use.

1.5 Research objectives

- a) The main objective of the study was to fill in the gap that exists in research regarding the understanding of various treatments available to approach female infertility.
- b) To broaden the scope of understanding and allow for referrals between allopathic and complementary medical professions.
- c) To increase to the success rate of female infertility treatments, considering the increased awareness of options available as a result of this study.
- d) To further increase public awareness about the management of female infertility and support for infertile females.

1.6 Research questions

The research was guided by the key question:

- What is your approach to treating female infertility?

Research sub-questions:

1. What are some of the common aetiologies that you have seen that contribute to female infertility?
2. How do you diagnose female infertility?
3. Are there any side effects of your treatment practices?
4. How often do infertile females present to you seeking medical assistance?
5. What lifestyle recommendations do you give to females trying to fall pregnant?
6. What are the success rates of your treatment practices?
7. What challenges have you faced while treating an infertile woman?

1.7 Delimitations of the study

The study was restricted to registered homoeopaths, phytotherapists and traditional healers, who have had experience treating female infertility and have been in practice for a minimum of five years in KwaZulu-Natal.

1.8 Expectations and assumptions

The study was based on the following assumptions, with respect to interviews conducted with the participants:

- a) The participants would participate in the interviews freely and provide an honest account of their understanding and their treatment practices of female infertility.
- b) Remedies, herbs, or any medications would be identified in terms of their names and some traditional medicines may not always be linked to a specific botanical species and it may not be possible to directly translate some of them to English, therefore their African names will be used.

1.9 Overview of the research design

Purposive sampling was used, and participants were selected by virtue of their capacity to provide precise information with the aim of increasing the efficiency of the study. Data collection was done through one-on-one, semi-structured interviews, transcribed by the researcher and analysed by means of thematic analysis.

1.10 Structure of the research

This dissertation is divided into six chapters.

Chapter 1: Introduction – The context of the research, research questions, problems and research objectives.

Chapter 2: Literature review – Theoretical understanding of female infertility, aetiology and contributing factors, diagnosis, management, and treatment by homoeopaths, phytotherapists and traditional healers.

Chapter 3: Methodology – Describes the qualitative research design, the data collection and data analysis methods.

Chapter 4: Results – Presentation and comparison of responses amongst homoeopaths, phytotherapists and traditional healers collected from the transcribed data.

Chapter 5: Discussion – Discussion of the results and presentation of the common themes drawn from the results.

Chapter 6: Conclusions and Recommendations – Conclusions derived from this study and recommendations for further research.

1.11 Conclusion

This chapter provided an introduction and background to the study and also discussed the problem statement and purpose of this study. The significance of this study lies in its potential to explore and explain other available treatment options for female infertility. The findings of this study will contribute to the understanding of female infertility and may result in increased collaboration amongst healthcare professionals of different disciplines.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The existing and available literature on female infertility describes the factors that are most likely to cause and contribute to the inability of a female patient or a couple to conceive. However, there is a lack of evidence from random and controlled trials or research for the majority of these causes and contributing factors regarding quantification and certainly the relevance of each factor (Seli 2011).

This chapter focuses on an overview of the female reproductive system, female infertility, diagnosis thereof, and the most relevant causes and factors. It also introduces CAM in South Africa, with homoeopathy, phytotherapy and traditional medicine being the focus of this study.

2.2 The anatomy of the female reproductive system

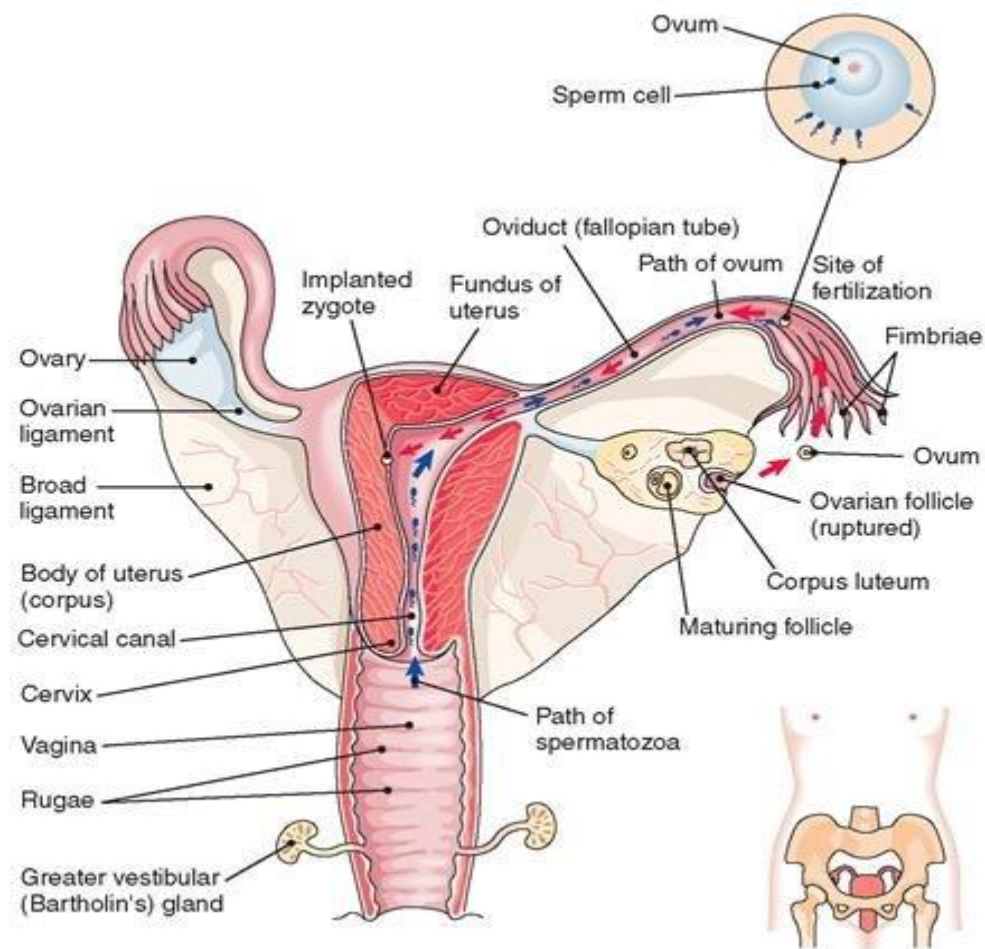


Figure 2.1: The female reproductive system (interior view)

Source: Quizlet (n.d.)

Figure 2.1 depicts the anatomy of the female reproductive system and the structures that form part of it. The understanding of the anatomy and physiology of the female reproductive system is regarded as critical to the clinical evaluation of a female patient presenting with infertility.

The structures that make up the female reproductive system are divided into internal and external genitalia. The labia majora and labia minora, urethra, mons pubis, clitoris, and vaginal opening are examples of external genitalia, also collectively referred to as the vulva.

The vagina, uterus, fallopian tubes, and ovaries, being the subject of this study, are examples of the organs of the internal genitalia.

The vagina is an eight to ten centimetre long elastic tube that is composed mainly of smooth muscles and connective tissues (Hoare and Khan 2022). The vagina receives the penis during intercourse and serves as a passage for menstrual flow from the uterus as well as for the baby in the process of vaginal childbirth.

The uterus is the primary and major anatomical feature of the female genitalis tract; it is a pear-shaped, hollow, and highly muscular organ that has the ability to expand to accommodate a growing foetus. The uterine cavity is lined by a membrane called the endometrium that sheds during menstruation. The inflammation of the endometrium is called endometriosis, which if chronic, can cause infertility (Hoare and Khan 2022). If conception occurs during the menstrual cycle, the fertilised egg implants into the endometrial lining of the uterus. During labour the uterus contracts and assists in pushing the baby through the vagina in a vaginal birth, and assists with the delivery of the placenta.

The ovaries are sex organs with an oval form that are found in pairs inside the pelvis, sideways to the uterus, and are packed with follicles. One follicle transforms into a Graafian follicle every month and at ovulation, it releases an ovum. Follicle-stimulating hormone (FSH) and luteinising hormone (LH), which are released by the pituitary, regulate the ovaries' production of two steroidal hormones, oestrogen and progesterone. These hormones play a vital role in reproduction.

Ovaries link to the uterus through fallopian tubes also known as oviducts, which provide a site for fertilisation and transport the zygote to the uterus for implantation. For this purpose, the fallopian tube walls are covered by cilia that function to carry the ovum to the uterus. The fallopian tube is long enough to allow time for the ovum to mature after it has been fertilised before it is ready for implantation in the uterus.

The cervix is a small muscular organ that connects the uterus and vagina. It allows fluids such as menstrual blood, sperm, and cervical mucus to pass between the uterus and the vagina. It also secretes an alkaline secretion that is favourable to

sperm penetration. During the vaginal delivery process, the cervix relaxes and expands to allow the baby to pass through from the uterus to the vagina.

Reproductive organs do not work alone but are interconnected with each other and also with non-reproductive organs to support female reproductive and systemic health.

2.3 Physiology of the female reproductive system

The female reproductive system is framed to execute different functions. The ovaries have a double function of producing germ cells and secreting female sex hormones. The germ cells divide by mitosis and develop into larger cells called oogonia which undergo further mitosis and form oocytes. The oocytes together with the cells surrounding them are called follicles. Oocytes pass through the first and second maturation division to form an ovum by meiotic cell division (Lamb *et al.* 1991).

1. Ovarian cycle

The ovarian cycle is the maturation of an oocyte as it prepares for fertilisation and reproduction in an unpregnant female of reproductive age, from puberty to menopause. At the beginning of each cycle, the anterior pituitary gland in the brain secretes the gonadotrophic hormone FSH. FSH stimulates the growth of follicles in the ovary.

The growing follicles produce oestrogen, which then matures the ovum and prepares it for ovulation. The level of oestrogen from the mature follicle increases until it is sufficient to trigger the release of LH from the pituitary gland. LH stimulates ovulation by causing the follicle to rupture and release an ovum (Hanretty 2010).

After ovulation, the cells remaining in the ruptured follicle multiply and grow blood vessels to form a corpus luteum. The corpus luteum produces the hormone progesterone and remains functional for about 12 days after ovulation, thereafter, it

degenerates unless the ovum has been fertilised and implanted. Progesterone acts on the uterus and stimulates the growth and thickening of the endometrium. Progesterone also prepares the endometrium for implantation of the fertilised ovum by expanding the endometrial glands. Endometrial blood flow increases and arteries become more tightly twisted (Hanretty 2010).

2. Menstrual cycle

Menstrual cycle is the loss of menstrual blood for three to seven days every menstrual cycle during the reproductive life of women. The menstrual cycle is 28 days on average, with the duration varying from woman to woman (Hall 2020). If implantation does not occur the corpus luteum degenerates causing a decrease in the secretion of oestrogen and progesterone, therefore the endometrium shrinks and the arteries constrict, hence blood flow to the endometrium reduces. Bleeding occurs from the damaged blood vessels and the endometrium wall detaches from the uterus, initiating menstrual bleeding. This marks the clinical beginning of the menstruation, counted as day one of the menstrual cycle.

3. Fertilisation and pregnancy

For fertilisation to occur, the male sperm cell has to reach the ovulated ovum in the fallopian tubes. The ovulated ovum is normally available for 12 to 24 hours for fertilisation while the sperm can retain their fertilising ability for 12 to 72 hours in the female reproductive tract after ejaculation (Marieb 2006).

In simple terms this means for fertilisation to take place, the sperm should be deposited into the female no more than 72 hours before ovulation and no later than 24 hours after ovulation.

Fertilisation occurs in the fallopian tubes when the genetic material of the sperm combines with the genetic material of the ovum and forms a fertilised egg called the zygote. The zygote divides repeatedly by mitotic cell division to form a sphere of cells as it passes down the fallopian tubes into the uterine cavity (Hanretty 2010). Implantation occurs, during which the zygote develops into a blastocyst which

attaches to the endometrium and further develops into an embryo. The placenta is formed from the cells surrounding the embryo and the cells of the endometrium.

The placenta is a multiple vascular structure that attaches the embryo to the uterine wall, exchanges nutrients, gases and waste between the mother and the foetus and also secretes hormones and proteins.

The duration of pregnancy is between 38 to 40 weeks counted from the last menstruation and is divided into three trimesters. During this period the mother's anatomy and physiology adapt to provide for the growing foetus within her. The human chorionic gonadotropin (hCG) is a hormone that is primarily secreted by the cells of the placenta and a small amount of this hormone is also produced by the pituitary gland (Bray *et al.* 2003). The hCG maintains the corpus luteum leading to the continued secretion of oestrogen and progesterone and stimulating the uterine wall to continue growing during the first trimester.

Progesterone suppresses uterine contraction until the birth process begins, which then marks the end of the pregnancy. According to Hanretty (2010) childbirth has three stages: dilation of the uterus, expulsion of the foetus and birth of the placenta. Only at the end of these three stages is the pregnancy said to have been successful.

2.4 Female infertility and prevalence

Infertility is defined as a disorder of the reproductive system in which pregnancy does not occur after a year or more of non-contraceptive and unprotected continuous sexual intercourse, involving a biological male and a biological female of the reproductive age (WHO, 2013). If a woman keeps having miscarriages, it is still defined as infertility.

Infertility is a highly prevalent global condition. According to WHO (2012), infertility has been pointed to impact a quarter of couples in underdeveloped countries. WHO (2004) evaluations of demographic and health survey data estimated that more than 186 million married women of reproductive age in developing countries were

infertile. Unfortunately, areas of the world with the highest rates of infertility are those with little access to assisted reproductive techniques. Regions of high prevalence include Southern Africa, South Asia, and parts of Europe (Boivin *et al.*, 2012).

Research reveals that up to 20% of South African couples suffer from infertility, ranked by the World Health Organisation as the fifth highest major medical condition (Dyer *et al.* 2002). According to a census of fertility in South Africa that was conducted in 2011, results showed that fertility has continued to decline (Stats SA, 2011). Dyer *et al.* (2002) conducted a qualitative research study on 150 infertile women from a culturally diverse, urban community in South Africa. These women were looking for a solution to their infertility issue. The results showed that more than 25% of the participants had been trying for more than five years to gain access to infertility treatments. A follow-up study was conducted to evaluate the barriers to effective primary care management of female infertility.

Bathtiyar *et al.* (2019) investigated the effects of infertility on women's quality of life. The results of this investigation indicated that infertility can significantly affect various aspects of women's overall quality of life, such as physical, mental, and social health (Bakhtiyar *et al.* 2019).

2.5 Causes of female infertility

As stated, pregnancy results from a process that has many phases. These phases include the release of an ovum from the woman's ovaries, the ovum moving along the fallopian tubes into the uterus, a man's sperm joining and fertilising the ovum along the way, and the fertilised ovum attaching to the inside of the uterus (Bray *et al.* 2003). Infertility can happen if there is a problem with any of these phases. The underlying disorders that cause infertility in females include ovulation disorders, tubal disorders, cervical disorders, and hormonal imbalances.

1. Ovulation disorders

These are disorders that disrupt normal ovulation making it difficult to release an ovum for fertilisation. They are habitually caused by problems with the regulation of the female reproductive hormones. These disorders often occur as a result of conditions such as polycystic ovarian syndrome (PCOS), hypothalamic dysfunction, premature ovarian syndrome, weight, diet, and physical activity-related conditions (Mader and Winderlspecht 2016).

2. Tubal disorders

This is when a fallopian tube becomes blocked or damaged, usually because of infections, such as chlamydia, endometriosis, and surgical damage to the tubes. The blockage or damage of the tube keeps the sperm from getting to the ovum or blocks the passage of the fertilised ovum into the uterus (Thibodeau and Patton 1997). An example is salpingitis, which is an infection of the fallopian tube caused by bacteria, generally, it is a result of sexually transmitted infections like chlamydia and gonorrhoea.

3. Cervical disorders

These are disorders that affect the cervix, ranging from inflammation such as cervicitis, fibroids, cervical cancer, and cervical stenosis. These disorders interfere with the fertilised ovum implantation and increase the risks of miscarriage. The cervix is susceptible to infections such as human papillomavirus (HPV) that can cause cervicitis, cervical dysplasia and cervical cancer thus leading or contributing to female infertility (Mader and Winderlspecht 2016).

4. Hormonal imbalances

According to Mader and Winderlspecht (2016), some females suffer from having too much or too little of certain hormones.

- Oestrogen too low: oestrogen production by the follicle can be inhibited by weak response of follicle, poor quality of follicle and FSH resistance.
- Progesterone too low: this can be caused by weak corpus luteum and anovulation; as a result, the endometrium fails to mature. Low progesterone is the leading cause of miscarriages.
- Progesterone too high: high levels of progesterone will prevent the uterus from contracting thus causing failure to menstruate.

Other factors that affect the balance of female hormones include hormone drugs such as birth control medicines, pituitary tumours, eating disorders and uterine fibroids (Mader and Winderlspecht 2016).

5. Anatomical disorders

Problems with the anatomy of the female can cause or contribute to female infertility, and are commonly known as congenital or acquired uterine anomalies (Thibodeau and Patton 1997). Some females are born with unusual-shaped organs such as the uterus, which can cause problems with keeping the pregnancy until full term and other obstetric complications.

6. Endometriosis

This occurs when the cells that line the endometrium attach outside the uterus instead. This can cause hormonal changes in the lining of the uterus, which could hinder the embryo from implanting properly and make it difficult for the female to keep the pregnancy until full term (Widmaier, Raff and Strang 2014).

7. Unknown causes

The body changes all the time for unknown reasons, which can contribute to the body producing and secreting different amounts of hormones each time. Some changes are so minor that they do not have a significant effect.

2.6 Risk factors

Seli (2011) states that a health practitioner in any health profession needs to have a broad and extensive knowledge of the numerous factors that affect human reproduction, only then are they be able to provide optimal medical care for patients. There are several factors that contribute to female infertility that many affected patients may not be aware of. These factors include:

1. Weight

Body mass index (BMI) is a measure of body fat based on the height and weight of the patient, and is used to classify underweight, overweight and obesity in patients. In a study conducted by Bellver and Steril (2010), implantation, pregnancy and successful birth rates were lower in obese women and were reduced increasingly with each unit of BMI; this indicates that a change in the uterine environment is a possible factor in these patients.

2. Age

The chances of conceiving and carrying a baby to full term decrease with maternal age. A woman's prime reproductive years are said to be between late teenage years to late 20's. By age 30 the ability to reproduce starts declining and by age 45 women are less likely to fall pregnant naturally (Delbaere, Verbiest and Tydén 2020). This is because the ovaries have regressively changed and are not functioning to their best anymore, and older age patients are more likely to have developed health conditions that may affect their fertility.

3. Smoking and the use of recreational drugs

According to Seli (2011), almost 30% of females of reproductive age smoke, while smoking cigarettes contributes by at least 13% to female infertility. Females who smoke even casually have a lower chance of getting pregnant and a further decreased chance of live births.

4. Alcohol

Excessive consumption of alcohol can reduce fertility by changing the levels of oestrogen and reducing the ovarian reserve, making it harder to conceive (Mader and Winderlspecht 2016). Additionally, drinking alcohol while pregnant increases the chances of miscarriage, stillbirths and other health conditions for the foetus, thus contributing to secondary infertility.

5. Nonsteroidal anti-inflammatory drugs

The most common adverse effects of nonsteroidal anti-inflammatory drugs are related to the kidneys, gastrointestinal tract, and ovaries. They interfere with the release of a mature ovum, resulting in ovulation failure. However, Mendonça *et al* (2000) reports that the effects of nonsteroidal anti-inflammatory drugs on fertility are reversible.

6. Anxiety and stress

Emotional disorders disrupt the physiology and functioning of different body organs. Stress can cause failure to produce oestrogen and progesterone at the correct times in the reproductive cycle (Hall 2020). It also contributes to a complex spiral of overstimulation and compensation of hormones.

7. Genetics

Some chromosomal abnormalities or gene mutations can affect a woman's ability to ovulate, thus causing or contributing to female infertility (Delbaere, Verbiest and Tydén 2020).

2.7 Diagnosis of female infertility

Seli (2011) estimated that at least 15% of couples will seek medical assistance for fertility issues in their reproductive age, and this percentage may be expected to increase radically in the next few years. For a female patient who presents with fertility issues, the medical practitioner needs to ask the patient certain questions concerning the patient's past medical history, lifestyle-related questions and their family history. The practitioner may also need to perform various tests and examinations to rule out other possible conditions and confirm the female infertility diagnosis. For all three modalities, the diagnosis is individualised and holistic, not only focusing on the presenting complaint, but also the mental, emotional, and physical generals of the patient. The diagnostic process involves practitioners gathering and performing the following:

1. Patient history

A well-taken patient history needs to include and start from childhood and puberty development, because these developments may influence the menstrual cycle as well as reproduction abilities. The menstrual cycle is a major concern and should be thoroughly assessed. Questions related to menstruation include the age of onset of menarche (Hall 2020). Menarche is defined as the first occurrence of menstruation in girls, which usually happens between age 10 to 16, but varies from girl to girl and may be affected by various factors. It is very important to gain insight into the length, frequency and the amount of menstrual flow and regularity of menstruation.

Past medical history is as significant, this includes past and current illnesses, infections, the use of contraceptives, medical and other surgeries or operations as well as past and current medications including supplements. History of miscarriages, abortions and sexual history is also recorded as these have a very significant contribution to infertility (Gray 2018). Other personal questions relate to libido and frequency of unprotected sexual intercourse with a biological male.

2. Family medical history

Any past and ongoing medical history of biological parents, grandparents as well as siblings is very important in the diagnosis of female infertility. Some conditions can be inherited, and these contribute to female infertility, and family history assessment in a suspected infertility case will discover possible genetic risks to pregnancy. Family history assessment covers any family history of reproductive difficulties, genetic diseases, and birth defects (Hall 2020).

3. Lifestyle

Lifestyle assessment includes social habits such as alcohol consumption, tobacco, the use of recreational drugs, diet and physical activity.

4. Physical examination

The physician examines the following:

- Vital signs and BMI
- Breast exam
- Signs of androgen excess
- Thyroid exam
- Abdominal exam usually inspecting for pelvic masses or tenderness (Hanretty 2010).

5. Blood tests

Blood tests that are usually conducted include FSH, LH, and TSH as well as inflammatory markers like ESR (Bickley and Szilagyi 2003).

6. Imaging tests

Imaging tests like ultrasound give a good and immediate evaluation of the ovaries to check for cysts and other abnormalities (Hall 2020).

7. Evaluation

The diagnostic evaluation categories include assessment of the uterine cavity, assessment of the fallopian tubes and assessment of the ovarian function (Bickley and Szilagyi 2003). Laparoscopy, hysteroscopy and sonogram are used if there are suspected pelvic pathologies.

Hysteroscopy provides direct visualisation of the intrauterine pathology and provides an opportunity to correct any abnormalities first before trying to conceive. Laparoscopy use is however controversial because of its invasive and expensive nature (Hall 2020).

8. Differential diagnosis

Since there are multiple causes of female infertility, the differential diagnosis can be extensive. For this reason, detailed systematic analysis and tests are performed to ensure there are no other disease processes missed. The differential diagnosis of female infertility includes PCOS, thyroid disorders, androgen-producing ovarian tumours, pelvic inflammatory diseases, and endometriosis (Hall 2020).

Additionally, there are diagnostic measures that are specific to the beliefs of African traditional healing, as their practices operate on different principles. Their investigations are primarily the divinatory practices, such as throwing bones or going into a trance, detailed historical accounts, and intuitive assessments (Pujol 1990). Their interpretation is often within a cultural context.

2.8 Allopathic and other common treatments of female infertility

There are various common treatments for female infertility that have existed for years and are constantly improved based on research and studies being conducted. Treatment and management of female infertility include lifestyle changes, medications, and operations.

1. Controlled ovarian hyperstimulation

This is commonly considered as a first-line medication if the cause of infertility is unknown. The medication most commonly used is clomiphene citrate which is a selective oestrogen receptor modulator with effects that increase the gonadotropin release from the anterior pituitary. Another commonly used medication for ovulation induction is letrozole, which is an inhibitor that mainly prevents oestrogen production.

2. Gonadotropin therapy

This is usually used as a second-line treatment option for anovulatory disorders after a woman has not conceived even after multiple administration of clomiphene citrate. A study that was conducted by Lancet laboratories in 2017 (Weiss *et al.* 2017) reported an increase in live birth rates with gonadotropins compared to clomiphene.

3. Assisted reproductive technology (ART)

In vitro fertilisation (IVF) is a medical procedure whereby an egg is removed from the woman's ovaries and fertilised with sperm in a laboratory. The fertilised egg now called an embryo is then returned to the woman's uterus to develop. IVF is usually the first-line treatment for tubal infertility. Walker and Tobler (2020) report that tubal corrective surgeries may have an increased risk and complications and a longer time to pregnancy as compared to IVF.

4. Operative treatments

These treatment practices are chosen based on the aetiology of infertility for that particular patient. They include operative hysteroscopy for the removal of fibroids and polypectomy for the removal of polyps that cause infertility (Hall 2020).

Multiple protocols are used depending on the infertility treatment decided on. Protocols include dosage and repetition of the administered medication or

procedure. Monitoring by a professional is also required, especially for invasive therapies.

5. Challenges and limitations of treatments

The major challenge is the costs associated with diagnostic procedures, medication, and treatment procedures like IVF. The rate of affordability is relatively small, especially here in South Africa, which is a developing country. Ombelet and Onofre (2019) state that the only true hope for most Africans struggling with female infertility lies in the introduction of affordable assisted reproductive techniques (ART) services. According to the South African Registry for Assisted Reproductive Techniques (SARA) report, 4 995 ARTs were performed in 15 IVF centres in 2014, which means that only 6.4% of the needed ART was met (Ombelet and Onofre 2019).

6. Complications and risks

The medications and procedures available for the treatment of female infertility are well studied and tested, however, they may still pose a risk profile. According to Walker and Tobler (2020), there are three primary complications associated with allopathic female infertility treatments namely, multiples, ectopic pregnancy and ovarian hyperstimulation syndrome.

Patients need to be made aware of all the possible treatments available and suitable for their individual cases. Furthermore, they should be well informed of the possible side effects, risks, and complications of each treatment practice so that they can make an informed decision.

2.9 Origin and history of homoeopathy

Homoeopathy was initially discovered by Dr Samuel Hahnemann in the 18th century and has since become increasingly important in the health care provision (Vithoulkas 1990). Homoeopathy is a holistic approach to medicine that treats the

patient as a whole instead of treating the illness. It works by stimulating the body's immune system to restore itself and improve overall health (Cummings and Ullman 1997).

Homoeopathy looks at an individual's overall physical, mental, spiritual, and emotional well-being before recommending treatments. It also looks at the underlying cause of the illness and prevents illness by placing a great emphasis on elevating health, which is the body's natural state (Roy 1994). Homoeopathy uses medicines known as remedies which are made from natural substances and are extremely safe to use.

The following are the cardinal principles of homoeopathy (Roberts 1997; Roy 1994):

- Law of similar: this serves as the foundation for the selection of the remedy. To be effective, the remedy must be able to replicate the disease's symptoms in a healthy individual.
- Law of simplex: only one simple medicinal substance is to be administered in a given case at a time.
- Law of minimum: reduction of the dose by succussion during the dilution, using a lactose or alcohol-based medium, as stated by Roberts (1997).

According to homoeopathy, female infertility is a chronic disease that may originate from the individual's miasm or any other possible cause. In aphorism 74 of the Organon Hahnemann writes that amongst naturally occurring chronic diseases there are widespread illnesses that are artificially created by various other causes (O'Reilly 1996).

Hahnemann defines a true natural chronic disease in aphorism 78 of the Organon as a disease that originates from a chronic miasm that, when left alone without treatment with a fitting remedy, will continue to worsen and torment the patient with great suffering up until the end of the patient's life (Fraser 2008).

Lobo, D'cunha and Lobo (2018) conducted a study on the effectiveness of homoeopathic treatment in female infertility and found that homoeopathic

constitutional remedies were successful in treating 27 out of 40 cases, testing positive for the urine pregnancy test. The remedies given were *Calcarea carbonicum*, *Lycopodium clavatum*, *Natrum carbonicum*, *Natrum muriaticum*, *Phosphorus*, *Pulsatilla pratensis*, *Sepia officinalis*, and *Silicea terra*. The well-indicated constitutional remedies are given based on symptom similarity.

2.10 Origin and history of phytotherapy

Phytotherapy is practised holistically, as are other complementary therapies, based on the relationship between plants and humans, plants and the earth and humans and the earth (Hoffmann 1997). Throughout history, more and more people have become aware of how nature through plants is actively and continuously healing humans. Phytotherapy consists of various techniques of gathering, preserving and preparing herbs and medicinal plants. Phytotherapy makes use of water-soluble elements and a minute fraction of the aromatic essence preserved in plants (Falzon and Balabanova 2017). There are numerous techniques used in preparation of the herbs or remedies, which are an essential part of the skills of phytotherapy.

Phytotherapists first decide on the right herb to administer to the patient, thereafter they decide and select the best way to prepare the herb. Modern knowledge of pharmacology assists with the selection of the preparation technique, since there is more understanding as to which process will release the biochemical constituents needed for healing without causing adverse effects on the patient (Hoffmann 1997).

Phytotherapists use both internal and external remedies. Internal remedies can be water-based, alcohol-based and fresh or dried herbs and are prepared into infusions, decoctions, tinctures, capsules or pills. The body can absorb herbal compounds through the skin, so external remedies are also effective. External remedies are administered in the form of baths, ointments, compresses, liniments, oils, and suppositories (Hoffmann 1997).

Various herbs contain hormonal properties and proteins. These herbs have a positive effect on balancing female hormones and have a reputation in the treatment

of different female reproductive-related conditions. An example of hormone-rich herbs includes *Caulophyllum thalictroides* generally known as blue cohosh, *Cimicifuga racemosa* (black cohosh) and *Smilax spp* (sarsaparilla) (Mills and Bone 2000). In a case where a female presents with infertility, the corresponding herbal approach to treatment is determined by different factors that include aetiology, emotional and lifestyle factors.

The African pharmacopoeia provides plants used for preventing and treating various gynaecological problems including female infertility (Njamen *et al.* 2013). Azgomi *et al.* (2018), conducted a review of the therapeutic effects of *Withania somnifera* on reproductive system and found that *Withania somnifera* had positive results in treating infertility in both males and females.

2.11 History of African traditional medicine

Traditional African healing is defined as the totality of all the knowledge, information, expertise, and practices used by African people to diagnose, prevent or treat physical, psychological or social imbalances (Bogopa 2010). This is a healing practice built by Africans and is based mostly on past experiences and observations passed down from generation to generation (WHO 1976).

African traditional treatment practices and knowledge combine plants, animals, mineral-based medicines as well as spiritual therapies, used alone or in combination to treat different diseases (Fokunang, Ndikum and Kamsu-Kom 2011). Traditional healers in Africa have always believed that plants are the most powerful source of healing and that plants can cure any disease and make people healthy (Pujol 1990).

In South Africa, particularly in KwaZulu-Natal, which is the context of this study, traditional methods vary from one community to another; however, they are all holistic and reflect the collective wisdom of indigenous knowledge. To become an African traditional healer, a spiritual calling from the ancestors is required. The authenticity of such calling is verified by another traditional healer who then advises on who should undergo the training to become a traditional healer. Often there is no

formal structure underlying the teaching of African medicine and qualifications, but trainees receive training and instructions either from ancestors or other experienced healers. Instructions include different medicinal plants to use, how to interpret bones, dream analysis and communicating with ancestors (South Africa, Department of Health 2007).

In the African tradition, the healing journey comprises several steps that are all very important and need to be performed accordingly to achieve the required results. These steps start with the patient presenting to the traditional healer, the healer consulting and pleading with the ancestors through the burning of *impepho* (traditional incense or traditional sage) and/or throwing bones.

Ancestors are regarded as the fore parents of a family, who continue to live among the family in spirit. Consulting the ancestors assists with diagnosing and finding the main aetiology of the disease and how best it can be treated for that particular patient.

Aetiologies include some of the ones already mentioned earlier in this chapter, however, other aetiologies are specific to the beliefs of African tradition. These aetiologies include:

- Pure bad luck.
- Bewitchment in the form of using African *muthi* (traditional medicine), *umeqo* (speedtrap) or mythical animals that will affect the victim only and not anyone else.
- Anger or vengeance of ancestors put upon the patient because ancestral duties that were or were not performed within the family (Bogopa 2010).
- *Ilumbo* (trap) also known as human-made sexual sickness that affects the female if she has had an affair or sexual intercourse with another man other than her husband while married (even customary marriage).

African black people believe that any sickness that is human-made or caused by people such as witches can only be cured by traditional healers, not Western

medicine. Most of these causes are not recognised within the Western conceptualisation of disease.

To many South African black people, conventional medicine is the last alternative to an illness: first, they seek relief from traditional healers who are in charge of that community. It is said that 84% of clinic patients in KwaZulu-Natal were found to use traditional medicine with only 18% of those patients indicating that they may reduce their use of traditional medicine in the future (Zuma *et al.* 2016). The social base of African traditional medicine implies that African people will continue to use traditional medicine despite the availability of modern medicine (Moshabela, Zuma and Gamede 2016).

2.12 Conclusion

The literature review revealed that there is a gap that exists in research regarding the understanding of various treatments available to approach female infertility. Homoeopaths, phytotherapy practitioners and traditional healers share certain practices, for example, the use of medicinal plants, yet the administration of these and the approach is very different. As much as IVF is still the most popular form of treatment for female infertility, there are other treatment practices available. More information on the other available treatments needs to be provided so that women can understand their options and can choose the best possible treatment for themselves.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Methodology is defined as the detailed procedures or systems used to identify, select and analyse the information regarding a study. For the purpose of this study, a qualitative method was utilised.

According to Couchman (2019), the qualitative method is used to understand people's experiences, attitudes, insights, and interactions. It generates non-numerical data and sets out to interpret meaning from data by establishing a pattern or theory of the phenomenon being studied. In the field of healthcare, a qualitative approach can help view the data more broadly, thus improving the validity of the research findings while also strengthening clinical research (Holloway and Wheeler 2010). Qualitative data is mostly collected by means of interviews, observations, narrative analysis and case studies (Anderson 2010).

3.2 Research design

This research study sought to understand the practices and experiences of practitioners from different professions. For this reason, a qualitative, explorative, and descriptive design was considered the most appropriate method. One-on-one semi-structured interviews guided by interview questions were used. Yin (2014) explains that the purpose of explorative studies is to answer the questions "what?" or "who?", while descriptive studies seek more to describe what currently exists and its position with respect to the condition being studied.

3.3 Research setting

The study focused on the province of KwaZulu-Natal, located in the northeast of the country, with participants being qualified, registered and experienced homoeopathic

practitioners, phytotherapists and traditional healers. Participants were contacted via email, inviting them to participate in the study.

After participants had responded and expressed interest in the study, interviews were set and conducted at places that were convenient to the participants to ensure that they were comfortable.

Some interviews were held physically while some were held virtually via platforms like Zoom and Microsoft Teams. As per Khumalo (2015) the interviews were conducted in a quiet and private space to ensure privacy and to allow participants to feel free to discuss relevant topics without distractions.

3.4 Sample size

Twelve participants were included in the study, comprising registered homoeopaths, registered phytotherapists and registered traditional healers. According to Dworkin (2012) the sample size used in qualitative research methods is often smaller than that used in quantitative research methods. This is because qualitative research methods are often concerned with gathering an in-depth understanding of a phenomenon. Various studies have recommended that qualitative studies require a minimum sample size of 12 participants to reach data saturation (Fugard and Potts 2014). Morse (2000) argued that the amount of useful information obtained from each participant is all that is important. In this study, data saturation was achieved with the sample of 12 participants. This was observed when the same themes and patterns began to emerge repeatedly, with no new information being gained from interviews. In addition, this qualitative study did not aim to compare the results from each participant, rather it aimed to focus on the practitioners' experiences.

3.5 Sampling

Sampling is the method of choosing a representative portion of a population with some mutual defining characteristics for the study (Creswell 2009). Purposive sampling, also known as subjective or selective sampling, was used in this study.

This is a form of zero probability sampling, in which researchers depend on their judgement when choosing members of the population to participate in the study (Upton and Cook 2014). Participants were selected by virtue of their capacity to provide precise information with the aim of increasing the effectiveness of the study. In addition to knowledge and experience, it is important to also note the importance of the availability and willingness of the participants as well as the ability to communicate experiences expressively and reflectively.

3.6 Recruitment

The researcher made use of the Allied Health Profession Council of South Africa (AHPCSA) website to search for homoeopaths and phytotherapists in the province. The researcher used the African National Healers Association for traditional healers' contact information. Prospective participants were emailed with a cover letter (Appendix B). The email was sent together with an attached suitable and clear information letter in English (Appendix C) and isiZulu (Appendix D). Those that responded and met the inclusion criteria were recruited.

Inclusion criteria

- Homoeopaths and phytotherapists registered with the AHPCSA.
- Traditional healers with expertise and experience in treating female infertility with five or more years of experience.
- Those who have experience in treating female infertility.
- Those who have been in practice for five years or more.

Exclusion Criteria

- Homoeopaths and Phytotherapists not registered with AHPCSA
- Practitioners who have no experience with female infertility.
- Practitioners who have been in practice for less than five years.

3.7 Ethics

Throughout the course of the study, the researcher made certain that all ethical standards namely, beneficence, justice, and respect for people were held in high standards. The recruitment of participants and data collection only commenced when full approval and a clearance certificate (Appendix A) was confirmed and received from the Institutional Research Ethics Committee (IREC). All the study's details were outlined in an information letter that was sent to potential participants (Appendix C and appendix D) and each participant was provided with a consent form to sign (Appendix E – English, Appendix F – IsiZulu). Participants were assured of their freedom to withdraw from the study at any time with no adverse consequences. The research participants were not subjected to harm in any way and the respect for their dignity and privacy was prioritised. Participants were assigned unique numbers during the data collecting process, which were only accessible by the researcher. Regarding confidentiality, these numbers served as the participants' information, while their names were not mentioned. Any type of communication concerning the research was done with honesty and transparency.

3.8 Data collection

The data was collected through one-on-one semi-structured interviews guided by interview questions (Appendix G and Appendix H) that were a basic guideline. The questions asked during the interviews regarding female infertility allowed for deviation which enabled more organic responses to emerge. The interviews lasted between 15 and 30 minutes and were audio recorded using two audio devices to maintain reliability. All participants gave their consent for the interviews to be audio recorded, and were assured of confidentiality.

Participants were diverse in terms of primary language, but all participants were comfortable with the use of the English language for interview purposes and no participants requested the need for a translator. The interviews were conducted face-to-face as well as online via Microsoft Teams meetings. The voice recordings

of the interviews were transcribed precisely into a text document. The researcher then analysed the data collected under the guidance of the research supervisor.

3.8.1 Interview guide

The researcher utilised a 'grand tour' question which was then followed by several probing questions to assist in exploring the main research problem. The questions asked were open-ended and were intended to enable the participant to set the pace of the conversation and allow them to construct their responses on the basis of their own knowledge and experience (Silverman 2013).

3.8.2 Interview questions

Guiding 'grand tour' question was: "What is your approach in treating female infertility?" Table 3.1 shows the probing questions that were used in the study.

Table 3.1: The probing questions used in this study

Knowledge	Experience
What is female infertility?	How do you diagnose female infertility?
What are the common aetiologies for female infertility?	How often do infertile female patients present to you?
What is your approach in treating female infertility?	Please take me through case taking process?
What lifestyle recommendations do you give to females trying to fall pregnant?	How willing and honest are the patients when answering your questions?
Are there any side effects that have resulted from your treatment practices?	What challenges have you faced while treating an infertile patient?
	What are the success rates of your treatment practices?

3.9 Data analysis

In qualitative research, there is no clear point where data collection stops and where data analysis begins. In this study after the researcher had collected data through interviews and transcribed the data, the transcriptions were then coded and analysed using Tesch's eight-step procedure (Tesch 1992) as follows:

- Interviews are transcribed and analysed by the researcher under the guidance of the supervisor.

- After reading the transcript, the researcher compares it with the audio recordings of the interviews.
- The researcher reads the transcript again to identify the underlying meaning.
- The researcher selects the most informative and descriptive interview and makes notes in the transcript for all the interviews.
- The transcripts are coded, and similar information is grouped together.
- The researcher searches for any common themes and sub-themes.
- The results are presented based on the themes.
- The results help the researcher to reach certain conclusions.

The researcher participated in concise training in qualitative data analysis techniques, conducted by experienced qualitative researchers and experts in the field.

3.10 Research validity and reliability

Lincoln and Guba (1994) provide four requirements and standards for holding a qualitative study's integrity in high regard. The following standards were applied to this study for the purpose of guaranteeing its truthfulness.

3.10.1 Credibility

To establish the credibility of the study, the researcher engaged in discussions about the research process and outcomes with a qualified research supervisor who possesses expertise in the field of this study. Data collection involved interview notes and a recorded tape, with the data being transcribed thereafter. The researcher ensured that the transcriptions accurately represented the participants' experiences.

3.10.2 Dependability

Each interview's raw data was securely stored to allow for replication and authentication of the data itself as well as the results. This guaranteed the transparency of the research process.

3.10.3 Confirmability

Each participant was given the opportunity to inspect and analyse the transcript after the interview voice recordings were transcribed. This confirmed that the data accurately reflected the participants' true experiences, (Graneheim and Lundman 2004).

3.10.4 Transferability

By clearly presenting the study's background, measures of selecting participants, data collection methodology and data analysis procedure, the researcher verified that the findings of this study are relevant, applicable and would foster transferability.

3.11 Conclusion

The data obtained noted very interesting, relevant, and solid findings. The participants shared rich and clear knowledge as well as their positive and negative experiences. The results derived from the collected data are presented in Chapter 4 and are discussed in Chapter 5.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter presents the results. The study results are presented in alignment with the areas of interest, and the research questions.

4.2 Demographic profile of participants

The study population consisted of 12 participants, comprising five homoeopathic practitioners, five traditional healers and two phytotherapists, who all had a minimum of five years in practice and had experience treating female infertility. The gender, and area of participants were equally distributed. The relevant demographics of the participants are presented in Table 4.1.

Table 4.1: Gender, area, and profession of participants

Variable	Group	Frequency	Percentage
Gender	Males	6	50%
	Females	6	50%
Profession	Homoeopaths	5	42%
	Phytotherapists	2	16%
	Traditional healers	5	42%
Area according to district municipalities	EThekwini	6	50%
	uMkhanyakude	2	17%
	uMgungundlovu	2	17%
	Umzinyathi	1	8%
	ILembe	1	8%

4.3 Presentation of findings

After the information collected from the interviews was analysed, there was identification of broad categories and subcategories, which further gave rise to themes and subthemes presented in Table 4.2.

Table 4.2: Themes and sub-themes

Themes	Sub-themes
1. Aetiologies and contributing factors to female infertility are hormonal imbalances and lifestyle.	Unexplained female infertility.
2. Diagnosis of female infertility is done through an in-depth case history and analysis of patient records, such as blood tests and imaging tests.	
3. Treatment practices of female infertility from three different professions shared similar practices.	a) All three professions share the same concept or perception, which is to treat the patient, not the disease. b) All three professions prescribe one remedy/herb or one therapeutic substance that fits the symptomatology of the patient. c) The most commonly used homoeopathic remedies are <i>Natrum muriaticum</i>, <i>Sepia officinalis</i> and <i>Pulsatilla pratensis</i>, while phytotherapy options are <i>Agnus castus</i>, <i>Actaea racemosa</i>, and <i>Asparagus racemosus</i>.
4. The rate of successful cases with successful pregnancies was above 75% on average.	-

Themes were identified in line with the research questions. In support of the themes presented, relevant excerpts from the data generated from interviews are used. The data was transcribed precisely and is used as such during the presentation of themes.

4.4 Thematic analysis of data

4.4.1 Theme 1: Aetiologies and contributing factors to female infertility are hormonal imbalances and lifestyle

What are the aetiologies and contributing factors of female infertility?

Participants summarised the most common causes as well as other factors that influence female infertility. Overall, the responses of participants were comparable, with hormonal imbalances, lifestyle and diet, with nine of the participants matching this analysis of aetiology.

Hormonal imbalances causing problems with the menstrual cycle or intrauterine development of the foetus, sexually transmitted diseases, and infections.

Contributing factors include unfavourable lifestyle including unhealthy diet, lack of physical activity, use of alcohol and recreational drugs and unhealthy dependency to different medical drugs. (PA6-traditional healer)

Hormonal imbalances due to underlying hormonal disorders such as PCOS, endometriosis, thyroid disorders, contraceptives use, and many other disorders that affect hormonal balance. Lifestyle of personal factors like obesity, dietary issues, state of mental health physical fitness and issues with libido greatly contribute to female infertility. (PA4-homoeopath)

It is mainly hormonal, as the female grows there may be different conditions that they may get and that will prevent them from falling pregnant, however mainly it is in relation to hormonal problems. (PA2-homoeopath)

... the most common conditions from the female side, I would say, are endometriosis, and cysts, these can be quite a problem. Sometimes it is just people that have lived a bit late and they are approaching 40 years of age and their ovarian reserve is not great. (PA11- phytotherapist)

Irregular periods are the most common cause, there are different conditions that can lead to irregularities for example PCOS and endometriosis. Fibroids also play a role in infertility, when there are growths in the uterine lining making it hard for the sperm cell or egg cell to move freely along the fallopian tubes. (PA7-homoeopath)

All the participants showed a great understanding of the background and physiology of the female reproductive system and were able to recognise the different conditions and their effects on female fertility.

For traditional healers the quest to find the cause involves consulting with the ancestors. Different methods of communication with the ancestors were explained in Chapter 2 of this research study paper and will be further discussed in Chapter 5.

Two unique causes and contributing factors indicated by the traditional healers were ancestral-related problems and the issue of bewitchment, which involves the use of spells, poisons, cast rituals, black magic and other human-made forces that produce unnatural effects on the fertility of the female.

From my own experience, some women suffer from infertility because of bewitchment, spiritual impurities, ancestral anger and or unfulfilled ancestral ceremonies (PA3-traditional healer)

Furthermore, unexplainable female infertility was raised, where practitioners cannot find a specific cause or contributing factor for infertility, with one participant describing this as follows.

... In some cases that I have had, some women struggle to have children and the reason for that is unknown. After exhausting all the possible causes and contributing factors and the woman is found to be healthy in all spheres, we basically rule that God just did not give that woman the blessing to carry life, and only God knows the reason, we can never question His ways. (PA9-traditional healer)

4.4.2 Theme 2: Diagnosis of female infertility is done through an in-depth case history and analysis of patient records such as blood tests and imaging tests.

The diagnosis of female infertility is considered be a complicated process for the physician involved. This is mainly because of the causes and contributing factors that are sometimes predominant and suppress the deepness of the diagnosis of female infertility.

All the participants of this study reflected that they could recognise female infertility from an in-depth case history. The case history gives rise to an in-depth understanding of the patient history, family history, lifestyle, mental, spiritual, physical and general state of the patient along with the clinical signs and symptoms which commonly manifest as a result of underlying conditions. An in-depth case history is followed by physical examination, blood tests and other imaging tests, this collectively informing the preliminary diagnosis of female infertility.

I listen carefully to the patient's story, ask both general and more extensive questions and observe their body and energy. (PA8-traditional healer)

... starting point when diagnosing female infertility is the physical examination that I perform during the first consultations, this includes urine dipstick test, breast examination, pelvic examination and abdominal examination. I then send for blood tests including infection and inflammation markers, hormones FSH, LH and androgens. I also send for imaging tests, but not all the time, it usually depends with the patient's symptoms and/or blood test results. Imaging tests include X-rays and ultrasound. (PA10-phytotherapist)

The first point of call is always going to be the case history and asking a lot of detailed questions about the patient's menstrual history, menarche, the length of cycles, regularity of cycles and the length of bleeding. The type of blood, pain and other concomitant symptoms. Those will often give a lot of insight into the case. Secondly, it is often blood tests, which will normally be FSH and LH. Depending on the length of the cycle, I also do a progesterone test about a week prior to when the period is expected to start. (PA1-homoeopath)

I first test the female hormones whether they are normal or not, these include FSH, LH, oestrogen and progesterone. I also check if the male hormones, androgens are not greater than normal ranges for females. (PA5-homoeopath)

Before I introduce the remedies that would assist, I send the patient out for different tests and full body check-ups so that we can see there is nothing else going on, for example, there are no fibroids growing. (PA2-homoeopath)

I take a full case and do all the necessary tests to better understand the cause of infertility in that particular patient. I start with a physical examination, which includes examining the pelvic area and checking for any abnormalities such as lumps. I then send for blood tests that include FSH, LH, TSH and androgens. Other tests that I normally send for include ultrasound scan, X-ray and laparoscopy. (PA4-homoeopath)

Effective diagnosis of female infertility is vital in the management thereof. Thus, the symptoms presented by patients during consultation become very important in diagnosis.

4.4.3 Theme 3: Treatment practices from three different professions shared similar practices.

The use of complementary and alternative medicine is gaining considerable recognition and popularity in healthcare. There are various common treatments for female infertility that have existed for years and are constantly improved upon as a result of ongoing research and studies.

This theme emerged from the chief question: What is your approach to treating female infertility? Due to the complexity of this theme it is further broken down into three sub-themes, namely:

- All three professions share the same concept or perception, which is to treat the patient, not the disease.
- All three professions prescribe one remedy/herb or one therapeutic technique that fits the symptomatology of the patient.
- The most commonly used homoeopathic remedies were *Natrum muriaticum*, *Sepia officinalis*, *Pulsatilla pratensis*. The commonly used phytotherapy remedies were *Agnus castus*, *Actaea racemosa*, and *Asparagus racemosus*.

4.4.3.1 Treat the patient, not the disease

All 12 participants said that all their treatment practices are individualistic, the practitioner first gains understanding of the full disease picture of the patient and thereafter prescribes the correct treatment. Participants further explained that with this method of treatment they are treating the patient, not the disease. All participants confirmed this through the following sample statements:

With homoeopathy as I said, we treat the individual mainly, more than the condition they come with. With homoeopathy I am treating the patient as a whole, mentally, emotionally, spiritually and physically, everything needs to be treated. I will not look at only the fertility part and neglect the mental part or the emotional part of the patient, that is how I manage the case. (PA7-homoeopath)

After the diagnosis, we begin with treatment process. Depending on the patient, I give a suitable treatment therapy that fits that patient in particular. (PA10-phytotherapist)

Treatment practices are too many and I can never say there is one that will work on every patient. As guided by the cause of infertility and the communication with ancestors each patient will receive their own specific treatment instructions that is always different from the next patient even if they suffer from the same condition. (PA5-homoeopath)

I focus on treating the cause of infertility and not the disease, and this is different from patient to patient..... (PA9-traditional healer)

... The treatment is different; each patient will get their treatment and management according to their disease picture (PA11-phytotherapist)

4.4.3.2 Prescribe one remedy or one therapeutic substance that fits the symptomatology of the patient

Treatment practices match medicinal therapies to the individual to stimulate self-healing response to improve the general well-being of the patient, and quality of life and female infertility is no exception. This sub-theme reveals that homoeopaths treat using only one constitutional remedy, phytotherapists use one phototherapeutic substance and similarly, traditional healers only use one traditional medicinal substance at a time. This is reflected in the excerpts below:

... I will often give one homoeopathic remedy, it is not likely to be more than one ... (PA1-homoeopath)

After the diagnosis, we begin the treatment process. Depending on the cause of the infertility, I give a suitable treatment therapy. For infertility I give one herbal infusion, I give dosage instructions and schedule a follow-up consultation after three to eight weeks. (PA10-phytotherapist)

I give one constitutional remedy and allow enough time for the remedy to act, if it is the correct simillimum changes will be noted. (PA2-homoeopath)

After taking a fully detailed case, identified the cause, we treat the cause of infertility by giving a fit and suitable homoeopathic remedy. A follow-up consultation is scheduled after every 30 days to assess the improvement. (PA4-homoeopath)

I give one remedy, not more than that. A remedy that fits the patient... (PA5-homoeopath)

Traditional healers identified a similar traditional management approach for the female infertility condition:

I administer one traditional method of treatment at a time. (PA3-traditional healer)

Only one traditional medicine or traditional ceremony is instructed to the patient, different medicines and practices for different patients, however only one medicine is given. (PA12-traditional healer)

4.4.3.3 The most commonly used homoeopathic remedies are *Natrum muriaticum*, *Sepia officinalis* and *Pulsatilla pratensis*, while phytotherapy options are *Agnus castus*, *Actaea racemosa*, and *Asparagus racemosus*.

This sub-theme highlighted the various remedies and herbal approaches commonly used by practitioners in the management of female infertility in their patients. This sub-theme documents the use of these remedies and treatment practices.

The practitioners believed that the function of all the treatment practices is to 'heal' or 'manage' a patient who presents with female infertility, with a majority reporting that, most of the time, when they use their medicine to heal a patient who suffers from female infertility, the main goal is to achieve a healthy full-term pregnancy and a safe delivery.

It was revealed that homoeopathic remedies such as *Natrum muriaticum*, *Sepia officinalis*, *Pulsatilla pratensis* were the most commonly used constitutional remedies.

Female infertility is really an emotional disorder, so a lot of time I have used *Sepia officinalis* as one of the main remedies because of different emotions involved like depression, mood swings, sadness and irritability. (PA2-homoeopath)

I often look at finding the constitutional remedy, which is usually something like *Sepia officinalis* or *Pulsatilla pratensis*. Constitution is the first part of treatment, where we look at the state of the patient, so it depends on the patient and patient profile. (PA1-homoeopath)

Well, remedies depend on a lot of factors, so there is no one remedy that will fit all. However, remedies that I have used include *Sepia* for females with irregular menses or PCOS. *Natrum muriaticum* for fibroids as well as mental and emotional factors. The potency and repetition of the remedy are also determined by different factors like the general health status of the patient. (PA4-homoeopath)

While homoeopaths often utilised constitutional remedies as the first line of approach, other supplementary modalities were also indicated by the participants in this study. A noticeable number of homoeopaths and a greater number of phytotherapists reported that the commonly used phytotherapy options such as *Agnus castus*, *Actaea racemosa* (black cohosh), and *Asparagus racemosus* (shatavari). These are reflected in the following statements:

There are also herbs like *Agnus castus*, shatavari that I sometimes recommend to help stabilise the hormones and tone the uterus. (PA7-homoeopath)

I will often look at herbal options like shatavari, often I suggest patients to take Shatavari. (PA1-homoeopath)

Treatment includes herbal infusions, tinctures, capsules or acupuncture. For infertility, we commonly use *Agnus castus*, black cohosh and shatavari. I give clear dosage instructions and schedule a follow-up. (PA11-phytotherapist)

Traditional healers identified a similar traditional management approach for female infertility. There were several alternative Zulu names that the traditional healers used to refer to their traditional medicine. These include herbal medicines, *imbiza* and *isihlambezo*. These traditional medicines are usually made from different strong herbs used in various combinations. These traditional medicines are extensively discussed in Chapter 5.

Most used and beneficial traditional medicines include *imbiza* (a blood purifying decoction used to cleanse the body) and *isihlambezo* which is *Typha capensis*, commonly known as bulrush. (PA3-traditional healer)

During the first few consultations I give the patient *imbiza* made up of different herbs which are often selected based on the health status of the patient and the cause of infertility. (PA12-traditional healer).

Imbiza is an important part of the treatment process, it usually works better if it is used in the early stages of treatment. Mostly *imbiza* is used to cleanse the system of the patient. (PA8-traditional healer)

Furthermore, most participants stated that they include lifestyle guidance and recommendations in their treatment practices.

... exercise and eating different healthy foods to cater vitamins needed by the body to function well. A healthy body leads to easy and effective body functioning. If a body is in a healthy condition, it will not need to prioritise patching a deficiency instead of focusing on getting pregnant. (PA11-phytotherapist)

The main top priority is lifestyle. Lifestyle includes exercise and eating well. It will not be the same from patient to patient, I therefore develop a plan that caters each individual. (PA9-traditional healer)

I always advise patients to avoid highly processed foods and rather eat more organic foods. If they are smokers or consume alcohol, I advise them to avoid alcohol and smoking. (PA7-homoeopath)

Arguably, female infertility causes great changes in the psychological well-being of females affected as well as that of the people surrounding them, putting great emphasis on the male partner. Hence, it is understandable that in some cases the male partner will also, to a certain extent, suffer from the consequences of female infertility.

A unique treatment practice revealed by one participant was to treat both the female diagnosed with female infertility as well as the male partner. This is done regardless of whether the male partner has been diagnosed with infertility.

This was explained by participant PA2:

I also treat the male as well, because initially, the couple will come to treat the female, but we may discover that the male is affected mentally and emotionally as well. Because they have been trying for a baby for a while, I also introduce medication to him, so that by the time pregnancy is going to happen, his sperm count is good, and the female will also be at the level of being able to conceive. (PA2-homoeopath)

4.4.4 Theme 4: The rate of successful cases with successful pregnancies is above 75% on average.

As earlier stated, homoeopathy and phytotherapy are becoming better known, with traditional African medicine already being widely recognised (Ngobese 2018). Consistent with this, patients are increasingly seeking care from these practitioners, perhaps, as reported by the participants, the success rate of healthy pregnancies using CAM is high.

Success rates are between 75% and 90% from my experience and knowledge. This is based on the successful and healthy pregnancies that are a result of consistent consultations and adherence to the medicines and advice we give to patients. (PA10-phytotherapist)

I have seen great results from the remedies and health advice I give. Maybe let me say four in five women get positive results and actually get pregnant within the first two years of consistent consultations. (PA5-homoeopath)

From my side, from the cases I have had, I would say the success rate is very high. I think that is why most of the people turn to homoeopathy when it comes to infertility. As long it is something that can be corrected, homoeopathy is able to correct it. (PA2-homoeopath)

Success rates are above 75%, the use of natural products that are safe and pure results in a far greater chance of pregnancy and healthy delivery. (PA12-traditional healer)

Success rates are pretty good actually, a far majority of patients do have babies. If patients stick to recommendations, I would say probably 80 to 85% would fall pregnant and have healthy pregnancies and babies. (PA6- traditional healer)

The success rates are very good actually, if I were to give figures I would say with the correct remedy, lifestyle, diet and healthy eating, 85% are likely to be successful. (PA4-homoeopath)

The success rates are very good, I would say nine in ten women eventually fall pregnant and give birth to healthy and beautiful babies. (PA8-traditional healer)

I can say more than 75% of the patients I have treated have had successful pregnancies. (PA11-phytotherapist)

Additionally, a noticeable number of participants reported that in the unfortunate instance where a woman does not get pregnant, there are numerous other positive changes that are observed from such a patient after taking the remedies and or other medicinal substances.

... Their general health improves and they become more able to manage their emotions. Mentally they improve and are less aggressive, less sad and less stressed by the condition. How they socialise and interact with people improves. Their partners also report that they are seeing improvements. Depending on the aetiology,

more women report to experience regular periods with less pains and other menstrual issues. Improved libido as well. (PA5-homoeopath)

The general well-being of the patients improves significantly. Patients who initially presented with menstrual issues, their menses regulate, less PMS and less menstrual pains. Lifestyle improves, changes introduced at early stages to support treatment are maintained leading to a healthier life. (PA10-phytotherapist)

The one or two patients who were not able to conceive after consultations and treatment, still improved very well in terms of the ability to accept the condition, management of their emotions, and improved spiritual health as well. (PA3-traditional healer)

Furthermore, one of the participants reported that the likelihood of successful healthy pregnancies is greater in secondary infertility as opposed to primary infertility. In the participant's own words:

I found patients who suffered from secondary infertility to be at ease and a little faster to treat. These are patients who have had successful pregnancies in the past but were relatively struggling to conceive again. Their success rates are much higher than patients presenting with primary infertility. (PA1-homoeopath)

In summary, this chapter outlined the various homoeopathic, phytotherapy and traditional treatment practices as reported by the participants in the understanding and management of female infertility. Overall, four themes emerged and have been presented, these themes are discussed in detail in the next chapter.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This study aimed to explore the treatment practices of registered homoeopathic practitioners, phytotherapists as well as traditional healers with regards to female infertility. This was done with the intention that information collected on alternative methods to treat female infertility would expand the options that are available for infertile women.

This chapter discusses the interpretation and conclusions drawn from the results and also provides an overview of whether the study objectives were achieved or not. The discussion of the results is based on the four themes that emerged from the participants' responses, as presented in Chapter 4. Categories are discussed as follows:

- Demographic information of participants
- Aetiologies and contributing factors to female infertility
- Diagnosis of female infertility
- Treatment practices of female infertility from three different professions
- Success rates of identified treatment practices

5.2 Demographic profile of participants

5.2.1 Gender

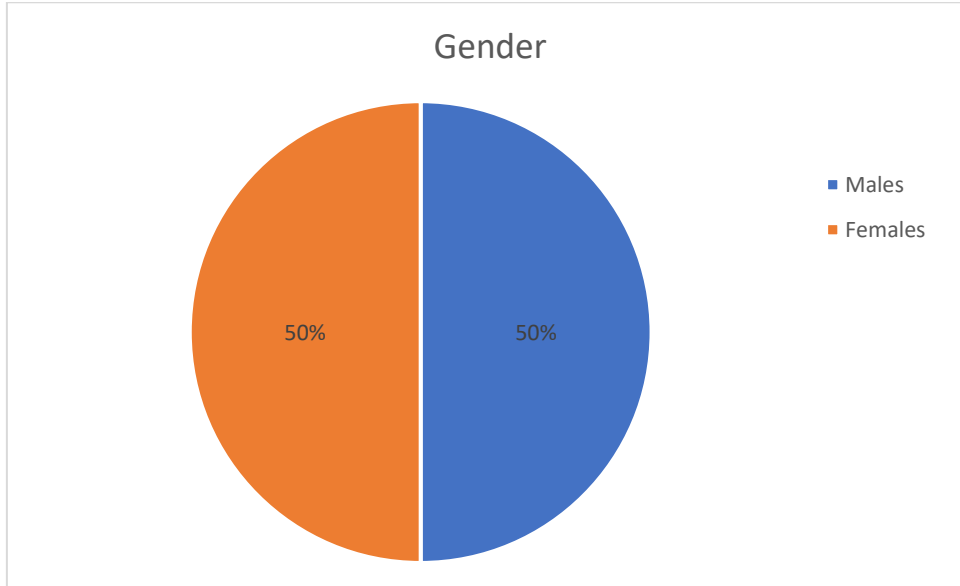


Figure 5.1: Gender

Figure 5.1 shows the gender demographics of study participants. The results reveal an equal distribution of male and female participants in this study. It is important to note that the recruitment of participants was not specific to gender selection. It was the minimum number that would respond positively and consent to participate that was recruited. The study did not seek to balance gender representation; however, the percentage of gender distribution was positive and would be recommended for future studies as well.

5.2.2 Profession

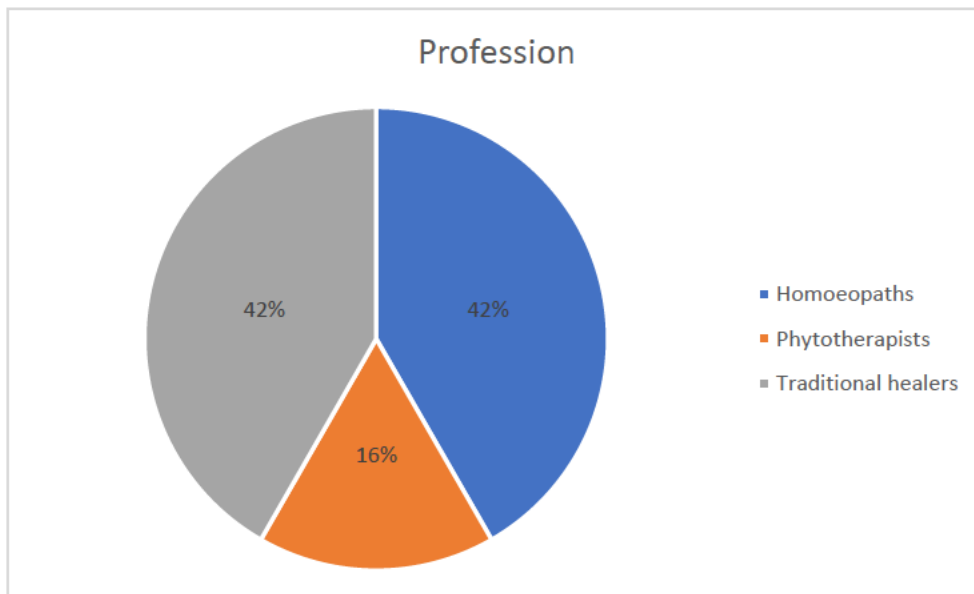


Figure 5.2 : Profession

The study focused on three healthcare professions, homoeopathy, phytotherapy and traditional healing. According to the AHPCSA practitioner search page, there are more homoeopaths practicing in KwaZulu Natal compared to phytotherapists, also confirmed by the records of the Homeopathic Association of South Africa. The proportions of participants shown in Figure 5.3 reflects the easier access by the researcher to homoeopaths and traditional healers compared to phytotherapists for participation in this study.

5.2.3 Area

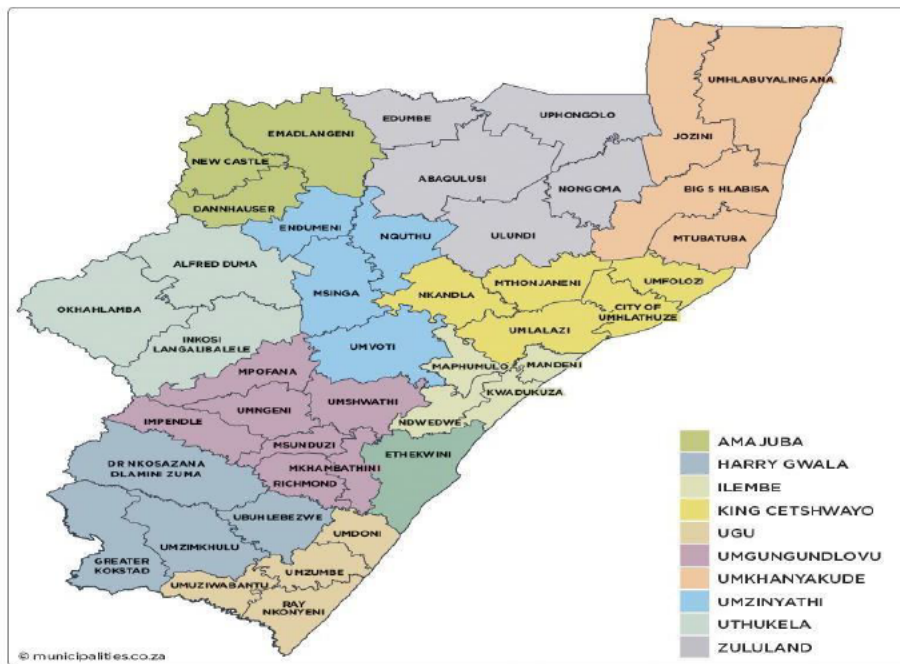


Figure 5.3: Map of KZN with sub-division of municipalities
Source: National Government of SA (2021)

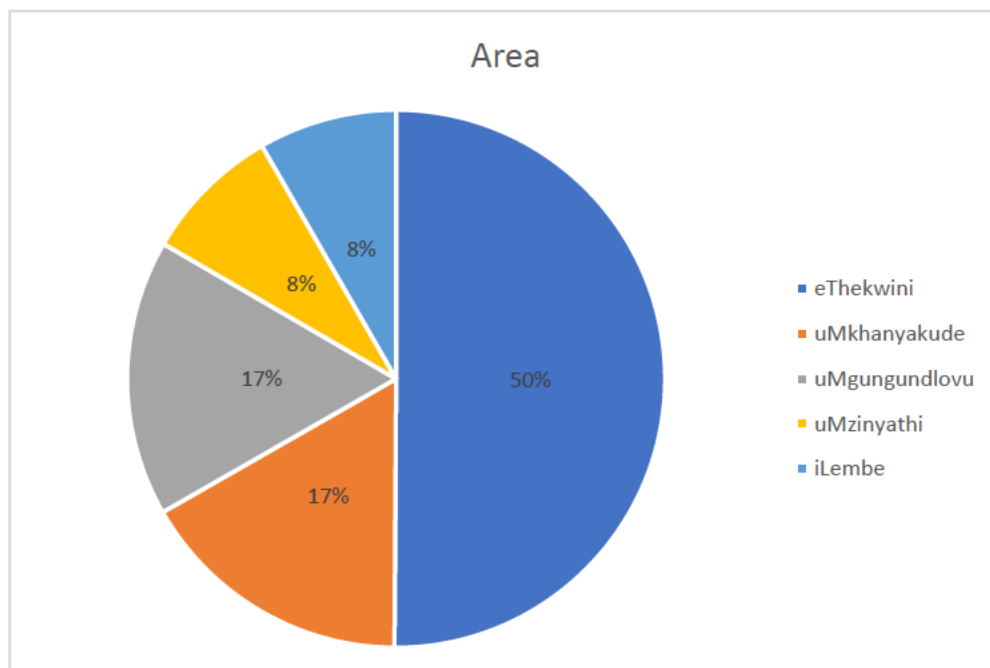


Figure 5.4: Area

Figure 5.5 shows the distribution of participants according to district municipalities in the KwaZulu-Natal province. KwaZulu-Natal is divided into 10 district municipalities, as illustrated in Figure 5.4 and five district municipalities were

represented in this study. The district municipalities are different in terms of population, development, access to different services including healthcare, and many other factors. Residents in these municipalities are also very diverse in knowledge, beliefs, culture, level of education and various other differences. It is for this reason that it was important to include participants from several different municipalities in the province, to allow for a variety of information collection.

5.3 Main findings

Themes emerging from the data collected are analysed and discussed individually as follows:

5.3.1 Theme 1: Aetiologies and contributing factors to female infertility are hormonal imbalances and lifestyle.

The participants answered a series of questions to determine their level of knowledge and in-depth understanding of female infertility. From the participants' responses, it was gathered that participants undoubtedly understood the common aetiologies and major contributing factors of female infertility. This knowledge was acquired through their respective professional learning and training as part of the qualification, as well as over the extensive experience that each practitioner has had throughout their years of practice.

Seli (2011) states that a health practitioner in any health profession needs to have broad and extensive knowledge of the numerous factors that affect human reproduction, only then will they be able to provide optimal medical care for patients.

The review of the literature revealed that hormones are a major concern in females who are experiencing fertility challenges. Hormonal imbalance is when an individual has too much or too little of one or more hormones in the body. According to Ayomipo (2021), hormonal imbalance is one of the leading causes of infertility in women nowadays. Some females suffer from having too much or too little of certain hormones. Hormonal imbalance issues include PCOS and irregular menses and

may give rise to health issues such as weight gain, low libido and depression, all of which are great concerns in the female infertility condition. The most common cause of female infertility is ovulation disorders, accounting for 57% of cases of infertility, and the most common non-ovulatory cause is PCOS at 42%, which is a classic presentation of hormone imbalance in women (Khmil *et al.* 2020).

A study that was conducted by Faiza *et al* (2021) on 110 infertile females, revealed that about 70% of infertile females showed an imbalance of FSH and LH from borderline to abnormal while TSH and prolactin were about 42% from borderline to abnormal. Additionally, 80% of females showed immature and multiple small-sized follicles which failed to mature enough for ovulation. The study concluded that the hormonal imbalance of LH, FSH, TSH and prolactin is the most common reason for infertility problems in the studied patients

Lifestyle is defined as someone's way of living (Cambridge Dictionary 2024). Lifestyle involves habits, behaviour and character of an individual, shaped by continuous activities, thus influencing the individual's general well-being (Acharya and Gowda 2017). Almost 80% of the participants stated that the lifestyle of patients greatly impacted their fertility and was a major contributing factor to female infertility.

Researchers are becoming more interested in the role lifestyle variables play in the aetiology of infertility after numerous studies demonstrated a link between lifestyle choices and infertility in both men and women. In a research study conducted by Emokpae and Brown (2021) on the effects of lifestyle factors on fertility, the study identified the following lifestyle factors which negatively affect the reproductive health of females:

- Delayed age of starting a family
- Nutritional factors
- Smoking
- Alcohol consumption
- High intake of caffeine
- Excessive use of cellular phones/radiation.

Mader and Winderlspecht (2016) support the assertion of sedentary lifestyle and body weight greatly affecting female reproduction and further explain that "in women of normal weight, fat cells produce a hormone called leptin, which stimulates the hypothalamus to release GnRH. FSH release and normal follicle development follow. In overweight women, leptin levels are higher, which impacts GnRH and FSH. The ovaries of many overweight women contain many small follicles that fail to ovulate".

It was noted that these lifestyle behaviours were adaptable and could be reversed with determination from the patient, guidance from the practitioners, and support from the patient's loved ones.

As presented in Figure 5.3, traditional healers accounted for 42% of the sample, therefore there are other aetiologies that are specific to the beliefs of the African tradition that surfaced from the study (additionally, this is explained in Chapter 2).

African people deem that the pursuit to find a deep understanding of the disease including the causes thereof, embraces the consultation of ancestors. According to Edwards *et al.* (2009), ancestors are regarded as the custodians of their descendants and provide a sense of complete understanding and guidance when there is uncertainty. Most African traditional healers believe that the ancestors play an important role in people's lives and have a positive influence on treatment prescriptions (Mchunu 2019).

Communication with the ancestors is performed by the traditional healer through nature, prayer, burning *impepho* (traditional incense or traditional sage) or visual messages in the form of dreams as well as sounds and signs. It is respected that calling on these energies and maintaining a relationship with ancestors assists their descendants with all forms of protection and leading a healthy life (Nene 2014).

The unique contributing factors mentioned by the traditional healers were ancestral-related problems, the issue of bewitchment, which involves the use of spells, poisons, cast rituals, black magic and other human-made forces that produce an unnatural effect on the fertility of the female.

Bogopa (2010) confirms that several cultures around the world believe in the spirits of the departed and that these living spirits have the power to cause problems or calamities in a person's life. The ancestors play an essential role in human functioning as it is believed that they care for their descendants although they may also send illness if angered. Traditional healers hold a strong belief that female infertility can be caused by ancestors due to anger either from unperformed traditional ceremonies or by the actions of the descendants.

Bewitchment may be contracted in many forms, for example, by placing a traditional medicine on one's path (door or gate) to harm that person. Another form of witchcraft is when one sends mythical animals (a bird or owl) to harm others (Nene 2014). Human-made food poisoning is also considered a form of bewitchment. Nene (2014) further explained that, in most cases, bewitchment is associated with bad luck or sickness, and that such sickness and bad luck may be treated only by a traditional healing method.

Furthermore, participants reported unexplained female infertility, also known as idiopathic female infertility. Idiopathic female infertility is when there is no clinical or pathological finding which explains the infertility of the woman. One participant explained this type of situation as follows:

... In some cases that I have had, some women struggle to have children and the reason for that is unknown. After exhausting all the possible causes and contributing factors and the woman is found to be healthy in all spheres, we basically rule that God just did not give that woman the blessing to have to carry life, and only God knows the reason, we can never question His ways. (PA9-traditional healer)

Corresponding to the review of existing recent literature, the participants' in-depth understanding of the aetiologies and contributing factors to female infertility is certain.

5.3.2 Theme 2: Diagnosis of female infertility is done through an in-depth case history and analysis of patient records, such as blood tests and imaging tests.

Infertility is often a challenging and complicated diagnosis for most health practitioners. The causes and contributing factors are sometimes predominant and suppress the depth of the diagnosis of female infertility, making diagnosis more difficult. Buzzaccarini, Vitagliano and Lagana (2023) state that in one-third of couple infertility cases a clear and definite diagnosis is not achievable.

Obtaining a correct and complete diagnosis is key to finding the best suitable treatment method for a patient. A diagnosis explains a patient's health problem and informs succeeding health care decisions. Balogh, Miller and Ball (2015) state that diagnostic errors can lead to negative health outcomes, and financial costs. If a diagnostic error occurs, inappropriate or unnecessary treatment may be given to a patient, while appropriate and potentially lifesaving treatment may be withheld or delayed.

All the participants of this study reflected that a proper diagnosis is achievable through an in-depth investigation that begins in the practitioners' consultation rooms with the practitioner asking informative questions from the patient, performing the relevant examinations, and ordering laboratory diagnostic tests if warranted.

The following is a list of diagnostic measures as described by participants and supported by literature:

An in-depth case history

According to Nichol, Sundjaja and Nelson (2024) a medical history is the collective information gained by the health practitioner through asking relevant questions related to the complaints explained by the patient. A well-detailed case history reveals past medical-related occurrences, current health status and predicts the

future health risks for the patient. Pendleton *et al.* (2013) describe case-taking as the primary act of medicine to be understood by all practitioners.

According to O'Reilly (1996), Dr Hahnemann in his book *Organon of Medicine*, aphorisms 83-104, provided extensive instructions regarding the method of case-taking. To be more precise, in aphorism 89 Dr Hahneman states: "When the patient has, by these details, given of his own accord and in answer to inquiries, furnished the requisite information and traced a tolerably perfect picture of the disease, the physician is at liberty and obliged to ask more precise, more special questions."

A comprehensive case history intake includes:

- Past medical history – herein a practitioner asks menstrual-related questions for example, questions about the menarche, regularity of the menses and pains associated. Further questions include past and current illnesses, infections, the use of contraceptives, medical and other surgeries or operations as well as past and current medications including supplements. History of miscarriages, abortions and sexual history also have a very significant contribution to infertility (Hall 2020).
- Family history – a practitioner inquires about the history of biological parents, siblings and immediate family members with the aim of understanding disease patterns among blood relatives (Gray 2018).
- Lifestyle – lifestyle assessment includes the practitioner asking about social habits such as alcohol consumption, tobacco, the use of recreational drugs, physical activeness and dietary habits (Bathtiyar *et al.* 2019).
- Other personal questions – for example, level of libido and frequency of unprotected sexual intercourse with a biological male.

Participants stated:

I listen carefully to the patient's story, ask both general and more extensive questions and observe their body and energy. (PA8-traditional healer)

Physical examination

This is more often done in the practitioner's working space. Physical examination evaluates the findings through observations, palpation, percussion and auscultation (Bickley and Szilagyi 2003). Physical examinations performed for female infertility diagnosis include:

- Vital signs – these measure the basic functioning of the body, they include blood pressure, pulse, respiratory rate, temperature and BMI.
- Specific system exam – in the case of female infertility an in-depth examination of the female reproductive organs is performed. This involves a pelvic exam, external genitalia exam and urine dipstick (Hanretty 2010).
- Examination of the other systems – This examination may cover other systems of the body, for example, it may include an abdominal exam.

Blood tests

Blood tests that are most commonly ordered by the participants in this study are FSH, LH, TSH and androgens.

I first test the female hormones whether they are normal or not, these include FSH, LH, oestrogen and progesterone. I also check if the male hormones, androgens are not greater than normal ranges for females. (PA5-homoeopath)

... I then send for blood tests that include FSH, LH, TSH and androgens. (PA4-homoeopath)

Secondly, it is often blood tests, which will normally be FSH and LH. Depending on the length of the cycle, I also do a progesterone test about a week prior to when the period is expected to start. (PA1-homoeopath)

Imaging tests

The most common imaging tests the practitioners usually send for are X-rays and ultrasound. An X-ray test outlines the internal shape of the uterus and shows whether the fallopian tubes are blocked or not. According to Mader and

Winderlspecht (2016), an ultrasound gives good immediate information about the ovaries, while an ultrasound can assess and measure the ovaries.

Participants stated:

...Imaging tests include X-rays and ultrasound. (PA10-phytotherapist)

Other tests that I normally send for include an ultrasound scan, X-ray and laparoscopy. (PA4-homoeopath)

The data suggested that female infertility diagnosis is realised through the combinations of information collected from the patient, expertise and sending for further tests and examinations such as blood tests and imaging tests. It was noted that not every patient needs to have all of these tests before the correct diagnosis is found.

5.3.3 Theme 3: Treatment practices from three different professions shared similar practices.

This theme emerged from the chief question: What is your approach to treating female infertility? The question was occasionally asked as a more open-ended question, that is, "please take me through your treatment practice with regards to female infertility", thus allowing the participants to fully express themselves. This question underlies the main aim of this study is based, that is to explore the experiences and investigate the different treatment practices of homoeopathic practitioners, phytotherapists as well as traditional healers with regards to female infertility.

Due to the complexity of this theme, it is further broken down into three sub-themes as discussed below.

5.3.3.1 Treat the patient, not the disease

Homoeopathy, phytotherapy and traditional medicine fall under CAM and are fundamentally different in principles and rationale to those of the allopathic tradition. CAM therapies conform to an underlying holistic philosophical base for their practice (Brown 1994). Holistic medicine views the body as a complete system and therefore it treats the whole person rather than the illness.

Holistic practitioners respect the individualism of each person and believe that each individual is unique and therefore their response to any disease is unique. Because of this acknowledgement of the uniqueness of the individual, holistic practitioners believe that two people who have the same diagnosis may be prescribed different remedies (Brown 1994). It was gathered from the data that the primary concern of the practitioners was why the disease has occurred and the main focus is on bringing the patient to a 'healthy' state, bringing about a balance and achieving the state of equilibrium.

Hoffmann (1997) states that in the holistic approach to healing, a body is treated as a whole being. To heal truly, practitioners must look at the interconnectedness of all the parts of this whole being.

All 12 study participants said that all their treatment practices are individualistic. A traditional healer confirmed:

As guided by the cause of infertility and the communication with ancestors each patient will receive their own specific treatment instructions that is always different from the next patient even if they suffer from the same condition. (PA6-traditional healer)

A homoeopath also confirmed:

With homoeopathy as I said, we treat the individual mainly, more than the condition they come with. With homoeopathy I am treating the patient as a whole, mentally, emotionally, spiritually and physically, everything needs to be treated. I will not look

at only the fertility part and neglect the mental part or the emotional part of the patient, that is how I manage the case. (PA7-homoeopath)

Furthermore, the phytotherapist also stated:

After the diagnosis, we begin with the treatment process. Depending on the patient, I give a suitable treatment therapy that fits that patient in particular. (PA10-phytotherapist)

5.3.3.2 Prescribe one remedy/herb or one therapeutic technique that fits the symptomatology of the patient

If overall health is not optimal, it should be supported by suitable treatments, and a single remedy or tonic is frequently beneficial in such cases (Hoffmann 1997).

As discussed in the literature review, homoeopathy has three cardinal principles, namely; the law of similars, the law of simplex and the law of minimum. Roberts (1997) explains that according to the law of simplex only one simple medicinal substance is to be administered in a given case at a time. Dr Hahnemann in his 6th edition of the Organon of Medicine emphasises that not in any circumstance is it necessary to give numerous remedies at a time. In aphorism 273 he stresses that, "In no case under treatment is it necessary and therefore it is not permissible to administer to a patient more than one single, simple medicinal substance at one time".

Brown (1994) states that once all the important details have been clarified and the diagnosis has been made, the practitioner prescribes a single remedy. The author further discusses that the remedy is chosen based on the patient's physical symptoms, signs and modalities.

Data collected in the current study revealed that homoeopathic practitioners mainly treat using only one constitutional remedy and/or phytotherapy remedy, similarly,

traditional healers only use one traditional medicine at a time. This is reflected in the excerpts below:

... I will often give one homoeopathic remedy, it is not likely to be more than one
(PA1-homoeopath)

I give one remedy, not more than that. A remedy that fits the patient (PA5-homoeopath)

... I give one herbal infusion, I give dosage instruction and schedule a follow-up consultation after 3 to 8 weeks. (PA10-phytotherapist)

Traditional healers identified a similar management and prescribing approach:

Only one traditional medicine or traditional ceremony is instructed to the patient ...
(PA12-traditional healer)

I administer one traditional method of treatment at a time. (PA3-traditional healer)

Researchers over the years have suggested that taking more than one medicine simultaneously makes the patient more likely to experience side effects. Additionally, the patient may be at a higher risk of medicine interactions, for example, one medicine may make the other medicine stronger or weaker (Paruk 2006).

5.3.3.3 The most commonly used homoeopathic remedies are *Natrum muriaticum*, *Sepia officinalis* and *Pulsatilla pratensis*, while phytotherapy options are *Agnus castus*, *Actaea racemosa*, and *Asparagus racemosus*.

This sub-theme explores the various remedies and herbal approaches commonly used by practitioners in the management of female infertility. As stated, practitioners treat the patient and not the disease and a remedy is selected as per individual case, however, participants reported the following remedies and phytotherapy substances

to be the most commonly used. Due to the complexity of this sub-theme and the similarities and differences in treatment practices by homoeopaths, phytotherapists and traditional healers, the discussion thereof is separated into two categories. Homoeopathy and phytotherapy treatment modalities are grouped, while traditional healing is discussed separately.

(i) Treatment practices of homoeopaths and phytotherapists

Regarding the constitutional remedy, it was revealed that homoeopathic remedies such as *Natrum muriaticum*, *Sepia officinalis* and *Pulsatilla pratensis* were the most commonly used constitutional remedies. This is reflected in the excerpts below:

I often look at finding the constitutional remedy, which is usually something like *Sepia officinalis* or *Pulsatilla pratensis*. Constitution is the first part of treatment, where we look at the state of the patient, so it depends on the patient and patient profile. (PA1-homoeopath)

Well, remedies depend on a lot of factors, so there is no one remedy that will fit all. However, remedies that I have used include *Sepia* for females with irregular menses or PCOS. *Natrum muriaticum* for fibroids as well as mental and emotional factors. (PA04-homoeopath)

According to the materia medica of the homoeopathic medicines (Phatak 1999; Kent 1989) in the context of the female reproductive system and the mind, the above remedies are explained as follows:

Natrum Muriaticum

This remedy is commonly referred to as just *Nat mur* and is derived from sodium chloride. This remedy is often prescribed to patients who are experiencing deep feelings of sorrow, grief, heartbreak and disappointment. Being sensitive and vulnerable plays a significant role in leaving patients susceptible to emotional harm. It is reported to be extremely useful in patients suffering from dysmenorrhoea, prolapse of the uterus and debilitating leukorrhoea that is white and thick instead of menses (Kent 1989).

Sepia officinalis

Also known as Indian ink, this is a pre-eminently woman's remedy with great effects on the female pelvic organs. It is suited for females from absence of menses, retained placenta after abortion, the tendency to abortion from 5th to 7th month, and severe itching in the vulva causing abortion. One of the peculiar symptoms of this remedy is the weak, dragging or bearing down sensation as if everything would escape from the vulva, and the patients usually explain feeling like they must cross limbs or hold the part to prevent protrusion.

Pulsatilla pratensis

This remedy is also known as a female-eminent remedy. Here the patient feels emotional, timid, discouraged, easily offended and craving sympathy. Menses are late, dark, clotted and irregular (Phatak 1999).

In a study that was conducted by Lobo, D'cunha and Lobo (2018) on the effectiveness of homoeopathic treatment in female infertility, results revealed that homoeopathic constitutional remedies were successful in treating 27 out of 40 cases in terms of testing positive for urine pregnancy tests. The remedies given were *Natrum muriaticum* in 16 patients, *Pulsatilla* in 7 patients, *Lycopodium* in 6 patients, *Silicea* in 3 patients, *Calcarea carbonicum* in 3 patients, *Sepia* in 3 patients, *Phosphorous* in 1 patient and *Natrum carbonicum* in 1 patient.

Homoeopathic treatment for female infertility has been scientifically validated and emerges as a promising alternative treatment for infertility in women (Lobo, D'cunha and Lobo 2018).

While homoeopaths often utilise constitutional remedies as the first line of approach, other homoeopaths and a greater number of phytotherapists reported that the commonly used herbal options are *Agnus castus*, *Actaea racemosa* (black cohosh), and *Asparagus racemosus* (shatavari).

These are reflected in the following statements by participants:

For infertility we commonly use *Agnus castus*, black cohosh and shatavari. I give clear dosage instructions and schedule a follow-up. (PA11-phytotherapist)

There are also herbs like *Agnus castus*, shatavari that I sometimes recommend to help stabilise the hormones and tone the uterus. (PA7-homoeopath)

Agnus castus

This remedy commonly known as chaste tree or chaste bush, was considered primarily a herb for women's symptoms with many medical herbalists believing it was nature's alternative to chemical drugs for balancing hormones (Lucas 1991). It is used for alleviating profuse menstruation, absence of menses and other menstrual disorders caused by hormone imbalances. *Agnus castus* acts on the anterior pituitary gland correcting and balancing hormones. The effect of *Agnus castus* was studied on 45 infertile females; after three months seven females became pregnant and 25 had normal serum progesterone levels (Mills and Bone 2000).

Actaea racemosa or *Cimicifuga racemosa*

Commonly known as black cohosh, this valuable herb has a powerful action as a relaxant of the female reproductive system. It is used beneficially for painful or delayed menses, ovarian cramps and cramping pains in the uterus. It is greatly used as an adjunct in the treatment of conditions like infertility, miscarriage and PCOS (Hoffmann 1997). It is important to note that *Cimicifuga racemosa* is also available as a homoeopathic similimum.

Vithoulkas (1997) in his volume 9 of his *Materia Medica Viva* explains *Cimicifuga racemosa* as a remedy with strong action upon the female generative organs and their functions.

Asparagus racemosus

Also known as shatavari, this herb is known to improve reproduction by promoting fertility. It also produces anti-anxiety effects by improving the body's resistance to stress. Pandey *et al.* (2018) conducted a study on the possible beneficial effects of shatavari, the results showing that shatavari has the potential to enhance women's reproductive health issues such as hormonal imbalances, PCOS and infertility possibly by increasing antioxidant levels in the body (Pandey *et al.* 2018).

(ii) Treatment practices of traditional healers

The participants in the study identified traditional medicines using their traditional names. It was, however, not always possible to translate these traditional names to a specific botanical species. In addition, although there were some plants and herbs that most of the conventional healers cited as using to address female infertility, each healer may have his/her unique blend of plants and animal parts which are combined to treat a specific patient. This depended on the healer's knowledge pertaining to each case. It was, therefore, not possible to generalise the findings of this study to traditional plants or herbs as a specific entity.

Traditional healers in this study gave the following reflections and common traditional medicines used are discussed thereafter:

During the first few consultations I give the patient *imbiza* made up of different herbs which are often selected based on the health status of the patient and the cause of infertility. (PA12-traditional healer).

Imbiza is an important part of the treatment process, it usually works better if it is used in the early stages of treatment. Mostly imbiza is used to cleanse the system of the patient. (PA8-traditional healer)

Most used and beneficial traditional medicines include imbiza and isihlambezo which is *Typha capensis*, commonly known as bulrush. (PA3-traditional healer)

Imbiza

Imbiza is a generic term for a number of strong herbs, used in various combinations to form a blood-purifying decoction used commonly to cleanse the body. It is prescribed in the form of a liquid and administered as a drink or to use as an enema (colonic absorption). However, this medicine must not be used continuously as, given its laxative effect, it may contribute to conditions such as malabsorption and death (Mchunu 2019).

Isihlambezo

Isihlambezo is a herbal decoction used as a preventative health tonic during pregnancy (Varga and Veale 1997). According to participants in this study, the main ingredient in *isihlambezo* is *Typha capensis*. This decoction is used to promote fertility in females, enhance libido and is also continued during pregnancy to ensure easy delivery and to promote expulsion of the placenta.

The data suggested that traditional healers believe that if a traditional medicinal substance is administered to a person with female infertility, the aim is to heal the illness by ensuring that it ceases to exist. It is important to remember that traditional medicine involves a combination of information, expertise and practices based on the ideas, opinions and views inherent in various values that are used to preserve health as well as to identify or treat physical and emotional well-being (Bogopa 2010).

Furthermore, most participants stated that they include lifestyle guidance and recommendations in their treatment practices. This is done on the basis of providing a holistic approach to healing and supporting the body. These lifestyle advices include leading a healthy nutritious diet, keeping physically active and limiting alcohol and recreational drugs. It is like-wise important to note that these lifestyle advices are patient-specific and depend on a number of factors including affordability and the overall health of the patient.

5.3.4 Theme 4: The rate of successful cases with successful pregnancies is above 75% on average

Success in the case of female infertility is determined by achieving a healthy pregnancy, a safe delivery and ultimately a healthy baby. Ngobese (2018) reported that health outcomes associated with the utilisation of complementary and alternative treatment approaches are positive and are favoured by patients.

Feng *et al.* (2021) conducted a research study on the efficacy of complementary and alternative medicine in the treatment of female infertility, the findings proved that homeopathic treatment can improve fertility. The use of an individualised remedy resulted in successful deliveries of healthy babies from infertile patients who had previously been diagnosed with conditions such as endometriosis and insufficient ovarian reserve (Feng *et al.* 2021).

All participants reported a high success rate of eventual pregnancies with consistent treatment and supporting lifestyle recommendations. Combining all the data collected from participants with regards to success rate, an average of above 75% success rate emerged.

Participants stated:

Success rates are pretty good actually, a far majority of patients do have babies. If patients stick to recommendations, I would say probably 80 to 85% would fall pregnant and have healthy pregnancies and babies. (PA6-traditional healer)

The success rates are very good actually, if I were to give figures I would say with the correct remedy, lifestyle, diet and healthy eating, 85% are likely to be successful. (PA4-homoeopath)

Success rates are above 75%, the use of natural products that are safe and pure results in a far greater chance of pregnancies and healthy delivery. (PA11-phytotherapist)

I have seen great results from the remedies and health advice I give. Maybe let me say four in five women get positive results and actually get pregnant within the first two years of consistent consultations. (PA5-homoeopath)

Furthermore, many participants noted that if a woman, unfortunately, does not become pregnant even after consistent treatment therapies, improved lifestyle and further tests, there are still several beneficial changes observed and reported by patients themselves in their health and well-being. These positive changes include better management of stress and anxiety associated with infertility, regular and less painful menses and balance of hormones.

A significant number of participants reflected:

The one or two patients who were not able to conceive after consultations and treatment, still improved very well in terms of the ability to accept the condition, management of their emotions, and improved spiritual health as well. (PA3-traditional healer)

The general well-being of the patients improves significantly. Patients who initially presented with menstrual issues, their menses regulate, less PMS and less menstrual pains. Lifestyle improves, changes introduced at early stages to support treatment are maintained leading to a healthier life. (PA10-phytotherapist)

In conclusion, this chapter discussed the study results and related how practitioners from the three professions understand and manage the female infertility condition using a variety of treatment approaches.

The approach includes the careful study of different aetiologies and contributing factors to female infertility as well as the diagnosis thereof. It was found that each participant adopted a different treatment method based on the concept of individual care.

These treatment practices revealed that homoeopathic remedies such as *Natrum muriaticum*, *Sepia officinalis*, *Pulsatilla pratensis* are the most commonly used constitutional remedies and common herbal options are *Agnus castus*, *Actaea*

racemosa (black cohosh), and *Asparagus racemosus* (shatavari). Traditional healers identified a similar traditional management approach for female infertility. Equally, the participants were noted to also provide lifestyle advice to the patients in combination with their treatment practices.

Overall, the findings also strongly suggest that homoeopathic, phytotherapy and traditional treatment practices have high chances of success, in excess of 75%.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The aim of this study was to explore the experiences and investigate the different treatment practices of registered homoeopathic practitioners, phytotherapists as well as traditional healers with regards to female infertility. Having done this, more information was collected on alternative methods to treat female infertility with the intention of expanding the options that are available for infertile women. This study also aimed to provide information on the success rate of each CAM approach.

The objectives of the study were:

- Filling in the gap that exists in research regarding the understanding of various treatments available to approach female infertility.
- Broadening the scope of understanding to allow for referrals between allopathic and complementary medical professions.
- To improve the success rate of female infertility treatments, considering the increased awareness of options available as a result of this study.
- To further increase public awareness about the management of female infertility and support for infertile females.

A qualitative research methodology was used. Detailed responses were obtained from participants utilising in-depth interviews using an interview guide with the grand tour question: *What is your approach to treating female infertility?* In the previous chapter, results obtained from the study were discussed and thereafter supported by drawing information from the literature. This chapter draws from that discussion to suggest recommendations for future research.

6.2 Conclusions derived from the analysis

The practitioners who were interviewed appeared to have a clear knowledge and understanding of female infertility, its causes and the management thereof. All

participants asserted that their treatment practices were both natural and safe to use and they yielded high chances of successful pregnancies.

Participants agreed that the process of understanding, diagnosis and treating the patients begins the moment patients arrive at their practice. They emphasised the importance of thorough case-taking, especially in cases of female infertility, where all pertinent questions must be asked and responses recorded in the patient's own words. A well-taken case leads to a more precise diagnosis, enabling the practitioner to tailor a suitable treatment plan for the patient's specific needs.

Another perception was the concept of a holistic system, many participants confirmed that the focus is on treating the individual as a whole rather than just addressing the symptoms. Homoeopathic, phytotherapy and traditional medicine consider all the unique emotional, physical, mental and spiritual individualities of a patient when prescribing medication. This means that two individuals with the same diagnosis may not necessarily be given the same treatment.

Following the concept of individualism, the study revealed that practitioners utilise just one specific constitutional homoeopathic remedy or phytotherapy herb, similar to how traditional healers also focus on using a single traditional medicine or traditional practice at a time. In homoeopathy, this can be referred to as 'constitutional prescribing'.

The homoeopathic practitioners who participated in this study reported that the commonly used constitutional remedies in the treatment of female infertility were *Natrum muriaticum*, *Sepia officinalis* and *Pulsatilla pratensis*. The practitioners confirmed that this information was acquired and this finding is supported by the materia medica of homoeopathic remedies as well as extensive years of experience in practice.

Phytotherapists reported that their commonly used herbal options include *Agnus castus*, *Actaea racemosa* (black cohosh), and *Asparagus racemosus* (shatavari). Other homoeopathic practitioners reflected that even though they use constitutional

remedies as the first-line approach, they sometimes also use the same herbal options as an adjunct to remedies.

The traditional healers who participated in the study mentioned various plants and herbs which are commonly used for female infertility. The combination of different plants form decoctions which may have different healing properties and play different roles in the treatment. These included *imbiza* and *isihlambezo*. Traditional healers also use other traditional practices such as performing traditional rituals as part of healing.

The success rates of the mentioned treatment practices was said to be above 75%, as reported by all the participants of the study and supported by available literature. In addition to the success rates, participants reflected that even in the unfortunate instances where patients do not achieve a full-term pregnancy, some positive and beneficial health changes would still be realised.

A noteworthy finding is the assurance of safety concerning the use of homoeopathic remedies, phytotherapy herbal options as well as the traditional medicines. The participants of the study stated that their treatment practices were very safe and free from adverse effects.

Paruk (2006) investigated perceptions and experiences of homoeopathy in pregnant females and noted that the majority of participants knew homoeopathy was safe to use in pregnancy and in infants (Paruk 2006).

Prior research also revealed that when a mother is treated homoeopathically before conception, the baby has a greater chance of a healthier existence, in addition to easier and safer pregnancy and delivery.

Responses from practitioners indicated adherence to the homoeopathic philosophy according to Aphorism 1 from the Organon of medicine: "The greatest call for the physician is to cure." (O'Reilly 1996). This is reflected in the conclusion that participants reported a success rate of more than 75% with their treatment practices.

The findings fulfil the study's objective to fill the gap that exists in research regarding the understanding of various treatments available to approach female infertility, providing insight into different treatment practices and contributing to the understanding of the explored treatment practices.

6.3 Strengths of the study

As per the demographic profile of participants outlined in Chapter 5, there was an equal distribution of male and female participants, three different races of participants and five district municipalities of KwaZulu-Natal were represented in this study. Furthermore, all the participants of this study had been in practice for more than five years with wide-ranging experience in treating female infertility. These realities suggest the long-standing application of principles of their respective profession, the use of specific treatments, and exposure to the entire spectrum of presentations and aetiologies of female infertility. On this basis, the researcher is confident that the information provided in the interviews was indeed trustworthy.

Furthermore, the study dispels common myths and several misconceptions surrounding female infertility. For example, the misconception that all female infertility treatments involve invasive procedures has been proven to be incorrect and not supported since the study findings revealed that homoeopaths, phytotherapists and traditional healers treat female infertility with medicinal substances that are safe, free from adverse effects have a high degree of success. By challenging the myths and misconceptions the study's objective to increase public awareness about the management of female infertility and support for infertile females has been met.

6.4 Limitations of the study

The study had the following limitations:

- Often there is no formal structure underlying the teaching of the African traditional medicine and qualifications, but trainees receive instructions either from ancestors or other healers.

- The scope of experience of the traditional healers did not cover all the possible causes or manifestations of female infertility such as infections, PCOS, endometriosis and other causes.
- The recruitment process exposed that there is a very limited number of phytotherapy practitioners practising in KwaZulu-Natal compared to other provinces especially the Western Cape and the Gauteng province, as per the AHPCSA practitioner search page. This may be a result of the fact that the phytotherapy course is not offered in any of the KwaZulu-Natal province institutions but is offered at the University of Johannesburg in the Gauteng province. This resulted in difficulty in finding phytotherapy participants.
- The participants in the study identified traditional medicines using their traditional names. It was not always possible to translate these traditional names to a specific botanical species.
- It is not possible to generalise the treatment practices of the participants because of the common principle of individualisms, meaning that all patients and all cases are different regardless of the same diagnosis.

6.5 Recommendations

These are the recommendations that evolved from the study:

1. Recommendations for inter-professional interaction

There is a demand by the public for physicians to be more knowledgeable and accepting of CAM. It is a commonly known reality that health care in South Africa is a great burden to the government. There is often poor access to health care, an insufficient practitioner-to-patient ratio and an inadequate distribution of health care facilities. Therefore, if allopathic practitioners are knowledgeable of CAM they would be able to identify when to refer patients to CAM practitioners, this would allow for better referral amongst inter-professional practitioners and would release the burden on the government health care facilities.

2. Recommendations for the community of practitioners

It is highly recommended that practitioners make public-friendly information available to the general public educating them about female infertility, possible causes, signs and symptoms as well as possible solutions and lifestyle advices. Lack of knowledge is considered the main reason for the absence of public support for infertile females. This can be achieved through educational pamphlets available at health facilities, community presentations or through social media.

Additionally, the population of registered homoeopaths and phytotherapists should be updated. The general demographic statistics of practitioners including professions should be made available and easily accessible so that the population may be known.

3. Recommendations for the curriculum

It is recommended that the curriculum of homoeopathy and phytotherapy expose students to female infertility cases so that they are fully capable of treating said patients immediately after obtaining their respective qualifications.

A formally structured teaching of African medicines with accredited qualifications is recommended. This will improve consistency, quality and provide a greater recognition of African traditional medicine. It will empower traditional healers with new skills and knowledge while promoting cultural preservation as well. Furthermore, by doing this the possibility of integrating African medicines with modern medicines will be escalated.

4. Recommendations for future research

- It is recommended that in the future researchers further investigate and study in greater detail each treatment practice that evolved from this study in its entirety.

- It is recommended to develop a quantitative research model as well to provide statistical proof of how effective these treatment practices are.
- Due to the restrictions during the COVID-19 pandemic, most of the research interviews were conducted online via Microsoft Teams as a safety precaution. This resulted in the lack of incomparable in-person engagements. It is therefore recommended to conduct in-person interviews in future research studies.
- The traditional healer's knowledge of western healing methods in the management of female infertility was not explored in this study and it would, therefore, be interesting to investigate this area in order to establish a baseline of knowledge for further research studies.
- A study focusing on patients with infertility who received treatment from these practitioners is recommended.

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APPENDICES

Appendix A: Full IREC ethical clearance



2 March 2022

Miss X P Mtolo
A228 Shodwane Road
Mpumalanga Township
Hammarisdale
3699

Dear Miss Mtolo

The treatment practices of Homoeopaths Phytotherapists and Traditional healers with regards to female infertility in the KwaZulu-Natal province

I am pleased to inform you that Full Approval has been granted to your proposal.

The Proposal has been allocated the following Ethical Clearance number **IREC 268/21**. Please use this number in all communication with this office.

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

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

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

Yours Sincerely

Prof J K Adam
Chairperson: IREC

Appendix B: Email cover letter

Subject: Request for Research Study Participation.

Dear Practitioner

My name is Xoliswa Mtolo, a Master of Health Science: Homoeopathy student at the Durban University of Technology (DUT). I am writing this email to kindly request your participation in my research study titled, **"The treatment practices of Homoeopaths, Phytotherapists and Traditional Healers with regards to Female Infertility in the KwaZulu-Natal Province."**

Infertility remains a highly prevalent global condition. In South Africa, females are increasingly presenting at different health facilities due to primary and/or secondary infertility. This qualitative study aims to investigate the experiences and treatment practices of Homoeopaths, Phytotherapists, and Traditional Healers concerning female infertility. The study requires participants who meet the following inclusion criteria:

- Qualified and registered Homoeopaths, Phytotherapists who have been in practice for 5 or more years in the KwaZulu-Natal province and have had experience in treating Female infertility.

The study will consist of recorded semi-structured interviews that will take between 10-20 minutes. The interviews can be held online or physically, at a time and venue chosen by you. Please find the attached information letter for more information.

If you are keen on being part of the study or require further information, please contact me at mtoloxp@gmail.com or 0797711438. You can also contact the research supervisor Dr. C Hall at corneh@dut.ac.za

A consent form will be sent to you after you have responded.

I look forward to hearing from you and thank you in advance for your contribution to my studies.

Sincerely,

Xoliswa Princess Mtolo

Appendix C: Information letter (English)



LETTER OF INFORMATION

Title of the Research Study: The treatment practices of Homoeopaths, Phytotherapists and Traditional healers with regards to female infertility in the KwaZulu-Natal province.

Principal Investigator/s/researcher: Xoliswa Princess Mtolo, Bachelor of Health Sciences: Homoeopathy.

Co-Investigator/s/supervisor/s: Dr C. Hall, Master's Degree in Technology: Homoeopathy

Brief Introduction and Purpose of the Study: The purpose of this qualitative study is to fill in the gap that exists in research regarding the understanding of the treatment of female infertility by studying the treatment practices of Traditional healers, Phytotherapists and Homoeopaths with regards to female infertility in the Kwa-Zulu Natal province.

Dear Participant

I am Xoliswa Princess Mtolo, a student at DUT, currently doing research for my Masters degree in Homoeopathy.

I would like to invite you to participate in this research study.

What is Research: Research is a systematic search or enquiry for generalized new knowledge.

Outline of the Procedures: This qualitative study aims to investigate the experiences and different treatment practices of Traditional healers, Phytotherapists and Homoeopaths with regards to female infertility in the KwaZulu-Natal province. Once four Homoeopaths, four Phytotherapists and four Traditional healers are recruited to the study, you will be requested to participate in a 10 to 20 minutes-long semi-structured interview through virtual interviews or face-to-face interviews. There will be open ended questions about your understanding and treatment practices of female infertility. These interviews will take place at your convenient and preferred location. With your permission, all interviews will be audio recorded for research purposes and stored in safe and password protected computer.

You qualify for the study if:

- You are a Homoeopath/ Phytotherapist/ Traditional healer who is registered and practicing in KwaZulu-Natal.
- You have been practicing for more than five years.
- You have experience in treating female infertility.

If you do not meet the above requirements, you will not be included in the study.

Risks or Discomforts to the Participant: Participation in this study has no risks or discomforts.

Explain to the participant the reasons he/she may be withdraw from the Study: The researcher may stop you from taking part in the study at any time if she believes it is in your best interest or if the study is stopped. Also, participants may choose to withdraw from the study at any time during the interview process with no adverse consequences for these participants.

Benefits: As a participant you will get to share your knowledge on the understanding and treatment of female infertility with the society at large. Females who suffer from infertility will get educated on alternative methods to help cure their condition. Society will have a better understanding of Homoeopathy, Phytotherapy and Traditional medicine in the treatment of female infertility.

The researcher is doing this research to obtain her Master's Degree in Homoeopathy at Durban University of Technology.

Remuneration: There will not be any payment for taking part in the study.

Costs of the Study: There is no cost involved for participants taking part in the study.

Confidentiality: Your personal details will not be disclosed at any stage of the study. The interview documents and audio recordings will be kept secure by the researcher for the duration of the research and then stored in a locked office of research study personnel at Durban University of Technology, Homoeopathy Department and destroyed after 5 years. Only researcher and supervisors will have access this information.

Results: The output will be through a dissertation that will be available in DUT library and available online via the repository Potential article in accredited journal.

Research-related Injury: Due to the nature of the research there is no anticipated risk for injury related to research. No compensation will be made for such claims.

Storage of all electronic and hard copies including tape recordings: The confidential data collected will be retained in the storeroom at the department of homoeopathy for 5 years after the study. Only the research administrator and coordinator keeps the key to the room. Thereafter it will be destroyed and disposed.

Persons to contact in the Event of Any Problems or Queries: Please contact the researcher Xoliswa Mtolo (079 771 1438), Research supervisor Dr Hall (0313732483) or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za

Appendix D: Information Letter (IsiZulu)



INCWADI YOLWAZI

Isihloko socwango: The treatment protocols of Homoeopaths, Phytotherapists and Traditional healers with regards to female infertility in the KwaZulu-Natal province.

Umcwani oyinhloko: Xoliswa Princess Mtolo, Bachelor of Health Sciences: Homoeopathy

Abaqondisi bocwango: Dkt C, Hall- Master's degree in Technology: Homoeopathy
Kanye no Dkt T, O Wulfsohn- Master's degree in Technology: Homoeopathy.

Isingeniso esifushane nenhloso yocwango: Inhloso yocwango ukugcwalisa igebe ngolwazi olukhona ocwangingweni oluphathelele nokuqonda kokwelapha ukungabatholi abantwana kubantu besifazane, ngokufunda izindlela zokwelapha ukungabatholi abantwana kubantu besifazane, phakathi kubelaphi bendabuko, ama-Phytotherapists kanye nama-Homoeopaths esifundazweni saKwaZulu-Natal.

Mubambi weqhaza othandekayo

Ngingu Xoliswa Princess Mtolo, umfundi osafunda esikhungweni semfundo ephakeme i-DUT, ngenza ucwango lweziqu zami ze-Master's kwi-Homoeopathy.

Bengithanda ukukumema ukuba ubambe iqhaza kulolucwango.

Luyini Ucwango: Ucwango luwosesho oluhlelekile noma uphenyo ngolwazi olusha olwenziwe jikelele.

Uhlaka lwezinqubo: Uma ama-Homoeopaths amane, ama-Phytotherapists amane kanye nabelaphu bendabuko abane sebetholakele, uyobe sewucelwa ukuba ubabambe engxoxweni angangemizuzu engama-10 kuya kwa-30 ubusonobuso. Uyobe ubuzwa imibuzo evulekile mayelana nokuqonda nokwelapha ukungabatholi abantwana kubantu besifazane. Ingxoxo iyobanjelwa endaweni ehambiselana nawe. Ngemvume yakho, yonke ingxoxo yethu iyoqoshwa ngenhloso yocwango bese ibekwa endaweni ephephile.

Ukwelungele ukubamba iqhaza uma:

- Uyi-Homoeopath/ Phytotherapist/ Umelaphi wendabuko obhalisiwe nomkhandlu futhi osebenzela esifundazweni iKwaZulu-Natal.
- Usuqhube iminyaka engaphezu kwemihlanu usebenza.
- Uyakwelapha ukungabatholi abantwana kubantu besifazane.

Abantu abangahlangabezani nezidingo ezilotshwe ngenhla ngeke bafakwe kulolu cwango.

Ubungozi noma ukungaphatheki kahle kulowo obambe iqhaza: Lolucwaningo alubhekeki lungaba nobungozi kulabo abayingxeye kulo.

Isizathu esingaholela ekutheni lowo obambe iqhaza akhishwe ocwaningweni:

Owenza ucwaningo angakumisa ekubambeni iqhaza ocwaningweni uma ekholwa ukuthi kukulungele ukumiswa noma uma ucwaningo lumiswa. Kanti nobambe iqhaza angakhetha ukuhoxa ocwaningweni nanoma ngasiphi isikhathi ngokuqhubeka ukubuzwa imibuzo ngaphandle kokuthi kube nenkinga

Izinzuzo: Njengomhlanganyeli uzothola ukwabelana kabanzi ngolwazi onalo ekuqondeni nasekwelapheni ukungabatholi abantwana kubantu besifazane kanye nomphakathi jikelele. Abantu besifazane abahlaselwe ukungabatholi abantwana bazofunda ngezindlela ezihlukile ukusiza ukuphulukisa isimo sabo. Umphakathi uzoba nokuqonda okungcono kwe-Homeopathy, i-phytotherapy kanye nemithi yokwelapha yendabuko ukuphulukisa isifo sokungabatholi abantwana kubantu besifazane. Umcwaningi wenza lolu cwaningo ukuze athole i-Master's Degree in Homoeopathy eDurban University of Technology.

Inkokhelo: Ngeke kube khona imali ezokhokhelwa lowo obambe iqhaza ocwaningweni.

Izindleko zocwaningo: Lolucwaningo ngeke lubakhokhise labo ababambe iqhaza kulo.

Okuyimfihlo: Imininingwane yababambe iqhaza kulolucwaningo ivikelekile. Amaphepha ocwaningo nokuqoshiwe kuzogcinwa kuphephile ngocwaningayo ngokuqhubeka kocwaningo bese kugcinwa ehhovisi elikhwayo abasebenzi bocwaningo e-Durban University of Technology emyangweni we-Homoeopathy kuze kube iminyaka emihlanu. Umcwaningi kanye nabaphathi kuphela abazokwazi ukuthola lolu lwazi.

Imiphumela: umphumela kuzoba iziqu zemfundo ephakeme Kanye nombhalo oshicilelwe ozotholakala esikhungweni IDUT kanye nakwiphephabhuku eligunyaziwe.

Ukulimala okuhlobene nocwaningo: Ngenxa yesimo salolucwaningo abukho ubungozi nokulimala okusolekayo kulabo abayingxeye yocwaningo. Akukho nokunxephezela okuzoba khona.

Ukugcwinwa namakhophi aqinile okubandakanya nokuqhoshiwe: okuyimfihlo kuzoqoqwa bese kubekwa egumbini eliyimfihlo, emnyangweni weze-Homoeopathy kuze kube iminyaka emihlanu. Umphathi Kanye nomxhumanisi wocwaningo kuphela abagcina isikhiye saleli gumbi. Kuyothi emva kweminyaka emihlanu kube sekulahlwa lokho okuqoshiwe.

Abantu ongaxhumana nabo uma kukhona izinkinga noma kukhona imibuzo: sicela uxhumane nomcwaningi uXoliswa (079 771 1438), umqondisi wocwaningo uDkt Hall (031 373 24830) noma uDkt Wulfsohn (076 978 8539) noma i- Institutional Research Ethics Administrator on 031 373 2375. Izikhalazo zingaqondiswa kuMqondisi osebenzayo: Research and Postgraduate Support Dkt L Langaniso ku 031 373 2577 noma researchdirector@dut.ac.za.

Appendix E: Consent form (English)



CONSENT FORM

Full Title of the Study: The treatment protocols of Homoeopaths, Phytotherapists and Traditional healers with regards to female infertility in the KwaZulu-Natal province.

Names of Researcher/s: Xoliswa Princess Mtolo

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Xoliswa Princess Mtolo

(Name of researcher), about the nature, conduct, benefits, and risks of this study - Research Ethics Clearance

Number: IREC 268/21

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

Full Name of Participant Date Time Signature/Right Thumbprint

I, Xoliswa Mtolo

(Name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Xoliswa Princess Mtolo

Full Name of Researcher

Date



Signature

Full Name of Witness (If applicable)

Date Signature

Full Name of Legal Guardian (If applicable) Date

Signature

Appendix F: Consent form (IsiZulu)



IFOMU LOKUVUMA

Isihloko socwaningo: The treatment protocols of Homoeopaths, Phytotherapists and Traditional healers with regards to female infertility in the KwaZulu-Natal province.

Igama lomcwaningi: Xoliswa Princess Mtolo

Isitatimende Sesivumelwano Sokubamba iqhaza Esifundweni Socwaningo

- Mina lapha ngiyaqinisekisa ukuthi ngitsheliwe umcwaningi, ogama lakhe lingu Xoliswa Mtolo mayelana ngobunjalo, inqubo, izinzuzo kanye nobungozi balolucwaningo. Inombolo egunyaza ucwaningo: IREC 268/21.
- Ngiphinde ngathola, ngafunda futhi ngayiqonda imininingwane ebhaliwe ngenhla (incwadi yokumamba iqhaza) mayelana nocwaningo.
- Ngiaqaphela ukuthi imiphumela yocwaningo, kufaka phakathi imininingwane yobulili, ubudala, usuku lokuzalwa, namagama alowo obambe iqhaza kanye nokuxilongwa kwakhe kuzobekwa kube imfihlo ngokombiko oveza umphumela wocwaningo.
- Ngenxa yezidingo zocwaningo, ngiyavuma ukuthi idatha eqoqwe phakathi nalolucwaningo ingacubungulwa ohlelweni lwekhompyutha ngumcwaningi.
- Ngingakwazi, nakunoma yisiphi isigaba, ngaphandle kokubandlululwa, ngihoxise imvume yami ekutheni ngibambe iqhaza ocwaningweni.
- Ngibenethuba elanele lokubuza imibuzo futhi ngokuzithandela kwami siqu, ngizibophezele ukuthi ngikulungele ukuba yingxenye yalolucwaningo.
- Ngiaqonda ukuthi imiphumela emisha engahle ivele mayelana neqhaza engilibambile kulolucwaningo ngiyokwaziswa ngayo.

Amagama aphelele ombambiqhaza noma Thumbprint	Usuku	Isikhathi	Isiginesha/
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Mina Xoliswa Mtolo, lapha ngiyaqinisekisa ukuthi lona obambe iqhaza kulolucwaningo ngimazisile ngobunjalo, ukuziphatha kanye nobungozi obungahle bubekhona ocwaningweni.

Xoliswa Princess Mtolo

Amagama aphelele omcwaningi	Usuku	Isiginesha
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Amagama aphelele ofazaki (uma ekhona)	Isiginesha	Usuku
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Amagama omgadi ogunyaziwe (uma ekhona)	Usuku	Isiginesha
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Appendix G: Questionnaire (English)



Interview Guide for the semi-structured interviews

Age: _____ **Gender:** _____

Question 1: In your Understanding, what is female infertility?

Question 2: What are the causes and/or contributing factors of female infertility?

Question 3: How do you diagnose female infertility?

Question 4: Please take me through your treatment practices when treating female infertility?

Question 5: Are there any side effects of your treatment practices?

Question 6: What challenges have you faced while treating an infertile female patient?

Question 7: What lifestyle recommendations do you give to females trying to fall pregnant?

Question 8: What are the success rates of your treatment practices?

Appendix H: Questionnaire (IsiZulu)



Umhlahlandlela wengxoxompendulwano ehleliwe

Iminyaka: _____ **ubulili:** _____

Umbuzo 1: Ngolwazi lwakho, kuyini ukungazali kubantu besifazane?

Umbuzo 2: Iyinini imbangela or izinto ezinomthelela ekungazalini kubantu besifazane?

Umbuzo 3: Ukuhlonza kanjani ukungazali kwabesifazane?

Umbuzo 4: Ngicela ungichazele inqubo yakho yokwelwapha ukungazali kubantu besifazane?

Umbuzo 5: Ingabe ikhona imiphumela emibi ekulapheni kwakho?

Umbuzo 6: Yiziphi izingqinamba oye wabhekana nazo ngenkathi welapha isiguli sowesifazane ongazali?

Umbuzo 7: Yiziphi izeluleko zokuphila ozonikeza abasifazane abazama ukukhulelwa?

Umbuzo 8: Yimaphi amanani empumelelo yezinqubo zakho zokwelapha?

Appendix I: Editing certificate

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EDITING CERTIFICATE

Re: Xoliswa Princess Mtolo

For editing DUT master's dissertation: **The Treatment Practices of
Homoeopaths, Phytotherapists and Traditional Healers with Regards
to Female Infertility in the KwaZulu-Natal Province**

I confirm that I have edited this dissertation and the references for clarity and language. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years and supervised many master's degree dissertations during that period.

Dr Richard Steele

22 August 2024

per email