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# Assessing the ethico-cultural implications of Invitro Fertilization (IVF) within the rural Zulu communities in South Africa


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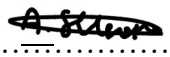

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Name of Supervisor Beatrice Okyere-Manu Date

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## DEDICATION

I dedicate this dissertation to the memory of my father, Masengele Setenane

## ACKNOWLEDGEMENTS

Firstly, I would like to thank God who gave me the opportunity and the courage to start and finish this dissertation.

To my supervisor, Dr Beatrice Okyere-Manu, this dissertation would not have been possible without you. Thank you for your guidance, for believing in me and for your patience. Your insightful feedback pushed me to improve my thinking and brought this dissertation to a higher level.

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**ABSTRACT**

This dissertation is a critical analysis of the African ways of managing infertility. It argues that infertile people are stigmatized in African communities because they are not regarded as complete social beings. This dissertation outline some of the abuse infertile people go through in African traditional communities through a desktop research. The causes of infertility in traditional communities are mostly associated to witchcraft and anger of the ancestors. This dissertation discusses the African ways of managing infertility, including traditional adoption, traditional healers, polygamy, and levirate practice. From a western perspective, infertility does not mean all infertile individuals cannot have children. Rather, in some cases they require some medical assistance and treatment. In searching for solutions or cure(s) to infertility, people resort to different kinds of treatment methods. Artificial Reproductive Technology (ART) has emerged for the treatment of infertility and other techniques. Different types of ART include IVF, gametes donation, surrogacy, artificial insemination, and ovulation induction just to name a few. This dissertation focuses on IVF as the management of infertility within the Zulu communities. It argues that IVF still faces some challenges in Zulu communities, mainly because of their beliefs and values. Through the lens of limited communitarianism and human rights theory which are closely related, this dissertation argues that the African traditional ways of managing infertility are violating individual rights. Additionally, this dissertation argues that, using IVF as a management of infertility in rural Zulu communities will promote human rights that are disregarded by the African ways of managing infertility.

**Key words**: Rural Zulu communities, Infertility, IVF, limited communitarianism, Human Rights

## ACRONYMS

| | |
|---|---|
| AI | Artificial Insemination |
| ART | Assisted Reproductive Technology |
| EEJ | Electroejaculation |
| FSH | Follicle Stimulating Hormone |
| IKS | Indigenous Knowledge System |
| IVF | Invitro Fertilization |
| TESE | Testicular Sperm Extraction |
| UDHR | Universal Declaration of Human Rights |

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# CHAPTER ONE: INTRODUCTION

## 1 . INTRODUCTION

This research is a critical analysis of ethico-cultural implications of managing infertility with Invitro-Fertilization (IVF) within the rural Zulu communities in South Africa. The purpose of this chapter is to provide a detailed rationale for this research. This current chapter will cover the background, research aim and objectives, research problem as well as the methodology of this research.

The pressure for childbearing is high in African communities and it is mostly characterized by early age marriage, social segregation of the sexes, son preference, arranged marriage and limited spousal communication (Kritz and Gurak,1989: 100). The African patriarchal system continues to encourage women to bear children, especially male children and failure to bear children always results in various forms of abuse, stigmatisation as well as polygamy. In this view, the female gender is the most afflicted, seeing that they are most likely to be condemned as the member that is infertile. Introducing IVF as a management of infertility can bring opportunities yet it can also have challenges within Zulu African communities. This dissertation is an inquiry on how the ethical theory of limited communitarianism and human rights can be used to ethically strengthen the use of IVF as a management of infertility in rural Zulu communities.

## 1.1 BACKGROUND

Childlessness is a problem among African communities as children are viewed as continuity of the lineage of the family especially male ones. Couples without children feel unsatisfactory and along with a certain level of scorn from the community. Childlessness is generally blamed on the female in the Zulu community until proven otherwise. Barrenness in females is a problem that can destroy the self-esteem of a married woman. Ndaba (1997:157) believes that women who are infertile often experience loss of status because they cannot attain the role, obligations, and privileges that are attached to their status of wife by the community.

The Zulu culture derives everything from their ethical values, traditional practices, and social goals (Nel, 2007: 56). This influences how they make decisions on important issues. Decision-making "is a process of choosing an alternative from many based-on facts and ethical values, implementations of decisions and evaluation of achievement of goal" (Nel, 2007: 55).

The understanding of reproduction among the rural Zulu communities is deeply rooted in their ethico-cultural traditions which are defined as "the assumptions, set of experiences and expectations of the specific traditional culture" (Casaliva, 2019:1). Religion, which also governs most of decision-making and the providence of solutions for some societal issues; is based on the worship of ancestors in some of the Zulu communities. Thus, the belief in ancestors is always integrated in dealing with issues of reproduction. Alternate methods to solve infertility which include the use of traditional healers, polygamy, levirate practice and traditional adoption are aligned with ethical values and cultural practices that have been acknowledged to work for ages.

However, in recent times, the advancement of technology came with the invention of Artificial Reproductive Technology (ART) to assist with infertility. Artificial Reproductive Technology is defined as “all treatments or procedures that include the in vitro handling of both human oocytes and sperm, or embryos, for the purpose of establishing a pregnancy” (Niekerk, 2017: 4). Artificial Reproductive Technology has been an answer to many infertile people in Africa. Many researchers have written about the implications of these Assisted Reproductive Technology methods primarily in healthcare. These scholars include Carrel (2019), Feuer and Rinaudo (2016), and Culik and Bulut (2020).

The introduction of Artificial Reproductive Technology raises some ethico-cultural concerns for that which the Zulu people firmly pride themselves upon. Establishing an understanding for the rejection of the use of IVF techniques proves challenging in light of the various traditional practices of the rural Zulu communities. Hence, it seems there should be no conflict against cultural values as the principal aim of IVF is also to manage infertility. Additionally, Nel (2007:12) stated that "the important element of the Zulu traditional culture is their ancestors; they represent one of the values in traditional Zulu life". Nel further mentioned that everyone from the lineage can be an ancestor, yet, male ancestors are considered as of greater significance. Can the firm belief in the role of ancestors in solving infertility have any implications on the approval of the use of IVF in Zulu communities? Or rather will it be received as a threat to the core values?

## 1.2 MOTIVATION OF THE RESEARCH

Childbearing is valued in all societies but even more in African societies because children are the means of continuation of the lineage of the family. However, infertility has made it impossible for many couples to have children. Culturally, Zulu communities make use of the

indigenous knowledge in dealing with infertility. However, in this age of technology, there are Artificial Reproductive Technologies that deals with infertility that are mostly used. This research was motivated by the number of cases in black communities in which infertility of the husband in marriage is managed by involving a fertile sibling (brother) of the husband. In cases where the wife is infertile, the family encourages the husband to take a fertile second wife (often the wife's sister), thus entering into polygamy. This intervention is often a family decision by those considered as elders demographically, and the objections or even acceptance from the wife are barely recognized as male dominance and authority decides the role for everyone. This is a traditional way of managing infertility known as a levirate practice. Such affairs have been debated and portrayed in South African television shows about stories mainly centred in black communities. Other solutions like IVF are not regarded or even primarily rejected on the basis of traditional values which are usually reinforced by males (or men). Hence, I realized that even though IVF is considered the most effective way of managing infertility, its acceptance still faces some contradictions in African traditional communities.

## 1.3 RESEARCH PROBLEM

Rural Zulu communities have some traditional values and practices which are likely to be compromised by using IVF as the management of infertility, this research seeks to interrogate the challenges that the adoption IVF can pose if introduced to rural Zulu communities. This will be achieved by analysing how the theory of limited communitarianism and human rights can be used to promote individual rights of infertile people (particularly women) in rural Zulu communities. This will be guided by these questions 1) What is IVF in management of infertility? 2) How is infertility managed within rural Zulu communities? 3) What challenges does IVF pose to the rural Zulu management of infertility? And 4) how can the tools within the theory of limited communitarianism and human rights help to reconstruct the management of infertility among the rural Zulu communities in South Africa?

The stigmatisation of infertile people in rural Zulu communities is one of the major problems faced by people with fertility issues. Yamani (2009:21) noted that the consequences of infertility in Africa include divorce, various forms of abuse, stigmatisation as well as polygamy. It must be noted that infertility does not affect many people. Hence, people do not understand the causes of infertility, and this lack of comprehension then shapes notions as such as that women who cannot bear children are witches or are being punished for a certain sin.

This goes further to claims that such women have "sold away their children and took a mystery pledge against childbearing" (Elujob, 1995: 14).

## 1.4 RESEARCH KEY QUESTION

What are the ethico-cultural implications of managing infertility with IVF within the rural Zulu communities in South Africa?

## 1.5 RESEARCH SUB-QUESTIONS

1. What is IVF in the management of infertility?
2. How is infertility managed within indigenous Zulu communities?
3. What challenges does IVF pose to the rural Zulu management of infertility?
4. How can the tools within the theory of limited communitarianism and human rights help to reconstruct the management of infertility among the rural Zulu communities in South Africa?

## 1.6 KEY OBJECTIVE OF THE RESEARCH

To assess the ethico-cultural implications of managing infertility with IVF within the rural Zulu communities in South Africa

## 1.7 SUB-OBJECTIVES OF THE RESEARCH

1. To define the nature of IVF in the managing infertility
2. To explore how infertility is managed within rural Zulu communities
3. To examine the challenges that IVF poses to the rural Zulu management of infertility
4. To assess how the tools within the theory of limited communitarianism and human rights can help to reconstruct the management of infertility through the use of IVF among the rural Zulu communities in South Africa

## 1.8 KEY FOCUS

Childbearing among the rural Zulu communities is of vital importance. Zulu people have significant regard for children in the family and community at large. However, infertility has made it impossible for many couples to have children. This dissertation will focus on the

management of infertility, both the traditional ways and the modern ways that came with the advancement of technology.

## 1.9 RESEARCH METHODOLOGY

This research will be a desk top research which is based on secondary sources. Secondary sources are collected and interrogated to increase the overall effectiveness of the research. These can be obtained from different platforms that include Google Scholar, Research Gate and Ebscohost. Secondary sources offer peer view which usually ensures the quality of sources (Igwenagu, 2017:7). Using this method, the data, which is in the form of information will be collected from published work which include dissertation, theses, and journal articles. It will further use books and appropriate internet sources. This research involves the collection and synthesis of the existing research (Goundar, 2012:38). Thus, the current study will use the existing information to answer the research questions.

A systematic literature review will be used in identifying selecting and critically appraising relevant literature for thorough analysis. This will be advantageous to this research as the secondary sources are divided into sections. This will make it easier in assigning the relevant information for this research and the key issues that have not been tackled. The literature review will focus on themes. This is on the grounds that researchers have written from different points of view and the topics that are closely related are put under one section. The Literature Review will provide insight on the unexplored gaps of regarding the topic of this study and where future efforts should be allocated.

This research will use exploratory and evaluative approaches. Exploratory research is a type of research that is used to investigate a problem that has not been clearly defined (Kumar, 2019:7). It is conducted to attain detailed comprehension of the existing problem. This type of methodology will help in understanding the ethico-cultural implications with the introduction of IVF as a method of managing infertility in Zulu communities. This research will further be an evaluative research. Igwenagu (2016:7) defined evaluative research as "systematic applications of social research procedures for assessing the implementation and outcomes of programs for decision-making". The aim of this research is to further look at the traditional practices that can be compromised by the introduction of IVF in Zulu communities. Through the theory of limited communitarianism and human rights, the evaluative research methodology will not only be used in understanding the challenges and the opportunities that

IVF can bring to the indigenous Zulu culture, it will also help to prescribe how IVF can strengthen the management of infertility.

## 1.10 PREVIEW OF THEORETCAL FRAMEWORK

### 1.10.1 LIMITED COMMUNITARIANISM

Limited communitarianism theory will be used to guide this research. Limited communitarianism is a type of communitarianism that was proposed by Bernard Matolino (2014) to separate the personal identity and the communality of the African person. While limited communitarianism also maintains the significance of the community, they differ in the extent to which their theories are attentive to human rights and liberty. Matolino (2014:186) argued that "limited communitarianism is a communitarian in that it realizes that for a person, being a member of this or that community has an important role in satisfying their social, political, and ethical identities". Limited communitarianism advocates that some rights of individuals should not be taken away from them because of the duty each one has in the community (Edet, 2015:7).

Traditional African societies have always acknowledged the significance of the community and the role it plays in the identity of a person. However, this should not deprive the rights and the independence of the individual to make decisions that seem to not conform to the general values and practices of the occupied community (Edet, 2015:7). Therefore, this theory will be useful in interrogating the African traditional ways of managing infertility and illustrating that infertile people have rights to choose IVF as a cure to their infertility without the involvement of the family members or the community, nor being deprived of such liberty due to societal norms.

### 1.10.2 HUMAN RIGHTS THEORY

Human rights is a second theory that will be used to guide this research. Human rights are the 'moral rights that all human beings possess at all times and in all places simply in virtue of being human and the corresponding duty bearers are all able people in appropriate circumstances' (Cruft, Liao, and Renzo, 2015:4). Human rights are possessed by all human beings, despite their social, cultural, and physical differences. Rawls (1999:3) argued that 'human rights are a class of rights that play a special role in a reasonable law of people: they restrict the justifying reasons for war and its conduct, and they specify the limits of a regime's internal autonomy'.

The Universal Declaration of Human Rights was proclaimed by the United Nations General Assembly in Paris on 10 December 1948 (Winston, 2012:1). It was declared with the aim of contributing to justice, freedom, and peace across the world. The Universal Declaration of Human Rights assured to everyone, the social, civic, political, economic and cultural rights that support a life without fear (Kaci, 2015:6). Human rights are not a reward for good conduct, and they are not specified to a certain county or social group. They are the basic privilege of all people in all places, at all times: people of every race, colour and ethnic group; whether they are disabled or not; migrants or citizens; regardless of their class, sex, and age (Kaci, 2015:6).

Both limited communitarianism and human right theories will be useful in this research and since these theories are closely related, they will be both further used in exploring and evaluating the ethico-cultural implication of IVF among the rural Zulu communities.

## 1.11 SIGNIFICANCE OF THE STUDY

Childbearing in the rural Zulu communities is something they take pride in. Zulu people give great significance to children in the family and community at large. However, infertility has made it impossible for many couples to have children. Culturally, Zulu communities make use of the indigenous knowledge in dealing with infertility. The purpose of this research is to assess and analyse the traditional ways of managing infertility through the lens of limited communitarianism. It is important to note that people in Zulu communities take pride in their traditional ways of living. Also, this research will look at IVF as the management of infertility and the challenges it can pose to rural Zulu communities. The overall purpose of this research is to assess how human rights and limited communitarianism theories can ethically strengthen the use of IVF as a management of infertility within the rural Zulu communities.

## 1.12 STRUCTURE OF THE RESEARCH

Chapter one of this research is the introductory chapter. This chapter introduces this research by providing the general outline of this research. It will start by providing the background information that details the phenomena upon which the research is founded. This chapter also provide the motivation of this research. Chapter one will also provide the research problem, aims and objectives of this research. This chapter also highlight the theoretical framework that will be used to guide this research, these include limited communitarianism and human rights. Additionally, this chapter discuss in detailed the research methodology. This research will use an exploratory and evaluative methodological approach.

Chapter two of this research is the literature review. The aim of this chapter is to have a better understanding about the management of infertility before raising arguments and justification of IVF. According to Bruce (1994:218), "literature review is an important chapter in the thesis, where its purpose is to provide background to and justification for the research undertaken". This research will use systematic literature review. This is carried out by arranging articles according to themes. This is on the grounds that researchers have written from different points of view and the topics that are closely related are put under one section. For example, scholars who have written about the understanding of infertility will be placed under one section. This chapter will cover literature review from different disciplines including, social science, health science and philosophical perspectives. This is because the understanding and management of infertility varies. The main scholars that have written about infertility in the African context include Lerato Makoba (2005), Nelisiwe Ndaba (1994), Asante-Afari (2019) and Okantey (2016).

Chapter three of this research is the theoretical framework. It will outline the theories that will guide this research; these include limited communitarianism and human rights. These theories will clarify the key issues that will be evident in the literature review. Because limited communitarianism and human right theories are closely related, they will be used to ethically strengthen the management of infertility with IVF among the rural Zulu communities.

Chapter four of this research is the analysis. The aim of this chapter is to break down the issues in order to understand and explore them. This chapter will use limited communitarianism and human rights theory to explore the management of infertility in Africa and analyse the stigmatization of infertile people. To answer the key question of this research, this chapter will discuss the ethico-cultural implication of managing infertility with IVF in rural Zulu communities. It will further be discussed how this can be overcome by the process of IVF. Since Limited communitarianism and human rights put emphasis on individual rights, this chapter will discuss the individual rights that IVF likely to promote.

Chapter five of this research is the concluding chapter of this research. It will include summary, recommendations, and conclusion. There will be a short discussion on what each chapter covered. This will be followed by the recommendations of this research. The aim of recommendations is to provide specific directions and measures to be taken upon interest for future studies. For this research, recommendations are made to educate people more about infertility. The last part of this chapter is the conclusion. This is where this research will explain

how the sub-questions of this study were answered and specify how the objectives of this research were met successfully.

## 1.13 CONCLUSION

This chapter was the introductory chapter of this research. It has mainly discussed in detailed the outline of this research. The importance of this chapter was to provide thoroughly the intentions of this research.

## CHAPTER TWO: LITERATURE REVIEW

### 2. INTRODUCTION

The definition of infertility is detailed by scholars Baylis (2012) and Brassard, AinMelk, and Baillargeon (2008). Since the understanding of infertility varies, I will explain the understanding of infertility in African cultures as adopted by Okyere-Manu (2016), Makoba (2005) and Okantey (2016). The significance of children in African communities will follow and it will be guided by Beatrice Okyere-Manu (2016), Ruth Evans (2010) and Mabasa (2002).I will further explain the management of infertility within the African cultures. These will include traditional adoption, guided by Gibbons (2013), traditional healers and polygamy, both guided by Makoba (2005) and levirate practice which will be guided by Ndaba (1994). I will also explain the status of infertile women in African communities, this will be guided by Nelisiwe Ndaba (1994) and Sonko (1994).

Furthermore, I will explain Artificial Reproductive Technology (ART) and it will be guided by Asante-Afari (2019). I will also look at the perspective of feminists on ART and it will be guided by Steinbock (1995). The different types of ART will follow. These include IVF, guided by Asante-Afari (2019), artificial insemination, guided by Okantey (2016), ovulation induction, guided by Begum (2016), gamete donation and surrogacy both guided by Asante-Afari (2019). I will also look at risks and benefits associated with ART. Risks of ART include; maternal risks, guided by Jennifer Kowwass and Martina Badell (2018) and Deyhoul (2017); foetal risks, guided by Reber (2013) and Begum (2016); and social risks, guided by Malek (2017). The benefits of ART will include overcoming infertility, guided by Janet Malek (2007), the use of Preimplantation Genetic Testing, guided by Vele (2009); and same-sex couples on ART, guided by Burnett (2006) and Mande (2016). The last section will be gap in literature and conclusion.

### 2.1 DEFINING INFERTILITY

Infertility is a condition of the reproductive system defined as “failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse” (World Health Organization, 2014:2). In order to achieve pregnancy, an egg must be produced from the ovaries and a man must produce healthy sperms which can successfully fertilize the egg in the fallopian tube (Rebar, 2013: 1). Infertility is divided into two types: primary and secondary infertility. “Primary infertility refers to a couple who have not become pregnant after at least one year of having sexual intercourse without using birth control methods. Secondary infertility

refers to couple who have been able to get pregnant at least once, but now are unable (Asante-Afari, 2019:13).

Infertility has extentive difficulties for some couples as well as their families and communities. Childlessness is getting more common among young women and to some having no children is voluntary decision. The voluntary decision against having children in young woman is often instigated by their desire to follow their career-ambitions. This therefore postpones childbearing to middle age, which has been identified as a state where women are most susceptible to challenges associated with conceiving (Deyhoul et al., 2017:6). Age is regarded as playing a role in determining the ease or difficulty at which a woman could conceive. The best reproductive years for women are their 20s; after 30 the fertility declines gradually. A woman's fertility decreases because the quantity and the quality of the eggs declines with accumulative eggs (Deyhoul et al, 2017:6). In contrast to men who produces sperms for the rest of their lives, a woman has egg-containing follicles in her ovaries, and around only 300 will be ovulated during her reproductive years (Ogar et al, 2018:2). Furthermore, along with age, the processes associated with meiosis such as DNA replication, and chromosomal genetic exchange become complex, thus increasing chances of DNA gene mutations and chromosomal duplications that lead to genetic conditions which are sometimes fatal to the embryo during child development (Deyhoul et al, 2017). If the genetic makeup of the egg is compromised (mutated), zygote formation through fertilization, embryo development post-fertilization may defect, hence resulting in miscarriages or birth of a child with maldevelopment, malfunction of some organs or physiological process, or a physical conditions throughout the child's life (Deyhoul et al, 2017:6). This hypothesis has been evident in cases of children with Down's Syndrome (where there is an erroneous duplication of chromosome 21), and it is often associated with childbearing past the age of 30 (Deyhoul et al, 201).

## 2.2 CAUSES OF INFERTILITY IN FEMALES

There are many causes of infertility in females. Disturbance of ovulation is the main cause of female infertility. This means that eggs are not released from the ovaries. fallopian tube problems are also associated with female infertility. The obstruction of the fallopian tube prevents the mobility of both the egg and the sperm towards convergence, therefore hindering fertilization. Also, uterine problems may also disturb the implantation of the fertilized egg. Other external factors that are associated with female infertility include body weight, and emotional stress. These include both medical conditions and risk factors. In some cases, the

cause of infertility is due to one or more factors that affect the functioning of the reproductive system.

### 2.2.1 Disturbance of ovulation

The main cause of infertility in women is the absence or disturbance of ovulation (Baylis, 2012: 4) which means eggs are not released from the ovaries. Ovarian factors that result in infertility include polycystic ovary syndrome (PCOS), which is considered as the principal cause of anovulation in young females (Brassard et al. 2008:10). PCOS is defined as an imbalance in the female reproductive hormones that promote complete ovulation. This hormonal disorder causes irregular menstrual periods; an excess production of male hormones (androgen) which antagonise female hormonal functions; and excessive production of follicles that fail to release an egg (Direkyand-Moghadam et. al, 2013: 8). Premature ovarian failure, defined as the functional loss of ovaries prior to 40 years, also causes infertility in women past this age.

### 2.2.2Fallopian tube problems

Fallopian tubes are the two tubes on each side of the uterus which help lead the developed egg from the ovaries to the uterus (Kamat and Kamat, 2012:1). When there is an obstruction preventing the egg from travelling from the ovaries to the uterus, it is known as blocked fallopian tubes and can happen to one or to both tubes (Kamat and Kamat, 2012:1). The blockage of fallopian tubes can also be called tubal factor infertility as it is the cause of infertility in most women. Every month, when ovulation take place, an egg is released from one ovary and travels through the tubes to the uterus. For fertilization to happen, a sperm needs to swim from the cervix to the fallopian tube to get the egg. Fertilization normally happens in the tubes.

If both tubes or the tube that release an egg in that month is blocked, the sperm cannot reach the egg, and the egg will not get to the uterus, preventing fertilization to take place (Kamat and Kamat, 2012:1; Brassard et al. 2008:12). In addition, it is possible that for tubes not to be blocked totally, but this increases chances of ectopic pregnancy, which occurs when the fertilized egg is attached outside the uterus. Some primary reasons for tubal issues include sexually transmitted infections (STI) like gonorrhoea and chlamydia, which can result in inflammation of the pelvis;  a summed-up disease of the pelvis that can cause blockage of the fallopian tubes. Medical procedures are available as an option to open tubes and facilitate the movement of gametes (Gnanaraj, 2015:2).

2.2.3Uterine problems

Uterine fibroids are noncancerous tumours of muscle tissue in the uterus (Purohit and Vigneswaran, 2016:3). They can also be called leiomyomas or myomas. “Uterine fibroids are swellings in the uterus. They are formed by excess normal uterine muscle tissue and hence are not cancers. Although they are not cancers, they can be symptomatic, depending on the location of the fibroids” (Gnanaraj, 2015:2). Fibroids close to the endometrial covering may cause substantial periods and issues with the implantation of embryo and pregnancy complications (Gnanaraj 2015:2). However, since most fibroids are not in the lining of the uterus, they cannot affect pregnancy or make complications to the pregnancy. But one is likely to experience danger of miscarriage or infertility due to them.

Fibroids can be caused when a single muscle cell in the mass of the uterus duplicates and develops to shape a noncancerous tumour (Purohit and Vigneswaran, 2016:3). Fibroids can change the shape or size of the uterus and occasionally the cervix which is in the lower part of the uterus. Women generally have more than one fibroid tumour, however single fibroids are conceivable. Regardless of whether fibroids require treatment or show symptoms relies upon their area, size, and number (Purohit and Vigneswaran, 2016:4). There are different ways uterine fibroids can cause infertility. 1) Blood flow to the uterus can be influenced. This can diminish the capacity of an embryo to develop or implant to the uterine wall. 2) The changing shape of the uterus can obstruct the movement of the embryo or sperm. 3) Changes of the shape of the cervix can have a negative impact on the number of sperm that can enter the uterus. Lastly, they can affect the size of the lining of the uterine cavity (Purohit and Vigneswaran, 2016:3).

According to (Purohit and Vigneswaran, 2016:4), the greatest concern in pregnancy is whether the fibroid will increase the chances of miscarriage or preterm birth. Sometimes, fibroids can grow out of their blood supply and cause serious torment and hospitalization may be required (Purohit and Vigneswaran, 2016:4). Additionally, fibroids can change the child's position in the uterus. This can build the risks of preterm delivery, miscarriage, caesarean section (Purohit and Vigneswaran, 2016:4). The treatment of fibroids varies depending to each situation, but medical procedure is hardly important or performed during pregnancy.

2.2.4 Body weight

The role of body weight in influencing female fertility largely remains unclearly understood. Nevertheless, studies in a sample of females have reported that some proportion of all infertility

cases is explained by a female either being underweight or overweight (Clark et al. 1998; Rich-Edwards et al. 2002). Being inactive in life and being obese or overweight can raise the danger of infertility and high chances of having premature delivery (Mustafa, 2019:7) Furthermore, women who suffer from an eating disorder like bulimia and anorexia nervosa or follow a restrictive diet with exceptionally low-calorie intake, are in risk of infertility issues (Mustafa, 2019:7). In addition, higher Body Mass Index values are strongly correlated with infertility (Kumar, 2007:20). Clark et al. (1998:4) has shown that weight loss solely improves the likelihood of conception in obese females who are infertile. Abnormalities in body fat composition affect the production of oestrogen and irregulates the menstrual cycle in underweight and overweight women (Direkyand-Moghadam et al., 2013:4). Hence, adequate nutrition is advocated in girls throughout all stages of growth as it may later influences fertility.

### 2.2.5 Emotional stress

Emotional stress and prolonged diagnosis from depression or anxiety have been investigated to result in infertility. The relationship is explained through the function of stress hormones in relation to the brain; especially on the hypothalamus-pituitary gland that is responsible for the secretion of hormones that regulate the functionality of the reproductive glands (Schenker et al. 1992: 16). The interaction of catecholamines and other stress hormones with hormones that regulate menstruation such as prolactin and follicle-stimulating hormone possibly influence fertility. Moreover, insomnia resulting from emotional stress also affects ovulation (Schenker et al., 1992:16).

## 2.3 CAUSES OF INFERTILITY IN MEN

Causes of male infertility vary. The abnormality of production of sperm is the main cause of male infertility. This may be due to health problems such as diabetes or genetic defects. Treatment of cancer in males is also associated with infertility. Medical procedures during the treatment may include the removal of testicles which produces sperms. Other external causes of male infertility include scrotal temperature and lifestyle habits such as smoking as drinking alcohol.

### 2.3.1 Abnormal production of sperms

The main cause of infertility in men is due to abnormal production of functional sperm (Baylis, 2012:2). This may be caused by genetic defects or health problems such as diabetes. Low sperm count, reduced sperm motility, and the percentage of perfectly viable sperms that are moving

can also cause infertility (Baylis, 2012:2). Hormonal imbalance, which is primarily the production of androgen in males is linked to infertility (Baylis, 2012:3). Other causes related to the male sexual organ comprise impotence, where there is failure to erect and therefore no sperms are secreted out of the male; (ii) discharge incapacity, defined as the lack of sperm discharge off the urethra; (iii) and blocked tubes which obstruct the mobility of sperms out of the male organ (Schenker et al., 1992:20). In the former organ related causes, a male may have a normal sperm count and yet be infertile.

2.3.2 Treatment of cancer

The treatment of cancer is one of the causes of male infertility. Medical procedures may be required to remove a tumour that is near or in the organ such as penis, testicle, rectum or bladder. Additionally, it may be needed for a tumour that is close to the sensory system, for example, the spinal cord or brain. These medical procedures may influence the man's infertility.

The removal of the testicles is called orchiectomy (Attamimi et al, 2019:10). This is the most common treatment for testicular cancer. Provided that men have one heathy testicle, one will keep on producing sperms even after the surgical treatment (Mustafa, 2019:15). However, because of testicular cancer some men end up having low infertility if the remaining testicular is not functioning well. Thus, sperm banking is recommended to patients who want to have children in the future before the surgical treatment.

In cases where a man has prostate cancer that has spread past prostate into close by tissue, he may have to remove both testicles (Poorvu et al, 2019:7). This is done to stop the creation of testosterone and moderate the development of prostate cancer cells. This medical procedure is known as a reciprocal orchiectomy (Poorvu et al, 2019:7). After the procedure, one cannot have a biological child unless they bank the sperms before the medical surgery.

For men who have prostate cancer that has not spread past the prostate gland, the alternative treatment is the surgery to remove the seminal vesicles and prostate gland (Mustafa, 2019:16). This is known as the radical prostatectomy (Mustafa, 2019:16). Seminal vesicles and prostate gland are the body parts that produces semen (Poorvu et al, 2019:7). With this, after the surgery one cannot be able to produce semen. With sexual intercourse, men can at present have ejaculation. However, no liquid emerges from the penis. Prostate medical procedure to eliminate the infected prostate additionally can harm the nerves that allow a man to get erection,

causing erectile brokenness (ED or EB) (Poorvu et al, 2019:16). This implies he will probably not have the option to get an erection adequate for sexual intercourse.

Regardless of whether a patient can get an erection, if there is no semen origination from the penis during ejaculation, he cannot have children (Poorvu et al, 2019:17) However, the testicles continue to make sperm, but they cannot be transported from the scrotum to the urethra. This results in a blockage to the flow of sperm.

### 2.3.3 Scrotal temperature

The types of trousers can affect the scrotal temperature and the quality of a semen. Wearing tight under trousers is related to the expansion of scrotal temperature (Attamimi et al, 2019:8). Additionally, the activity and position have their effect in expanding the scrotal temperature (Attamimi et al, 2019:5). Also, walking may be related with lower scrotal temperature than sitting. Driving for long hours constantly is related with expanding the scrotal temperature. Spermatogenesis, particularly maturation and separation of the spermatids and spermatocytes can be disrupted by the heat exposure (Attamimi et al, 2019:5).

### 2.3.4 Lifestyle habits

Lifestyle factors are improving ways and habits that can highly influence the overall of wellbeing and health including fertility. Lifestyle factors including nutrition, age, weight management, psychological stress, alcohol consumption, and cigarette smoking may have negative impact in male fertility. Smoking cigarettes is harmful to reproduction.

Lifestyle habits such as smoking have a negative impact on sperm motility and production (Laaesgaard, 2017:19). Smoking can reduce male fertility by decreasing the normal percentage of the sperm cells and sperm motility. The reduction in the level of motility of sperm cells and defection in sperm's typical morphology is associated with the number of cigarettes smoked every day (Laaesgaard, 2017:19). It also affects the developing follicles negatively which can result in infertility. Sexually transmitted diseases also affect fertility, and those that have been investigated include chlamydia (Malik et al., 2006). In addition to the above, forced sterilization (tubal ligation for women among others and vasectomy for men) can result in infertility (Baylis, 2012:2).

Benzopyrene is a strong cancer-causing agent in cigarette smoke. Its reactive metabolite can catch with DNA, which can result in mutation. This can bring about both female and male infertility (Sharma, 2017:5). Women who smoke, allegedly, have lower progesterone and

oestrogen levels, poor Luteinizing Hormone (LH) flow which can cause anovulation or irregular ovulation, bleeding during pregnancy, earlier menopause, increased risks of miscarriage, and low birth weight (Sharma, 2017:5). Male smokers have appeared to have low sperm count, abnormal sperms, impaired sperm motility, and reduced testosterone level (Sharma, 2017:5). It can also have influence on congenital abnormalities and asthma to the children who are born. Additionally, male heavy smokers can increase the risks of cancer in their children, especially in their childhood . According to a research study by Arabi and Moshtaghi (2005), heavy smokers had 19% lower sperm count than non-smoker. They further found out that a man who is a heavy smoker prior his wife's conception, the child will be at greater risks of cancer before the age of five years. Additionally, it has been demonstrated that the exposure of spermatozoa from non-smokers to the original plasma of smokers yields important reduction to the acrosome reaction and sperm motility.

High liquor consumption in men can affect spermatogenesis, sperm physiology, and sometimes may cause reproductive system disability (Sharma, 2017:5). A research study conducted by (Sharma, 2014), found that 75% of children with foetal alcohol syndrome have fathers who are alcoholics. Liquor consumption is related with a decreased of sperm parameter which might be reversible if liquor consumption discontinues. According to (Sharma, 2014), even though there are great effects of paternal alcohol consumption to the child, the mechanism for this, is not clearly explained.

### 2.3.5 Environmental factors

People are exposed to environmental chemicals and various exogenous material through different causes. During the recent years, the fast extension of chemical industries for both developed and developing countries has brought the spread of a plethora of xenobiotics to the communities (Sharma, 2017:4). The male reproductive system is extremely sensitive to environmental factors that mostly lead to male infertility. According to Sharma (2017:4), these outside molecules, including herbicides, pesticides, preservation, cleaning materials, cosmetics, municipal and private wastes, and industrial by-products have variety forms of damage to the human body. Exposure to chemical toxins, which are endocrine disruptors and estrogenic mimics are connected to the possible contributing factors in the increasing of male infertility (Sharma, 2017:4).

Daily jobs have also expose human beings into heavy metals. Heavy metal includes cadmium (Cd), lead (Pd) and mercury (Hg) which could negatively affect the male fertility, whether by

directly negatively affecting spermatogenesis or by causing hypothalamic disruption, resulting in damage semen quality (Sharma, 2017:4). The likelihood towards diminished semen quality has been recorded to be associated with heavy metals. Sallmen et al. (2000) found that exposure to heavy metals possibly lead to infertility rather than delayed pregnancy.

Another environmental factor that can lead to infertility is the exposure to pesticides (Sallmen et al., 2000:10). This can also affect some body organs such as the reproductive system. Testis weight, abnormal sperm morphology, spermatogenesis, and sperm viability can be mostly affected by exposure to pesticides (Sallmen et al.,2000:10). Men working in the agricultural sector are also at the high risks of being infertile in comparison to other males in different occupation. Exposure of the men to pesticides before having a child or during the preconception period can increase the risks of a child to be anencephalic (Sallmen et al., 2000:10). Additionally, it can increase the risks of foetal death, especially if there is a massive use of pesticides.

## 2.4 UNDERSTANDING INFERTILITY IN AFRICA

Childbearing has been understood as the fundamental purpose of marriage in Africa. This is because high value is placed in children for both social and economic reasons. Okyere-Manu (2016:4) stated that "a large number of children equal to wealth, therefore one may be poor financially yet wealthy because of the number of people in the family". Childbearing is valued in all societies, but even more in African communities as children are hoped to become providers for the elderly and most importantly, they are seen as means of the continuation of the lineage. Okyere-Manu (2016:4) further noted that since Africans are agricultural workers, there is a high demand for people to work in the farms thus the presence of children reduces the amount of labour disposed to the elderly (Okyere-Manu, 2016:4).

The practice of Lobola (the bride dowry) in African marriage has a significant implication for a woman's ability to bear children. Makoba (2005: 14) stated that Lobola in the African context is equated as the transference of a woman's reproductive rights from her family to her in-laws. Thus, it stems that a woman who is infertile is viewed as a misfortune to her in-law family, since the children she bears are viewed as reciprocity for the bride dowry that had been paid for her (Makoba, 2005:14). In this notion, to have children is therefore a benefit, but the inability to have children is a misfortune to a woman's family-in-law. Not only is the debacle of infertility endured by the in-laws, but it is far greater suffered by the woman as she is immediately exposed to belittlement, criticism of her womanhood, and rejection (Okantey,

2016:11). Women often need to conform social pressures of parenthood in avoidance of stigmatization associated with infertility (Okantey, 2016:11)).

Nevertheless, the prevalence of cases of infertility within a couple has become significant in African communities. A number of scholars believe that the consequences of infertility in African include divorce, various forms of abuse, stigmatisation as well as polygamy (Yamani 2009:21; Baloyi 2017; Oduyoye 1999; Siwila 2015). Women are the most affected group, seeing that they are most likely to be condemned as the member that is infertile (Okantey, 2016:74). This biased condemnation of infertile women also explains the derivation and use of stigmatizing names such 'inyumba' which defines a woman that is sterile. There are no stigmatizing names that define a sterile male as infertility in Africa has originally been attributed to female counterparts. Makoba (2005: 9) argued that the cause of infertility in Africa is mostly attributed to witchcraft. Co-wives, jealous neighbours, blood relatives, past lovers, and in-laws can use witchcraft. He further stated that women are the ones that are mostly bewitched (Makoba, 2005:9: Ngubane, 1997). Another cause of infertility is associated with ancestors who are assumed to be angry with the couple for not performing certain rituals. For example, "imbeleko", a ceremony that is done to announce the birth of a child the ancestors; "umhlonyane", a traditional ceremony of a girl when she reaches womanhood; and "umemulo" (coming of age ceremony) is done when the young woman reaches the age of 21. These ceremonies include the slaughtering of goats. Additionally, when a woman goes to her in-law family, another ceremony is done to introduce the bride to the ancestors. According to Makoba's informant, if any of these customs is not done, ancestors will be angered and could cause problems such as infertility at a later stage. However, all these traditional factors that may explain infertility obscure the scientific realities that cause infertility such as genetics, medical diagnosis, and most of the causes described in the previous section that are culturally independent.

A typical result of a couple's infertility is the ejection of the woman from her husband's home, with or without divorce (Okonofua, 1997:11). In this manner, having children is undertaken as more significant than loyalty to one's partner, which is confirmed by the usual practice of divorce due to infertility, or a forceful banishment of the wife from the husband's home, either by the family or the husband himself. The woman turns into an outsider, and is frequently prevented from inheriting property, or any type of social and financial securement and from the decision-making in the family (Okonofua, 1997:11). It is common for people, especially women in the community to stay away from those women known to be infertile, and women

regularly advise their children to stay away from those women, either because they believe they are bitter, and they might harm their children , or they probably will not know how to look after their children (Okonofua, 1997:11).

## 2.5 THE CONCEPT OF MARRIAGE IN AFRICAN COMMUNITIES

Like many social terminologies, marriage is a significant controversial concept. Marriage and the purpose of marriage are universal but there is no one common acceptable definition of marriage. Ebun (2014:94) defines marriage as "a socially or ritually recognized union or legal contract between spouses that establishes rights and obligations between them and their children, and between them and their in-laws." Ayisi (1997: 7) defines marriage as "the process whereby a man and a woman come together to form a union for the purpose of procreation." The significance of these definitions of marriage is that where there are no children, there is no marriage. However, marriage can also be seen as an intentional permanent or temporary union between a woman and a man that is socially, legally, and culturally recognized. Particularly, marriage is not only an agreement between a woman and a man to live together without the knowledge of others of the kind of relationship that exists between them (Ebun (2014:94). Marriage is a public matter. Tonizek (2008) points out three types of marriage which are white, court, and traditional marriages. White marriages mostly take place in the Mosques and Churches where priests conduct the affairs. The traditional marriage is the local form of marriage. The Court marriage is done under the law of the state. For the purpose of this research, I will mostly focus on traditional marriages.

Marriage have an important place in the affairs of Africans, particularly in rural areas. The absence of marriage means there is no family, and without family, an individual cannot bear children. The link between family and can barely be separated among the traditional African communities. In this manner, Ayisi (1992: 15) argued that "The family is then the logical outcome of marriage. A family consists of a man, his wife, and child or children. By this definition, a childless marriage is not a family. An individual belongs to at least one family in his lifetime." Since the family is the basic unit of any social and political organizations, the procedure of building it was and should be given serious attention among the traditional African communities. For Africans, marriage, even though is purposely for reproduction, is more than that. Marriage has other purposes. According to Mbiti (1969: 133) as cited by Ebun (2014:93), "For African peoples, marriage is the focus of existence. It is the point where all the members of a given community meet: the departed, the living and those yet unborn. All the

dimensions of time meet here, and the whole drama of history is repeated, renewed and revitalized. Marriage is a drama in which everyone becomes an actor or actress and not just a spectator."

In South Africa, traditional marriage is perceived as being entered into in accordance with the customs and traditions of indigenous African customary Law. There are some requirements that must be obeyed to conclude and validate traditional marriage. On the other hand, civil marriage is perceived as a marriage that can be concluded by two people and for it to be validated, it must be monogamous, whereas, traditional marriage permits polygamy. Additionally, traditional marriage is not concluded by two people only, but families from both parties are also included. Differently from civil marriage, traditional marriage occurs gradually and is not concluded by a single event in a single day such as signing an official document. Thus, traditional marriage is a familial matter and does not need approval from the official for it to be validated.

In traditional rural African communities, the concept of marriage was influenced by arranged marriages whereby parents usually partake in the selection of marriage partners for their children (Ebun, 2014:95). However, this was mostly common for their daughters. This was done without the consent of the children (Ebun, 2014:95). However, in present African societies this has been changed to the degree that some countries have adopted policies that aim to advocate for the consent of both parties that are to be married. In traditional African societies, there is a high value awarded to marriage; this has been marked by the practice of early marriages and childbearing which mostly continues till the end of productivity age (Ebun, 2014:95). Hence childbearing cannot be easily separated from marriage in African traditional societies.

Marriage in traditional Zulu communities is the most important part of a woman's life. This is evident by the practice of virginity testing. When a girl is found not to be a virgin, this is seen as "seduction of virgins and generally get one of the heaviest fines inflicted over all other crimes" (Rakubu, 2019:24). The family's fine for having a non-virgin daughter is implicit when such a family receives "smaller lobola, bride wealth, payment when she marries" which is, in turn, considered a disgrace (Rakubu, 2019:24).

## 2.6 SIGNIFICANCE OF CHILDREN IN AFRICA

Childbearing is a significant factor in most African marriages. Children are significant for the entire family group among Africans, to the degree that they are known as having a place with

everyone in the family, not simply to the parents (Mabasa, 2002:10). Childbearing and raising children serve to propagate the family name and to keep up the connection between the ancestors and the living (Mabasa, 2002). Okyere-Manu (2016:5) noted that "traditionally, most communities in Africa were peasant economies, with a high demand for labour, therefore children became the helping hands in these peasant economies". This indicates that children have responsibilities within the family .

Advocates of children outlined that children in Africa contribute to the household's reproductive and productive work which is different from the universal model of childhood (Evans, 2010:7). Research indicated that in Africa, the duties performed by young boys and girls are, in general the low-status duties for older women and men, for example, subsistence agriculture and household chores (Kielland and Tovo, 2006:4; Bradley, 1993). Regardless of making significant contributions to their families, both young girls and boys have a powerless position in the family, and they are mostly excluded from important things such as decision-making. However, it sometimes occurs that young boys are drawn nearer to older men for nurturing and equipping them for the male role in adulthood. According to Evans and Tomas (2009: 12), in many African societies, care work is exceptionally gendered, with women and young girls generally viewed as the essential carers due to their natural roles of being 'nurturers'.

The practice and belief of extending the family lineage is the most relevant practice in African communities. Most women are still obligated to produce as many children as they can, particularly sons. For a married woman, bearing children for the husband is the most honoured thing to do. Hence most women in polygamous marriages are competing about having many children born to the husband. Consequently, high value is placed on children for both social and economic reasons. It is further noted that since Africans are agricultural workers, there is a high demand for people to work in the farms (Okyere-Manu, 2016:4).

For many people, to have children is a fundamental part of their life, however; many couples are challenged with the issue of infertility. Regardless of whether involuntary or voluntary, it remains the crucial part of life for the childless couple that is mostly seen as a problem. Although societies may differ with the purposes of having many children, the importance of daughters and sons, and the issue of infertility are mostly common.

## 2.7 MANAGEMENT OF INFERTILITY WITHIN THE TRADITIONAL AFRICAN COMMUNITIES

Infertility in African communities is seen as a social problem. Hence management is almost the same. The well-known traditional method of managing infertility in traditional African communities is polygamy. The husband takes a second wife who then bears children for him. Another method is traditional adoption, where children are distributed from families of many children to households where there are not children. Traditional healers also play a vital role in infertility management. Considering that witchcraft is associated with infertility in African communities, it is the duty of the traditional healer to discover the spell and remove it. Another management of infertility is levirate practise. This method is mostly used when the husband is deceased, and brother of the deceased husband will be obligated to marry his brother's widow. However, it is also used when the husband is infertile. The family elders ask the husband's brother to have sexual intercourse with the wife. These are aligned with their ethical values and cultural practices and have been acknowledged to work for ages.

### 2.7.1 Traditional adoption

African communities have a traditional practice of kinship fostering, child-sharing, or child circulation (Onayemi, 2019:4). They have a custom for the care of children, including those children whose biological parents cannot practically care for them and those without parents. However, traditional adoption is not considered to be a permanent transfer of all rights and responsibilities (Onayemi, 2019:4). Rather, it is the addition of the parental figures and not the substitution of rights and responsibilities. The motivations of adopting a child is to strengthen the kinship ties. Adopted children also offer company, especially to older women (Gibbons, 2013:3).

Traditional adoption is seen as a solution to the problem of infertility among most couples. Children are distributed from families of many children to households where there are not children or to those who wish to expand their families. This alleviates some stress related to the stigmatization of the childless couple, and the poverty to households that cater for many children. Gibbons (2013:4) argued that there are higher chances of adopting a child if there are fewer adult' caretakers in a household, such as when biological parents are not married. This statement implies that single parents are most likely to give away their children.

### 2.7.2 Traditional healers

Traditional healers play an essential role in understanding and treatments of illnesses in African communities. They are known to have a link between the spiritual world of ancestors and the living. Thus, they are perceived as those in a better position to mediate between the ancestors

and the living and provide cultural related explanations and treatment of illness that people struggle with in Africa. Makoba (2005) stated that traditional healers explain the causes of infertility to be spiritual rather than physical.

As noted above, one of the reasons for infertility in most rural African communities is because of witchcraft and the duty of the traditional healer is to discover the spell and remove it. In most instances, the traditional healer (herbalist) makes a blend from *Eeriosema salignum* "ubungalala" which is taken by the childless couple to help their sexual appetite (Ndaba, 1994, 37). They also use a blend of *Gloriosa virescence* "ihlamvu". whereby the roots of this plant are blended in with food and taken by the couple that is infertile (Makoba, 2005: 13). According to Makoba's informant, this is powerful, and it has positive results in pregnancy.

### 2.7.3 Polygamy

Another form of the management of infertility is polygamy. The bride wealth (dowry) is paid for a woman in order to get her reproductive rights, generally, she owes children to the in-law family and her husband (Makoba, 2005: 14). A woman who cannot deliver children is confronted with the truth of a polygamous marriage. The husband takes a second wife who then bears children for him. The fertile wife receives all the attention and respect, while the infertile one is held up to shame and ignored (Makoba, 2005: 15). Additionally, the infertile first wife needs to adapt to an unfaithful husband more frequently than other woman need to, as this is justified by the husband who ought to prove his fertility outside their marriage.

The significance of childbearing in Africa is apparent in the way that the infertility of a woman could lead to being subject to paying back the bride wealth to the man's family. It also risks separation and at last to a divorce. In African societies, once it is discovered that the woman is infertile, the husband may choose to marry his wife's sister, so she can bear children for him (Ndaba, 1994:36). Consequently, the bride wealth is not returned.

For some women, no matter how educated they are and have secure jobs, it remains hard to decide about polygyny before they get married (Dierickx et al, 2019:6). This is because men frequently refer to their cultural and religious rights to have multiple partners. According to Dierickx, Coene and Jarju (2019:6), in some African communities, it is perceived as normal for a husband to get a second wife if the first wife is infertile or has no son. This view of taking another wife due to no son being born to the husband is a clear misunderstanding of sexual roles in some conventional beliefs, as the birth of the son is entirely dependent on whether the sperm carries an X chromosome (for a female) or a Y chromosome (for a male). In their

investigation, some infertile women supported their husbands in taking the second wife. They maintain that they need co-wives to help with the household duties and have more opportunity to travel. Often, most women with infertility issues are not being informed about the decision to take the second wife, until the day of the marriage.

In African communities, most women who are depicted as "strong" are less inclined in accepting the polygamy (Dierickx et al, 2019:7). The concept of "strong women" is mostly used to women who are financially independent and well-educated and women who are outspoken. These women would separate from their husband rather than agree to engage in polygamous marriage (Dierickx et al, 2017:7. However, , this is uncommon considering the societal pressure to remain in the marriage. Also, there are high chances that divorced women will be in a polygamous relationship in the next marriage, especially if their infertility issues persist (Dierickx et al, 2017:7).

### 2.7.4 Levirate practice where husband's brother or close relative are involved

Despite the societal pressure woman receive to bear children, it is possible for men to be infertile. In Zulu communities, the infertility of the man is something that is hidden. In most cases, the family even hides it from the infertile man. The method of managing infertility if a man is infertile is always discreet to an extent that some of the family members have no knowledge. This is done to prevent shaming and bruising the man's ego. Ndaba (1994: 37) noted that if a man is infertile, they do not feel like real men. In considering this, their infertility should be hidden.

The levirate practice is common in most African cultures. In one circumstance, the brother of the deceased husband is obligated to marry his brother's widow (Ndaba, 1994:37). The brother takes all the duties of the deceased and even becomes a father to the children that were born prior to the husband's death. In the event of an infertile husband, the family elders ask the husband's brother to have sexual intercourse with the wife. There are different ways of determining male infertility in African traditional communities. As aforementioned that traditional healers is one of the methods used by African traditional communities to deal with infertility. It is the duty of the traditional healer to determine the infertile spouse. Also, as stated that women are always blamed for childlessness marriage. They tend to anything to have children, even visiting clinics to get more information. A study by Dyer et al (2002), stated that many women emphasized that they wanted to be 'tested' and 'properly examined' but had little

further information as to what this would entail. This asserts that if the tests states that a woman has no infertility issues, a man is the infertile spouse.

In most cases, the infertile husband is deceitfully sent away and comes back when the wife is already pregnant by his brother (Ndaba, 1994: 38). If the husband does not have a brother, they choose any close male relative. Moreover, a woman is not supposed to choose for herself. She must accept what she is commanded by the family. The husband takes all responsibilities of being the father in belief that the offspring is his.

## 2.8 STATUS OF WOMEN IN INDIGENOUS AFRICAN COMMUNITIES

Status is defined as "the position of an individual in a group in relation to other groups in an organisation. It is attached to roles or position, privileges, duties, and obligations" (Ndaba, 1994: 60). Women who are infertile regularly experience loss of a status since they cannot achieve the role, privileges and obligations that are attached in a status of being a wife (Ndaba, 1994:48). In this way, infertility prevents them from common practice of childbearing, thus, not accomplishing the role of motherhood. In many African communities, childbearing for women supports the most significant affirmation of a woman's womanhood. The capacity of one's reproductive parts that allows her to gestate an embryo and bring forth a child attains them high regard (Tagwai, 2018: 60). Parenthood is viewed as "completing" a woman, for just through parenthood can a woman express her natural maternal care, hence women who are infertile are viewed as not complete and different from other women, as they cannot encounter those maternal feelings that makes other women complete and normal.

The pressure for childbearing remains high in African communities characterized by early age marriage, social segregation of the sexes, son preference, arranged marriage and limited spousal communication (Kritz and Gurak,1989: 100). Kritz and Gurak (1989: 100) further noted that by restricting both the education and physical movement of women, and falling to provide and support birth control, the African patriarchal system will continue to encourage women to bear children, especially male children. The changing of status of the woman can be the important consideration in Africans' understanding and management of infertility.

In a research study by Elujob (1995), many people have strong beliefs that some women are infertile because they are witches. They claim that they sold children to other people or to another country and took the secret pledge to never bear children again. This belief sustains the attempt to exclude these women and banish them from their families. A woman's ability to inherit her husband's property and make decisions in the family are mostly dependent upon her

fertility (Okonofua, 1997:11). For each situation, they clarified that an infertile woman may be permitted such concession if she is well behaved and regarded by the husband's family and communities. Inheritance, nevertheless, is only achieved if the husband had a will. In situations where the childless woman was not liked by the family, she would be expelled from the family upon the death of her husband.

Auli Vahakangas (2009:10) as cited by Baloyi (2017) noted that "The extremely harsh language use regarding women who cannot conceive brings shame on the stigmatized wide". This is on the grounds that childlessness is a concern to the entire community. It ought to be noticed that, despite the fact that marriage is communal in African setting, the church should instruct that there are a few parts of marriage that the couple should be left to choose alone, for instance the number of children to be conceived. Infertility in the African setting causes a woman to feel worthless. Additionally, the stigmatization infertile people face lowers their self-esteem. One of the potential explanations of "self-esteem" is to value high or have a great regard for something (Baloyi, 2017:3). Individuals with a low self-esteem do not regard themselves profoundly and do not think they are significant. Wicks and Parsons (1993:363) as cited by Baloyi (2017) see individuals with a low self-esteem as individuals who uses crutches to walk. They state that such individuals frequently consider themselves to be shameful or unlovable individuals who do not genuine sustained happiness in life. Baloyi (2017:3) shows that one of the reasons for low self-esteem in infertile people is how the community views and understands a social being. He proceeds to argue that inferiority and lower self-esteem may contribute to communal withdrawal. In this manner, the view of the family and husband can easily spread to other members of the community.

In a communal setting the society could either discourage or encourage a person. A woman who is known to be infertile can be discouraged and lose trust in herself as well as other people. Since Africans believes in the saying "I am, because we are," according to Baloyi (2017:3), it is possible that the community, including churches, plays a vital role in damaging the self-esteem of infertile individuals. That may result from being pointed as a misfortune or a curse in the family. Baloyi (2017:3) further noted that low self-esteem is one of the common struggles in the present day, and the problem is not limited to any, cultural, spiritual, social, economic, or ethnic background.

Due to the patrilineal system, the practice of levirate marriage, polygamy, and the payment of bride wealth, diminishes the recognition of women as human entities rather than child bearers

and nurtures of all mankind (Sonko, 1994:11). The lower rate of divorce among the Zulu traditional communities is partially attributed to the high amount of bride wealth. This implies that a woman needs to remain with her husband regardless of the conditions, since initiating a divorce implies that her family needs to pay back the bride wealth. Bride wealth is seen as another mechanism which assists the sustaining of lower status and subordination in wives and makes them totally compliant to their husbands (Sonko, 1994:11).

## 2.9 INFERTILITY AND PATRIARCHY

Infertility affects both men and women. However, it has been proven through several studies that communities hold firmly to the notion that when a marriage with no children, it is the fault of the woman. Patriarchy "is a system of social stratification and differentiation on the basis of sex, which provides material advantages to males while simultaneously placing severe constraints on the roles of females" (Olusola and Ojo, 2012:3). In a patriarchal society such as the Zulu community, it is significant in marriage to have children. The significance of children is commonly recorded in oral genres such as stories, songs, and proverbs.

Women subordination and male domination are the basics of a patriarchal social structure (Sultana, 2011:11). The subordination of women commonly constitutes the violation of the basics of human rights. The patriarchal systems in most African communities are particularly identified by the patrilineal residence; for example, a woman living with the husband's family after marriage (Sultana, 2011:11).

In Zulu communities, family arrangement is patrilineal. Families are regularly framed through endogamous relationships of first or second cousins (Mudau and Obadire, 2017:3). The bride takes up patterns of marriage in her new marital family's home and while she is still unfamiliar with the new home, she acquires a weak position within the family (Sultana, 2011:12). In addition, she is not only subordinate to the men in the family, but to other senior women in the marital family, especially her mother in law and even to her husband's older sisters. Men are viewed as superior human beings as they are perceived to have characteristics of predominance, authority, power, and can be trusted with the authority over the system (Mudau and Obadire, 2017:3). On the other hand, women are relatively perceived to be inferior human beings, essentially as a result of their supposed delicate nature in physical and emotional traits. The only education that is endorsed for women and young girls is that which prioritises and equips them of becoming decent wives, mothers, and childbearing (Mudau and Obadire, 2017; 2).

A basic achievement in a woman's life after marriage is parenthood. Women are relied on to deliver at least one male child to carry forward the family patriline (Sultana, 2011:11). Parenthood, particularly after the first year of marriage, is viewed as an essential to validate the woman's worth in being what it takes to be a wife, gives the in-law family an heir and secures a position within the home and outside the society (Mudau and Obadire, 2017:3). Women who bear children can at last, after some time, rise higher up the family ladder of importance and may in the long run obtain considerably more power to make decisions than younger males within the family.

In patriarchal societies, women are controlled in every spheres of life, that includes the number of children to bear, reproductive processes, and the type of work they are intended to do (Mudau and Obadire, 2017:2). According to Mudau and Obadire (2017:3), "In South Africa, patriarchy manifests itself in the way it controls and orders female sexuality and fertility". In most cases, women are controlled by men in private spheres, forcing them to do certain things without their consent. If they refuse, it can results in rape and other forms of abuse in the family. Additionally, men control women infertility and the number of children to bear, without consideration of the woman's wellbeing and capacity to have multiple pregnancies. Their wellbeing and rights are disregarded. According to Rendall (1982:16), "the perineal lines have a direct consequence to the position of women in the society". A male child is known as the perpetuator of the patriline as he inherits the family inheritance. On the contrary, a girl child is mostly treated as a subordinate to the boy child. Hence, this reinforces the traits of men(boys) who grow to believe that they are superior to women.

As aforementioned, bride wealth is seen as the transference of reproductive rights from the woman's family to her in-law family. Hence women are expected to produce children for the in-law family. However, in childless marriages, women are mostly blamed as they are seen as the indicator of the couple's fertility (Mazor and Simons, 1984:10). Makoba (2005:28) elaborates that "in the African culture, a woman receives or takes in the seed that grows to be a baby, just like a seed of maize; which because of warmth of the fertile soil, germinates and develops to root. As long as a man is potent, he is not sterile. It is the woman who is said to be infertile and the man's virility depends on the fertility of a woman".

Most women who cannot get pregnant, especially after being overwhelmed by the pressure to get pregnant, take the issues of infertility very personally, even when it is the husband who is infertile. According to Ndongko (1976:6), for African women infertility is an emotional

instability and the fact that blame is shifted to women amplifies their affliction. Adversely, other women partake in afflicting infertile women by accusations of breaking "nature's law" and not conforming to culture (Makoba, 2005:28). Other accusations include deductions that the infertility is due to previous abortions and therefore the woman's uterus has been corrupted or no longer suitable to allow for implantation.

The religious view, which stresses that women must bear children cannot be overlooked. Siwila (2015:63) argued that the story of Hanna in 1 Samuel 1:1–20 uncovers how infertile women were seen and mocked in patriarchal times. Considering that Hanna was mocked for being infertile by her fellow sisters puts religion at the spotlight when the issue of infertility in the Christian religion is raised. In Oduyoye's article named "A coming home to myself", Mercy Oduyoye (1995:46) as cited by Baloyi (2017) relates her own story by describing how the Christian church and African traditional religions were utilized as instruments of mistreatment against infertile women. The way that Christianity came into Africa as a male-ruled religion does not do anything to diminish the patriarchal male dominance; rather it strengthens it and adds religious validity. Phiri (2007:48) highlighted this by stating this means that freedom from cultural oppression for African women, as a result of the coming of Christianity, came as a coincidence rather than a formulated understanding of their salvation.

Furthermore, some African religions see infertility as punishment of sin and shameful as aforementioned. A similar view is shared by Gehman (2002:173) who shows that infertility is regularly recorded as a punishment for any anti-social act such as jealousy, and hatred. This sort of view demonises infertility to the degree that even in religious circles it turns out to be extremely hard to break the stigma. Both African traditional religions and Christianity adversely depicted infertility and subsequently they sustained the stigmatization of infertile women through their patriarchal character. This stigmatization negatively affects infertile women.

## 2.10 ARTIFICIAL REPRODUCTIVE TECHNOLOGY

From a western perspective, infertility does not mean all infertile individuals cannot have children. Rather, in some cases they require some medical assistance and treatment. In searching for solutions or cure(s) to infertility, people resort to different kinds of treatment methods. Artificial Reproductive Technology (ART) has emerged for the treatment of infertility and other techniques. Different types of ART include IVF, gametes donation, surrogacy, artificial insemination, and ovulation induction just to name a few.

According to Najera (2015:1), people who oppose the use of ART fear that the intrinsic value of life will be lost. Naturally, the intrinsic value is not something people are born with, rather it is something that is conferred upon someone by other people and is often based on one's achievements. In view of this, it is rational to say that when a couple have a child using ART, that child will has a value as a person (Najera, 2015:1). Other researchers also argue that, a child born through ART becomes "a means to a means to an end of adult happiness" (Najera, 2015:2). According to Kantian ethics, if IVF is utilized just for the satisfaction of the potential parents, it would be ethically wrong because it is not performed from a sense of moral duty (Najera, 2015:2). Here, the supporters' sympathetic feelings towards the infertile couple would be irrelevant. On the other hand, if the couple seeks to have a child through ART with good motives and prepared to make certain sacrifices in order to give the best life for the child, it is possible that the Kantian ethics would consider the treatment morally right (Najera, 2015:2).

## 2.11 STATISTICS OF INFERTILITY IN SOUTH AFRICA

As aforementioned that infertility is a major problem that affects families in South African communities, including rural Zulu communities. According to the report from Peterson (2020), fertility rates in South Africa for 2020 are projected at an average 2.3 children per woman, slightly lower than the global average about 2.5. He further stated that the research shows that up to 20% of South African couples struggle with infertility which affect both males and females almost equally. These statistics paint a worrying trend hence the need for an urgent attention. The problem of infertility is compounded by various myths, practices and beliefs about its causes as aforementioned that Zulu traditional communities mostly associates infertility with witchcraft and anger from the ancestors. Scientists believe that there are many causes of infertility in both women and men. In women, ovulation disorders affect an estimated 25% of women experiencing infertility (Peterson, 2020:4).

In searching for solutions to cure infertility, ART is the emerged technique that treat infertility. The costs of ART procedures, including IVF are exceptionally high and can be mostly afforded by the upper class. Accurate costs of treatment can only be determined after consultation with fertility specialist once it is determined which treatment option will be most suitable for the patient. An IVF cycle costs approximately +/- R49 000 (excluding medication). Additional costs might apply as part of an IVF cycle, depending on the treatment requirements, and could include: semen freezing, semen analysis, donor eggs, donor sperm and freezing of embryos (Dyer and Kruger, 2012:168).

## 2.12 PREPARATION OF ART

The preparations of ART are important just like the procedure of ART. In women, testing for ovulation is recommended to foresee how the ovaries will react to infertility medication (McNair, 2000:30). The possibility of success might be poor, for instance, if tests show reduced declined fertility potential. This can be dictated by any of these strategies: stimulating the level of Anti-Mullerian hormone (AMH), estimating oestradiol and Follicle Stimulating Hormone (FSH) levels on the second or third day of a monthly cycle or checking the quantity of small follicles in the ovary (McNair, 2000:31). A raised FSH or potentially oestradiol level, or a low AMH level is related with a low rate of pregnancy, particularly in women over the age of 45 (McNair, 2000:31). However, the age alone is also the significant factor in estimating the chances of success with IVF as explained earlier. Uterine abnormalities such as polyps, septum or fibroids may have to be treated before the process of GIFT or IVF.

In men, semen needs to be tested before the process of ART. If semen abnormalities are recognized, a specialist in male infertility ought to decide if there are curable (McNair, 2000:31). For instance, hereditary abnormalities in the Y chromosome have been related to male infertility. In this situation, hereditary testing might be advisable (McNair, 2000:31). Vital advances have been to treat male infertility, and IVF may help most men who were recently viewed as sterile.

According to Laaesgaard (2017:25), in situations where sperms cannot be gathered by masturbation because of different reasons, there are other different ways of gathering sperms available, for instance, for men who cannot ejaculate because of a spine injury. The methods of gathering sperms include electroejaculation (EEJ) and penile vibratory incitement (PVS) (Laaesgaard, 2017:25). For men who can ejaculate, but cannot produce sperms in the semen, operations are accessible to recover sperm from reproductive tissues. These strategies include testicular sperm extraction (TESE) and percutaneous epididymal sperm goal (PESA), TESE includes testicular biopsy and recuperation of sperm straightforwardly from testicular tissue and might be done in an office setting with nearby sedation (Laaesgaard, 2017:26). Sperms acquired by these techniques might be stored, frozen and defrosted for later ART procedure.

Furthermore, the lifestyle of a person undergoing ART must be addressed. Smoking, for instance, may lower a woman's chances of a successful ART procedure (Mustafa, 2019:7). Live birth rates after ART decline gradually due to obesity. This is because there are chances

of miscarriage and lower pregnancy rate in obese individuals (Mustafa, 2019:7). Maintaining body weight before undergoing the process of IVF is advisable. Also, drinking alcohol before undergoing ART procedure may be harmful and excess caffeine must be avoided.

Before selecting the type of ART, it is important to have information about the type of ART one is going to use (Laaesgaard, 2017:30). The information that is the most important is knowing the type of person that are likely to be treated, live birth rate, multiple pregnancy rate and support services available.

## 2.13 FEMINISTS ON ASSISTED REPRODUCTIVE TECHNOLOGY

Feminists that support ART view the use of ART as an addition to infertility treatment, extending reproductive choices to women. For example, they consider them to be an "answer" to barrenness and in this manner are advantageous to infertile couples. However, they likewise consider them to be more useful to the individuals who are not engaged with cultural heterosexual family circumstances or marriage. According to Chokr (1992:8) “The arguments developed in favour of procreative rights support the rights of couples to reproduce in many different ways: coitally, noncoital (AI, IVF), and through the intermediary of donors or surrogates”. Similar arguments are additionally created for expanding out these advantages to unmarried hetero couples, same-sex couples and single people who desire to have children.

The regard given to women only in light of their fertility diminishes them to "mother machines”, breeders for the convenience of men's patriarchal desire to have children. Even though technological techniques to counter infertility are beneficial to those who so desire to have children, some feminists view the inventions of such medical technologies as means to further marginalize women and make them experimental utilities (Chokr, 1992:8). They believe that modern technology has created a reproductive brothel, in which women's reproductive capacity is commodified and women's body parts are bought and sold. This is particularly evident in the financial transactions associated with finding and hosting a maternal surrogate for a married couple. Consequently, "the new means will enable men at last to have women for sex and women for reproduction, both controlled with sadistic precision by men” (Chokr, 19992:9).

According to Roberson (1995:9), some feminists support ART because it has the potential of increasing the reproductive choices of women, provided that women’s consent to ART is adequate informed and voluntary. However, Steinbock (1995:9) argued that infertile women cannot give truly voluntary consent to ART, irrespective of how they are well informed about

the odds of success, risks and the costs. This is because, their choices are governed by the patriarchal power structure. He further stated that, if women were not trained to think that motherhood is their greatest fulfilment in marriage, or if they were not concerned about providing in-law family with children, they would not be submitting to the expenses and danger of ART. But it must be noted that, women with careers still choose to become mothers. In fact, most women who are utilizing ART are the career- ambitious women who also possess the desire to be family-oriented and have their own children.

Sherwin (1987:10) believes that most infertile women want to have their own children because African societies provide some outlets to women with children as they are seen to have accomplished a valuable work. She stated, "There is something very wrong with a culture where childbearing is the only outlet valuable to most women to pursue fulfilment". However, Steinbock (1995:10) argued that this argument is outdated considering that there are many avenues open to women in the present day. This is reinforced by the prevalent use of ART by women who have significant career statuses. Yet it is of no doubt that in some conventional communities this dogma is still centric, particularly among Africans.

Luna (2001:52) claims that feminists are in suspects of these ART strategies. Rather than focusing only on the impact they have on the person's private life, they give a bigger picture of the issue. They centre around the political, economic, and social outcomes that these advances have. One of the focuses they make is the absence of long-term experimentation and the quick application to patients. Chokr (1992:19) as cited by Luna (2001) argued that "Changes in the techniques are very quick and modification of the new protocols without enough time for the clear evaluation of long-term risks can be observed, which shows the experimental nature of these methods."

They fear long-term outcomes or results from these strategies from both the child and the mother (Luna, 2001:52. Feminists also scrutinized the use of women as a method of accomplishing pregnancy when the male is the reason for the issue, basically on the grounds that the systems are more invasive on the woman's body. Feminists also express fear of what happens in the laboratories during the procedure, particularly in countries where there is no lawful guideline, quality control or a licensing system of the infertility clinics. Luna (2001:52) also finds it interesting that for nearly the opposite reason, feminists who endorse the respect for women are in favour of abortion, but they fight the reproductive moral enforcement.

## 2.14 TYPES OF ASSISTED REPRODUCTIVE TECHNOLOGY (ART)

As aforementioned there are many causes of infertility, for both males and females. ART has different types to treat different causes of infertility. The most effective and common type of ART is Invitro Fertilization (IVF). IVF is a process of fertilizing a sperm and the egg outside the body in laboratory (Asante-Afari, 2019:19). Artificial insemination is another type of ART where the sperm is inserted in the uterus, cervix, vagina, or the fallopian tubes of a woman. Ovulation induction is also a type of ART that treats the disturbance of ovulation. Another common type of ART is gametes donation. This is where an individual offers to give his sperms or her eggs to the couple or individuals who need the gametes to undergo any form of ART (Okantey, 2016: 20). Surrogacy and cryopreservation are other types of ART included. However, it should be noted that this research only looks at the main types of ART, and not all of them.

### 2.14.1 Invitro fertilization (IVF)

In vitro fertilisation is defined as "a process of fertilization where an egg is combined with the sperm outside the body, in vitro. The process involves monitoring and stimulating a woman's ovulatory process, removing an ovum or ova from the woman's ovaries and letting sperm fertilise them in a liquid in a laboratory" (Asante-Afari, 2019:19). For high chances of pregnancy, more than one embryo is inserted to the woman's uterus. Excess embryos may be frozen for future use or donated. IVF was initially used when there is a damaged or blocked fallopian tube or poor quality or few sperms to fertilize eggs. IVF offers a chance to avoid the problems by allowing the fertilization to happen outside the body. Nowadays, it is used to treat many causes of infertility such as when the couple's infertility is unexplained, or is due to endometriosis, or a male factor.

The cost of IVF is exceptionally high and can be mostly afforded by the upper class. The process of IVF supports the trade of embryos and human eggs, and by that children are reduced into business commodities (Ogar et al, 2018:5). Furthermore, McCormack (1988), appropriately sees that in the process of IVF, numerous embryos are wasted subsequently denying those individuals "embryos" life, keeping in mind the belief that life begins at conception, which means that fertilization of the egg in a petri-dish denotes the start of that life. The donation of sperms has encouraged many people to donate anonymously. However, at present often the sperm donor must be known once the child reaches the age of 18 (McCormack, 1988:10). David Thomasma (2005) made a claim that in -vitro fertilization does not violate the principle of monogamy if the sperm donor is the husband, and the egg is from

the wife. However, the acceptance or use of a sperm donor or egg donor of an individual that is not a spousal partner then equates to or is a proxy of infidelity. Despite the prevalence of sperm donation, egg donation is a subtle clinical method, thus; women with infertility issues are given ovulation stimulating hormones (Ogar et al., 2018:5).

IVF is not only used to treat infertility, but to avoid pregnancy with a genetic diseased child (Asplund, 2019:4). In families where there is a monogenetic disease or if there are greater likelihoods of genetic mutations that are inheritable, the use of Preimplantation Genetic Testing (PGT) offers a way to escape a pregnancy that might result in a child with inherited genetic disorders (Ogar el al, 2018:4) . This also prevents a later term miscarriage and early death of a child (Asplund, 2019:5). The ethical concern of PGT is whether the testing can be based on characteristics that are not associated with genetic diseases, such as beauty and intelligence. The concern is that upon revelation of the child's possible genetic makeup, parents may choose to abandon the pregnancy, and also, this knowledge subjects the child to prejudice from their parents about how they ought to look like, or even behave (Asplund, 2019).

2.14.2 Artificial Insemination (AI)

Artificial insemination defines many diverse techniques that are used to promote the insertion of sperm to the woman's body for fertilization (Okantey, 2016:19). The difference in artificial insemination is whether the sperm is inserted in the uterus, cervix, vagina or the fallopian tubes. Artificial insemination is mostly used by lesbian couples and single women who desire to have babies, and a couple with a male partner who is infertile (Okantey, 2016:19). In this, the semen is mostly collected with the assistance of the unique condom during the time of stimulation preceding insemination. The woman's monthly cycle during this period is attentively evaluated either by following basal body temperature level and changes in vaginal mucous with the use of ovulation units, or through blood tests or ultrasounds (Ogar et al, 2018:3). However, this procedure does not work for everyone hence after trying several times, couples may be advised to try other methods such as IVF. This method is preferred in religious and cultural basis because fertilization does not happen outside the body.

According to Candace (2014:15), the sperm collected using intrauterine insemination, must be washed to expand the odds of treatment, and afterward positioned straightforwardly from the vagina into a woman's uterus through the catheter tube with the outcome that the woman will conceive. He further claims that these procedures fail to respect the most private parts of a woman and her sexuality. She ends up being managed or viewing herself as an "object" for the

intended procedure. A man also violates his sexuality, as his affiliation ends up diminished to "producing a sample" regularly by masturbation which experts at that point use to impregnate his wife or any other woman (Candace, 2014:15). Also, any child conceived in this way can be possibly seen as an inquiry or a "project to be realized" rather than as a blessing that came from the union the couple.

### 2.14.3 Ovulation induction

Ovulation induction is the treatment of irregular ovulation, a condition where follicles in a woman do not mature and produce eggs (Begum, 2016:3). Regular ovulation occurs when ovaries release mature eggs which are ready to be fertilized. It occurs roughly once every 28 days. When the ovulation is not predictable or happens less than once every 35 days, it is considered as irregular. Ovulatory problems take away chances of predicting the ovulation and the availability of the egg to be fertilized (Asante-Afari, 2019:20). The goal of ovulation induction is to increase the chances of conceiving a child, either through sexual intercourse or artificial insemination (Begum, 2016:3). Ovulation induction also works in conjunction with IVF by stimulating multiple mature eggs for collection and use in laboratory for in vitro fertilization (Asante-Afari, 2019:20).

### 2.14.4 Gametes donation

Gamete donation is a situation where an individual offer to give his sperms or her eggs to the couple or individuals who need the gametes to undergo any form of ART (Okantey, 2016: 20). The gametes can be also obtained from fertility clinics, either from known or unknown gamete donors. However, the identity of the unknown donor may be known to the child at 18 years old (Begum, 2016:5). Donated sperms may be used in artificial insemination, IVF, and gamete intrafallopian transfer. On the other side, donated eggs may be used on IVF and gamete intrafallopian transfer but not in artificial insemination (Okantey, 2016:21). Due to the arguments surrounding egg donation, women are made to undergo counselling (Asante-Afari, 2019: 22). During this process, emotional and medical risks are made known to the donor before she consents (Begum, 2016:3).

The buyers of gametes get the part of the body that can be controlled to create, not just a child, but a child with certain particular characteristics and distinctive features from the donor (Ogar et al, 2018:3). It likewise includes buying parenthood, for acceptance of the money by the gamete supplier disintegrates their link to the offspring that results after ART procedures.

According to Ogar et al. (2018:4), the dignity of human gametes is devaluated as they come to command varying prices in the marketplace, depending on the value of certain features of the donor's gametes. Furthermore, according to Candace (2014:10), the practice of egg donation is morally wrong because it also requires that the woman be treated with hormones that have consequences of genetic abnormal babies, stillbirth, and multiple births. He further noted that it brings a controversy between social and biological parents (social parents being the recipients and biological being the biological children). Also, the donation of gametes has the possibility of creating disputes for future generations by not knowing their biological family and can even end up marrying relatives unknowingly.

### 2.14.5 Surrogacy

Surrogacy implies that "a woman becomes pregnant and gives birth to a child with the intention of giving away this child to another person or couple upon delivery" (Asante-Afari, 2019: 27). Surrogacy has two different types, a traditional and gestational surrogacy (Asante-Afari, 2019:27). In traditional surrogacy, the surrogate is also the donor of the ovum for fertilization (Niekerk, 2017: 4). The pregnancy is achieved through artificial insemination. The child becomes biologically related to the surrogate. Laterally, gestational surrogacy has no genetic ties to the child (Asante-Afari, 2019:27). The gametes of the intended parents or any other donor are used. The process of IVF is used, and the embryos are transferred to the gestational surrogate. Before pursuing surrogacy, legal and psychological counselling are offered to both traditional and gestational surrogates.

The main concern about surrogacy is that monetary involvement in the process could result to exploitation and commodification of the service (Pande, 2011; Deonandan, Green & Beinum, 2012). Although there are measures and guidelines regarding the use of surrogacy, these measures vary due to legal, cultural, religious, and financial concern (Asante-Afari, 2019:29). Because of the stated reasons, international surrogacy has emerged particularly in developing countries like South Africa where there is flexible legislations and cheaper access (Humbyrd, 2009).

### 2.14.6 Cryopreservation

"Fertility cryopreservation is the conservation of sperm, oocytes, embryos, and other reproductive tissues to help in reproduction. Cryopreservation of reproductive cells on the other hand is the practice of retrieving, freezing, storing, and thawing of gamete (sperm or oocytes) for reproduction purposes" (Asante-Afari, 2019:24). The are two methods of cryopreserve

gametes, fast freezing, and slow freezing (Asante-Afari, 2019:24). Slow freezing is done progressively in two to four hours manually. Slow freezing has been argued to be inconsistent and requires expensive equipment (Said et al, 2010). Because of this, embryologists opted for fast freezing cryopreservation. Asante-Afari (2019:25) stated that "Vitrification uses high concentrations of cryoprotectant to solidify the cell without the use of ice. In comparing the success rates of slow freezing and fast freezing, it has been asserted that fast freezing results in a better oocyte survival than slow freezing method".

The main purpose of cryopreservation is to make certain that there are always available gametes for individuals and couples who wish to undergo infertility treatment (Said et al, 2010). As noted before that the process of egg retrieval involves the use of hormones that may be invasive and painful; thus, it is not desirable for individuals who are about to undergo infertility treatment to go through that process. It is important to note that each type of ART is suitable for a particular problem that may cause infertility.

## 2.15 RISKS OF ARTIFICIAL REPRODUCTIVE TECHNOLOGY (ART)

ART has helped and is continuing to help people overcome infertility. However, there are some risks that are associated with the use of ART services. Maternal risks are the main risks of ART. The use of different hormones for oocyte retrieval has a negative impact on the health of women. Foetal risks are also associated with the use of ART services. Multiple pregnancies are common in the use of ART. The higher numbers of foetuses come with the greater risks of early birth, and in most cases, premature babies have low birth weight and are vulnerable to hyperoxia. Lastly, risks of ART are social risks of both the child and the parents, especially the mother. The processes of ART are emotionally terrifying and financially straining as all the treatments included are costly.

### 2.15.1 Maternal risks

The primary risks associated with ART, especially IVF, are the retrieval of the oocyte by itself and superovulation (Kowwass and Badell, 2018:3). Common risks that are not associated with pregnancy include the anaesthetic complications, infection, hospitalization and death after few weeks of stimulation (Kowwass and Badell, 2018:3). A study about the procedures of ART reported high risks of ovarian hyperstimulation syndrome (Deyhoul et al, 2017:7). "Ovarian hyperstimulation is a self-limited syndrome characterized by increased vascular permeability that results in haemoconcentration and ascites which is likely mediated by vascular endothelial growth factor and exacerbated by the presence of B-human chorionic gonadotropin" (Kowwass

and Badell, 2018:3). It is generally a result of a controlled ovarian stimulation and is most likely to result in pregnancy. However, effort to decrease the ovarian stimulation has been made. This include the improved medication such as baby aspirin and cabergoline (Kowwass and Badell, 2018).

Other risks of ART are associated with existing medical conditions. Sutcliffe (2002:7) stated that the medical conditions should be evaluated before starting the treatment of infertility to avoid risks for both mother and the child. Medical conditions such as heart failure and pulmonary hypertension are associated with risks of ART (Kowwass and Badell, 2018:4).

Severe maternal morbidity is also associated with ART. Maternal morbidity is defined as "any physical or mental illness or disability directly related to pregnancy and/or childbirth (Begum, 2016:3). These are not necessarily life-threatening but can have a significant impact on the quality of life (Begum, 2016: 3). Assisted reproductive technology has been linked to adverse perinatal outcomes that place women at increased risk of morbidity including hypertensive disorders, placental abruption, placental previa, antepartum haemorrhage, and caesarean delivery (Rebar, 2013:4).

2.15.2 Foetal risks

Another primary risk associated with ART is multiple pregnancies (Rebar, 2013:2). With higher numbers of foetuses comes the greater risks of early birth. In most cases, premature babies have low birth weight and are vulnerable to hyperoxia (Rebar, 2013:2). Their organs are not ready for life outside the uterus and they may be too immature to function (Begum, 2016:3). Women carrying multiple-foetuses pregnancy may need to go through weeks or even a long time in bed or in the clinic in order to delay early birth. Moreover, women with multiple pregnancy are likely to develop high blood pressure (Begum, 2016:3). High blood pressure can increase the chances of placental abruption and can lead to a deadly complication known as eclampsia if not treated quickly enough (Rebar, 2013:3). High chances of miscarriage are also associated with multiple pregnancy (Rebar, 2013:3).

Multiple pregnancies are the results of either several transfer of embryos in the uterus or ovulation induction (Pennings and De Wert, 2004:4). The pressure of successful childbirth is mostly the consequence of the several transfers of embryos to the uterus. During the ART procedure, observing the number of ripening follicles through sonogram is highly recommended, followed by advising couples to undergo insemination if more oocytes are produced; also, patients are advised to avoid intercourse (Pennings and De Wert, 2004:4).

During IVF treatment, transferring several embryos to the uterus expands the success rate of pregnancy. Nonetheless, the costs of this strategy are exceptionally high (Pennings and De Wert, 2004:4). However, multiple pregnancies produce a great number of psychological, social and medical problems for both the parents and the child, especially the mother. To the extent that medical risks are concerned, multiple pregnancies are the primarily cause of a strong increase in obstetric complications, congenital malformation, perinatal morbidity, maternal and foetal mortality (Pennings and De Wert, 2004:4).

In addition to the medical risks mentioned above, giving birth to multiples may lead to psychological and social problems. A study by Garel and Blondel (1992) showed that, after a year of multiple birth, mothers are likely to feel depressed, overstressed and isolated. Most ART experts have come up with a strategy of transferring a single embryo to the uterus with the aim of decreasing multiple pregnancies. However, the pressure on the IVF to keep up high rate of success (in terms of delivery rate) becomes a barrier to the adoption of this strategy (Cohen, 1998:9). Nevertheless, the effort to decrease the number of embryos transferred is still made. This strategy was adopted from transferring three embryos, to two embryos, to single embryo transfer. Some doctors consider limiting the patient's desires as a paternalism. Several studies have indicated that most infertility patients do not think about twins and triplet as an unfortunate result (Leiblumm et al., 1990; Gleicher et al., 1996; Murdoch, 1997). However, there are still remaining reasons to question the autonomy of patients who are still willing to accept the high risks of multiple pregnancies. The inclination brought about by the strong urge for a child can be reinforced when financial considerations limits the number of IVF cycles for which the patients can pay (Murdoch, 1998).

Prevention of multiple pregnancies is the goal of any IVF procedure (Pennings and De Wert, 2004:4).However, with the present information, it is an illusion to accept that all multiple pregnancies after IVF will be eliminated in later on (Pennings and De Wert, 2004:4). Thus, when the situation present itself, possible solutions should be considered. Multifetal pregnancy reduction (MFPR) can be an acceptable solution when the benefits of decreasing multiple pregnancy overweigh the disadvantages of carrying multiple pregnancies in terms of miscarriage and birth defects (Pennings and De Wert, 2004:4).

One could argue that regardless of whether the child experiences birth defects or some other problems as a result of the use of ART, the privilege of life/existence dignifies the painful

consequences. Also, it is added that perhaps the proper version is when the child is not born at all than to live with a genetic disorder only because the parents had to satisfy their desires.

2.14.3 Social risks

The information about one's genetic makeup is made accessible to children at the age of 18. This information can affect children and children's genetic relatives as the information may provide new knowledge about individual's genetic relatedness. Such awareness of this genetic information can cause depression and anxiety among children (Malek, 2007:4). Furthermore, the child's realisation that they have been born through ART may bring guilt and a feeling of alienation (Malek:2007:4). However, Malek (2007:4) argued that some children created through ART may feel wanted and even special.

The use of ART involves financial, emotional and physical commitment from both partners (Sutcliffe, 2002:10). Mental stress is very common. In a study by Malek (2007), most couples explained the process of ART as emotionally terrifying and financially straining as all the treatments included are costly. According to Malek (2007:5), before starting the treatment, couples usually have high expectations, yet disappointment is basic in any given cycle. Couples may become furious, resentful and isolated. Sometimes, these can lead to low self-esteem and depression, particularly in the failed ART attempt. Hence, the help of family and friends is advisable. Additionally, most ART programs provide mental health counselling to help a couple deal with the tension, grief, and anxieties related to infertility and its treatment.

The evaluation, and treatment of infertility have additionally been related with great emotional stress for the couple as mentioned above. Demyttenaere (1992) reported that the anxiety related to infertility is not only a social problem since it also affects the success rate of IVF procedure. Even though some people experience early accomplishment in the IVF treatment cycle, with generally few and non-intrusive intervention being required, different couples may encounter many years of treatment with many mediations, some of which are invasive, costly, and complex (Fasouliotis and Schenker, 1999:12). The high costs of treatment and number of tests and medicines have corresponded profoundly with the stress related to infertility issues (Fasouliotis and Schenker, 1999:12). The challenges at the time of treatment forces the lives of the couple to change, for example, time off work and travel to go to arrangements and the pressure made by consistently focusing on the treatment of infertility and the fear of failure have been depicted (Fasouliotis and Schenker, 1999:12). Despite these problems, Fasouliotis and Schenker (1999:12) found that infertile couple were discovered to be commonly happy

with their treatment, which was primarily result of the technical skills and emotional support provided by the therapeutic team involved in infertility clinics.

According to Fasouliotis and Schenker (1999:12), the stress related to infertility might be brought down if the doctors and their staff give specific consideration to their patients' feelings, to their patients' understanding of methods disclosed to them, to talking about adoption with their patients, to including more men in infertility treatment, and to helping women to have more authority over their course of treatment. The introduction of more social workers, psychologists and psychiatrists into the therapeutic team may help accomplish these goals. These issues experienced in the procedures of IVF and other types of ART have prompted the development of some organizations, which intend to help individuals by assisting them with sharing information and by advancing the needs and concerns of infertile individuals in the clinical, political and scientific arenas of the community. One of these associations, the International Federation of Infertility Patients Association, (IFIPA), intends to accomplish open access to infertility medicines for all couples around the world.

## 2.16 BENEFITS OF ARTIIFICAL RERPODUCTIVE TECHNOLOGY (ART)

Even though there are risks associated to ART services, there are also benefits that are associated with ART services. Firstly, it is overcoming infertility. As mentioned before that the primarily goal of ART is to treat infertility. ART has helped many people to overcome any infertility issue they faced. Secondly, it is the use of Preimplantation Genetic Testing (PGT). PGT is the uncommon progressed test that examine the genetic conditions and extra chromosomes of the embryo before it is transferred to the uterus. Lastly, same-sex couples have also benefited in ART services. The emergence of ART gave same-sex couples an opportunity to have biological children of one partner.

### 2.16.1 Overcoming infertility

ART helps people to overcome any fertility obstacle through its various types. It makes the dreams of infertile individuals of having children come true. The introduction of ART may benefit those who wish to have delay childbearing (Malek, 2007:14). People no longer rush to have children due to the fear that they will be infertile at older ages. They are assured that the advances in ART can compensate for the age-related decline of infertility (Malek, 2007:4).

The use of ART, IVF to be precisely, increases the chances of having a healthy child (Malek, 2007:13). A process known as genetic screening is used to ensure that embryos are free from

any known genetic diseases (Malek, 2007:13). These can be linked to medical and life-threatening conditions such as Down's Syndrome. The children through ART can have longer life with reduced pain and any physical or mental disability (Robertson, 2004:35).

2.16.2 Preimplantation Genetic Testing

The cure for some genetic conditions currently does not exist. The accessible treatment frequently has significant risks and unfavourable effects (Vele et al, 2009:5). However, regardless of whether the treatment is affordable and effective, the psychological effects of the treatment are likely to be occur. Thus, alternative ways to prevent genetic conditions may be preferable.

Preimplantation Genetic Screening (PGS) and Preimplantation Genetic Diagnosis (PGD) are the uncommon progressed tests that examine the genetic conditions and extra chromosomes of the embryo before it is transferred to the uterus (Vele et al, 2009:5). Additionally, these tests provide a chance to have a child that is biologically related to the parents but not affected by the genetic condition of the family (Vele et al, 2009:5). Couples that do not see termination or prenatal testing through chorionic villus or amniocentesis as an option consent to the risks of having a child born with genetic condition (Deyhoul et al, 2017: 10). Previously, parents or individuals with genetic conditions regularly opted for adoption or decided against having children in order to avoid passing on the genetic condition to the child. However, PGD presently gives these individuals and couples a chance to have biological children that are free from their genetic conditions.

The use of these tests significantly decreases the high risk of pregnancy with an abnormal foetus which can happen to any woman of any age who conceives through the use of ART or even naturally (Deyhoul et al, 2017:10). Furthermore, it assists in avoiding future failure of IVF cycles and pregnancies as it shows abnormal embryos and predicts the probability of a miscarriage (Vele et al, 2009:6). Thus, one can consider other approaches to have children, such as the use of donated sperms and eggs.

Najera (2016:2) claims that it is not only about providing the chances of longer life; parents are prepared and equipped to give the best lives to their children. This involves the genetic enhancement that can help children to excel in different areas of life. Parents can also prepare in advance the most adequate educational system for their children. Advocates of genetic enhancement stresses that it is not different to attempting to improve children's odds of accomplishment by method of education (Vele et al, 2017:11).

2.16.3 Same-sex couples in ART

There are some various sociocultural, ethical, legal, gender, and contractual issues to consider with assisted reproductive technology, which are further increased when the intended parents are lesbian or gay. Many fertility faculties tend to not participate in this disputed practice because of gender concerns, sociocultural issues, as well as potential legal and ethical outcomes.

There are myriad cultural and social issues with which lesbian and gay couples are challenged when they decide to have children. Firstly, they are frequently challenged by a social system that claims their relationship and their capability for parenting (Matthews and Lease, 2000). As a result of this prejudiced social system, couples may face their own issues about the advisability of "bringing children into a situation where they too, will be subject to social stigmatization" (Matthews and Lease, 2000:263). Another sociocultural issue that lesbian and gay couples must consider is parental roles (Patterson,1996). Since only one person in the couple will be biologically related to the child, approaches to parenting are affected. Problems such as "financial arrangements, wage working versus home and family care, dealing with outside entities, and negotiating levels of openness with children's peers and their families" must be addressed(Matthews and Lease, 2000:263) and this may be uncomfortable for the parent who is not genetically related to the child.

Lesbian and gay couples are faced with if and how to come out to the persons involved in their child's life, such as medical and school personnel (Matthews & Lease, 2000). Even though a couple may have previously confronted and resolved issues regarding "coming out," painful, difficult, and mixed feelings may come back when the decision is made to have a child. Culturally diverse lesbian and gay couples confront additional challenges when they seek to create families. Couples who are ethnic and sexual minorities are living in a larger society with stereotypes and prejudices about both groups (Matthews & Lease, 2000; Morales, 1990). The importance of negotiating three different worlds may leave couples with feelings of identity confusion, individual and relational distress, and isolation. Furthermore, the additional pressure of multiple minority group membership further complicates decision-making about reproductive health options. In addition, lesbian and couples may encounter more challenges to family building such as limited availability of culturally diverse sperm or egg donors, and biased policies from reproductive health practices and surrogacy or sperm and egg donation agencies.

Gurmankin, Caplan, and Braverman (2005) in their study examining the screening practices of ART services, found that there is significant difference in evaluation and belief of candidates for these services. Particularly, they found that 48% of ART service would likely turn away a gay couple who need to use a surrogate with one partner being the biological parent to the child. On the other hand, when questioned about a lesbian couple who want to use donated sperm for insemination, only 17% services asserted they would be most likely to deny them these services. Their study shows that the large majority of ART practices that believe "they have the right and responsibility to screen candidates before providing them with ART to conceive a child" (Gurmankin et al., 2005:64).

The beliefs about parenthood and fertility are usually intensified in the case of lesbian and gay couples (Burnett, 2006:3). It is mostly assumed that fertility is not important for lesbians and gay couples. However, many lesbians and gays do want to have children. The emergence of ART gives the concerned opportunity to have biological children of one partner. The use of donated gametes is common for them. For lesbians, donated sperms are transferred to the uterus or fallopian tube of one partner with the use of artificial insemination (Burnett, 2006:3). On the other hand, surrogacy is the alternative option for gay couples (Burnett, 2006:3). Additionally, lesbian and gay couples might come together in building families, agreeing to joint biological parent arrangement.

The concerns about the use of ART with lesbian and gay couples include the welfare of their children (The Ethics Committee of the American Society for Reproductive Medicine, 2013:2). The concern is that children of same-sex parents may experience problems of gender identity and social isolation (Mande, 2016: 100). Generally, men are perceived as less caring than women. Thus, children raised by same-sex parents may not experience "normal upbringing". Additionally, other opponents claim that children raised by same-sex parents are at greater risks of paedophilia, sexual abuse, and other mistreatments (Mande, 2016:111). However, research from several studies shows that children of same-sex parents do not encounter any greater emotional and psychological difficulties or stigmatization from children with heterosexual parents (Burnett, 2006:5).

## 2.17 ATTITUDES TOWARDS ASSISTED REPRODUCTIVE TECHNOLOGY (ART)

The introduction of ART challenged different departments of life. Hence, there are different attitudes towards the use of ART services. Firstly, ART is seen as the commercialisation of gametes. ART patients need human gametes for the procedure to take place. Specialists

advertise and look for contributors to select them for a benefit, and customers search for the eggs and sperms they need and that they can afford. Secondly, the understanding of "The family", especially in the African context is challenged by the use of ART. Even though the non-related parent to the child has all the legal rights of the child, there is never enough equalization of the imbalance. Also, even though there is absolutely no inquiry of infidelity in such a circumstance, the psychological intrusion of the third-party donor can have an impact on the couple's association. Lastly, the accessibility of ART services is also another concerned. ART services are mostly accessible to the upper class and rarely to the lower class, especially in rural areas. Two approaches that can be used to deal with infertility in the lower economic class will be discussed.

### 2.17.1 Commercialisation of gametes

Obtaining eggs, sperms, surrogacy, or embryos is the basic part of Assisted Reproductive Technology processes. Dealers, individuals, and fertility clinics advertise and sell eggs, sperms, and gestating services in a competitive market (Callahan 2014:12). As infertility rates increase, there is demand of human gametes and gestational carrier; this has led to the growth of some businesses. Callahan (2014:12) asserted that "Reproductive marketing has been clothed in a "gauzy shroud of sentimentality", where misleading terms such as donors, surrogate mothers, family building, or forever family are used to describe highly profitable enterprises". Infertile people are the target market who buy eggs, sperms, and womb services in a competitive market with fluctuating prices. Specialists advertise and look for contributors to select them for a benefit, and customers search for the eggs and sperms they need and that they can afford. Donors, as well, search for the best deal they can find.

According to Pennings (2000:7), in this thriving market, little research has been conducted about the impact of the child business on the givers. Women's biological wellbeing is one developing concern, as the difficulties and the complicated cycle of egg donation has expanded the dangers posed by different hormones used in invasive procedures. Additionally, Callahan (2014:12) noted that there has been minimal research of the psychology and morality of being a human donor. At the point when people are being paid, they are not exactly being donors, but they are sellers of the bodily and genetic resources (Callahan, 2014:13). He further noted that, it was going to be understandable if the donation of human gametes is similar to the model of blood donation or organ donation, where no financial transition takes place.

At the point, when young people sell their sperms and eggs, they are selling the interesting hereditary identity that they got from their own parents and grandparents (Pennings, 2000:8). As noted above that this not like kidney or any organ donation since sperms and eggs contain important information and genetic generative potential that is based to their identity. At the point when an individual treats the acquired unique genetic identity and generative power as not important, or contracts to sell it, this might break the compact to respect and practise "procreative stewardship" (Pennings, 2000:8). Callahan (2014:13) notes that, when a woman donates eggs, she is selling the reproductive capacities of the eggs that she inherited from her mother. And when a woman becomes a surrogate mother, she is selling her reproductive capacities. Generally, people need money, and they are willing to sell their gametes and the infertile needs children, and they are willing to buy gametes.

However, sometimes money is not involved, especially if the donor or surrogate is family or they volunteered to participate in the process of ART to help others. But Callahan (2014:13) argued that this altruism is clearly being coordinated to fulfil the desire of the intended parents and not the child that will be conceived. He further noted that, no donation, paid or not paid of either eggs or sperms can avoid the problems of involving the third party in reproduction. He claims that this practice encounters the basic principles of morality. Adult people are considered to be ethically liable for the impact of their actions and words. In genuine issues that brings powerful impacts, such as reproduction and sex, which have irreversible lifetime outcomes, it properly holds capable people to a high standard of good and legitimate duty (Callahan, 2014:13). To balance inclinations toward child neglect and sexual irresponsibility, African culture has demanded that people are responsible for those sexual acts that make new life. Donors, regardless of whether female or male, who partake in the collaborative reproduction automatically resign their future parental duties (Callahan, 2014:13).

In fact, in most cases, the donor signs contracts to avoid any future intervention with the child to be born. This is shown by how most donors do not know the people that used their gametes; even the intended parents are not told who the donor is. Callahan (2014:14) asserted that "Sellers' hand over control of their generative resources and potency to physician, brokers, or others, usually strangers". By agreeing to sell gametes, one abdicates to all consequences for their reproductive cooperative actions. Hence, partaking in the creation of a new life sustains moral claims and moral obligations from the life engendered.

According to Callahan (2014), people who donate human gametes also deprives their family and whole clan from knowing their biologically related children. This can lead to future children not knowing their biological half sisters and brothers. Callahan (2014:14) further noted that "To disregard biological reality of genetic relationship promotes a mistakenly disembodied, fragmented view of how human beings actually function". Besides, when a woman gives her eggs or gestational capacity, or both, there is a grave threat of exploitation (Pennings, 2000:8). The risks associated with the egg retrieval and surrogacy are of great significance. However, if a woman is offered lot of money, she will be tempted to sell the eggs and her reproductive capacities and suffer the consequences later. Middle-class women are now enlisted to the gestational surrogacy market. Working class young women with desirable looks and high intelligence levels mostly command excessive costs for their eggs; hence, the gametes market recently opted to advertise mostly in college papers. Callahan (2014:14) claims that "When egg commodities are sold to the highest bidders, a woman's identity as an integrated whole person is under the threat of reduction to a material supplier of parts; similarly, with the sale of sperm, it sanctions fragmented integrity and male abdication of responsibility for their biological offspring". Society permits the benefit making business in sperm, likewise complete with competitive advertising, regardless of social father-abandonment of children and male sexual irresponsibility. A research study by Tiersch (2011) shows that most young men do not think about the children their sperms will conceive, until when they want to have families of their own. A well-known account records of a donor discovering that he has more than 70 children out there, and this raises the possibility of these children to know each other, especially in this era of social media.

When the commercialization of gametes is governed by a signed contract and the purchasing of body parts and their functions, the familial culture turns out to be significantly more divided and distanced (Tiersch, 2011:15). There are risks parental commitment, care and support for one's own children when legitimatizing the isolation of cultural and biological values that previously evolved in societies (Tiersch, 2011:15). One of the requirements for a responsible ethic of reproduction and sexuality is to acknowledge the personal acts and sexual acts involving a person(Callahan, 2014,15). Hence, if money is involved, an individual is diminished to a means of satisfying another person's desire (a child), and exploitations follows too. Thus, it is wrong to purchase, isolate and intentionally use another person's reproductive capacities apart from his or her own family.

### 2.17.2 Understanding of "The family"

When employing a third party in reproduction, only one parent will be biologically related to child, and sometimes both parents will be not biologically related to the child. Callahan (2014:10) asserted that even though the non-related parent to the child has all the legal rights of the child, there is never enough equalization of the imbalance. He further claims that even though there is absolutely no inquiry of infidelity in such a circumstance, the psychological intrusion of the third-party donor can have an impact on the couple's association. Regardless of whether there is no jealousy or envy between parents, the circumstance can define the reproductive inadequacy of one parent, and dependence is placed on superior reproductive capacity on a donor's genetic heritage (Callahan, 2014,10). Callahan (2014:10) claims that the imbalance of biological parents within the household or family has always been a problem.

He further notes that children who are not related to one of their married parents have more negative social results and are in more danger of abuse. The most often cited as a reason for separation in second marriages is the problems of dealing with another person's child (Pennings, 2000:9). However, a child conceived through ART cannot belong to another person other than the couple that went through ART. Additionally, a child born through ART cannot be equated to a child born before marriage as Pennings claims that it is hard to deal with another person's child. According to Inhorn (2011), the empathy and irreversible recognizable proof and tie that come from a knowledge of shared biological kinship appear to support parental authority and responsibility. He further claims that in unsettled families who are under stress, one finds more child abuse, scapegoating, and incest if biological kinship is imbalanced. Biological ties become mentally strong since human people in families participate in imaginative abstract relations with each other, regardless of whether as adults or as children.

Parents mostly fantasise about their children's past and future makes a difference, and this can be attested by understanding child development or family dynamics (Callahan, 2014:11). For identical twins, the treatment might be slightly different because of the fantasy projected upon them. Thus, surrogate and third-part donors cannot easily disappear from the family consciousness, even though all the legal contract can control other intercessions and consequences. Callahan (2014:11) further argued that "A child conceived by any new forms of collaborative reproduction is part of the biosocial experiment without his or her consent". Even though, as noticed, no child gives consent to be conceived, even with the natural method, a biological child is conceived and born the same way as the parents. Regardless of whether there is no risk of transmitting physiological harm to the child or unknown genetic diseases, the psychological relationship of the parents and the child can be in danger by the third-party

technological innovation (Inhorn, 2011:10). A child can confront that his or her creation was specially made as a contracted product by a third-part donor who wanted to be paid. According to Callahan (2014:11), "this is treating a child like a commodity or something to be fabricated and procured to satisfy the desires of purchasing gametes, infringes upon the child's alien dignity as a gift of nature's biological bounty".

The standards of parenthood have created the individuals who want a child not as a blessing gotten for the good of its own but to fulfil some parental desires or needs are judged morally in lacking commitment (Inhorn, 2010:11). However, people are still attempting to defeat the beliefs that sees children as a marriage entitlement or personal property that provides a "life-enhancing experience". Children are now valued as being equal to adults in terms of moral worth, regardless of their powerlessness and dependency (Callahan, 2014). He further sees having children solely for selfish reasons becoming morally suspect as marrying solely for status or money. Previously, individuals needed children to secure domestic labour, to increase social power, to have caretakers for the old age, to have someone of their own to possess, and to prove sexual powers (Callahan, 2014:11). Hence, a couple or individual driven to have a child through ART might not be set up to raise the child once conceived. Being needed and being raised are not the equivalent. Parental dreams of the ideal infant or perfect child, the overinvestment in children, can also be mentally difficult for a child. Adolescents issues of anorexia, suicide, depression have been identified with the dynamics of parental overcontrol.

Young people must accomplish a different identity to interrelate adequately with others and to become autonomous in relationships (Callahan, 2014:14). Frequently, the child who was wanted for some wrong reasons may not be acknowledged when born with problems. Also, there are some risks and health problems for ART children that are mainly due to prematurity and multiple births as aforementioned. However, Rebar (2013:3) was against this view when he stated that, regardless of whether the child experiences birth defects or some other problems as a result of the use of ART, the privilege of life/existence dignifies the painful consequences. In the period of child development, psychologists assert that fantasizing and thinking about one's origins seems to be inescapable in the search for self-identity (Callahan, 2014:11). In Assisted Reproductive Technology, the question of "Whose child am I", "Why my biological parents are not more concerned with what will happen to the new life he or she helped to create" becomes unavoidable. The need to think about other half-siblings and other family may become a concern at some point in their development.

### 2.17.3 Accessibility of ART services

Upper and working-class infertile couples mostly have access to ART through private centres, yet this treatment is still not accessible to those who are in the lower class, regardless of the way that they are in need of this treatment (Luna, 2001:52). While perceiving the problems of fair distributions in both public and private systems, solutions are always controversial and complex. Luna (2001:52) asserts that there are two possible approaches from a moral perspective regarding the use of ART. The first is a full coverage measure, which presents an ideal or goal that ought to be attempted to be applied. It embraces the right to health care, and asserts for a full medical services package including ART. This approach gives a justification on these practices from a perspective of equality in health care service. Society has a moral commitment to ensure a fair access to medical care for all. This approach underlines the significance of having children, the tragic situations and suffering that infertile couple go through.

Luna (2001:53) argued that ART services should be covered as a feature of the individual's moral right to reproduce freedom. Considering that ART is mostly accessible to the upper class, this argues that this approach is a need for the lower class. This will give the possibility that all people, rich or poor, have access to ART techniques. Arguments from a moral perspective are the right of self-deciding, which can have an impact on the well-being and equality of the infertile couple (Luna, 2001:52). This position protects a wide coverage of these ART services, even though it needs to be unlimited. It might also perceive certain limit on reproductive provision and freedom; for example, the number of attempts in IVF treatment.

Furthermore, Luna (2001:53) points out the second approach that there should be consideration given to the recognition of scarcity of these ART services in developing countries, especially rural communities. Because this approach acknowledges the cost of ART procedures, hence, it emphasizes the prevention of infertility for people who are already excluded from these services. This approach also focuses on the expenses of these services, the absence of resources in the developing countries and the level of infertility that emerges from an absence of services in the sector of reproductive health (Luna, 2001:53). In this manner, it focuses on the need for fertility regulation including the utilization of contraceptives and prevention of unplanned pregnancy which can lead to illegal and unsafe abortion and resulting to infertility. Additionally, it looks at the causes of infertility: lack of effective care and poor prevention in the area of STD; inability to offer support for practices that reduce incidence high infertility

causing diseases. Even though this approach does not vouch for the coverage of ART services and gives prevention of infertility priority over the use of ART, it mostly targets the needy who cannot afford ART services (Luna, 2001:54). She argues that the needy are mostly likely to have infertility issues due to untreated STDs and lack of contraceptive devices. Within this approach, proposals may vary on the amount ART should be covered, depending upon need and accessible resources.

The second approach additionally implies a commitment to a more complete response to the problem. Considering that the use of ART in third world countries is different from the use of ART in first world countries still raises some challenges. Luna (2001:54) asserts that "If contraceptive services are denied, if STD are not adequately treated, if IVF embryos are worshipped, if abortions of genetically abnormal foetuses are forbidden, and the focus is only on providing ART, at least one important point is missed." ART cannot be maintained simply as scientific technique without any connection to the major suffering of women or to the cultural and religious perspective. Hence, it is advisable to apply comprehensive and integral approaches to the use of ART, such as reproductive health for both women and men as a priority. Such approach can be accomplished through a broader range of facilities covering other reproductive health, not only ART.

### 2.17.4 Religions on ART

Religion is the manner by which individuals arrange their prosperity in relation to the powers that support and sustain them (Dutney, 2007:8). The centrality of family development to this activity would lead one to view that ART should be favoured, as another combination in the religious project. Relatively, that has been true to some religions (Dutney, 2007:8). Judaism has been for the religion that is most favourable to the use of ART, including the utilizing of gamete, surrogacy, and embryos. Moreover, it should be noted that ART first developed in the Christian West and its progress has been accompanied with the review of the churches which, while sometimes disagreeing with explicit practices, have never scrutinized the fundamental worthiness of the aim of relieving infertility (Schenker, 2005:311). Nonetheless, all the religions have specific purposes of concern when they think about the methods engaged with ART. These will in general be around two strict pre-occupations: reproduction and marriage or, particularly the sanctity of the embryo and the sanctity of the marital relationship.

All religions have a profound interest in the type of marriage they support as the central foundation of the predominant religio-social framework (Dutney, 2007:8). They, normally, see

with concern interruptions into the marital relationship. In Christianity, for instance, the exclusivity and mutuality of marriage is perceived to be the image of relation between Christ and the congregation, and furthermore of the triune God (Dutney, 2007:8). Clinical intervention in reproduction can be viewed as not respecting this image, particularly in IVF where treatment regularly happens without the presence of the couple. The utilization of donated embryos and gametes has been questioned in view of the manner by which they present a third party to the marriage (Dutney, 2007:8). The arrangement of surrogacy has been denounced on both these grounds, additionally, the concern are about the commodification of children and the manner by which the parties involved in gamete donation and surrogacy are presented to potential exploitation (Dutney, 2007:8). Christianity has long experience in marriage and the manners by which it tends to be arranged to maximize prosperity and security of the people, their families and community engaged in the institution. It is justifiably anxious about the abrupt, significant developments to marital relationship that are made conceivable by ART.

The same can also applied to other religions. Islam is a good example. The teachings of Islamic on a given subject commonly takes the form of a 'fatwa' which is a formal legal decision or opinion or on any matter, made by an Islamic religious scholar and leader (Schenker, 2005:312). Any such leader who mostly leads the society in prayer is able to issue a 'fatwa' and is likely to be called upon to do so in any situation in their community. It is commonly part of the way they exercise leadership (Schenker, 2005:312). However, other Muslim leaders and Muslim people in general are permitted to decide for themselves even though 'fatwa' is sounded or not. The first 'fatwa' on the issue of ART emerged in 1980 by Al Azhar, the University of the Grand Sheik of Egypt. It has approved itself to the Sunni Muslim world to such extent that it still continues to be authentic (Schenker, 2005:312). Generally, 'Fatwa' approves of the use of IVF as a way of managing infertility in Muslim couples revealing the threat and pain caused by infertility in their marriage. However, the requirement is that married couple should use their own gametes and not donated gametes. The use of donated gametes and embryos is prohibited.

This is also consistent as Muslims is a religious tradition that put much emphasis on lineage as the basis for human identity, and which has commonly viewed adoption as an unsatisfactory method of managing infertility (Dutney, 2007:8). Despite the fact that adoption has consistently been practised in the Muslim world, morally, the adopted child is still not considered as a member of the family, but mainly as a guest in the house, and is protected by the requirement of care and hospitality, but be excluded from the benefits of the kinship (Dutney:2007:8).

Although this 'fatwa' has had a mixed reception but it has opened a way for considering the use of surrogacy and donated gametes or embryos in Lebanon and Iran which has Shiite (a branch of Islam) majority (Dutney, 2007:9). Where these ART advancements have been acknowledged, it is on the basis that they maintain Shiite family structure and integrity. In this specific circumstance, the utilization of donated gamete or surrogacy has been portrayed as a 'marriage saver' in the world of Muslim (Dutney, 2007:9).

In Christianity, there are notable options in contrast to the Catholic view (Dutney, 2007,9). Rather than the Catholic 'creationist' perspective on 'ensoulment' in which every human spirit is exclusively and actually made by God to be put into the body for which it is proposed is the 'generationist' principle that the spirit is derived from the parents during the conceiving period (Dutney, 2007:9). This can in any case imply that the embryo can be seen as a person; a weak person that people owe security for it to grow. In any case, it additionally makes it conceivable to consider personhood to be something that is created as people grow and not something that is attained. This view is also shared by John Mbiti (1969) when he stated that the African view of a person can be summed up in this statement: “I am because we are, and since we are, therefore I am.”. He further stated that a human being is not born with the status of being a person, rather, it is conferred by the community they live in.

The similarity in the Western and Eastern religious tradition is the strict concern in their interests and in their range of responding to the use of ART services. Regardless of whether they have acquired the religious resources from the East or the West, infertile people, and their pastors, priests, ministers leaders and teachers are attempting to do something very similar by their religious practice.

## 2.18 THE GAP IN THE LITERATURE

The goal of Artificial Reproductive Technology (ART) is to treat infertility by providing efficient, safe, and affordable care in improving the chances of being pregnant and the delivery of healthy children (Baylis, 2012:2). IVF is the most common and effective type of ART. Thus, this research will focus on implications of the use of IVF as a strategy for the management of infertility within the indigenous Zulu communities. It will assess the ethico-cultural implications of managing infertility with IVF in Zulu communities.

Indigenous Zulu communities have different traditional practices and values that can be compromised by the introduction of IVF. In this regard, the gap that this research seeks to fill is the traditional practices and values that are likely to be compromised. Additionally, it will

look at the challenges that IVF can face and the opportunities it can bring to indigenous Zulu communities and the need for deconstruction of the beliefs and practices about infertility within the indigenous communities. In support of IVF, the theory of limited communitarianism and human rights will be used to ethically strengthen the management of infertility with IVF among the indigenous Zulu communities.

## 2.19 CONCLUSION

This literature review has shown what different scholars have investigated about the understanding and treatment of infertility from different societies, starting from the nature of infertility and it causes. For women, the disturbance of ovulation, fallopian tubes problems, uterine problems, and body weight are the main causes of infertility that were reviewed. For men, the main causes of infertility stated are abnormal production of sperms, treatment of cancer, and alterations in scrotal temperature. The significance of childbearing in Africa has been understood as the fundamental purpose of marriage in Africa. This is because high value is placed in children for both social and economic reason. In a perspective from African cultures, the causes of infertility were associated with witchcraft and ancestors. Hence this I the reason why they use traditional healers to find and remove the spell. Traditional adoption, polygamy, and levirate practice are also used to manage infertility in African cultures. Additionally, it has also been outlined how the status of women changes if they cannot reproduce children and the prominent role of patriarchy in blaming women for childless marriage.

The introduction of technology came with the medical assistance and treatment of infertility known as Artificial Reproductive Technology (ART). Since the causes of infertility vary, ART has different types to treat different causes of infertility. These include IVF, artificial insemination, ovulation induction, gamete donation and surrogacy. There are risks and benefits associated with the use of ART. The risks of ART include maternal risks, foetal risks and social risks. The benefits of ART include overcoming infertility, the use of Preimplantation Genetic Testing, and the opportunity for same-sex couples to have children. Conclusively, it must be declared that the views and beliefs provided in this literature review have been sourced from scholars affiliated with varying academic disciplines, such as studies in social science, anthropology, health science, and philosophy. The next chapters review in depth the ethico-cultural implications of managing infertility through the use of IVF in Zulu communities.

## CHAPTER THREE: THEORETICAL FRAMEWORK

### 3. INTRODUCTION

The previous chapter reviewed the literature that guides this research. The motive of the previous chapter was to give an understanding of infertility and the management of infertility. This present chapter is the theoretical framework. It mainly discusses the theories that will guide this research. The purpose of this chapter is to give a perspective through which to analyse the ethico-cultural implications of managing infertility with IVF within the rural Zulu communities . This research will make use of two theories which are limited communitarianism and human tights theory.

This chapter will start by defining communitarianism and it will be guided by Hasskei M. Majeed (2018), Richard Ansah and Modestha Mensah (2018), Gbubemi Oyowe (2015), Ifeanyi Menkiti (1984) and Kwame Gyekye (1999). Limited communitarianism as a version of communitarianism will follow, guided by Bernard Matolino (2014). Also, argument against limited communitarianism will follow, guided by Gbubemi Oyowe (2015) and Mesembe Ita Edet (2014).

The second section of this chapter will start by explaining the Universal Declaration of Human Rights and it will be guided by Kaci (2015) and McFarland (2015). It will be followed by the argument for and against human rights, guided by John Rawls (1999) and Abdulla (2018). Arguments against human rights will also be included, guided by Nickel (2007), Langford (2018), Liao, Renzo and Cruft (2015). The last section will be the conclusion of this chapter.

### 3.1 COMMUNITARIANISM

Communitarianism is a social philosophy that opposed the theories that stressed the centrality of the individual (Majeed, 2018:3). It emphasises the importance of the society in articulating the good. It regularly appears different in relation to liberalism, which is a theory that holds that every individual ought to formulate good on their own (Majeed, 2018:3). Communitarians look at the ways in which shared conceptions of the good are shaped, transmitted, justified, and authorized (Majeed, 2014:3). Hence the interest of communitarianism is in the community. Etzioni (2014:2) defined communitarianism as “a philosophy that emphasizes the connection between individual and the community”.

The term communitarianism was formulated by John Goodwyn Barmby in 1841 with the idea that identities of humans are largely shaped with different kinds of social relations (Oyowe,

2015:2). Furthermore, the communities we live in ought to shape our political and moral judgement; hence people have a duty to nourish and support the communities that provide meaning for their lives (Oyowe, 2015:2).

In African traditional thoughts, personhood is a status of being a person. According to John Mbiti (1969), the African view of a person can be summed up in this statement: "I am because we are, and since we are, therefore I am." The criteria for achieving personhood in African societies are based on two kinds of considerations. The first is the natural fact that we tend to care for our kin and feel responsible for those with whom we are in close relationships. The second is that societies need some way to encourage and support members' feelings of empathy for those beyond their families" (Oruka and Masalo, 1983:117).

Scholars that emphasize on primacy of community without recognizing individual rights are categorized as advocates for "radical communitarianism". These scholars include John Mbiti and Ifeanyi Menkiti (1984). Radical communitarianism is explained as "a theory that upholds irrelevance of individual rights within the structure of an intimate and harmonious interaction among community members" (Bond, 1996:219). This type of communitarianism rejects liberalism. According to Ansah and Mensah (2018: 63), liberalism is unnecessary to a community classified by shared values, since the "self" is understood by the relationship one has with the community. In an African perspective, "radical communitarianism claims that the community has ontological primacy over individuals" (Menkiti, 1984:10). Hence, they do not consider the supremacy of individual rights. The view of radical communitarian is from the assumption that goals, welfare, and values of a community are superior. Ansah and Mensah (2018:4) stated, "These values and goals of the community are as well perceived as overriding as far as morality and social justice are concerned".

Gyekye (1997:57) rejected radical communitarianism on the grounds that it does not take individual rights into account. Thus, he came up with his version called "moderate communitarianism". He stated that his motivation for this version of communitarianism is to show that "individual rights and by extension individuality recognized in a communitarian framework". Gyekye's (1997:57) version of communitarianism is constructed on three principles" i) the social and rational nature of the individual, ii)the recognition of individual rights iii) and the moral supremacy of the community". He believes that these principles make his version stronger than radical communitarianism. According to Gyekye (1997), he rejects the claim from radical communitarianism of treating individual rights as secondary values. He

stated, “rights belong primarily and irreducibly to the individual, for they (rights) are a means of expressing an individual’s talents, capacities, and identity”. His argument for the acknowledgement of individual rights lies on his understanding that if moderate communitarianism recognizes the autonomy of an individual, then, recognition must include the acknowledgment of individual rights.

However, although Gyekye’s version of communitarianism takes into account individual rights, it will always be more attentive to communal values which are regarded as outweighing individual rights (Ansah and Mensah, 2018: 13). This simply means that, when communal and individual rights are in conflict, communal rights will always outweigh individual rights. Additionally, Gyekye’s version of communitarianism may not principally emphasize individual rights, but it certainly over emphasizes the responsibilities and duties of individuals to promote common good.

Gyekye’s main argument was to show that individuals cannot be supposed to be complete individuals by social structures of identity because individuals can make important choices, and this include setting goals for themselves. He argues that despite the fact that there are some goals set by the community, an individual certainly has a decision regarding what their goals are not withstanding what the community they live in has set. With regards to an individual’s freedom, Gyekye (1997:50) declares that “It is necessary for one to make choices for the development of the self and the community at large”. From what has been noted above, Matolino (2009) noted faults from radical and moderate communitarianism and presented an alternate perception of communitarianism understanding of personhood. Concerning this research, one can note that there is conflict between moderate and radical communitarianism regarding infertile people. This is because both moderate and radical communitarianism advocate the significance of the community. If one would use these communitarian versions, then radical communitarianism would permit the stigmatisation of infertile people and the African ways of managing infertility. This is because this version places community above individuals. Also, using moderate communitarianism can cause conflict of interest since this theory places emphasis on both the community and the individual. Thus, it is significant that this research finds another theory that will put more emphasis on individual rights.

### 3.2 LIMITED COMMUNITARIANISM

Bernard Matolino (2014) later proposed his form of communitarianism. He argued that he introduced his type of communitarianism as a response the two existing types of

communitarianism, moderate and radical communitarianism. Matolino (2014) presented his theory of limited communitarianism as he believed that moderate and radical communitarianism failed to stress the rights of the individuals. He believed that radical communitarianism, much the same as moderate communitarianism, stressed the primacy of community and neglected the value of individual rights. At the beginning of his argument, he expressed that there are some rights that cannot be disregarded. He stated, "restricted communitarianism expresses that there are sure individual rights that are sacred" (Matolino 2014: 160). Matolino (2014:186) argued that “limited communitarianism is a communitarian in that it realizes that for a person, being a member of this or that community has an important role in satisfying their social, political, and ethical identities”.

Although limited communitarianism is a type of communitarianism, he claimed it addresses areas that moderate and radical communitarianism neglected to place. He distinguishes two primary issues about the past types of communitarianism. The first being that personhood is achieved when one satisfies obligations that make the effective living and the second being that the community’s rights disregard individual rights. Thus, he felt that moderate and radical communitarianism neglected to pay attention to individuality. Consequently, he came up with limited communitarianism which regards individual rights.

With regards to issues of identity, limited communitarianism has a different perspective contrary to radical and moderate communitarianism, in that both moderate and radical communitarianism hold that an individual can identify himself through the community he lives in (Matolino, 2014:165). Limited communitarianism maintains that there are individual characteristics that are independent of a community that make a person. With this, Matolino proposed two types of identity which are social identity and metaphysical identity (Matolino:2014:166). He argued that he proposed the mentioned types of identity as the characteristics that defines individual's functions and existence (Matolino 2014: 166). He stated, “without the key characteristics functioning the way they are supposed to, there is no person to really make reference to” (Matolino 2014: 166). Matolino discusses what he thought is the actual connection between the community and the individual. He declares that his version of communitarianism is to move away from moderate and radical communitarianism, which argue that the community outweigh individual rights and the identity of an individual is understood through the community they occupy (Matolino, 2014: 168).

Matolino then proposed another modified connection between the identity of a person and the community. He argued that this relationship will be the establishment of limited communitarianism: “Limited communitarianism argues that the metaphysical aspect of identity can come into being without the aid of the community” (Matolino 2014: 174). Here, Matolino aimed to show that prior to anything, people are God's creation. Consequently, the community does not have any impact in the formation of a person. This is the declaration that prior to being significant to the community, a person is a human being made by God. Furthermore, " the community cannot exist without voluntary association of individual persons” (Matolino 2014: 174) ". This shows that it is the choice of an individual to connect with the community. People reserve the option to choose if they need to be related to a specific community or not, for instance, if one needs to join a specific political group or not. Additionally, Matolino indicated that the reality of the person truly matters to that individual (Matolino 2014: 174).

### 3.4 ARGUMENTS AGAINST LIMITED COMMUNITARIANISM

Oyowe (2015) is the first scholar to criticize limited communitarianism in his article called “This thing called communitarianism” (2015). He argued that this version of communitarianism raises three issues. He believes that Matolino's limited communitarianism is a replication of what has been said by radical and moderate communitarianism. He affirms that Matolino is not clarifying how his version of communitarianism is different from other versions of communitarianism. He stated that “limited communitarianism’s admission of this constituent of personhood inherits this commitment and implicates it in the communitarianism game even at the level of metaphysics” (Oyowe 2015: 514). Furthermore, Oyowe believes that limited communitarianism is a problem as it looks at Akan and Yoruba account of personhood. This simply means Matolino was supposed to be one-sided when examining his position of personhood. He claims that Matolino should have invented principles of personhood that are different from other versions of communitarianism. However, Oyowe accepted that there is a difference in these different versions of communitarianism. He asserts that the difference is in the acknowledgements of individual rights. While moderate and radical communitarianism give emphasize of communal values and common good, limited communitarianism gives emphasis on individual rights (Oyowe, 2015:516).

Another criticism of limited communitarianism is from Masembe Ita Edet in his article called “The limitations of Bernard Matolino’s limited communitarianism” (2015). His argument is almost the same as Olowe’s arguments. He also stated that Matolino does not explain how his

version of communitarianism is different from other versions of communitarianism (Edet, 2015:102). Moreover, he maintains that Matolino made a mistake when he stated that moderate communitarianism did not take individual rights seriously. Additionally, he stated that Matolino should not have made the same mistakes moderate and radical communitarianism made for limited communitarianism to be a different version (Edet, 2015:103). Edet indicated that the weakness of limited communitarianism is that, "it did not address the Ubuntu concept of personhood" (Edet 2015: 103).

Limited communitarianism is the key theory that will guide this study because it recognizes the community as the 'makers of the social identity" but it maintain that, the community should not be given a complete importance in matters of sociality issues because it is not absolute matters of one's proof of identity (Matolino 2014:172). This asserts that, when dealing with issues such as infertility that has no absolute matters to one's identity, the components of communal identity should not be regarded. Limited communitarianism further put more emphasis in the matter of individual rights over communal values which is very important when looking at the use of IVF as the management of infertility in rural Zulu communities. This theory will help to show and prove that infertile people also have rights that cannot be violated.

### 3.5 UNIVERSAL DECLARATION OF HUMAN RIGHTS (UDHR)

Human rights is a second theory that will be used to guide this research. "Human rights are rights possessed by all human beings at all times and in all places, simply in virtue of their humanity" (Cruft, Liao, and Renzo, 2015:4). Human rights are possessed by all human beings, despite their social, cultural, and physical differences. Rawls (1999:3) argued that 'human rights are a class of rights that play a special role in a reasonable law of people: they restrict the justifying reasons for war and its conduct, and they specify the limits of a regime's internal autonomy'.

The Universal Declaration of Human Rights was proclaimed by the United Nations General Assembly in Paris on 10 December 1948 (Winston, 2012:1). It was declared with the aim of contributing to justice, freedom, and peace across the world.

The Universal Declaration of Human Rights assured to all the social, civic, political, economic and cultural rights that support a life without fear (Kaci, 2015:6). Human Rights are not a reward for good conduct, and they are not assigned to a certain country or social group. They are the basic privilege of all people in all places, at all times: people of every race, colour and

ethnic group; whether they are disabled or not; migrants or citizen; regardless of their class, sex, caste and age (Kaci, 2015:6).

The Declaration of Human Rights did not end the violation of some rights, yet since the Declaration people (yet not all) have gained freedom, autonomy, and independence, and violations of these basic rights due to political acts have been prosecuted. Many people, even though not all have been protected from torture, unjust discrimination and unjustified imprisonment (Kaci, 2015:6). Additionally, a fair access to economic opportunities, education and appropriate health care services have been attained for some, depending on the country or region of occupation. Kaci (2015) further outlined that the power of human rights is the power of ideas to change the world. He stated, "It inspires us to continue working to ensure that all people can gain freedom, equality and dignity. One vital aspect of this task is to empower people to demand what should be guaranteed: their human rights" (Kaci, 2015:7).

The Universal Declaration of Human Rights is arranged in articles. An article covers each human rights. Human rights include: the right to human dignity found in article 1, the right to life and liberty found in article 3, the rights to privacy found in article 12, the right to freedom of thoughts found in article 18 and the right to standard of living adequate to for the health found in article 25.

From the moral perspective, "human rights refer simply to the morally justifiable claims that every human should be able to make upon society" (McFarland, 2015:2). For instance, if someone can make the ethical case that no individual ought to be sold into slavery, then morally speaking, a right to not be sold into slavery is a basic human right (McFarland, 2015:2). According to McFarland (2015), when the drafting of human rights took place by the United States, some Christian representatives wanted to reference to God as the source of human rights. However, one of the delegates indicated that the declaration of human rights is meant for everyone, whether they are believers or not. Another one additionally stated that referencing to God in human rights "might arouse the opposition of delegations representing more than half the world's populations" (McFarland, 2015:2). But since human rights were intentionally for both theists and atheists no reference to God was included.

Since the 1940s, most scholars have looked for the ethical justification of Human Rights in non-religious reasoning (McFarland, 2015:2). James Nickel (2007) is one of the scholars that offered a more reasonable justification of Human Rights. According to Nickel (2007), his ethical justification includes a combination of everyone's utility for common good, self-interest

and his four “secure moral claims”. To Nickel, this ethical avocation comprises a blend of everybody's personal circumstance, utility for the benefit of all, and four "secure good cases." To Nickel, the profound quality of these cases is undeniably in alignment with human rights. That is, they require almost no idea to perceive their honesty. Therefore, they are claims that deserve acceptance in every society. Ethically, they are not made by the laws of a country, rather they give an ethical foundation of laws. Thus, any society that is not living up to these moral claims, any society that denies people their freedom, kills and tortures people or denies and provide other people rights, is acting ethically wrongly and violates the human rights that people have.

## 5.6 ARGUMENTS FOR HUMAN RIGHTS

The main argument for Human Rights is the theory of justice by John Rawls (1999). Even though he formulated this theory as an alternative to utilitarianism, it has a shared goal with Human Rights, which is to promote human dignity equally for all (Rawls, 1999:6). He defined the theory of justice “as a theory that revolves around the adaptation of two fundamental principles of justice which would, in turn, guarantee a just and morally acceptable society. The first principle guarantees the right of each person to have the most extensive basic liberty compatible with the liberty of others. The second principle states that social and economic position are to be i) to everyone’s advantage ii) and open to all” (Rawls, 1999:8). Rawls proposed a theoretical person who is in a “veil of ignorance” and must make a society without the acknowledgement of his or her status in that society. He argued that from that point, a person will choose a justice system that will also benefits people at the lowest part of the society (Rawls, 1999:7). He asserts that one would do so if they are also in the lowest position of the society and would want to be provided for. He draws this from the theories of political philosophers’ ways of thinking that set an understanding by which people accept the terms in which they are governed.

Another argument for human rights is from Abdulla (2018). According to Abdulla (2018:6), culture and cultural expression are important to the existence of a person and humanity. “To be fully human, humans need to have either a form of self-expression which is self-defining; or the freedom to partake in forms of cultural expression; or to participate in ceremonies with cultural (and possibly religious or spiritual) dimensions; or to engage in artistic endeavours”(Gala and Gershevitch, 2011:2). This is in line with article 19 of the universal Declaration on Human Rights which states that “everyone has the right to freedom of opinion

and expression; the right to include freedom to hold interference and to seek, receive and impart information" (Macovei, 2004:9). Culture is the human method of reacting to the effect the world has on people's lives, and of the pressures they may feel among themselves and their surroundings (Abdulla, 2018:7). He further argued that expressions of the human experience play a role in giving a feeling of account and encouraging a feeling of intervention, which permits individuals to shape a rational ability to be self-aware. Farida Shaheed (2015) describes cultural rights as a way which people use to "develop and express their humanity, their worldviews and meanings assigned to their existence and development".

### 3.7 ARGUMENT AGAINST HUMAN RIGHTS

The most common criticism of human rights is from Nickel (2007:23) where he argued that human rights are far from being practically and theoretically adequate to confront equality, especially its cognitive and structural dimensions. At most, human rights assist in exposing discrimination and help some individuals to gain an entrance level of access (Langford, 2018:12). Even so, human right approach does not support a fair distribution of both material and political resources and opportunities, in fact it may even be a tool to spread inequality as those who own a surplus it is regarded as their rightful privilege (Langford, 2018:12).

Overemphasis on individualism and human rights is associated with some undesirable characteristics which include indifference to others and selfishness (Chan 1999). It has been noted that human rights neglect the "dimension of sociality"; they postulate selfish, isolating people who assert what is theirs, rather than engaging in communal life (Chan 1999) Similarly, overemphasis on human rights basically creates a situation where individuals do not think about their responsibilities and duties resulting in the weakened articulation of a shared life.

However, this is not the only likely understanding of the relationship between duties or responsibilities and rights in the context of human rights. For example, the African Charter on Human and Peoples' Rights describes a complete merger of the notions of individual rights, community, and duties to the family, the state, and the community (Constantinides, 2008:8). In the African Charter, particular allusion is made to the duty of the children to provide maintenance and respect and provide their parents and of the individual to defend national integrity and independence. It could be easily supposed that the Charter makes allusion to the former duty, as it is unreasonable to abandon family members in need within the African cultural tradition and perhaps also because of the economic hardships in Africa that do not allow for state-financed welfare policies for older people (Constantinides, 2008:8). Thus, the

Charter is adapted to the community model that most African societies have developed. Individuals in Africa are not only permitted to the enjoyment of rights, but they have obligations and duties too, a composition that ensures the solidarity of their societies.

Human rights theory will be used to describe the rights of infertile people that are violated. Human right theory describes which of the rights that are violated as a result of the African traditional management of infertility. Liao, Renzo and Cruft (2015:7) stated that human rights are the rights that the community has a responsibility to respect and protect in any society. This argument is in favour with the decision an infertile couple takes. If the couple takes the decision to do IVF, it is the responsibility of the community to respect their decision. In addition, infertile couples should not be coerced into practicing any African traditional ways of managing infertility if it is against their desire.

Both limited communitarianism and human right theories will be useful in this research in accessing the ethico-cultural implications of IVF in indigenous Zulu communities. Since limited communitarianism and human rights are closely related, they will be both further used in exploring and evaluating the ethico-cultural implication of IVF among the Indigenous Zulu communities. They will also be used in prescribing how IVF can be used to reconstruct the management of infertility among the indigenous Zulu communities.

### 3.8 CONCLUSION

This chapter of the theoretical framework has explained communitarianism. It has further looked at limited communitarianism as the version of communitarianism proposed by Bernard Matolino. He proposed this version because he believes that the existing radical and moderate communitarianism do not consider the characteristics of individuals that are independent of their community. He also asserts that they also do not consider the importance of individual rights. Although moderate communitarianism considers individual rights, Matolino believes that it does not put much emphasis on them. In his version of communitarianism, Matolino asserts that there are individual rights that cannot be violated or neglected. Furthermore, the critiques of limited communitarianism have been discussed. The critiques were from Oyowe (2015) and Edet (2015). They both explained how limited communitarianism is not different from other versions of communitarianism and claimed that Matolino should have come up with other principles of personhood. However, they agreed with him that radical and moderate communitarianism does not put emphasize on individual rights. It has also been stated how this

theory of limited communitarianism will be used in analysing implications of managing infertility with IVF within the rural Zulu communities in South Africa.

The second theory that was covered in this chapter is human rights theory. This theory was declared United Nations General Assembly in Paris on 10 December 1948. It asserts that human beings possess these rights at all times. Additionally, human right is not specified for any country or any social group. The arguments that are in favour of this theory is the theory of justice by Rawls (1999). This theory has a shared goal with human rights, a goal to promote the liberty of individuals. Another argument is from Abdulla (2018). He claims that the freedom of expressions of the human experience plays a role in giving a feeling of accountability and encouraging a feeling of intervention, which permits individuals to shape a rational ability to be self-aware. This chapter also looked at the criticism of human rights. The first critique is from is Nickel (2007:23). He argued that human rights are far from being practically and theoretically adequate to confront equality, especially its cognitive and structural dimensions. Lastly, it has given perspective on describing which human rights are violated and neglected in the African management of infertility.

## CHAPTER 4: ANALYSIS OF IVF THROUGH LIMITED COMMUNITARIANISM AND HUMAN RIGHTS THEORY

### 4. INTRODUCTION

The previous chapter looked at two theoretical frameworks that will guide this research. These include limited communitarianism and human rights theories. As stated in chapter 3, limited communitarianism advocates that some rights of individuals should not be taken away from them because of the duty or role one has in the community (Edet, 2015:7). Similarly, human rights theory also advocates that there are rights possessed by all human beings, despite their social, cultural, and physical differences and they should always be protected . This current chapter will assess the ethico-cultural implications of managing infertility with IVF in the rural Zulu communities through the lens of limited communitarianism and human rights. The analysis and the findings will be discussed in this chapter.

Firstly, it will analyse and explore whether infertile people are considered as persons or not in Zulu communities, considering the characteristics one need to have to be a person. The two types of identity: communal and metaphysical identity that Matolino developed will be used in understanding the elements that make a person. Also, looking at the beliefs associated with children born using IVF, this chapter will evaluate the identity of children born using IVF through the lens of limited communitarianism. Furthermore, this chapter will look at the opportunities IVF brings to Zulu people which is mostly the promotion of their individual rights.

### 4.1 INFERTILE PEOPLE ARE COMPLETE SOCIAL BEINGS

As stated by limited communitarianism, there are two components of identity, social or communal identity and metaphysical. Social identity asserts that the identity of an individual is created by the community one lives in (Matolino, 2014: 167). This is view is what distinguishes limited communitarianism from the other types of communitarianism (reviewed in chapter 3). Limited communitarianism does not see social identity as the only real identity.

Communal identity incorporates accompanying components, and these are a). How one is seen by the community, which implies that the individual's character likewise depends on the impression the community has about them b). How one is expected to be, which implies there are some characteristics and qualities that one ought to possess to be classified as a human being c) and what the community anticipates that you should be. This last component is related to the second component. This is something that the community needs an individual to be.

Communal identity is a type of identity that is required in a community for one to be a person. This includes how an individual considers themselves to be important in the community. Individuals with infertility issues do not recognize themselves as being essential for the community mainly because the community does not see them as part of their own. What follows is a discussion of social way of life as clarified in limited communitarianism.

Limited communitarianism talks about three components of communal identity as stated, the main component being "How one is seen by the community" (Matolino 2014: 167). This implies that the character of an individual relies upon the perception of the community of what their identity is. Individuals with infertility issues are considered as the ontological other in the African societies. The belief that infertile people are not complete without children has a negative impact in ones' life as how the community perceives an individual shapes the individual's view of their own identity. In Chapter 2, Tagwai (2018:60) argued that, parenthood is viewed as "completing" a woman, for it is through parenthood that a woman expresses her natural maternal care. Therefore, women who are infertile are viewed as not complete and different from other women, as they cannot encounter those maternal feelings that make other women complete and normal. Similarly, a study by Mokoena and Dyer (2004) indicated that infertile men feel like they are half men. They also stated that " A man is a man because he has children, but if one does not have children, other men say he is a woman". The point here is to show that one is perceived in the judgement of the community and not their identity. Additionally, it should be noted that this is not the real identity of the individuals but how the community perceives them based on how completely they conform to natural roles allocated by gender.

The second component is concerning how an individual is supposed to be (Matolino 2014: 168). This implies there are certain characteristics and qualities that one ought to have to be recognized as an individual in the community. The community believes that an individual

ought to be able to reproduce children to be viewed as a person, and on the off chance that they do not, that implies they are not fully human beings.

The third component is, "what the community expect you to be" (Matolino 2014: 169). This explanation is related to the second component of social identity above and it is what the community expect one to be. Africans have their own view of what an individual ought to resemble. For instance, for one to accomplish personhood to be considered a person and to understand things as how one ought to have black hair as a symbol of their African roots. From such community prejudices about one's identity individuals with infertility issues do not meet the desired qualities that the community insists upon.

However, the use of IVF as a management of infertility can give rural Zulu people an opportunity to possess the communal characteristics of being a person. Considering that IVF promotes individual rights such as privacy, dignity and autonomy, just to name a few, people in Zulu communities can use IVF and conform to communal identities without their rights being violated. This is concordant with Matolino's theory of limited communitarianism in that the use of IVF aligns with the individual's rights to actively contend for whatsoever that will satisfy them, and the limited role of the community in such decisions allows the infertile individuals to undergo treatments without fear of social rejection. Infertile individuals are confronted to be stigmatized for the rest of their lives, especially, woman in polygamous marriage (See chapter 2). IVF as a management of infertility will give people an opportunity to manage infertility without the involvement of people who end up stigmatizing them.

Nevertheless, Matolino (2014) also discussed the second type of identity which is metaphysical. He argued that the identity of an individual cannot be only understood through the community they live in, therefore the second type of identity is independent of the community. He stated that "limited communitarianism argues that the metaphysical aspect of identity can come into being without the aid of the community" (Matolino 2014: 174). He further mentioned that, people are God's creation. Consequently, the community has no association in the formation of a person. This is the declaration that before being important to the community, a person is a human being made by God. Furthermore, "The community cannot exist without voluntary association of an individual person" (Matolino 2014: 174) . This then implies that an individual's connection with the community is a decision taken at liberty. The implication of the definition of one's metaphysical identity to individuals suffering from infertility is that these individuals may not possess traits that conform them into the "communal

standard" (with regards to the components of social identity reviewed previously); yet their identity as human beings and their existence is still validated by them being "persons created by God". The theory of limited communitarianism sustains that there are personal traits that are independent of the community, such as one's colour of hair, including significant features like their capacity of reproduction. Therefore, it should be deducted that individuals who lack characteristics that are associated with the ability to reproduce (who are infertile), for example, one with a low sperm count against a man with normal sperm count and quality; also deserve equal embrace as human beings despite what the community defines is a human.

## 4.2 CHILDREN BORN THROUGH IVF ARE COMPLETE HUMAN BEINGS

The legitimacy of the child is the most important thing in Zulu communities. This is mostly linked with the family lineage. In Chapter 2, Evans and Tomas (2009) argued that the practice and belief of extending family lineage is the most relevant practice in African communities. Most women are still obligated to produce as many children as they can, particularly sons. For a married woman, bearing children for the husband is the most honoured thing to do. Hence that is why most women in polygamous marriages are competing about having many children. The significant of legitimacy is mostly shown by how they always choose a husband's brother to have a sexual a intercourse with the wife if the husband is infertile or even deceased. This is because if the wife carries a child of her husband's brother, the child will remain part of the family and the lineage biologically. The significance of identity in a Zulu society is so profound such that for a woman who had a child prior to becoming married to a man who is not the biological father of the child is coerced to leaving her child behind as she cannot bring them to the in-law family (since they are not born of this family).

In IVF treatment, the fertilization of gametes implies that, at some point, there should be a "selection of gametes". Selection of gametes "is the act of choosing a donor whose gametes will be used in the creation of a child for a third party, it remains a feature of donor conception wherever it takes place" (Hudson, 2015:2). Regardless of whether the giver is selected from the donor data-base or whether they are picked from among one's family or kinship network, the process reveals ideas regarding social and hereditary desirability. Gamete selection is culturally shaped and mediated by the beliefs associated with heritability, including genes, idioms of shared blood, and substance. The transmission of substance is generally understood in terms of phenotype which shares an equal likelihood of inheritance from the donor or the parent across varying traits. Quiroga (2007) stated that "The process of donor matching is

therefore seen to ensure the appearance of biogenetic relatedness between parents and the future child". One component of this donor matching is to select a donor in accordance to race and phenotype, for example, African and dark skin. Donors often are categorized in racial terms. This is mainly to ensure the continuity of racial identity between the child and potential parents, and to avoid obvious identification of the child as being different from their parents.

It is argued that the reason for donor selection and matching is for children born through IVF to belong in a group and for their biogenetic makeup not to be questioned (Quiroga, 2007). According to Quiroga (2007), the process of donor matching and selection increases the chances of the child to be similar and attribute biogenetics of the social parents; resemble the physical attributes of the family and maintain the secret if it is desired that people do not come to knowledge that the child was conceived through IVF. Various scholars have argued that phenotypical similarity, particularly in racial terms, gives a feeling of belonging, both in the family and ethnic group (Quiroga, 2007; Nordqvist, 2012; Hudson and Culley, 2014; Kroløkke,2014). Mutual colour symbolises the importance of relatedness and similarity (Ragoné, 2000). Withstanding these facts, there is a significant probability that children born of IVF will also exhibit the same traits that the Zulu community esteems more than others, such as skin complexion. Also, if a couple decides to do IVF, they are not obligated to use unknown donors and undergo the process of gamete selection, but they can use the donors from their family, thus in this way, the child can be part of the family biologically. This invalidates the argument against IVF in the value of offspring relatedness in Zulu communities.

Kabagenyi, Ntozi and Atuyambe (2016:4) further argued that children born through IVF may confront discrimination from the family. The child may not be recognised and valued as those born through the natural process. They further argued that if a couple decides to use IVF as a management of their infertility, they cannot hide it because everyone in the family is part of the problem that is affecting one of them. As stated, the issue of paternity is significant in Zulu communities; consequently if a couple has a child not through the natural process, such child may be discriminated in the family (Kabagenyi, Ntozi and Atuyambe (2016). Additionally, in polygamy, a child brought to the world through IVF suffers a range of injustices, such as being mocked, and worst being denied access to the inheritance of their father. McNair (2004:21) defined the stigmatization of children born through IVF as "The condition of being denied full social acceptance. It leads to various forms of discrimination, that in turn contribute to reduced social support, increased experiences of violence, marginalisation, low self-esteem, increased stress and ultimately poor mental health and wellbeing". This is mostly because of the

desirability of “normative ascendancy of the nuclear family” and the rights of children to be raised by biological parents (McNair, 2004:22).

Withstanding the emphasis of individual rights in the theory of limited communitarianism, the choice to disclose or conceal the method used to conceive a child is completely taken at the liberty of the parents. Not all people have to know how the child was conceived. Considering the individual’s right to privacy supported by human rights, parents are not obligated to reveal that the child was born through the use of IVF. Kabagenyi, Ntozi and Atuyambe (2016:4) argued that “It is not always easy to maintain the secret due to questions about medical history and family resemblance”. However, considering gamete matching and selection that was discussed earlier, if these processes are conducted with great intention and precision, it is possible that a child conceived through the use of IVF cannot be easily distinguished as being abnormal in any criterion.

## 4.3 IVF PROMOTES HUMAN RIGHTS

Human rights are possessed by all human beings, despite their social, cultural, and physical differences. The Universal Declaration of Human Rights assured to all the social, civic, political, economic and cultural rights that support a life without fear (Kaci, 2015:6). Human Rights are not a reward for good conduct, and they are not specified to certain county or social group. They are the basic privilege of all people in all places, always: people of every race, colour and ethnic group; whether they are disabled or not; migrants or citizen; regardless of their class, sex, caste and age (Kaci, 2015:6). On the other hand, limited communitarianism puts more emphasis on the promotion of individual rights. In chapter 3, it was discussed that Matolino felt that moderate and radical communitarianism neglected to pay attention to individuality. Consequently, he came up with limited communitarianism which pays attention to individual rights.

IVF at the management of infertility gives patients as an opportunity to become pregnant utilizing one’s own eggs or donor eggs and sperms from the partner or donor sperms. In doing so, it always promotes individual rights that all people possess all the time. This Includes infertile people as discussed earlier that infertile people are also social beings. Below, I will discuss human rights that can be promoted by using IVF as a management of infertility in Zulu communities.

### 4.3.1 IVF PROMOTES THE RIGHT TO HUMAN DIGNITY

Article 1 of the Universal Declaration of Human Rights (UDHR) state that "all human beings are born free and equal in dignity and rights. They are endorsed with reason and conscience and should act towards another in a spirit of brotherhood" (Universal Declaration of Human Rights, 2015:4). According to this Declaration of Human Rights, both infertile and fertile people have equal rights, and they are both have equal dignity. Thus, they must be respected and protected from harm. Particularly looking at the loss of status of infertile women in Africa and making reference to the declaration of the stated human right, this research notes that the stigmatization and the African ways of managing infertility are against this human right. Furthermore, it also notes that managing infertility with IVF in Zulu communities will promote the dignity of individuals.

Chapter 2 reviewed how several scholars which are (Yamani, 2009, Baloyi, 2017 and Oduyoye, 1994) reported that the consequences of infertility in Africa include various forms of abuse from the family and community, such as banishment from the in-law family and stigmatization from society. It was highlighted that women are the most affected group, seeing that they are likely to be condemned as a member that is infertile. This is also explained by the stigmatizing names such as "inyumba" which defines a sterile woman in the absence of stigmatizing names that define sterile males.

The theory of human rights is against these forms of abuse against infertile people. Toscano (2011:9) stated that, human dignity is a kind of significant worth that has a place to everyone as an individual. Also, this dignity is something that is given, not obtained, or conquered. Hence, it must not be removed. In addition, it is a sort of significant worth that does not support grades or scales, so every individual has the same equal worth. In reference to this, the consequences of infertility in traditional African communities shows that their human dignity is violated. They are not treated the same as fertile people. In fact, they are given inhuman treatment. Infertile people are degraded and humiliated. The treatment may be physical and mental. In a research study by Elujob (2015), some women declared that they are physically abused by their husbands because of infertility. One further mentioned that she proposed that her husband should take a second wife as she believed that the abuse would stop, but it did not stop (Elijob, 1995:15). Another woman stated that one does not feel like a real woman if she is infertile. Moreover, they are not being respected like other women who do have children. This implies that most people in African communities are robbed of their dignity if they are infertile despite dignity being defined as something that cannot be removed (Toscano, 2011). However,

it shows that the dignity of infertile people can be easily overlooked by treatment received from their families and communities.

Furthermore, the acknowledgement of polygamy as a solution to managing infertility violates the dignity of the infertile first wife. Mwambene (2017:5) stated that "In countries where polygamy is till practiced, human rights instruments require parties to ensure that women are entitled to the same rights and benefits as they would enjoy in a monogamous marriage". However, this is often neglected in most rural Zulu communities when a man takes a second wife because of the infertility of the first wife. Makoba (2005:15) stated that the fertile wife receives all the attention and respect, while the infertile one is held up to shame and negligence (Makoba, 2005: 15). Additionally, the infertile first wife needs to adapt to an unfaithful husband more frequently than other women need to, as this is justified by the husband who ought to prove his fertility outside their marriage. This indicates that polygamy as a way of managing infertility plays a role in violating the human dignity of the infertile women.

The violation of dignity is mostly a result of absence of privacy in Zulu communities which will be discussed later. Infertility of individuals (especially women) is known by everyone in the community, even if it is against their wish. Hence, they end up losing their dignity because of the stigmatization they face. Also, the traditional ways of managing infertility require the involvement of many people, people who end up violating the dignity of infertile people. Thus, managing infertility with IVF in Zulu communities will promote the right of human dignity. Also, the privacy of IVF ensures that the infertility of individuals will remain private and they will not be stigmatized because of it. Consequently, their dignities will not be violated.

### 4.3.2 IVF PROMOTES THE RIGHT TO AUTONOMY

The Universal Declaration of Human Rights (UDHR) asserts that "people have the capacity for self-rule and strive to lay the groundworks for an environment in which people can develop their autonomy" (Komphorst, 2012:2). It is further stated that "autonomy is understood as having freedom, the capacity and the authority to choose one's own course of action, and that to direct one's life in accordance with one's goals and values takes a prominent place in discussion about agency". In reference to this, the use of IVF as a management of infertility is a choice of a couple. They are not forced by any outside influences.

Ndaba (1994:37) stated that in the event of an infertile husband, the family elders ask the husband's brother to have sexual intercourse with the wife (this practice is reviewed in Chapter 2 of this dissertation). In most cases, the husband has no knowledge of such intervention and

he therefore believes that the resulting offspring is his; and the wife is given no choice on whether she is in agreement or not. Ndaba (1994) further stated that most people are mostly given no choice to choose if they want to see a traditional healer in dealing with infertility. Generally, infertile people are not allowed to make decisions associated with their conditions themselves. King (1981:131) defines decision-making as "a process of choosing one alternative from many based-on facts and values, implementation of the decision and evaluation-of achievement of goals". Ndaba (1994:33) argued that decision-making of managing infertility is always influenced by the elders of the family, particularly elder women. She further mentioned that they can even investigate the type of infertility management one has to undergo. According to Singh (2010:174), in African communities, women autonomy is assigned to the patriarchal system and kinship structure and sex and age-based hierarchies.

In reference to the right of autonomy mentioned, this shows that the ways of managing infertility in the cultural sense violate the autonomy of individuals. An infertile individual's preferences for any of the treatments of infertility are disregarded. This is reinforced in theories of radical and moderate communitarianism where an individual must prioritise the values of the communities beyond their own satisfaction. This implies that for Zulu communities, an infertile individual will be coerced to undergoing traditional solutions (such as seeking traditional healers, or polygamy) without regard of their preference for IVF. In support of Matolino's (2014:165) limited communitarianism, an infertile individual is at liberty to opt for any method of managing infertility, without consideration of the perceptions of the society they occupy.

The use of IVF as a way of managing infertility in rural Zulu communities will promote autonomy of infertile individuals. "The principle of autonomy obligates the physicians to respect patients' rights to self-determination, guided by their stated wishes, preferences and values" (Rosenthal, 2010:339). Any couple or individual undergoing the processes of Artificial Reproductive Technology is required to sign an informed consent. "Informed consent involves full disclosure about risks and benefits of procedures, and all appropriate treatment option" (Rosenthal, 2010:339). In the case of IVF, revealing the risks of multiple pregnancies and financial risks is relevant (Rosenthal, 2010:339). Additionally, an informed consent includes assessing capacity and makes certain that decisions are made voluntarily, without any pressing influences. In any medical measures, the goals and values of the patient mostly guide treatment options. For IVF patients, discussions are mostly about financial resource, sufficient social support and the number of eggs to be fertilized as reviewed in chapter 2. In the event where the

patient does not want to discard or freeze unused embryos, fertilizing few eggs to be transferred in the uterus is appropriate in order to respect patients' values. In Zulu communities, life is known to begin at conception. Thus, discarding fertilized eggs can be equivalent to abortion or to discarding a human being. This is understood by the traditional cleansing ceremony that Zulu people do a after miscarriage. The purpose of this ceremony is mostly to name and acknowledge the child as a person.

Proper decision-making is significant for authentic informed consent. This is to demonstrate that the patient "understands and appreciates" her circumstances, additionally, as a proof of rationality in the decision-making (Rosenthal, 2010:340). Evaluating the capacity of decision-making is essential as it protects individuals from making decisions that could have harmful results or regrets. Hitherto, it is evident that using IVF as a management of infertility in rural Zulu communities will promote the autonomy of individuals. In addition, this indicates that the informed consent for IVF is mindful of the values and wishes of the patients. Thus, these cannot be a barrier to rural Zulu people in using IVF as a management of infertility. Contrary to the African ways of managing infertility that do not promote the autonomy of infertile individuals.

### 4.3.3 IVF PROMOTES THE RIGHT TO MENTAL HEALTH

Article 25 of the Universal Declaration of Human Rights states that "1) everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing, medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control. 2) motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection" (Universal Declaration of Human Rights, 2015:52).The human rights to the standard of living adequate for health and well-being also extends to mental health. The right to mental health includes both entitlement and freedom (Malik and Malik (2013:1). Entitlement involves the right to a structure of wellbeing protection, for example, medical care that provides equality for people. Freedom involves the right that individuals must control their own health.

Mental Health Professionals (MHP) work closely with infertility clinics to provide support before and after the treatment (Peterson et al, 2011:3). This is mostly because people with infertility issues need psychological help. Malik and Malik (2013:1) stated that "Counselling means professional assistance to someone who seeks help to overcome a problem.

Psychological counselling is a crucial primary assistance to couples, suffering from infertility and willing to undergo assisted conception treatment". Also, considering the growing rate of infertility, there is a need for psychological intervention in the day to day delivery of treatment. Before the treatment of infertility, couples are advised to attend primary consultations to overcome fear of aloneness and scepticism (Malik and Malik, 2013:1). SCREENIVF is one of the interventions that was developed to help medical staff in identifying patients that need psychological support (Peterson et al, 2011:3). "Positive pre-treatment SREENIVF is highly predictive of high treatment distress" (Peterson et al, 2011:3). Infertility counselling includes three aspects, firstly decision-making, secondly support counselling, and thirdly short-term counselling (Peterson et al, 2011:3). Decision-making encompasses in providing the patient enough pros and cons about the treatment, for them to make informed decisions. Support counselling covers grief after the miscarriage or failed IVF process and short-term counselling deals with depression or anxiety problems during the infertility treatment.

This demonstrates that IVF as a management of infertility acknowledges the mental health of the individuals. In Chapter 2, Ndongko (1976:6) stated that, for African women, infertility is an emotional instability, and it does not make it better by the way that infertility is immediately blamed on them. He further noted that most women who cannot get pregnant, especially after being overwhelmed by the obsession and pressure to get pregnant, mostly take infertility issues personally, even when it is the husband who is infertile. This indicates that infertile people suffer from mental health issues and the pressure to bear children adds to it. In view of African ways of managing infertility, the aspect of mental health is neglected, and the infertile individual and others involved are subjected to any demeaning treatment.

### 4.3.4 IVF PROMOTES THE RIGHT TO PRIVACY

Article 12 of the Universal Declaration of Human Rights asserts that "No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks" (Universal Declaration of Human Rights, 2015:26).

The Constitution of the Republic of South Africa holds the Bill of Rights that shapes, impacts, and governs the lives of South African citizens. Section 14 of the Constitution of South Africa states that "Everyone has the right to privacy, which includes the right not to have a) their person or home searched, b) their property searched, c) their possessions seized and d) the privacy of their communications infringed" (Constitution of the Republic of South Africa,

1996). For the purpose of this research, I will focus on the right not to have a person's " privacy of their communication infringed".

In Chapter 2, it stated that infertility in African communities is a social problem. Hence, the management requires the involvement of the family members (Yamani, 2009:25). Considering the significance of children that was discussed in Chapter 2, infertility in African communities cannot be overlooked or disregarded. Ndaba (1994) mentioned that, Zulu people start questioning the infertility of the wife if she is not pregnant after few months of being married. Hence, after a year without pregnancy, the family begins to get involved. The infertility of a couple ends up being known by the whole community without their consent. Looking at the management of infertility in African communities, it demonstrates that the privacy of infertile people is being violated. In Chapter 2, Ndaba (1994:36) argued that once it is discovered that the woman is infertile, the husband must take a second wife. It can be any woman, or he may choose to marry his wife's sister, so she can bear children for him and in doing so, the bride wealth is not returned. Considering that infertility is a profound issue that should be kept private, especially for women since they are stigmatized the most. Communities may be inconsiderate of an individual's feelings and get involved beyond personal boundaries. Furthermore, Makoba (2005: 14) stated that Lobola in the African context is equated as the transference of a woman's reproductive rights from her family to her in-laws; therefore it is upon this notion that the in-law family believes that they are entitled in knowing about the infertility issues of the wife, irrespective of how she perceives it.

IVF as a management of infertility promotes privacy that has been shown to be lacking when using the African ways of managing infertility. Since privacy is a basic human right, Fasouliotis and Schenker (1999:36) argued that "Truth-telling and candidness are values to be respected in the communication between the physician and the patient, and in case of the gamete and pre-embryo donation, it may be considered in the relationship between the donor, physician and the recipient". Candidness with the family after the birth of the child about the method of conception or later eventually about the identity of the donor is of a different nature. Society's intervention in the privacy and intimacy of the familial relationship, in order to force a greater openness, could be an invasion of the freedom of procreation decision making that extends beyond legitimate concern for the quality of services and for the proper follow-up of the offspring. Generally, this means that IVF prioritises privacy in the treatment of infertility. Also, it ensures that the involved parties in the process of IVF understand the privacy and the intimacy of treating infertility with IVF.

It also should be noted that the privacy of treating infertility with IVF in Zulu communities will reduce the stigmatization infertile people face. The process of IVF involves professionalism from all parties involved and comes with an understanding and appreciation of the patients' interests and preferences.

### 4.3.5 IVF PROMOTES REPRODUCTIVE RIGHTS

The Universal Declaration of Human Rights (UDHR) applies to all people everywhere in the world, and they are absolute, implying that they cannot nor be forcefully taken away. As a result, when observing the work done by UDHR regarding the respect of reproductive rights and while providing advice to parliaments and government, attention should be paid to guarantee that no groups are ignored (United Nations, 2014:78). These can include women living in poverty, indigenous groups, adolescents, people with disabilities, migrants, rural groups, and adolescents. Also, human rights are inseparable (United Nations, 2014:78). Regardless of cultural, social nature, politics, and civics, they are generally intrinsic to the dignity of each human individual. Thusly, all human beings have equal status regarding rights and cannot be positioned in a hierarchical order.

According to the Universal Declaration of Human Rights all individuals are equal as human being (United Nation, 2014:79). By virtue of the intrinsic dignity of each human person, all individuals shall be treated without discrimination of any kind, such as on the basis of sex, religion, property, race, language, colour, disability, social origin political or other opinion, sexual orientation, and nationality.

Non-discrimination is connected to equality and providing particular consideration to vulnerable groups to ensure attested equal treatment (United Nations, 2014:79). Discrimination is not allowed even if it is not deliberate; by virtue of human rights to protect, UDHR asserts that accountable of discrimination should be held even when caused by the private actor (United Nations, 2014:79). For example, in workplaces, an employer cannot discriminate women according to their marital status and for being in their reproductive time. Should that occur, the state is obligated to intervene. The absence of action by the state to prevention this kind of discrimination is violation of the rights to not being discriminated (United Nation, 2014:79).

Discrimination by private sectors is applicable to health care, particularly to reproductive health as it is not allowed to reject people to access medical care because of their involvement in a particular nationality, gender, age, HIV status, or group (United Nations, 2014:79). For

instance, in cases where health professionals deny young or unmarried women access to contraceptives, a case of discrimination could be made. It is the responsibility of the state to ensure that such occurrences do not happen by ensuring the non-discrimination legislation and providing education initiatives. Denying women access to medical services is prohibited, including reproductive healthcare services (United Nations, 2014:79). This is perceived to imply that the state cannot deny medical services that women only need, services such as those related to pregnancy or pregnancy complications, and post abortion care. It is also prohibited to discriminate women against their HIV status, pregnancy, or marital status.

According to (United Nations, 2014:79), reproductive rights are directly linked with the right to health. The right to health allows women "to reproduce health care services, good facilities that are available, accessible, acceptable and of good quality." Declaration of this human right implies the right to health by guaranteeing that development, interventions, and results are consistent with the directions provided by Availability, Accessibility, Acceptability and good Quality (3AQ) structure. Below, I will explain in detailed the 3AQ structure and how IVF ensures them.

Availability entitles that there should be available and enough quality of sexual and reproductive health care services; also, programmes should be available (United Nations, 2014:82). This does not include clinics and hospitals only, but health related facilities. Accessibility also entitles that reproductive health care should be accessible to everyone regardless of their health status, age, belief, or disability. With regards to IVF, even though there are still some challenges that are hindering availability and accessibility of IVF to everyone, but it should be noted that challenges are non-discriminating to everyone (United nations, 2014:82). For example, infertile people are not denied the IVF services because of their age. Challenges hindering the availability and accessibility of IVF to everyone is mainly the cost and absence of these facilities in rural areas. However, means to reduce the costs of IVF for it to be available and accessible to everyone are being done. As stated in chapter 2 that during IVF treatment, several embryos are transferred to the uterus expands the success rate of pregnancy. Nonetheless, the costs of this strategy are exceptionally high (Pennings and De Wert, 2004:4). To decrease the costs of IVF, experts have come up with strategy of transferring a single embryo to the uterus. The pressure on the IVF to keep up a high rate of success (in terms of delivery rate) becomes a barrier to the adoption of this strategy (Cohen, 1998:9). Nevertheless, the effort to decrease the number of embryos transferred is still made. This shows that, even though the costs of IVF are hindering some individuals, especially people from the

lower class from utilizing their services, but means to make their services available to everyone regardless of the class they belong to are made. Once more, it is noted that IVF services are not discriminating against individuals based on their age, belief, health status or disability.

Acceptability health and reproductive faculties asserts that "goods and services must be respectful of medical ethics and culturally appropriate, i.e. respectful of the culture of individuals, minorities, peoples and communities, sensitive to gender and life-cycle requirements, as well as designed to respect confidentiality and improve the health status of those concerned" (United Nations, 2014:83 ). As stated, that IVF services respect the privacy of their patients; this indicates that IVF as a reproductive faculty is acceptable and respectful of medical ethics. Earlier in this present chapter, it was stated that IVF prioritises privacy in the treatment of infertility. Also, it ensures that the involved parties in the process of IVF understand the privacy and the intimacy of treating infertility with IVF. Additionally, in the event where the patient does not want to discard or freeze unused embryos, fertilizing few eggs to be transferred in the uterus is appropriate in order to respect patients' values. This also indicates that IVF is respectful toward the patient's culture.

Lastly, good quality in health and reproductive faculties asserts that "goods and services must be scientifically and medically appropriate and of good quality. This requires, for example, skilled medical personnel, scientifically approved and unexpired drugs, hospital equipment and contraception, safe and potable water, and adequate sanitation" (United Nations, 2014:85). IVF treatment is the most effective and common type of ART; it has been scientifically proven, and this can be seen by the success rate of IVF. However, IVF as a type of ART has risks that were discussed in chapter 2. But IVF patients are aware of these risks and complications that are associate with IVF.

## 4.5 CONCLUSION

This chapter focused on the analysis and findings of this research. The theory of limited communitarianism and human rights, which are closely related were used to explore and evaluate the ethico-cultural concerns that arise with the introduction of IVF as a method of managing infertility in Zulu communities. This chapter has supportively shown that infertility does not reduce a being to lesser than a human, despite what the perceptions and expectations of community are in terms of who and how a person ought to be. The two types of identity that were prosed by Matolino proved that infertile people are also social beings worthy of just treatment and consideration like all people. Additionally, this chapter has shown that the use

of IVF as a management of infertility in rural Zulu people bestows an opportunity to possess the communal characteristics of being a person. However, this does not mean that individuals who do not possess these communal characteristics are not social beings. Additionally, this chapter also evaluated the beliefs associated with children born using IVF. This research proved that children can be what intended parents want them to be by using the IVF method called donor matching and selecting.

Secondly, this chapter explored and evaluated how African conventional ways of dealing with infertility violate basic human rights, which are possessed by all persons. It explained in-depth how the use of IVF integrates these vital aspects of human existence and takes into consideration the rights of the infertile individuals. This embraces an individual's rights to human dignity, privacy, autonomy, and right to mental health, and liberty of decision-making for the sole benefit of one's self.

## CHAPTER FIVE: SUMMARY, RECOMMENDATIONS AND CONDLUSION

### 5. INTRODUCTION

The previous chapter was the analysis of IVF through the lens of limited communitarianism and human rights. Chapter 4 discussed the issues that were raised in the literature review. Chapter four proved that infertile people and children born using IVF are also social beings who deserve to be treated with humanity and respect. It concluded by proving that using IVF as a management of infertility will promote individual rights.

Chapter five is the concluding chapter of this dissertation. It will include the summary of all chapters, recommendations, and conclusion. The main aim of this research was to explore the challenges and opportunities that IVF can face as a management of infertility in rural Zulu communities in the light of limited communitarianism and human rights. In doing so, I found out that rural people are not thoroughly educated about infertility. Thus, I recommend an initiative to educate people about infertility. I also recommend the duties community have toward infertile people. Lastly, I recommend the reduction of costs of IVF.

## 5.1 SUMMARY

Chapter One was the introductory chapter. This chapter mainly covered the detailed overview of this research. The overview included the aim, objectives and background of this research. Chapter one also highlighted limited communitarianism and human rights, which are theories that guided this research. This chapter also covered the research methodology. It used exploratory and evaluative methodological approaches. It is also important to state that this research was conducted using a desktop approach.

Chapter Two was the literature review. Several scholars have written about infertility and the management of infertility from different disciplines. These include health, social science, and philosophical perspectives. The main scholars that have written about infertility include Lerato Makoba (2005), Nelisiwe Ndaba (1994), Kwadwo Asante-Afari (2019) and Gideon Okantey (2016). This chapter showed that the understanding of infertility in Africa and the causes of infertility were associated with witchcraft and ancestors, thus the use of traditional healers to manage infertility. Traditional adoption, polygamy, and levirate practice are also used to manage infertility in African cultures. Additionally, this chapter outlined how the status of women changes if they cannot reproduce children and the role of patriarchy in blaming women for childless marriage. The nature of patriarchy was also found to be associated with the abuse and stigmatization infertile people face. Also covered is the use of Artificial Reproductive Technology (ART) as a medical assistance and treatment of infertility. The feminist perspective on the use of ART was also included. It was found that some feminists support the use of ART because it has the potential of increasing the reproductive choices of women, provided that women's consent to ART is truly informed and voluntary. Additionally, since the causes of infertility vary, ART has different types to treat different causes of infertility. These include IVF, artificial insemination, ovulation induction, gamete donation and surrogacy. The risks and benefits of ART are also included. The risks of ART include maternal risks, foetal risks and social risks. The benefits of ART include overcoming infertility, the use of Preimplantation Genetic Testing and same-sex couples on ART. The last part of this chapter was looking at the gap in the literature. Since IVF is the most common and effective type of ART, this research focused on the ethico-cultural implications of managing infertility with IVF within the rural Zulu communities as a literature gap to fill.

Chapter three was the theoretical framework. This chapter looked at two theories that guided this research. These were limited communitarianism and human rights. Limited

communitarianism is a type of communitarianism that was proposed by Matolino Bernard in response to moderate and radical communitarianism. Matolino presented his theory of limited communitarianism as he believed that moderate and radical communitarianism failed to stress the rights of the individuals. He believed that radical communitarianism stressed the primacy of community and neglected the significance of individual rights. The second theory of human rights was founded upon the Universal Declaration of Human Rights was proclaimed by the United Nations General Assembly in Paris on 10 December 1948. The Declaration aimed at contributing to justice, freedom, and peace for all humans across the world. Human rights are not a reward for good conduct, and they are not specified to certain county or social group. They are the basic privilege of all people in all places, at all times. Since these two theories both put emphasis on individual rights, they were useful in this research in accessing the ethico-cultural implications of managing infertility with IVF in Zulu communities. Additionally, they were used in looking at the challenges that IVF can face and the opportunities it can bring to rural Zulu communities and the need for deconstruction of the beliefs and practices within the rural communities. In support of IVF, the theory of limited communitarianism and human rights were used to ethically strengthen the management of infertility with IVF among the rural Zulu communities.

Chapter Four was the analysis of IVF through limited communitarianism and human rights theory. In light of the fact that infertile individuals are afflicted by physical and emotional abuse through social rejection and stigmatization, the theory of limited communitarianism and human rights arguably reinforced the validity of the identity of infertile individuals. The components of identity from limited communitarianism was to support that infertile people are also social beings and their existence is valid regardless of how societies perceive a human's worth. Also, this chapter proved that using IVF as a management of infertility can give infertile people the characteristics of being a person in Zulu society. Another issue this chapter looked is the identity and the value of children born using IVF. This chapter showed through reviewing of literature that children born using IVF are not different from other children, thus buffered from the pressures of being identified as different. Finally, it was noted that IVF as the management of infertility gives patients an opportunity to become pregnant utilizing own's own eggs or donor eggs and sperms from a partner or donor sperms. In doing so, it will always promote individual rights asserted by limited communitarianism and human rights which African ways of managing infertility fails to promote.

**5.2 LIMITATIONS**

The main limitation that this research faced is that it was conducted as a desktop research. Desktop research was chosen as an option mainly because of COVID-19 and the restrictions that came with lockdown. It is without doubt that the analysis and the content of this research would have been more knowledgeable if it was an empirical research. Empirical research would have rendered more knowledge for this dissertation gathered from all different parties involved. These parties ranged from people with infertility issues, members of the family and members of rural communities, and professional practitioners of the IVF processes.

## 5.3 RECOMMENDATIONS

The analysis of this research revealed that illiteracy of infertility is one of the main causes of negative issues infertile people face in rural Zulu communities. Therefore, education about infertility can have a positive impact in the lives of infertile people. Because community leaders are influential people in rural communities, they can lead this initiative, partnering with local clinics. This education can also include the prevention of infertility where the causes are body weight, or imbalanced and unhealthy lifestyles (such as smoking habits and unhealthy diets). The community has duties and responsibilities towards individuals living in that community. Thus, I recommend that the community should bring back the spirit of "ubuntu" when treating infertile people. Also, the common saying in South Africa "my pain is your pain" must be called when dealing with infertility. This can help infertile people to be treated with humanity and respect worthy of all as social beings. Lastly, I recommend that the costs of IVF should be reduced. Most people living in rural places have limited access to treatments, diagnosis, tests related to infertility and no access at all to ART. Thus, if the costs of IVF are reduced, access can be extended to those that are economically burdened. This could be achieved by developing simplified diagnostic procedures and low-costs IVF procedures.

### 5.3.1 DUTIES OF THE COMMUNITY

Taking into account limited communitarianism and human rights, the duties and responsibilities of the community should be considered toward people with infertility issues. Zulu communities are known for their strong belief in "ubuntu", meaning humanity. However, the treatment infertile people receive is not concordant with this belief. One author A. Vanzant wrote, "Family is supposed to be our safe haven, very often, it is the place where we find the deepest heartache". This quote can be associated with what infertile individuals go through. Infertile people already go through so much pain from knowing they cannot conceive children the natural way, and the pressure and treatment they get from the family and community

negatively contribute to that pain. Hence, the community has a duty to show support and consideration. If Zulu people can go back to their values and use these two phenomena, infertile people can be treated with humanity and the respect they deserve as social beings. Additionally, the management of infertility cannot be an emotional instability as it is if they have full support from their families and community**.**

### 5.3.2 EDUCATION ON INFERTILITY

Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world". From the treatment infertile people receive, it shows that people are not educated about infertility. Even though all the traditional factors that may explain causes of infertility in Africa are said to be true, they still obscure the scientific realities that cause infertility such as genetics, medical diagnosis, and most of the causes described in Chapter 2 that are culturally independent. Thus, rural Zulu people should be educated about infertility, for them to understand that there are more causes of infertility that are culturally independent. Also, if people are educated, they will be able to revise their beliefs despite argument and evidence. Furthermore, if people are educated, they can be more open minded to other management of infertility, such as IVF. Community leaders can lead this initiative because they are the most influential people in rural places, partnering with local clinics and some women who have been through the management of infertility. This can be done in community halls and workshops. Even though getting people to open about their infertility can be hard because of the stigma that is associated with infertility but assurance about the change it will bring may bring ease. In addition, since rural communities value teachings of the elders, Indigenous Knowledge System (IKS) can be incorporated in making people understand more about infertility. IKC is the traditional way of passing knowledge from one person to another. These can include proverbs, idioms, folktales, and storytelling.

I also recommend that the preventable causes of infertility be addressed. In Chapter 2, it was stated that some of the causes are due to the lifestyle of people, such as smoking and drinking alcohol, and body weight issues. Hence, addressing these causes can help people in understanding the consequences of their lifestyles. Prevention of infertility resulting from lifestyle habits could start from addressing the regulation of body weight through healthy eating and activity, to stress avoidance or reduction, limiting caffeine and alcohol intake, and regulating smoking habits.

### 5.3.3 REDUCING THE COSTS OF IVF

It has been shown that managing infertility by IVF can bring many opportunities in rural Zulu communities. However, the high costs of the process of IVF can be a challenge for widespread utility. Thus, I recommend that the costs of IVF should be reduced to accommodate other people. Since the World Health Organisation (WHO) stated that infertility should be regarded as a global crisis, IVF process should not cater for only a specific category of people. Seeing that, currently, most people do not afford the process of IVF, especially rural people, even though infertility issues affect everyone. Moreover, several studies have shown that the consequences of infertility are severe for women in low-income settings. This is highly probable as low-income communities are probably the most uneducated societies about infertility, thus the traditional beliefs that alienate infertile individuals are likely most pronounced. Most people living in rural places have limited access to treatments, diagnosis, tests related to infertility, and may have no access at all to ART. Since high costs of IVF are associated with the procedures of IVF, I recommend that there should be development of simplified diagnostic procedures and low costs IVF procedures. Also, many people within the healthcare faculty could be trained to provide information about reproductive health.

Also, the concern of equitable access of IVF goes beyond financial problems. The expert skills and modern equipment needed to build up the infertility clinics has brought only a small number of such offices in many nations and these are generally concentrated in significant private places in major urban communities. Residents of rural areas such as Zulu communities find services they can afford geographically difficult to access. The possibility of taking IVF services to rural areas is close to impossible. This is especially the case because going through IVF treatment involves a constant visit by the patient to the IVF place, which may take over a four-to six-weeks period for every IVF treatment cycle. Hence, more should be done to prevent infertility in rural Zulu communities. Also, considering that, in rural Zulu communities most births are attended by traditional birth attendants, infertile precautionary measures are not generally noticed, resulting in high rates of secondary infertility and pelvic diseases Additionally, harmful practices, regardless of whether by the patients or the doctors, have appeared to result in a high frequency of complicated infertility. With that being said, I recommend improvement of health education and health care services in the rural Zulu communities as it would prevent high number of cases of infertility. Even though an equitable provision of IVF treatment in rural Zulu communities to overcome irreversible fertility is a continuing challenge, but , clinical care of treatable infertility should be promoted.

## 5.4 CONCLUSION

This research has covered the issues associated with management of infertility. This research carried out a literature review and found out that there is gap, which is the insufficient literature about the ethico-cultural implications of managing infertility with IVF in rural Zulu communities. This research looked at the African ways of managing infertility. However, since in this recent time, the advancement of technology came with the invention of Artificial Reproductive Technology (ART) to assist with infertility. Thus, ART as the management of infertility were included. This research further made used of the ethical theory of limited communitarianism which is mainly based on the social theory and emphasizes individual rights. Also, this research made use of the theory of human rights. Since both limited communitarianism and human right theories are closely related, they were used to analyse and explore the topic.

The prevalence of cases of infertility within a couple was found to become significant in African communities. Several scholars believed that the consequences of infertility in African include divorce, various forms of abuse, stigmatisation as well as polygamy. The causes of infertility in an African perspective were associated with witchcraft and ancestors who are assumed to be angry with the couple for not performing certain rituals. These rituals include "imbeleko", "umhlonyane", "umemulo" and a ceremony to introduce the bride to the ancestors. These were explained in detail in Chapter 2. The management of infertility in African communities was found to be aligned with their ethical values and cultural practices and have been acknowledged to work for ages. These include 1) traditional healers, as noted that one of the reasons for infertility in most rural African communities is attributed to witchcraft, 2) traditional adoption, it was found to be a solution to the problem of infertility among most couples. Children are distributed from families of many children to households where there are no children or to those who wish to expand their families; 3) Polygamy, the husband takes a second wife who then bears children for him. Also, the husband can decide to take his wife's' sister to bear children for him; 4) lastly, levirate practice, where a husband's brother or close relative are used. In the event of an infertile husband, the family elders ask the husband's brother to have sexual intercourse with the wife.

This research was mainly looking at IVF as a management of infertility in rural Zulu communities. IVF was used because it is the most common and effective type of ART. IVFwas defined as a fertilization of gametes outside in the petri dish in laboratory. It was initially used when there is a damaged or blocked fallopian tube or poor quality or few sperms to fertilize eggs. IVF offers a chance to avoid the problems by allowing the fertilization to happen outside

the body. Nowadays, it is used to treat many causes of infertility such as when the couple's infertility is unexplained.

The consequences of infertility in some traditional African communities shows that their human rights are being violated. They are not treated the same as fertile people. In fact, they are given inhuman treatment. Infertile people are degraded and humiliated. The treatment may be physically and mentally harmful. Also, most people are mostly given no choice to choose how they wish to deal with their issues of infertility, such as being coerced to the involvement of traditional healers. Generally, this research found that infertile people are not given a chance to make decisions about their management of infertility. Thus, this research discovered that using IVF as a management of infertility in Zulu communities will promote individuals' rights and it will give infertile people an opportunity to be recognized as social beings in their communities. The main human rights that IVF promotes are the right to human dignity, privacy, autonomy, and mental health.

Even though there are challenges that IVF presented, such as the identity of children born using IVF and their value in Zulu communities, it was also discovered that people are given a choice to decide which donor they want to use. Also, since IVF promotes privacy, not all people will know that the child was born using IVF, consequently, he or she will not be devalued in a community. The theory of limited communitarianism proved that children born using IVF are also social beings who deserve to be treated the same as children who are of natural birth.

In conclusion, infertile people are also social people who deserve to be treated the same as fertile people. They possess all the traits of being a human. They only suffer from a condition of the reproductive system as stated by World Health Organisation and that does not make them less human. Thus, they must be given an opportunity to make decisions regarding the management of infertility. IVF, which is the most common and effective type of ART was discovered that it will give Zulu people opportunities to deal with infertility. Lastly, the ethical theories of limited communitarianism and human rights proved that they can strengthen the management of infertility with IVF among the rural Zulu communities.

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