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The Lived Experience of African American Women and Infertility:
A Phenomenological Inquiry

Erica Roberts

THE LIVED EXPERIENCE OF AFRICAN AMERICAN WOMEN AND
INFERTILITY: A PHENOMENOLOGICAL INQUIRY

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Erica Roberts

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The Lived Experience of African American Women Experiencing Infertility

Dissertation

by

Erica Roberts

2017

APPROVED BY:

Jessie M. Colin, PhD, RN, FRE, FAAN
Chairperson, Dissertation Committee

Ferrona Beason, PhD, ARNP
Member, Dissertation Committee

Robin R. Walter PhD, RN, CNE
Member, Dissertation Committee

John McFadden, PhD, CRNA
Dean, College of Nursing and Health Sciences

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Abstract

Background: Infertility can manifest as a life crisis affecting a woman's self-identity, relationships with others, and barriers to treatment. Previous studies among other cultures have identified that infertility causes anxiety and depression (Behboodi-Moghadam, Salsali, Eftekhari-Ardabili, Valismordi, & Ramezanzadeh, 2013)

Purpose of the Study: The purpose of this hermeneutic phenomenological research study was to explore the lived experiences of African-American women with infertility

Philosophical Underpinning: A qualitative approach guided by the hermeneutic phenomenological perspective of Max van Manen (need to complete this sentence)

Method: A purposive & snowball sampling was used to select African-American women who have experienced infertility to participate in semi-structured interviews on the lived experience of African-American women and infertility. Data was collected through digital recording, transcription, and transcript verification. Miles and Huberman's (1994) inductive approach guided the data analysis and interpretations, which consisted of data reduction, data display, and conclusion.

Result: The related themes of *Desiring, Stressing Out, Perceiving Social Support, and Spiritual Coping* emerged as a total representation of 16 African-American women who experienced infertility.

Conclusion: This research uncovered the depth of the women's experience with infertility. Another significant dimension of their experience was the meaning they ascribed to the experience and how they coped with being diagnosed with infertility.

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CHAPTER ONE

Many women desire to have children; however, this desire may be affected by infertility. According to the Centers for Disease Control and Prevention (2016), one and a half million married women in the United States are unable to get pregnant after trying to conceive for 12 months without intervention. Infertility is defined as not being able to conceive after 12 months of unprotected sex, or 6 months of unprotected sex for women 35 and older. In the United States, infertility affects 6% of married women between the ages of 35 and 44 (CDC, 2016). For couples experiencing difficulties conceiving, the effects of infertility can be devastating. The World Health Organization (WHO), in conjunction with the International Committee for Monitoring Assisted Reproductive Technologies (ICMART), has formally-recognized infertility as a disease in its new international glossary of Assistive Reproductive Technologies (ART) terminology (World Health Organization, 2016).

Although there is a perceived high level of infertility in African-American women who do not seek care, there is paucity of empirical research that focuses on the experiences of infertility among African-American women. Nursing needs to investigate this phenomenon, because nurses have an important role in supporting patients in their social and family lives. It is therefore important that nurses become aware of the distressing condition of infertility among African-American women by providing an understanding in the field of infertility among this population by providing a context. This study used a hermeneutic phenomenological approach utilizing the methodology of Max van Manen (1990) to investigate the lived experiences of African-American women with infertility.

PROBLEM AND DOMAIN OF THE INQUIRY

Background of the Study

Infertility is described by the World Health Organization (WHO) as a disease of the reproductive system defined by failure to achieve a clinical pregnancy after 12 months or more of regular unprotected intercourse. A diagnosis of primary infertility is given to a woman who has never conceived regardless of having unprotected intercourse for a period of two years, or the inability to carry a child to a live birth. In the clinical setting the physician uses one year of unsuccessful attempt to conceive as a criteria for primary infertility diagnosis. Secondary infertility is when a woman has previously conceived, but is unable to conceive again, despite having unprotected intercourse for a period of two years, or the inability to carry a pregnancy to a live birth following a previous pregnancy (World Health Organization, 2017). Infertility is a prevalent problem affecting millions of couples worldwide.

According to WHO, an estimate of 60 to 80 million couples worldwide suffer from infertility varying across regions of the world; infertility is estimated to affect 8-12% of couples worldwide (WHO, 2016). In the United States, approximately 7.5 million women aged 15-44 have been diagnosed with an impairment in the ability to get pregnant or carry a baby to term (Centers for Disease Control and Prevention, 2016). African-American women have twice the odds of infertility compared to white women. 11.5% of black women reported infertility, compared to 7% of white women, but studies continue to indicate that African-American women use infertility services less often than their white counterparts (PR Newswire association LLC, 2012). The impairment in the ability

to become pregnant can be due to several causes; a result of structural or hormonal abnormalities.

Infertility problems can occur in both men and women and, in some couples, both partners may be affected. Male infertility refers to the inability to impregnate a fertile female. Male infertility is defined as an alteration of sperm concentration and/or motility and/or morphology in at least one of two sperm samples analyzed and collected one and four weeks apart. Other causes include anatomical problems, hormonal imbalances, and genetic defects. As high as 90% of all male infertility problems are related to decreased sperm count (Kumar & Singh, 2015). Risk factors include history of infection or inflammation, testicular trauma, undescended testicles, and exposure of genitals to high temperature.

A woman's reproductive system consists of the ovaries, fallopian tubes, uterus, and vagina. The function of the female reproductive system is to generate the ovum (egg), transport the ovum to where it can be fertilized, and nourish the embryo and fetus. In addition, the female reproductive system is also responsible for producing female sex hormones estrogen and progesterone (Peterson, 2016). For women diagnosed with infertility, the causes may be related to a genetic disorder, or immunological, hormonal, or structural problems. The main reason for infertility in women is related to structural problems with abnormal fallopian tubes. The normal function and anatomy of the fallopian tubes prevents the meeting of the sperm with the ovum to result in a pregnancy. A woman may also have intrauterine tissue damage, malfunction and abnormal positing, and/or inflammation of the uterus. Both the anatomical and functional capabilities of the fallopian tubes are vital for successful conception (Roupa, Polikandrioti, Sotiropoulou,

Faros, Koulouri, Wozniak, & Gourni, 2009). Hormonal imbalances related to female hormones known as estrogen and progesterone may also be contributing factors to a woman's infertility. Risk factors of infertility for men and women include age, tobacco use, alcohol use, weight, and physical activity. In women, reproductive history, demographics, and lifestyle habits also have correlate effects on infertility (Peterson, 2016).

Although many diseases are diagnosed through medical imaging, the diagnosis of infertility begins when the patient experiences signs and symptoms of the inability to get pregnant. Most couples are not aware they are infertile until they begin the attempt to conceive. Male infertility is diagnosed through semen analysis, hormone testing, genetic testing, testicular biopsy, and blood test. These tests may also be performed with a physical examination and diagnostic imaging such as venography, which can demonstrate a back-flow of semen into the testicle vein. Testicular abnormality, efferent duct patency, prostatic anomalies, and erectile dysfunction can be diagnosed by ultrasonography (Peterson, 2016).

Female infertility imaging services include hysterosalpingography (HSG), hystero-graph ultrasonography, pelvic ultrasonography, and pelvic magnetic resonance (MR). Abnormal anatomical structure may be involved in a woman's infertility; therefore, imaging plays an important role in diagnosing infertility. Structures evaluated during the imaging process include the genital tract, ovaries, and peritoneum (Peterson, 2016). Ultrasonography is used to evaluate the endometrial, and MR imaging is used to evaluate the ovaries and uterine myometrium. A two-dimensional transvaginal ultrasonography often detects congenital abnormality; however, the final diagnosis is confirmed with

hysterosalpingography. HSG examines the patency of the fallopian tubes, as well as the uterine cavity. Fertilization takes place in the fallopian tubes; therefore, infertility occurs due to blockage in one or both fallopian tubes (Peterson, 2016).

Infertility is not always solved, even though many women seek help for this problem through advance reproductive therapy such as in-vitro fertilization with the hopes of conceiving and bring home a baby. *Figure 1* shows the normal structure of the female reproductive system and how the egg is transported through the fallopian tubes. If there is a blockage in one or both fallopian tubes, this may prevent the woman from conceiving. This dream may become a nightmare for women who try advance reproductive therapy, but remain unable to conceive. A woman who is unable to afford this alternative may be forced to remain childless.

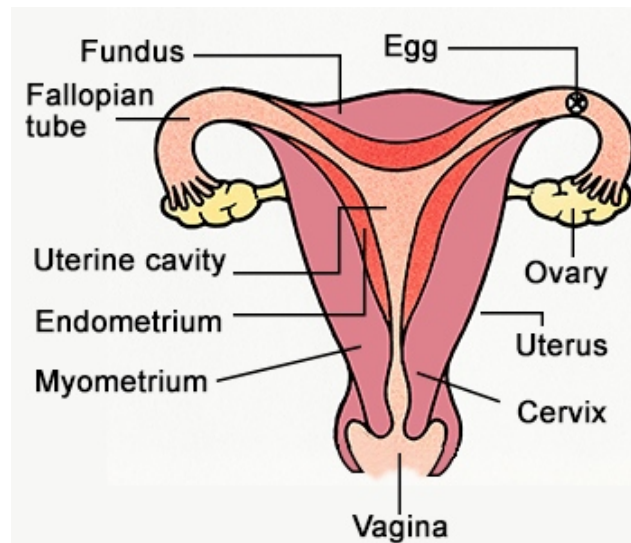


Figure 1. Female Reproductive System. Reprint from Northwestern University. (2015) from <https://oncofertility.northwestern.edu/files/images/labeled-female-reproductive-system-diagram.jpg>.

Infertility can manifest as a life-crisis affecting a woman's self-identity, self-worth, and relationships with husband, family, and friends. In addition, there may also be challenges in the search for infertility treatment. It has been well-documented in the literature that there are psychosocial and psychological consequences, such as reduced self-esteem, feelings of failure, loneliness, depression, hopelessness, grief, and anxiety associated with infertility (Behboodi-Moghadam, Salsali, Eftekhari-Ardabiliy, Vaismoradi, & Ramezanzadeh, 2013; Hasanpoor-Azghy, Simbar, & Vedadhir, 2014; Lopes & Leal 2014).

Previous studies in other cultures have acknowledged that a condition of infertility causes grief, anxiety and depression. Furthermore, “infertile women are frequently stigmatized, resulting in isolation, neglect, domestic violence, and polygamy” (Behboodi-Moghadam et al., 2013; Harris & Daniluk, 2010; Ferland & Caron, 2013). The inability to naturally have a child is “frequently considered a personal tragedy affecting the entire family and even the local community. Negative psychosocial and psychological consequences of childlessness are common and often severe” (Behboodi-Moghadam et al., 2013, p. 41). Cultural factors also can have an impact on the psychological well-being of an infertile woman (Nelson, Shindel, Naughton, Ohebshalom, & Mulhall 2008). Understanding the cultural aspects of how people deal with infertility is a critical factor that may help nursing professionals provide more effective healthcare (Bos & van Rooij, 2007).

Healthcare disparities in all areas are a pervasive problem in the United States, and this includes reproductive health. The high cost of infertility treatment, especially with in-vitro fertilization, and limited access to services make it difficult (if not

impossible) for many women especially those with low-income-to access infertility services. Many factors influence a woman to seek infertility treatment. One of the main reasons is not having access to infertility services. It is estimated that approximately 22% of the unmet needs for infertility services are among the poor. Assisted reproductive technology services are usually not covered by health insurance in certain states and tend to be extremely expensive (Parham & Hicks, 2005). Therefore, the ability to access assisted reproductive technology may be hindered. Each cycle of in-vitro fertilization costs \$8,158 plus \$3,000 to \$5,000 for medications and debate still exists about whether insurance plans should, or should not, cover them (National Conference of State Legislatures, 2017).

Since the 1980s, 15 states: Arkansas, California, Connecticut, Hawaii, Illinois, Louisiana, Maryland, Massachusetts, Montana, New Jersey, New York, Ohio, Rhode Island, Texas and West Virginia have passed laws requiring insurers to either cover or offer coverage for infertility diagnosis and treatment (National Conference of State Legislatures, 2017). However, the types of infertility treatments covered vary from state to state. Although infertility services are covered in 15 states, there is still a disproportionate use of these services between African-American and Euro-American women.

Infertility services are covered by insurance in Massachusetts, yet the majority of women who sought treatment in that state were white, well-educated and wealthy (Armstrong & Plowden, 2012). Studies continue to illustrate that white women from higher socioeconomic status groups are disproportionately able to access infertility services (Armstrong & Plowden, 2012). It has been reported in the literature that

African-Americans are reluctant to seek health care because of the numerous historical accounts documenting the racially-biased and harmful treatment of poor African-Americans, such as the Tuskegee Syphilis Study (1932-1972), the unauthorized use of cancer cells documented in the Henrietta Lacks story (1950s), and the eugenic programs of nonconsensual sterilizations in the 1960s and 1970s. Given this context, African-American women understandably tend to harbor suspicion and distrust of medical professionals (Ceballo, Graham, & Hart, 2015).

The medical team and the non-medical community also play a role in the access and utilization of services to advance reproductive therapy. Some minorities are viewed as hyper-fertile, so that infertility may be viewed as a condition that only affects wealthy white couples (Armstrong & Plowden, 2012). According to Armstrong & Plowden (2012) the physician's perception of and attitude toward the patient is affected by concordance of race and socio-economic status. African-American patients are more likely to be perceived as less-well educated than Euro-Americans even after controlling socio-economic status. Patients of lower socio-economic status are generally perceived by the medical team to be less-complaint with treatment than their white counterparts. Such perceptions and distorted views can adversely-affect patients and the care they receive (Armstrong & Plowden, 2012).

African-American Culture & Infertility

According to the United States Census Bureau (2010) the term African-American refers to a person having origins in any of the black racial groups of Africa. The black racial category includes people who marked the black, African-American, or Negro in a checkbox. It also includes respondents who reported entries such as African-American;

Sub-Saharan African entries, such as Kenyan and Nigerian; and Afro-Caribbean entries, such as Haitian and Jamaican (United States Census Bureau, 2010). A woman's culture has an impact on how she perceives and react to the diagnosis and experience with infertility (Ridenour, Rorgason, & Peterson 2009). Infertility is often correlated with psychological distress because of its relationship with the inability to achieve a desired life goal.

According to Lykeridou, Gourounti, Sarantaki, Loutradis, Vaslamatzis, & Deltsidou (2011) the meaning that one puts on infertility is significantly-influenced by culture. Motherhood among African-American women is a source of power and provides significant meaning, satisfaction, and respect within the family and the larger community (Fouquier, 2011). In the African-American culture the “motherhood mandate” demands that all women in the African-American society should marry and become good mothers. Good mothers will personally, financially, and emotionally devote themselves to, and center their lives around, children to fulfill their role as black wives and mothers. The act of mothering by African-American women can be a sign of resistance against the denigrating images of African-American motherhood as well as a testament to the strength of African-American families (Ceballo, Graham, & Hart, 2015). Understanding what it is like for the African-American woman who wants to be a mother, but cannot conceive children due to infertility is important in normalizing their experiences when seeking care. For any woman experiencing infertility, little is experienced as easy or normal about striving to become pregnant and some may not seek infertility treatment.

Racial/ethnic minority women with less education and lower incomes are equally likely if not more likely--to experience infertility in the United States. African-American

women are one of the ethnic groups who are less likely than white women to receive medical services for infertility (Ceballo, Graham, & Hart, 2015). Some scholars have described this state of affairs as evidence of what has come to be called “stratified reproduction,” whereby medical resources are used to enhance the fertility of married, high-income, white couples, but not the production of less-valued, less-desirable, brown and black babies (Ceballo, Graham, & Hart, 2015). According to Purdie-Vaughns and Eibach (2008) African-American women experience “intersectional” invisibility, which is an acute social form of invisibility and oppression. Infertile African-American women are indeed obscured from the society view, as shown by the preponderance of literature conducted on infertility is among wealthy white women seeking infertility medical intervention; compared to an almost non-existent recognition in the literature of infertility among African-American women (Purdie-Vaughns & Eibach, 2008). Access to infertility treatments is a huge challenge in the decision to seek medical attention for infertility and is directly related to the disproportional use of infertility services.

This hermeneutic phenomenological study is significant in understanding the meaning and essence of African-American women experiencing infertility and in providing a context for infertility health care providers in order to provide culturally-competent care. The paucity of literature that exists on African-American women and infertility indicates the presence of stereotypes and discrimination in the medical setting, which have been experienced by ethnic minority women seeking infertility treatment (Ceballo, Graham, & Hart, 2015; Greil, McQuillian, Shreffler, Johnson, Slauson-Belvins, 2011). It is widely-believed that this unmet need for infertility services, especially among those with lower incomes and levels of education exist (Bitler & Schmidt, 2006).

In the United States, seeking medical services for infertility has been positively associated with older age, being legally married, a college education, high income, and being of European ancestry (Ceballo, Graham, & Hart, 2015). It has been identified that there is a large communication gap between highly-educated (white male) doctors and low-income (black) women.

As a result of negative interactions with physicians, many women of lower economic status give up entirely on infertility treatment (Bell, 2009). Limitations in the knowledge about experiences of African-American women who have dealt with infertility still exist; therefore, research on the distinctive meaning and in-depth understanding of this complex phenomenon among African-American women is inadequate and addressing the gap in knowledge is important in normalizing the experiences of infertile African-American women seeking treatment.

Statement of the Problem

African-American women experiencing infertility should have a compassionate environment conducive to supporting their needs and addressing the issues they may face, so that they are not living isolation and despair. African-American women are one of the ethnic groups less-likely to receive medical attention for infertility (Ceballo, Graham, & Hart, 2015). There is paucity of literature on infertility among African-American women in providing a context to have an understanding of their experiences and how their psychological and psychosocial well-being is affected. Cultural beliefs have been suggested as major reasons why African-American women do not seek infertility care. The unmet needs of that population will continue to generate unspoken

suffering if the experiences of these women are not appropriately investigated and understood.

Purpose of the Study

The purpose of this hermeneutic phenomenological study was to gain a deeper understanding of the lived experience of African-American women with infertility.

Research Questions

The research question that guided this phenomenological research study was “What is the lived experience of African-American women and infertility?”

Philosophical Underpinnings

Interpretivism

Philosophical underpinnings are the foundation or support for all research, because they provide a set of beliefs or principles that guide the pursuit of knowledge (Ponterotto, 2010). They supply direction and reason for the research design and method and the researcher must be knowledgeable of the criteria involved (Creswell, 2007; Munhall, 2013). This qualitative research utilized an interpretivist paradigm to frame this hermeneutic phenomenological study on African-American women who experienced infertility.

Interpretivism is often also linked to the ideas of philosophers Max Weber (1864-1920) and Immanuel Kant (1724-1804). The seeds of interpretivism can be traced back to the philosopher Immanuel Kant in 1781. Kant believed that people cannot be independent in the process of knowing and objective reality cannot be separate from the individual who is experiencing, processing and making sense of the reality (Chen, Shek, & Bu,

2011). Interpretivism was conceived as a reaction to the effort to develop a natural science perspective of the social world. Its foil was largely logical empiricist methodology and the bid to apply that framework to human inquiry (Crotty, 2013).

Positivism is defined as a scientific approach that relies specifically on scientific evidence, such as experiments and statistics, to reveal a true nature of how society operates. The ontological assumption in this is that there is one reality, which exists and can be validated through the senses. Interpretivism was developed as a critique of positivism in the social sciences in an attempt to understand and explain human and social reality following the naturalistic approach of Weber and Kant. The naturalistic approach uses a natural setting in which the participants have experienced the problem under study. The interviewer gathers up-close information by talking directly to the people in the study and seeing them behave and act within the context (Creswell, 2007). Kant argued that there are ways of knowing about the world other than direct observation and that people use these techniques of knowing all the time. He proposed that perception relates not only to the senses, but also to human interpretations of what the senses tell us, so that our knowledge of the world is based on understanding and experiences. Knowing and knowledge therefore transcend the techniques of basic empirical inquiry (Ritchie, Lewis, Nicholls, & Ormston, 2013).

Max Weber (1864-1920) suggested that in the human sciences we are concerned with understanding. This has been taken to mean that Weber is contrasting the interpretative approach needed in human science research with the explicative approach focused on causality found in the natural sciences (Crotty, 2013). Weber argued that understanding in the social sciences is inherently different from an explanation in the

natural sciences. Weber believed that numerically-measured probability is quantitative only. He stressed that social science concerns itself with qualitative factors such as multiple realities and frameworks for viewing the world and that social life is the shared creativity of individuals and their perceptions (Munhall, 2012). Weber advised that they were human beings and that it was important to try to gain access to their experiences and perceptions by listening to and observing them (Platt, 1985).

Another prominent figure in the history of interpretivism was William Dilthey (1833-1911). He proposed that natural reality and social reality are in themselves different kinds of reality and any investigation of them requires different methods (Crotty, 2013). Dilthey also emphasized the importance of understanding (*verstehen*) the lived experiences within a particular historical and social context. He argued that self-determination and human creativity play very important roles in guiding our actions. He therefore proposed that social research should explore lived experiences in order to reveal the connections between social, cultural, and historical aspects of people's lives and to see the context in which particular actions take place (Ritchie, Lewis, Nicholls, & Ormston, 2013, p. 11).

The goal of interpretivism, then, is to understand the lived experience of people from the stand point of the research participants (Chen, Shek, & Bu, 2011). An interpretivist perspective emphasizes understanding the meaning individuals place on their actions. Phenomenon are studied through the eyes of the research participants in their lived situations; therefore, interpretivism assumes multiple situated realities in which context gives meaning to the phenomena (Welford, Murphy, & Casey, 2011).

Interpretivism is the school of thought that stresses the importance of interpretation as well as observation in understanding the social world (Ritchie, Lewis, Nicholls, & Ormston, 2013). The interpretivist ontological worldview is that reality is socially-constructed and fluid. What is known is based on culture, social settings, and relationships with other people. Ontological relates to the nature of reality and its characteristics. The ontological assumption of interpretivism is relativism, or the view that reality is subjective and differs from person to person. In this perspective, our realities are mediated by our senses; without consciousness the world is meaningless (Scotland, 2012). Ontologically, interpretivism is about the truth being viewed from multiple perspectives and multiple realities that are holistic, local and specific. Epistemology is how knowledge is obtained. When it comes to epistemology, interpretivism creates a paradox of how to develop an objective science from subjective experiences (Welford, Murphy, & Casey, 2011). Interpretivism uses an interpretive process to understand and learn about a phenomenon. This is achieved through a hermeneutic circle, which moves back and forth from the parts of the experience to its whole to uncover a deeper understanding of the phenomena (Creswell, 2007).

Etymologically, the word “hermeneutics” derives from the Greek word *hermeneuein*, which means to interpret or to understand. The term hermeneutics came into modern use in the 17th century in the context of biblical studies and is the science of biblical interpretation of scriptures (Crotty, 2013). Interpretive phenomenological analysts believe that researchers can capture a sense of a participant’s psychological world only through their engagement with, and interpretation of, that experience. The researcher additionally is implicated in the inquiry process, which becomes both

phenomenological and interpretive. For interpretivist inquiries, then, the accountability of the researcher involves the development of dense and rich data grounded in the participant's experience (Chen, Shek, & Bu, 2011).

The world view is that all knowledge, and all meaningful reality as such, is contingent upon human practices, and is being continuously constructed in and out of interactions between human beings and their world, as developed and transmitted within an essentially social context (Crotty, 2013). Meanings are constructed by human beings as they engage with the world they are interpreting; in order to interpret the world, one must be conscious. If there is no consciousness, then the world holds no meaning (Crotty, 2013). Frantz Brentano (1838-1917) was a renowned psychologist and philosopher of the nineteenth century. He believed consciousness is always consciousness of something. When the mind becomes conscious of and knows something, it reaches out to and into, that object. Consciousness is directed towards the object; the object is shaped by consciousness (Crotty, 2013).

In interpretivism there are two theoretical views as to how meanings are constructed; constructivism and constructionism. Both constructivism and constructionism hold relativist positions, by which it is believed that the structures existing outside cannot be objectively grasped. However, people differ in their respective outlook on the importance of inner psychological structures and developmental courses versus the significance of language, culture and social processes in the creation of one's construction (Chen, Shek, & Bu, 2011).

Constructivism

The related movement of constructivism emphasizes that knowledge is actively constructed by human beings, rather than passively received by them (Ritchie, Lewis, Nicholls, & Ormston, 2013). Constructivism is an epistemological view embodied in many theoretical perspectives (Crotty, 2013). The concept of constructivism has roots in classical antiquity, going back to the dialogues of the ancient Greek philosopher Socrates (c. 469 - 399 B.C) with his followers, in which he asked directed questions that led his students to realize for themselves the logic, or lack of it in their thinking.

The Socratic Pedagogical Method of dialogue is a formal approach to teaching and is still an important tool in the way constructivist educators assess their students' learning and plan new learning experiences. In this century, educators Jean Piaget (1896–1980) and John Dewey (1859-1952) developed theories of childhood development and education, or what we now call progressive education, that led to the evolution of constructivism. Dewey in particular has been considered the pioneer of the philosophy of constructivism and believed education should be grounded in real experience. He wrote, “If you have doubts about how learning happens, engage in sustained inquiry: study, ponder, consider alternative possibilities and arrive at your belief grounded in evidence.” (Educational Broadcasting Corporation, 2004). Inquiry therefore, is a key part of constructivist learning. Jean Piaget asserted that children learn actively through an exploration of their environment. Piaget’s learning theory looks through a developmental lens, and considers stages of knowledge acquisition as directly linked to a child’s developmental stage (Piaget,1968). Piaget’s work led to his theory of genetic epistemology, and has contributed greatly to the development of constructivist theory.

Jerome Bruner's (1915-2016) contribution to constructivist theory is also significant, especially in the realm of discovery learning. Bruner suggests that a learner's knowledge is represented in three stages; *enactive*, *iconic*, and *symbolic*. Unlike Piaget's epistemological model, these stages or realms of knowledge representation are not age-dependent, thus it is assumed that a learner may be at any stage of learning independent of chronological age. This idea provides credence to differentiated instruction, and to treating a classroom as a diverse learning community rather than one of a specific grade requiring a standard approach (Novak, 1998).

In the constructivist view, meaning is not discovered but constructed; it does not inhere in the object, waiting for someone to discover it. Constructivists believe meanings are constructed by human beings as they engage with the world they are interpreting. Constructivism is removed from the objectivism found in the positivist stance. Objectivism is the notion that truth and meaning reside in their objects independently of any consciousness and its roots is in ancient Greek philosophy (Crotty, 2013). Constructivism mirrors the concept of intentionality. Intentionality means relatedness, or a state in when the mind becomes conscious of something, and then when it knows something, it reaches out to and into that object. Meanings emerge from the interaction between the subjective and objective world, which embraces the notion of intentionality. Intentionality includes the various forms of experiences and consciousness directed toward realism, (object) and the object is shaped by consciousness (Crotty, 2003). The unique experience of each person is one way of making sense of the world and is as valid and worthy of respect as any other experience.

Constructivism is the unique experience of a person and how each person makes sense of the world. Constructivism, therefore, brings together objectivity and subjectivity, which is essential to constructing meanings (Crotty, 2013). A central tenant of constructivism is that the learner is active in this process, and learners, therefore, are not empty vessels waiting to be filled, but rather active organisms seeking meaning (Driscoll, 2005).

Constructionism

The term *constructionism* derives largely from the works of Karl Mannheim (1893-1947) and Berger and Luckmann's *Constructionism of Reality* (1893- 1947). Constructionism describes the individual human subject engaging with objects in the world and making sense of them (Crotty, 2013). However, Vygotski (1896-1934) a Russian psychologist, is the lead contributor to the current understanding of constructionism. Vygotski developed a theory which articulates the importance of socialization to learning, and that in fact, higher-order learning such as problem solving, proceeds from social interaction (Driscoll, 2005). As social interaction occurs within a cultural context, individuals seek an understanding of the world in which they live and work and meaning is socially-constructed. They develop subjective meanings of their experiences and meanings are directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrow the meanings into a few categories or ideas (Creswell, 2013).

Constructionism is principally concerned with explaining the processes by which people come to describe, explain, or account for the world, including themselves. These forms of understanding are significant in social life, because they are integrally connected

with the many activities of which people are a part (Chen, Shek, & Bu, 2011). People are born into a world of meaning and enter a social environment in which systems of intelligibility prevail, thereby inheriting a system of significant symbols. When people are born into the world they see the world in a meaningful fashion. They inevitably view the world through lenses bestowed upon them by culture. One's culture brings things into view and provides meaning to some things, while others are ignored (Crotty, 2013).

Culture is best seen as the source rather than the result of human thought and behavior. It is a set of control mechanisms, plans, recipes, rules, and instructions (explicit and implicit) for the governing of behavior (Crotty, 2013). Subjective meanings are socially and historically negotiated; in other words, they are not simply imprinted on individuals, but formed through interactions with others and through historical and cultural norms that operate in an individual's life (Creswell, 2013). All reality as meaningful reality is a socially construction with no exception (Crotty, 2013). The theoretical viewpoint used in this qualitative study will be the constructionism view to inductively develop a pattern of meaning to support qualitative research.

Qualitative Research

Qualitative approaches in science are distinct modes of inquiry oriented toward understanding the unique nature of human thoughts, behaviors, negotiations, and institutions under different sets of historical and environmental circumstances (Munhall, 2012). Qualitative research is appropriate if the researcher wants to inquire about the experiences of others. There are five traditions of qualitative research upon which the investigator may draw; *narrative research*, *phenomenology*, *grounded theory*, *ethnography*, and *case studies*. *Narrative research* focuses on exploring the life of an

individual. *Phenomenology* focuses on understanding the essence of the experience. *Grounded theory* focuses on developing a grounding in data from the field. *Ethnography* focuses on describing and interpreting the experiences of a culture-sharing group; and *case studies* focus on developing an in-depth description and analysis of individual or multiple cases (Creswell, 2013). Qualitative researchers approach their studies with a certain paradigm or worldview, a basic set of beliefs or assumptions that guide their inquiries. Qualitative research begins with the assumptions and the use of interpretive frameworks that inform the study problem addressing the meaning individuals or groups ascribe to a social issue. The five assumptions of scientific inquiry are *ontological*, *epistemological*, *axiological*, *rhetorical*, and *methodological*. *Ontological* issues relate to the nature of reality and its characteristics. When researchers conduct qualitative research, they are embracing the idea of multiple realities. Different researchers embrace different realities, as do individuals being studied and the readers of qualitative study.

In this study, the nature of the reality related to infertility among the participants and was revealed through subjective and multiple realities. The researcher used the participants' own words to describe the phenomenon. The researcher also presented multiple statements representing a diverse perspective on infertility with each theme (Creswell, 2013).

The *epistemological* assumption takes place when conducting a qualitative study in which the researcher must try to get as close as possible to the participants' experiences of the phenomenon being studied. Subjective evidence is assembled based on individual views. To build a body of this kind of knowledge, the researcher in this study build a

rapport and collaborated with the participants in a natural setting, which was sustained during data collection (Creswell, 2013).

Axiological assumptions are values that the researcher brings to a study. (Creswell, 2013). In this case, the researcher informed the participants of her experiences and knowledge about infertility. The burden was placed on the researcher's subjective values, intuition, and biases as important elements in the construction of social dialogue and interpretation of the participants lived experiences with infertility. The researcher reported her own values and biases as value-laden narratives of information to the participants. The researcher also reported personal interpretations in conjunction with the participants in the study (Creswell, 2013).

The *rhetorical* assumption is that the researcher writes in an informal style using the personal voice and qualitative terms in limited definition (Creswell, 2007). The researcher transcribed and was engaged in the narratives of the participants' experiences with infertility. This added depth and richness to the study, and provided an understanding of the essence and meaning derived from the phenomena under study. The procedures of qualitative research and its methodology is characterized as inductive and emerging, and is shaped by the researcher's experience in collecting and analyzing the data (Creswell, 2013).

The *methodological approach* relies heavily on naturalistic methods, such as interviewing, observation, and analysis of existing texts. Interpretive methods yield insight and understandings of behavior; to explain actions from the participants' perspectives without dominating the participants (Scotland, 2012). These methods ensured an adequate dialogue between the researcher and participants in order to

collaboratively-construct a meaningful reality emerging from the research process (Cohen & Crabtree, 2006). This researcher used van Manen's inductive approach to develop qualitative narratives and categories from the participants' experiences with infertility.

Qualitative inquiry was the best fit with the phenomenon under investigation, because the researcher needed a complex and detailed understanding of African-American women's experiences with infertility. Qualitative research is known for giving voice to personal narratives by engaging the language of the participants in the research (Munhall, 2012). Qualitative research reveals what may have been concealed and permits researcher and participants a chance to look beyond appearances. Overall, qualitative research reveals a multiplicity and simultaneity of different worldviews; perspectives of a phenomena; polyvocality of many voices; multiple realities held by individuals and individual and cultural social constructions of reality leading to multiple realities (Munhall, 2012).

Qualitative research provided the researcher in this study a chance to get close to the participants to gather information by talking with them directly and seeing them behave and act within context (Creswell, 2013). The researcher was additionally allowed to use a natural and comfortable setting for face-to-face interaction over time. The writing format of a study based on qualitative research varies considerably from scientific-orientated approaches. A qualitative approach includes literary storytelling, performances, drawings, and expressive symbolic representations such as poems or a song (Creswell, 2013). As a situated activity, qualitative research locates the observer in the world, consisting of a set of interpretive, material practices that make the world

visible. The world is described through a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. The researcher studied the phenomenon in the participants' natural settings, in an attempt to make sense of, or interpret the meaning people bring to a phenomenon. In the entire research process, the researcher kept a focus on learning the meaning that the participants held about the problem or issue, instead of the meaning that the researcher might bring to the research based on other research literature.

Qualitative researchers often collect data in the field at the site where participants experience the issue or problem under study. The researcher gathers up-close information by talking directly to people and observing their behavior within context. In the natural setting, the researcher conducts face-to-face interviews as the key instrument of investigation. The researcher collects data by examining documents, observing behavior, and interviewing participants by asking open-ended questions. The researcher reviews all the information collected and makes sense of it by organizing it into categories or themes that cut across all data sources (Creswell, 2013). According to Creswell (2013) qualitative researchers build their patterns, categories, and themes from the bottom up, a process referred to as inductive.

In qualitative research, the researcher stays focused on learning the meanings the participants hold about the problem or issue; an emergent process. This means that the initial plan for the research cannot be tightly-prescribed, and all other phases may change or shift after the researcher enters the field and begins to collect data. Theme development reports should reflect the multiple perspectives various participants provide on a topic. In this way, qualitative researchers try to develop a complex picture of the

problem or issue being studied. This involves identifying the many factors involved in a situation and sketching out the larger picture that emerges (Creswell, 2013).

Phenomenology

Phenomenology as a philosophy began in the 19th century as an attempt to view science and scientific methods as the answer to all questions of the natural world that ultimately reveals the only route to truth. The term *phenomenology* comes from the Greek word *phainomenon*, meaning “appearance” (De Chesnay, 2015), and is based on the philosophy of interpretivism. It is described as research-oriented toward lived experience termed *phenomenology* and (*hermeneutic*) which engages interpretations on the texts of life (Creswell, 2013). Phenomenological research is characterized as employing inductive reasoning, subjectivity, discovery, description, and process orienting. Phenomenology is also characterized as a means by which the researcher has access to a multiplicity and simultaneity of worldviews; a prospectively of phenomena; polyvocality of many voices; multiple realities held by individual, and social constructions (Munhall,2012).

Phenomenology requires engagement with the phenomenon in the world to make immediate and direct sense of them. This tactic aims for a deeper understanding of the nature, or meaning of everyday experiences. Such research studies the essence of experience through the attentive practice of a thoughtful minding, heeding, and caring attunement, to the project of living (Munhall, 2012). When language of the lived experience awakens a person to the meaning of experience, he or she gains a deeper understanding of what it means to be human on a deeper level. Phenomenological descriptions are often made up of examples that allow the reader to see the more

profound significance or structure of the lived experience being described (Munhall, 2012). From a phenomenological point of view, to do research is always to question the way people experience the world (van Manen, 1990).

Phenomenology became a very influential philosophical movement in the early 20th century as a result of work done by the German philosopher, Edmund Husserl (1859-1939). Husserl is considered the father of phenomenology, who also studied math and physics. His philosophical ideas led to the descriptive phenomenological approach to inquiry, and is considered descriptive or eidetic, meaning the science of the essence of consciousness or an inquiry into the consciousness of the researcher (De Chesnay, 2015). Phenomenology introduces the concept of intentional consciousness into the philosophy of meaning by Franz Brentano (1838-1917), who was one of Husserl's most important teacher on the way to understand the link between the human mind and the world. The term intentionality refers to the maxim extent to which consciousness is always aware of something and is thereby intimately connected to, and part of, the external world.

Husserl believed understanding consciousness as intentionality helps make our knowledge of meaning more concrete (Shaw, 2012). As an epistemology, the process calls upon the researcher or subject to put attention to how the object or experience appears (De Chesnay, 2015).

Four key constructs of phenomenology include *consciousness*, *embodiment*, *natural attitude*, and *perception*. Consciousness consists of a sensory awareness of and response to, the environment. Consciousness is life: it is not an interior or inner existence all by itself; it is an awareness of existence in the world through the body. The unity of mind and body, then, becomes a means of experiencing, while knowledge of the

experience comes about through consciousness (Munhall, 2012). Embodiment explains that through consciousness, we are aware of being in the world, and it is through the body that we gain access to this world. We feel, think, taste, touch, and hear and are conscious through the sensory opportunities the body offers. The natural attitude is a mode of consciousness that espouses interpreted experiences. The world as experienced by previous generations is handed down, teaching a great deal about the reality in the process.

These teachings become assumptions, providing unquestioned meanings about phenomena that are a part of a person's natural attitude toward the world. Experience and perception are our original modes of consciousness. Perception takes place through the body and is an individual access to experience in the world. Perceptions of varying objects depend on the context in which they are experienced for interpretation and meaning. A researcher with the aim of employing a phenomenological approach must describe his or her own or another's perceptions of that lived experience. Perception of experience is what matters; not what in reality may appear to be contrary or more truthful (Munhall, 2012).

Every individual has their own subjective worldview; their own window to interpreting the world and all that it holds. Residing in a subjective world or the subjective part of consciousness are perceptions. Intersubjectivity takes place when two people come together, there is a melding of different subjective. When conversing, each person speaks from their own subjective world with their respective perceptions. The phenomenological idea of the use of intersubjectivity is in the pursuit of understanding the experience of another (Munhall, 2012). Intentionality is the directedness of mental

experiences to an object. Phenomenological investigations of intentionality explore both the experience's directedness to its object and the objects being given in a particular manner or under a particular conception. Phenomenology examines the temporal structure of both the experience and the experienced object. Moreover, phenomenology must examine the role of the body in generating multiple appearances of an object from different spatial perspectives as well as how differences in embodiment affect our understanding of objects (Drummond, 2015).

Husserl's brand of phenomenology requires the use of *bracketing* in an effort to maintain objectivity. With bracketing, the researcher's preconceptions, attitudes, values, and beliefs are held in abeyance to ensure that they do not prejudice the description of the phenomenon. Husserl's phenomenology was a response to what he saw as a crisis in science whereby science was crying out for a philosophy that would restore its contact with the deeper concerns of man. Husserl's famous saying "to the things themselves" can be seen as the core of all phenomenological research, indicating the notion that describing lived experience is the essence of phenomenology.

Philosophers consequently recognized the crucial value of returning to the self to discover the nature and meaning of things as they appear in essence. Husserl's thoughts on hermeneutic were advanced by philosophers Merleau-Ponty (1908-1961), Heidegger (1889-1976), Gadamer, (1900-2002) and Ricoeur (dates 1913-2005) (De Chesnay, 2015). Husserl's transcendental method mean that phenomenological research is pure description and the interpretation (hermeneutics) falls outside the bounds of phenomenological research. Husserl maintained that the object of phenomenological description is fully

achieved "solely" through a direct grasping (intuiting) of the essential structure of phenomena as they appear in consciousness (van Manen, 1990).

Martin Heidegger (1889-1976), a student of Husserl and a German philosopher, went in a different direction with a focus on human existence rather than pure ego to adopt ontology as the science of being. Heidegger's focus is on interpreting the meaning of the phenomena in terms of what it means to be human (van Manen, 1990). According to Heidegger, knowing is a mode of being "in-being" which this means that every moment of practical acting and knowing always already takes place in a mode of being that he calls "in-being" (van Manen, 1990). Being or beings was called *dasein*, which in German means "existence" or "being there" (De Chesnay, 2015). Heidegger's philosophy is considered hermeneutic or interpretive phenomenology. Heidegger believed that *bracketing* as a means of ridding the mind of preconceptions to approach something in a blank way was impossible. Instead, humans are so close to, or immersed in, being that it is often difficult to see without moving away from it to explore it better (De Chesnay, 2015).

From Germany, the phenomenological movement moved to France through the works of Jean-Paul Sartre (1905-1980) and Maurice Merleau-Ponty (1908-61). Sartre's philosophy evolved into one that reflected features of both Husserl and Heidegger. Merleau-Ponty, on the other hand, studied both Husserl and Heidegger, but focused more on the philosophy of Husserl to define phenomenology as the study of essence of perception and consciousness (Shaw & Connelly, 2012). Merleau-Ponty demonstrated that turning to a phenomenon of lived experience means re-learning to look at the world by re-awakening a sense of the basic experience of the world (van Manen, 1990). More

contemporary phenomenologist who continued this *hermeneutic* approach are Hans-Georg Gadamer (1900-2002) and Max van Manen (1942-). In 1986, Gadamer made a distinction between two senses of interpretation: in its original meaning, he says, interpretation is a pointing to something; and interpretation is pointing out the meaning of something. The first kind of interpreting is not a reading in of some meaning, but clearly a revelation of what the thing itself already points to. We attempt to interpret that which at the same time conceals itself (van Manen, 1990).

Relationship of Methodology to the Phenomena of Interest

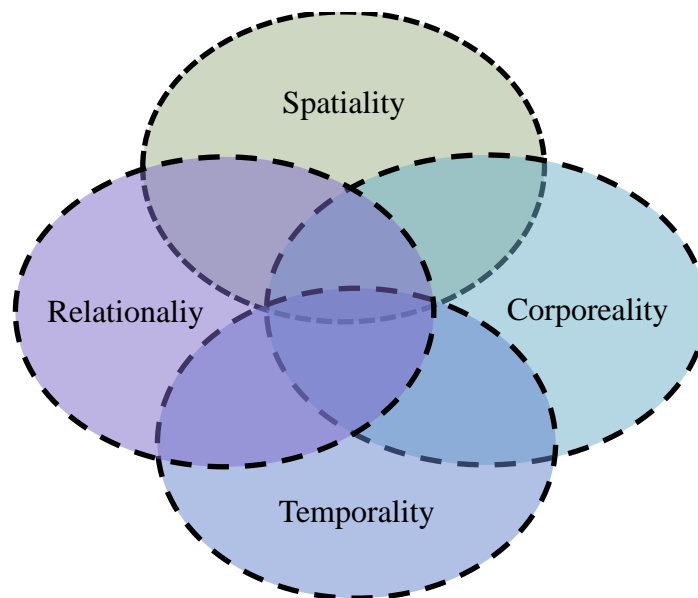


Figure 2. Four Existential Life World (Roberts, 2017, adapted from Max van Manen, 1990).

Based on Husserl's phenomenological thinking, Max van Manen (1990) further developed a methodology of four existential life worlds, which is denoted in *Figure 2*, to guide an individual's reflections on the phenomenon: lived space (*spatiality*), lived body (*corporeality*), lived time (*temporality*), and lived relations (*relationality*), which pervade the fundamental structure in the life-world of every individual's independent of history and culture.

Lived space (*spatiality*) is related to an individual's felt space, lived space, location, or environment. Lived body (*corporeality*) refers to our sense of the physical self, our actual body and bodily presence. Lived time (*temporality*) is subjective, and lived experience affects how time is perceived. Relationality is the lived relation we maintain with others in the interpersonal space that we share with them. *Figure 2* illustrates how each life-world works to connect the dots of an individual's life experiences, forming an intricate unity of perception that is their life-world. Lived experiences and the structures of meanings (themes) in terms of which these lived experiences can be described and interpreted, constitute the immense complexity of the life world (De Chesnay, 2015).

Hermeneutic phenomenology involves a detailed examination of research participants "life-worlds"; their experiences of a particular phenomenon, how they make sense of these experiences and the meanings they attach to them (VanScoy & Evenstad, 2015). Galileo (1564-1642) was an Italian astronomer, mathematician, physicist, philosopher and professor who made pioneering observations of nature. His perception was the surreptitious substitution of the mathematically substructure world of idealities

for only real world, the one that is actually given through perception, that is experienced and experiences are the everyday life world. From the beginning of the Kantian manner of posing questions, the everyday surrounding world of life is presupposed as existing in the surrounding world in which all of us consciously have our existence. In this world, people are objects among objects in the sense of the life world, namely, as being. On the other hand, people also are subjects for the world; namely, as ego subjects experiencing it, contemplating it, valuing it and relating to it purposefully. This surrounding world has only the relearning given to it by people experiences, thoughts, and valuations (Husserl, 1970).

Brentano believed all mental phenomenon are described as having reference to a content and direction toward an object. Intentionality denotes the essential relationship between conscious subjects and their objects. Consciousness is always conscious of something. An object is always an object for someone and cannot be adequately described apart from the subject, nor can the subject be adequately described apart from the object. Intentionality bespeaks the relationship between human beings and their world. Human beings are beings in the world and because of this, one cannot be described apart from their world, just as their world cannot be described apart from them (Crotty, 2013). According to Franz Brentano, the spatial nature of a point differs according to whether it serves as a limit in all or only in some directions. Thus, a point located inside a physical thing serves as a limit in all directions, while a point on a surface, edge or vertex serves as a limit only in some directions. Brentano's theory of our consciousness of time is a theory about the nature of our experience and the modes in which we apprehend things to make judgments about them.

The source of our concept of time, according to Brentano, is the intuitive experience he calls “*proteraesthesia*” or “original association”. This experience, he insists, is to be distinguished from sensation. But it is a phenomenon that accompanies every sensation; temporal differences within experiences are to be thought of, not as differences in the objects of which we are conscious, but as differences in the ways in which we are conscious of those objects (Smith, 1988). Husserl attempted to restore the reality of humans in their life worlds to capture the meaning of this, and revive philosophy with a new sense of humanism (Munhall, 2013). Husserl referred to life world as the only real world; one that is actually given through perception and the original ground of all theoretical and practical life.

Life worlds are both the totality and the horizon of all recognized and unrecognized reality. It has a bodily character and people lead a living existence in it; however, it is also one's own cultural accomplishment. Although each person has his or her own life world, it is meant as the world for all (Zelic, 2007), a realm of original self-evidence. That which is self-evident is, in perception, experienced either as "the thing itself," in immediate presence, or as memory, remembered as the thing itself. Every other manner of intuition, then, is a representation of the thing itself (Husserl, 1970).

Husserl argues that the life world is understood as what individuals experience pre-reflectively, without resorting to interpretations (Dowling, 2007). The world is a spatiotemporal one that belongs to its own *ontic* meaning as life world (Husserl, 1970). Maurice Merleau Ponty (1908-1961) has drawn on Husserl's ideas of the non-Cartesian "living body". The living body becomes a cultural object exercising the power of

expressive communication and meaning is derived from the social, cultural, and historical coverage of the life worlds (Zelic, 2007).

Ponty believed the body is the bedrock of consciousness, from which the separation of the mind and body has been created as a conceptual abstraction. Human experience comes as an inseparable whole that simultaneously includes thinking, feeling, and acting (Lock & Strong, 2010). Heidegger's work *Being in Time*, published in 1927 proposes that consciousness is not separate from the world of human existence, and he argues for an existential adjustment to Husserl's writing that interprets essential structures such as basic categories of human experience rather than as pure, cerebral consciousness (Dowling, 2007). Heidegger's analysis of human condition is that people are in and of the world, rather than subjects in a world of objects (Walters, 1995).

When conducting qualitative research, the researcher must be cognizant of the life-worlds of individuals, how they perceive time and the history they are living through, how their bodies give them access to experience, the relationships they have with others, and the world and the space in which they are located (Munhall, 2013). The thoughts, feelings, emotions, and questions are deeply embedded in the context of the participants life or life worlds (Munhall, 2013).

In this study, "lived time" refers to the past experiences and beliefs of African-American about infertility. "Lived space" refers to the home environments of African-American women with significant others and friends, as well as the medical office environment and interaction with the healthcare team. "Lived body" refers to the African woman who has not been able to conceive after 12 months of unprotected sex. "Lived

relationality” refers directly to individual experiences with the health care team, spouse, friends, and family.

Hermeneutic phenomenology using van Manen's approach is best suited to investigate the lived experience of African-American women experiencing infertility because its focus is on understanding experience of a phenomena from the participants perspective. Phenomenology has been embraced by many disciplines, such as nursing, human science, and psychology. This approach is best suited for this study because it explores the lived experience through life worlds of the participants which is relevant in the way they experience the phenomena. Max van Manen's method of exploring lived experience was developed from Heidegger's tradition, which is an interpretive, artistic approach, the foundations of which are writings and language. According to van Manen, writing is the method; writing fixes thoughts on paper and teaches what is known and the way in which it is known. Writing is a process of self-making and self-consciousness and affords the ability to know, feel, and understand the phenomena as it requires the dialectic of writing and rewriting to create depth of meaning (De Chesnay, 2015). Max van Manen describes phenomenology as the study of the individual's life world, as an experience rather than as conceptualized, categorized, or theorized. Max van Manen (1990) believed in order to do research is always to question the way we experience the world; to want to know the world in which we live as human beings. Knowing the world is profoundly to be in the world in a certain way, the act of researching– questioning– theorizing is the intentional act of attaching ourselves to the world, to become more fully part of it, or better, to become the world (van Manen, 1990).

Max van Manen's phenomenology allows the researcher to use experience common to the researcher and the participant to conduct a structural analysis of what is most common, most familiar and most self-evident to the researcher. Max van Manen methods used in interpretative research is aimed to capture participants experiences. His approach is that language reveals being (or existence) within some historical and cultural contexts. Language, such as the language of the interview, provides the means for data. The researcher moves in the hermeneutic circle between part of the text and the whole of the text, to establish truth by discovering phenomena and interpreting them. This circle is the process of understanding a text by reference to the individual parts along with the researcher's understanding of each individual part, by further reference to the whole document (Sloan & Bowe, 2014).

Conducting a hermeneutic phenomenological study is warranted in exploring the lived experience of African-American women and infertility in the United States. In regard to the interpretivist paradigm, the lived experiences of African-American women were examined to uncover the meaning the participants assign to their experiences with infertility, and to understand the essence of their experiences. Relevant to hermeneutic phenomenology inquiry the specific method designed by Max van Manen (1990), called the six research activities was used to drive the study. These research activities gave the researcher autonomy of seeking understanding and knowledge by turning to a phenomenon in which the researcher has had an interest. Conducting phenomenological research allowed the researcher to stand in the fullness of life, and in the midst of the world of living relations and shared situations.

Phenomenology permitted this researcher to explore the categories of the lived experience in all its modalities and aspects (van Manen, 1990). This empowered the researcher to conduct the research in a way to produce the greatest exposure of the lived experiences among the participants. Reflecting on essential themes or emerging themes in this study paved the way for the researcher to analyze the data. A true reflection on the lived experience is a thoughtful, reflective grasping of what it is that renders this or that particular experience its significance. Phenomenological research consists of reflectively bringing into nearness that tends to be obscured or evade the intelligibility of people natural attitude of everyday life (van Manen, 1990).

The art of writing and rewriting showed the meaning of the conversations, inquiry, and questions about the participants experience with infertility be seen. Conducting this phenomenological inquiry also allowed the researcher to maintain a strong and oriented relation to avoid the temptations of being side-tracked, wandering aimlessly, indulging in unclear speculations, settling for preconceived opinions, becoming captivated with self-absorbed reflections or self-indulgent preoccupations, or to rely on taxonomic concepts. To establish a strong relationship with the phenomena the researcher took on an attitude of scientific disinterestedness.

To be oriented to an object means the researcher is animated by the object in a full and human sense. To be strong on the orientation means the researcher does not settle for superficialities or falsities (van Manen, 1990). The researcher must balance the research context by considering parts and whole by constantly measuring the overall design of the study against the significance that the parts will play in the total textural structure. The

researcher should often step back to look at the total, the contextual givens, and how each part contributes toward the total (van Manen, 1990).

These indicators in identifying the essence and meaning among African-American women who are experiencing infertility were employed by this researcher. Each of van Manen's six research activities illustrated in *Figure 3* contributed to the credible and rigorous research between the design and the study outcome. This methodology proved to be the best approach in exploring the lived experience of African-American women and infertility in finding out what meaning they attach to this phenomena.

Significance of the Study

Through an in-depth exploration of the experiences of infertility among African-American woman, an awareness was created of the struggles women deal with as a result of not being able to have a child. It has been well documented in the literature that there are psychosocial and psychological consequences such as reduced self-esteem, feelings of failure, loneliness, depression, hopelessness, grief, and anxiety are associated with infertility (Behboodi-Moghadam et al., 2013; Hasanpoor-Azghy et al., 2014; Lopes & Leal, 2014). This study has the potential to aid healthcare workers to reassure other African-American women who are experiencing infertility that they are not alone and hopefully encourage a dialogue among African-American women, instead of internalizing their experiences and feelings. It is hoped that they would come to feel less stigmatized and encourage them to seek infertility care. This study on the lived experience of African-American women is expected to encourage the advance of science in this philosophy and method, such that other disciplines may better understand this phenomenon.

Significance to Nursing

The phenomenon of interest in this study is the lived experience of African-American women and infertility. Research on the distinctive meaning and in-depth understanding of this complex phenomenon is inadequate, and addressing the gap in knowledge is important in making the African-American women's experiences with infertility less stressful. Health care providers who care for these women must be informed and have the ability to identify those women who are at greater risk for facing distress throughout their journey with infertility in order to reduce the stress they encounter (Lindsey & Driskill, 2013). Infertility help-seeking is likely influenced by cultural issues, perceived alternative treatments, and social solutions. Knowledge of the nature of these influences is critical to sufficiently provide guidance to nursing professionals (Sherrod & Houser, 2013). This research study may empower nurses with more understanding to the experiences of infertility from an African-American cultural viewpoint, in order to provide culturally competent care.

Implications for Education

Nurses may be able to use the results from this study to develop sensitive, anticipatory guidance for African-American women seeking infertility treatment by making the health care environment more inviting. This study may also be significant in educating nursing students by providing a context in the curriculum about this population experiencing this phenomenon.

Implications for Nursing Practice

A nurse who understands the perspective of an African-American women related to infertility may help those women manage the infertility process in a healthy manner according to their culture (Karaca & Unsal, 2015). This research study may empower nurses with more understanding of the feelings and experiences of infertility African-American women internalize about their experience when working with the infertility nurse. This study has the potential to inform nurses who may be faced with the challenge of providing effective clinical intervention and counseling to African-American women experiencing infertility. In relation to infertility nursing, research has explored the changing role of the fertility nurse in the face of technological advances in this field. The infertility nurse has a unique role in contributing to a more connected and positive experience for women undergoing infertility treatment.

Implications for Nursing Research

Nurses use evidence-based or research-based practice in caring for patients. The evidence from this research may improve outcomes for infertile African-American women. This research may provide directions of key factors in developing clinical nursing interventions based on cultural care among African-American women seeking infertility care. Generating evidence among that population is required in identifying what cultural factors are important and provide evidence for practice. Nurses caring for infertile African-American women need an understanding of their experiences of infertility and seeking care are in a social and cultural context, rather than assuming what the infertile African-American woman's needs are. The understanding of the African-American woman's lived experience with infertility may contribute to the growing body

of knowledge that will inform the ongoing development of cultural patient-centered infertility care. Nurses have the responsibility to be an advocate for their patients.

Implications for Health/Public Policy

Infertility is a global problem. Infertility creates difficulties such as stigmatization, negative psychological effects, emotional effects, and financial burdens for women who want children. Women make up the majority of workers that claim to be affected by discrimination in the workplace due to infertility. In recent decades, women with fertility problems have fought with insurance companies and employers regarding coverage for fertility treatments (Sternke & Abrahamson, 2015). This research study may give voice to a group of women who are not heard and are invisible in the research literature. Policy makers may also use this research to create a policy mandating insurance companies to pay for assisted reproductive treatments by recognizing that infertility is in fact a disease and provide medical coverage Globally. This study may encourage government policies that will adequately address the problems with accessing infertility care.

Scope and Limitations of the Study

Hermeneutic phenomenology provides a clear approach to using qualitative inquiry to interpret lived experiences. van Manen's approach is the ideal method of inquiry for novice researchers when they want to understand the essence and meaning of a phenomenon. The scope of this study used a purposive and snowballing sample, which consisted of 16 African-American women experiencing infertility. Participants were encouraged on a voluntary basis to share their experiences with the researcher. The aim of this research study was to focus scholarly attention and give voice to an excluded and

marginalized group of African-American women who have been left out of existing literature regarding the experiences of infertility. This study relied on the experiences of the participants and not the researcher, which is consistent with phenomenology research. The potential limitation was that the study participants may say what they believe the interviewer wants to hear. The participants may also have not been completely truthful or may not have divulged in their experiences out of embarrassment. Also, because the study was led by a novice hermeneutic phenomenological researcher, inexperience may have created certain limitations. Finally, the participants may not have been willing to complete the interview process or commit the necessary time to complete the interview.

Chapter Summary

This chapter provided an introduction to the study, and a full background which included the definition, prevalence, causes, diagnostics and, consequences of infertility among African-American women. Other considerations, such as culture and infertility, disparities and infertility, and the use of advanced reproductive therapy were discussed. This chapter also included the problem, purpose, research question, philosophical underpinnings, significance of the study, significance to nursing, and implications for nursing education, practice, research, health/public policy, and scope and limitations. This study is designed to explore the lived experience of African-American women and infertility. The background presented the concept that infertility can manifest as a life crisis and African-American women experiencing infertility may have cultural factors that influence help-seeking for infertility problems. Infertility nurses must have an understanding of what it is like for African-American women who are experiencing infertility in order to provide culturally-competent care and make the process of

experiencing infertility less stressful. Hermeneutics and phenomenological/ philosophical underpinnings provide transparency to the experiences of infertile African-American women. Chapter Two follows with a review of recent literature.

CHAPTER TWO

Review of the Literature

The purpose of this hermeneutic phenomenological study is to gain a deeper understanding of the lived experience of African-American women who are infertile. A literature review is included in a qualitative research to frame the problem explicated in a study and provide establishment of the importance of the study (Creswell, 2009). Synthesis of the literature enables a reflection of existing material related to the topic being studied. In addition, the literature review places the topic of inquiry in context. By reviewing existing literature, the researcher has become aware of what has already been studied and identifies the gaps in the literature that need to be explored. A search of relevant literature across disciplines was conducted to explore the phenomenon of infertility among women.

This literature review was performed using EBSCO host and ProQuest direct engine search as well as Cumulative Index to Nursing and Allied Health Literature (CINAHL). Other resources used were books, professional journals, and internet resources. Key words and phrases used in the search included: *infertility, African-American, women, qualitative, lived experience, and phenomenology*. Citations were limited by language to English and by subjects to explore the concepts. A limitation was imposed to find literature published since 2012, with classics sought by reviewing citations in the published works. The search was limited to research published within the past five years on psychology and infertility, psychosocial and infertility, and barriers and infertility. A random selection process delimited the profusion of theoretical references that were found. Additionally, 15 studies were reviewed in which the experience of

infertility was explored. The literature review is divided by specific content areas including; historical context, psychology and infertility, psychosocial and infertility, and barriers and infertility. Synthesis of the literature reveals what is known and unknown about this phenomenon of interest and provides a rationale for the proposed study. Finally, the experiential context is discussed.

Historical Context

Infertility has been a major medical and social preoccupation since the dawn of human existence and women have always been the symbol of fertility. History has shown infertility has been a traumatic issue affecting many couples. In the Book of Genesis, Jacob became angry with his wife Rachel because they were not able to conceive a child. Rachael endured infertility and she was envious of her sister because she was unable to have children. In Egyptian society, women were equal to men, and difficulty with conception was not considered as a punishment; rather it was viewed as an illness that had to be diagnosed and treated. As far back as 1900 BC, there are recorded documents discussing the treatment of gynecologic disorders (Arizona Center for Infertility Studies, (2015).

In 1898, fertilization was described as the union of a egg and a sperm. Conrad and Schneider (1980) used the term “medicalization” to denote the process by which certain behavior came to be understood as a question of health and illness, subject to the authority of medical institutions. Infertility among other undesirable conditions increasingly became a phenomenon; therefore, the medicalization of infertility began with the development of fertility drugs in the United States in the 1950s, and has proceeded even more rapidly since the development of assisted reproductive technologies

as in-vitro fertilization and intra-cytoplasmic sperm injection (Greil, Blevins, & McQuillan, 2010). In the seventeenth century, very few colonists in the Americas considered seeking infertility medical advice, because being infertile was viewed as defiance of the will of the Lord. By the late nineteenth century, physicians began to perform surgery to restore fertility and one prominent surgeon devised a procedure ovarian transplant, which involved transferring portions the ovaries from a fertile woman into a woman who may have lost her ovaries to disease (Marsh & Ronner, 1996). The ability to fertilize human ova outside the human body, was first reported in 1944, when Harvard physician John Rock and his assistant Miriam Menkin announced they had fertilized four human eggs in-vitro. The nineteenth and twentieth century were marked by tremendous advances in the diagnosis and treatment of infertility. Approximately 1.5 million couples a year were experiencing infertility and more than a million couples per year were undergoing infertility treatment (Marsh & Ronner, 1996).

In 1978, the first test tube baby Louise Brown was born in England, and in 1981 her in-vitro sister was born. The first in-vitro baby born in the United States arrived in 1981, as engineered by fertility specialists at Eastern Virginia Medical School in Norfolk, Virginia. Despite the progress being made during these times, infertility was still almost completely synonymous with the female, and it was rare that the husband was considered as a cause. Even during this age of proclaimed enlightenment, a real ambiguity of gender and infertility persisted. Women became the source of continual interest, but were considered weak and sensitive and unfit to have anything to do with public and professional life. As a result, these women were made to stay indoors, and lead a dependent and subjugated life. The woman automatically was at fault when a couple was

infertile (Arizona Center for Infertility Studies, 2015). Conceiving a child is a major milestone in the lives of some women and has a long association of women's fundamental role in the society with childbearing (Wah Wong, Jia, TAN, Siew, & Jiaqi, 2012). Being a mother is something most women assume will happen naturally for them. Throughout history, it has been expected that women will reproduce. Infertility is a disabling condition that brings forth issues of stigma in terms of feeling non-normalcy and discredited social status surrounding the childless state (Sternke & Abrahamson, 2015).

Infertility treatment has advanced a great deal as far as the many different dimensions over the course of patient treatment, such as hormonal treatment to produce eggs, retrieval of eggs and sperm, varied fertilization techniques, such as in-vitro fertilization (IVF), intracytoplasmic sperm injection (ICSI) and intracytoplasmic morphologically selected sperm injection (IMSI), use of one's own or donor eggs, fresh versus frozen embryos, number of embryos to transfer, and preimplantation genetic diagnosis (PGD) with a variation depending on the country (Audibert & Glass, 2015). Infertility is seen as a condition that affects both an individual and a couple. Defining infertility involves an interaction between the individual, the couple, medical professionals, and the community. In sum, infertility can be conceptualized as a socially-constructed state whereby individuals define their inability to successfully conceive and carry to term a problem and desire to create an appropriate plan to correct it (Greil et al., 2010).

Psychology & Infertility

A growing body of literature, both internationally and in the United States, has given insight of the psychological consequences among infertile women over the past

years. Several studies have confirmed and elaborated on earlier characterizations of infertile individuals (Becker 2000; Clarke et al. 2006; Earle and Letherby 2007; Johansson and Berg 2005; & Redshaw et al., 2007). Several of these characterizations of infertile women or couples have emerged from qualitative research. Williams (1997) extracted 11 themes from interviews with infertile women: negative identity; a sense of worthlessness and inadequacy; a feeling of lack of personal control; anger and resentment; grief and depression; anxiety and stress; lower life satisfaction; envy of other mothers; loss of the dream of co-creating; the ‘emotional roller coaster’; and a sense of isolation.

Behboodi-Moghadam, Salsali, Eftekhar- Ardabili, Vaismordi, and Ramezanzadehin (2013), conducted a qualitative phenomenological study in Tehran, Iran on the experiences of infertility through the lens of Iranian infertile women. To capture the complexities of the psychological and social phenomena, a qualitative design was used. The approach used to guide the inquiry was not mentioned. 10 women seeking infertility treatment at a referral center in Tehran, Iran, who met the sample criteria participated in the study. Semi-structured interviews were carried over 45-90 minutes on an average to gather the information. Each interview had a specific focus on the women’s experiences of infertility, and the meaning of infertility from their perspective. Data was coded, and themes were identified and conceptualized.

Findings consisted of four main themes, including abuse, marital instability, social isolation, and loss of self-esteem. The findings of this study were in some areas similar to previous ones, revealing that physical and psychological violence were exerted on participants because of their infertility. The findings also indicated that infertile

women do not like to participate in parties and social gatherings because of fear that their relatives might ask about their infertility (Behboodi-Moghadam, Salsali, Eftekhar-Ardabiliy, Vaismoradi, & Ramezanzadeh, 2013, p. 43).

Ceballo, Graham, and Hart (2015) conducted a qualitative phenomenological study in the US Midwest on the experiences of socioeconomically-diverse African-American women with infertility. The study explored the following research questions: (a) How does the experience of infertility affect African-American women's sense of gender identity? (b) How does the experience of infertility influence African-American women's relationships with friends, spouses, and family members? And (c) How are interactions between medical professionals and infertile African-American women influenced by gender, race, and social class?

The Strauss & Corbin approach (1998) was used to guide the inquiry. Fifty African-American women were included in the study, with 36 being married, 7 being single, and 7 being separated or divorced from a diverse range of educational backgrounds, incomes, and occupations meeting the sample criteria. The interviews were recorded using a semi-structured open-ended format lasting two hours. Each interview had a specific focus on how infertility influences African-American women's gender, identity and relationships with friends, family members, and medical professionals. Data was coded and themes were identified and conceptualized.

Findings consisted of three main themes emerged which included silence/isolation, mother mandate, and stereotypes/discrimination in the medical setting. The study found that experiencing infertility significantly impaired sense of self and gender identity. First, the imperative to be an African-American mother was influenced

by an interplay of gender, racial, and religious mandates. Second, the women's relationships with friends and family members were characterized by silence and isolation arising from shame generated by stereotypes of African-American women's sexuality. Third, interactions with medical professions were influenced by the women's multiple social identities, with no single identity conferring an advantage in medical settings (Ceballo, Graham, & Hart, 2015, p. 502).

Hasanpoor-Azghy, Simbar, and Vedadhir (2014) conducted a qualitative phenomenological study at a fertility research center in Tehran, Iran to find out the emotional/psychological consequences of infertility among women seeking treatment. The approach used to guide the inquiry was not mentioned. A purposeful sampling of 25 women affected by primary and secondary infertility with no surviving children in 2012 participated in the study. Two to three individualized interviews were conducted from January to October, 2012. Each interview focused on the experiences of Iranian infertile women seeking treatment from psychological/emotional consequences of infertility. Data was coded, and themes and sub-themes were identified and conceptualized.

Findings consisted of four main themes that consequently emerged: (1) cognitive reactions of infertility, which included mental engagement and psychological turmoil; (2) cognitive reactions to the therapy process included the sub-categories as psychological turmoil by being difficult to control in some situations along with reduced self-esteem and feelings of failure; (3) Emotional-affective reactions of infertility consisted of the sub-categories of fear, anxiety, worry, loneliness, guilt, grief, depression, and regret; (4) Emotional-affective reactions to the therapy process included fear, anxiety, worry, fatigue, helplessness, grief, depression, hopelessness, and fear of taking a pregnancy test,

and fear of telling the husband the negative result. The study outcome was that Iranian infertile women seeking treatment face several psychological-emotional problems with devastating effects on the mental health and well-being of the infertile individuals and couples, while infertility is often treated as biomedical issue in Iranian context with less attention on the mental-emotional, social and cultural aspects (Hasanpoor-Azghdy et al., 2014, p. 133-135).

Obeidat, Hamlan, & Callister (2014) conducted a descriptive qualitative study to explore Jordanian Muslim women's lived experience of infertility. Colaizzi's method of analysis and interpretation was utilized to identify the significant statements, major and sub-themes. Thirty Muslim women experiencing infertility who met the sample criteria participated in the study. Individualized meetings were conducted in the home of the participants. Each interview focused on the experiences of not having children. Data was coded and themes identified and conceptualized.

Findings revealed major themes that reflected the Biopsychosocial Theory Assumption. The overriding theme was missing motherhood and living with infertility. Others included experiencing marital stressors, feeling social pressure, experiencing depression and disappointment, feeling treatment-associated difficulties, appreciating support from family and friends, and fearing an unknown future (Obeidat, Hamlan, & Callister, 2014, p. 3-5)

Cipoletta & Faccio (2013) conducted phenomenological qualitative study in Northern Italy to explore the experiences of Italian couples undergoing medically-assisted reproductive procedures. The approach guiding the study was not mentioned. Sixteen participants who met the sample criteria of being treated with advance

reproductive treatments participated in the study; nine women and seven men. The semi-structured interviews lasted between 40 and 55 minutes. Each interview had a specific focus on time-related experiences to advance reproductive treatments. Data was coded, and themes were identified and conceptualized.

Findings consisted of four main themes which included; present moment, waiting, hope and death. Participants referred to present moment in its immediacy. Waiting sub-themes were the continuity of waiting for a child in contrast with the fragmentation of the medical treatments, uncontrollability, isolation, and resentment. The subthemes of death included the impact of the past, fatal illness and the interruption of the continuity of life. Present time was referred to as an interruption of the flow of time, age and the biological border of one's own possibilities, the perception of being ready, and the present body. During the perceived prolonged wait-time, most of the study participants avoided the suffering that might have arisen from the feelings that accompany waiting by excluding threatening parts of themselves and closing the doors to the external world. Isolation was the result. Hope assumed the ambivalent meaning of a departing point for the realization of the wish for a child, or an illusory attempt to control the future through one's convictions. Past became present in the participants' experiences, because previous experiences of the death of loved ones were recalled by the sufferance of the present condition of infertility (Cipolletta & Faccio, 2013, p. 289- 293).

Studies reviewed in this section consistently indicate that women seeking infertility treatment face several psychological and emotional problems with devastating effects on the mental health and well-being of the infertile individuals and couples (Hasanpoor, Simbar, & Vedadhir, 2014). The studies highlighted the tendency for

infertile women to feel a sense of inadequacy and failure. Infertility has a strong effect on a woman's sense of self and gender identity (Ceballo et al., 2015). The medicalization of infertility may lead to a disregard of these feelings associated with infertility to produce depression, anger, anxiety, emotional distress, loss of control, shame, stigmatization, and feelings of isolation (Obeidat, Hamlan., & Callister, 2014).

Studies in this literature review indicated there is a gap in knowledge and improving the knowledge of healthcare professionals, especially among nurses concerning the complications of infertility and its related cultural-contextual factors. However, an understanding of these very factors is crucial in order to provide high-quality care to infertile women (Behboodi-Moghadam et al., 2013). Embracing the debilitating feelings that infertile couples experience may strengthen health professionals' approaches and contribute to building a more satisfying relationship, which in turn, should help couples and health professionals better navigate the difficult journey of assisted reproduction (Cipolletta & Faccio, 2013).

This study on the lived experiences of African-American women and infertility is geared toward filling the gap on how the identity of an infertile African-American woman affects her sense of well-being, as well as address the lived experience of African-American women who are successful or unsuccessful with advance reproductive treatments, and what type of support is needed during the process. Providing an understanding about these adversities will allow for more culturally-competent nursing care and add to the body of nursing knowledge as a science.

Psychosocial Aspect of Infertility

The psychosocial aspect of infertility is important in treating infertility, but there also has to be an in-depth focus of the psychosocial issues associated with infertility. Infertility affects all aspects of a person's life; the way a woman feels about herself, relationships with others, and life perspectives. Infertility is a global problem that impacts the social well-being of an individual, and is not only relative to the woman experiencing infertility, but also involves the spouse, extended family, and friends, making it a social problem as well. Therefore, it is important to attend to the psychological well-being of the woman throughout the course of dealing with infertility, to successfully improve quality of life, marital adjustment and helpful coping strategies (Priyanka & Reddy, 2013).

Lopes and Leal (2014) conducted a cross-sectional study on personality and emotional adjustment in infertility in the Lisbon district of Portugal. The research question for this study was: What is the interaction between stress in infertility and the corresponding rate of adjustment? The convenience sample consisted of 70 participants attending infertility consultations, in a public health service in the Lisbon district. The demographics were caucasian and Euro Portuguese couples, 35 women (median age 31.77 years, standard deviation (SD) = 3.15) and 35 men (median age 33.60 years, SD= 6.22).

The data was collected after participants completed five forms, which included a socio-demographic questionnaire designed for the study to characterize participants by age, education, nationality, ethnicity and offspring and access to clinical information; four self-reported instruments: (1) the Neo Personality Inventory short Form, which

assesses five personality factors or dimensions: neuroticism, extroversion, openness to experience, amiability and awareness, (2) the Depression, Anxiety, and Stress Scale - Short Form, (3) the Fertility Problem Inventory, which is based on the psychological model of perceived stress and was designed to assess multiple domains of infertility. The Portuguese version of this inventory has 46 items subdivided into five dimensions: social, sexual and relation aspects, parental needs and rejection of life without children, and (4) the Fertility Adjustment Scale, which measures the adjustment to fertility considering the possibility of a life with or without children through cognitive, emotional and behavioral responses in women with fertility problems.

The variables association was studied using Pearson's or Spearman's correlations, Tukey's one-way variance and Post Hoc to identify groups mean differences, and multiple linear regression to model variable associations. Findings indicated personality traits of women and men were similar. Women presented one significantly higher mean score: neuroticism ($t[66] = 2.3$ where t represents student's t test; $p = 0.023$). Women also presented higher levels when anxiety, depression and stress were evaluated, although these differences were only statistical significant regarding stress ($t[66] = 2.2$; $p = 0.034$). Women also presented higher levels of stress in infertility, particularly concerning social aspects ($t[62] = 2.3$; $p = 0.024$, parenthood needs) $t[60] = 2.5$; $p = 0.015$) and sexual aspects ($t[64] = 2.0$; $p = 0.051$). Women and men presented a moderate adjustment to fertility with no significant differences between them ($t[58] = 1.67$; $p = 0.10$) (Lopes and Leal, 2014, p. 164-156).

Karaca & Unsal (2015) conducted a descriptive phenomenological study in Turkey to determine the factors affecting the psychosocial problems of infertile Turkish

women and identify their coping strategies. The approach used to guide the inquiry was not mentioned. A criterion sample of 118 women who visited the gynecology polyclinic of the university hospital and met the sample criteria participated in the study. Two interviews were conducted from February to September 2010. In the first stage, 118 women diagnosed with primary infertility completed a personal information form and the Fertility Problem Inventory (FPI). In the second stage, in-depth interviews (lasting 45- 90 minutes) were conducted with 24 (age 20 to 41 years) infertile women randomly-selected from the groups formed, according to their FPI global stress levels determined in Stage 1.

The quantitative data was analyzed using the SPSS for Windows 16.0 software (SPSS Inc., Chicago, IL, USA). Cronbach was calculated to assess reliability. The data from the personal information form and FPI was presented as numbers and percentages. Content analysis was used to examine the qualitative data. The focus of the interviews was on identifying themes and patterns related to the feelings and behaviors of the participants using a content analysis. Qualitative data was coded, and themes were identified and conceptualized.

Findings consisted of nine themes representing the psychosocial problems and coping strategies of infertile Turkish women. These included meaning attributed to being childless; negative self-concept; perceived social pressure; perceived social support; psychological symptoms; social withdrawal and isolation; spiritual coping, cherishing hope/restructuring life and adopting traditional methods. The study found that infertile women encountered psychosocial problems due to the inability to have children. Social pressures and stigmas were frequent problems that these women encountered. They also

felt excessive responsibility toward society and their spouses, and deemed being unable to have a child as a burden (Karaca & Unsal, 2015, p. 245).

Steuber & High (2015) conducted a cross-sectional study to investigate the strategies women used to disclose infertility-related information with social network members, their perceptions of support from friends and family, and their quality of life both in general (overall quality of life) and related to the experience of infertility (fertility quality of life) in the United States. The research question was: Do the strategies women use to disclose information about their infertility to social network members impact the quality of the support they receive and their quality of life?

A convenient sample of 301 American women coping with infertility was collected from an electronic mailing list from a large mid-western university in the United States and its associated hospital, as well as an online survey company that maintains a nationally-represented pool of research participants. The demographics of the participants were not provided. The participants completed an online survey using a 7-point (1 = strongly disagree, 7 = strongly agree). Likert-type scales to answer questions about how they disclosed information about their infertility, modified from the Afifi and Steuber Form were used with three items to representing directness, to capture face-to-face personal disclosures of infertility-related information. Participants also answered five items to indicate their perceptions of the support quality they receive from their family and friends. The items displayed acceptable reliability and were combined to form a composite variable, in which higher scores indicated greater support quality ($\alpha = 0.88$)

All analyses assumed one tailed tests and were conducted using *MEDIATE*, a macro for SPSS. The study found that women who disclosed infertility-related

information in direct ways, (rather than in indirect ways by incremental disclosures or through third parties) to social network members perceived a higher quality support and reported greater quality of life related to their infertility experience. Direct disclosure of experiences related to infertility was positively and significantly associated with the perceived quality of social support received (P, 0.01).

Strategies of disclosure that used entrapment or indirect media were negatively-associated with fertility quality of life (P, 0.001). Direct (P, 0.01) and incremental disclosures (P, 0.01) were positively-associated with overall quality of life, while the use of humor was negatively-associated with overall quality of life (P, 0.01). Perceived support quality also mediated the influence of direct disclosures on women's fertility quality of life (95% CI: 0.18, 1.05) and overall quality of life (95% CI: 0.10, 0.30). This effect is particularly noteworthy for the model predicting fertility quality of life, which exhibited a non-significant main effect with direct disclosures. The non-significant main effect combined with the significant indirect effect suggests that perceived support quality fully-mediates the association between direct disclosures and fertility quality of life (Steuber & High, 2015, p. 1637-1638).

Kenarsari, Ghahiri, Habibi, & Boroujeni (2015) conducted a qualitative study in Iran to identify infertile couple's needs, and engaged in the development and validation of a tool for measuring couple's needs. The Graneheim and Lundman Approach was employed for analysis of the collected data. Seventeen couples who met the sample criteria and were experiencing infertility participated in the study. The sample was collected through an electronic mailing list from a large mid-western university in the United States and its associated hospitals, and through an online survey company that

maintains a nationally-representative pool of research participants. All participants were interviewed in one to two sessions lasting approximately 20-60 minutes. Each interview focused on the experiences and concerns encountered with infertility. Data was analyzed using conventional content analysis and then coded so that themes could be identified and conceptualized.

Findings consisted four main categories of infertile couples' needs, including: (i.) infertility and social support, (ii.) infertility and financial support, (iii.) infertility and spiritual support and (iv.) infertility and information support. Assistance and support constituted the two main themes of all the categories. The study also showed that in addition to treatment and medical needs, infertile couples encounter various challenges in different emotional, psychosocial, communicative, cognitive, spiritual, and economic aspects that can affect various areas of their life and lead to new concerns, problems, and demands (Kenarsari, Ghahiri, Habibi, & Boroujeni, 2015, p. 84-89).

Gourounti, Lykeridou, & Vaslamatzis (2012) conducted a cross-sectional study to examine a) the association between marital satisfaction and distress, b) the association between communication with partner and distress, and finally c) the association between communication with other people and distress. The research question was not provided, but the researchers hypothesized that women with high marital satisfaction and good communication with partner and other people would experience lower levels of distress.

While the type of sample was not provided, the participants were 404 women undergoing infertility treatment in a public clinic of Athens Greece. (Greece? Complete the sentence). The demographics were similar across all ages: the mean age of participants was 36.9 years (SD = 4.1 and range = 25-47) and the majority proved to have

had medium level of education; to be working for a living and had no children. In detail, 38% percent of the women had tertiary education (high educational level), 48% of the women had secondary education (medium level) and 14% of the women had primary education (low level).

Besides this, most of the women (72%) were working and 28% of women were housewives. The mean duration of infertility was reported to be 2 years (SD 0.9 years) and the majority of the participants had had previous experiences with infertility treatment, with 2.4 to be the mean number of previous treatments. Most women (86%) reported having no children and only 14% of women had at least one child. Diagnosis of infertility was recorded into female infertility, male infertility, mixed infertility (both female and male infertility) and idiopathic infertility (unknown etiology). Participants categorized the cause of their infertility as follows: female etiology (n = 102), male etiology (n = 150), combined female and male etiology (n = 90) and unknown etiology (n = 62).

The participants completed three self-administered questionnaires. The State-Trait Anxiety Inventory Questionnaire (STAI) by Spielberger and the Centre for Epidemiologic Studies-Depression Scale by Radloff were employed to assess psychological distress. The COMPI questionnaire 18 was used to assess the satisfaction from the marital relationship and the extent of communication with the partner and other people. The STAI questionnaire was used in order to measure anxiety in women undergoing fertility treatment to assess both state and trait anxiety. Reliability of the subscales of COMPI questionnaires was assessed by Cronbach's *alpha*. In this study the *alpha* coefficient was 0.72 for the marital stress subscale; 0.92 for the marital benefit

subscale and 0.93 for the subscale of the infertility-related communication with people. Data on the reliability and validity of the STAI and CES-D was not provided in the study.

Descriptive and inferential statistics were compiled by using the SPSS Version 17.0. to calculate frequencies, means and standard deviations for each variable. Differences between women with high and low levels of communication with their partner were examined by using independent sample t-tests for continuous variables (e.g. state anxiety, depression, marital stress). Pearson Correlation Coefficients were used to determine the associations between the continuous variables. *Chi*-square analysis was used for categorical data. Analysis of variance (ANOVA) was carried out in comparing multiple groups of data. The level of statistical significance was set up at 0.05. Findings indicated that communication regarding infertility with other people is not a protective factor of anxiety and depression. The mean score of participants' states of anxiety was 44.5 (SD 9.5) and the trait anxiety was 41.8 (SD 7.1). Both were found to be much higher than the normative scores of state and trait anxiety which are 35.2 and 34.8, respectively.

Taking into consideration the ranges for low and high levels in subscales of marital stress and marital benefit 23, the findings of this study showed low levels of experienced marital stress (range 0-14, mean 3.1, SD=3.0) and high levels of marital benefit (range= 0-8, mean 6.3, SD= 2.0) Furthermore, the majority of participants (84%) had a CES-D score of less than 23, which was indicative of non-depressive symptoms. The mean CES-D score was 13 (SD=9), while the mean score of participants' communication regarding infertility with people (range 3-18) was 9.4 (SD= 4.2). In addition, 83% of women did not find it difficult to communicate with their partner regarding infertility. Correlations among marital stress, marital benefit, communication

and stress measures were explored. Marital stress scores were positively and statistically associated with state anxiety, trait anxiety and depression.

Marital benefit was negatively and statistically associated with state anxiety, trait anxiety and depression. Communication with partner was negatively and statistically associated with state anxiety, trait anxiety, depression and marital stress. Communication with people was not statistically-associated with anxiety, with depression, with marital stress, or with marital benefit. Communication with partner was positively and statistically associated with marital benefit ($t= 2.606$, $p=0.010$) and positively and statistically associated with marital stress ($t=-4.541$, $p<0.001$) (Gourounti, Lykeridou, & Vaslamatzis, 2012, p. 75-76).

This section of the literature review revealed that social aspects and need to be a parent express unacceptance of infertility (Lopes & Leal, 2014). Infertile women encounter psychological problems due to inability to have children; therefore, it is necessary to define women's changing emotional needs to empower them with healthy coping skills, and make the individual and group action plans toward crisis management at every stage of the treatment in infertility clinics (Karaca & Unsal, 2015).

When women make the decision to reveal information about their infertility, direct disclosure (i.e. face-to-face, clearly, verbally and with the opportunity for an immediate response) was the only strategy that significantly corresponded with perceived support quality and was one of only two strategies positively-associated with quality of life. To the extent that social support reduces stress, and lower stress increases the chance that people will seek and stay in treatment, infertility clinics and therapists can use this information as a low-cost strategy for supporting infertile women. Scholars and

practitioners can also instruct women coping with infertility about how to most effectively engage in seeking support (Steuber & High, 2015).

Support from family, acquaintances and society is an important need that has been expressed by infertile women. Positive social interactions and socio-emotional support have valuable effect on a woman psychosomatic health, ultimately leading to a decrease in negative impacts of stress (Kenarsari, Ghahiri, Habibi, & Boroujeni, 2015).

Communication regarding infertility with other people does not reduce anxiety and depression in infertile women and could be attributed to the fact that infertility is not discussed with others in the family or social network (Gourounti, Lykeridou, & Vaslamatzis, 2012). This current study has the potential to provide a deeper understanding of the social support of African-American women who have, or are currently experiencing infertility and how they make meaning of who they are as women.

Challenges and Infertility

Most infertility clinics in the United States provide flexible treatment with different options for couples seeking treatment. These options range from in-vitro fertilization, intrauterine insemination, surrogacy, and donor embryo. However, such flexibility also has financial constraints. In the United States, economic, racial, ethnic, geographic, and other disparities exist in access to infertility treatments and in its treatment outcomes. However, economic factors are the leading contributors to disparities in access to effective treatment, with social and cultural factors play a role as well. It is the responsibility of all assisted reproductive technology stakeholders, physicians, nurses, policy makers, and insurance providers, to address and reduce barriers to infertility care (American Society for Reproductive Medicine, 2015).

Mosalanejad, Parandavar, & Abdollahifard (2014) conducted an integrated study on factors influencing discontinuation of infertility treatment. A purposive sample of 32 women who had been recommended for reproductive-assistive treatment at Jahrom University of Medical Science and met the sample criteria participated in the study. The Collaizzi Seven-Stage Method was used for analyzing the qualitative data. In the quantitative part, a researcher-made questionnaire with 22 questions was used in a Likert 5-point scale (very much-very little) on 100 women referred to the infertility center. Its validity was confirmed by 10 specialists in the field of obstetrics and gynecology and its reliability was calculated using Cronbach's *alpha* for surveying the internal consistency of the questions on a group of 30 persons using pilot study. The response rate was 83%. The barriers of infertility were extensively surveyed by a quantitative research study, which was carried out on 100 people who had received assisted reproductive treatments. In the qualitative parts (as a phenomenology study), subjects were included in the study by a purposive sampling method from 32 women to whom assisted reproductive treatment had been recommended. Semi-structured interviews were carried out. For the qualitative part, data was coded and themes identified and conceptualized.

The results showed that the major barriers to infertility treatment included the probability of treatment failure; couples' age and possibility of high risk pregnancy; and pain during treatment. The three main themes that emerged were nature of treatments, negative thinking, and social and cultural factors. The results showed the high-cost of treatment is one of the most important barriers to infertility treatment for all participants (Mosalanejad Parandavar, Gholami, & Abdollahifard, 2014). Other major barriers to infertility treatments included the probability of treatment failure (52.5%), the couple's

age and possibility of high risk pregnancy (51.5%), and the painfulness of some treatment methods, such as laparoscopy (50.5%) (Mosalanejad, Parandavar, & Abdollahifard, 2014, p. 183-184).

Domar, Gordon, Garcia-Velasco, LaMarca, Barriere, & Beligotti (2012) conducted a cross-sectional study to determine the emotional impact of infertility on women, to identify which aspects of fertility treatment most contribute to the psychological stress experienced by so many patients. The study intended to identify barriers in seeking treatment. A total of 445 women from France, Germany, Italy and Spain, age 18-44 years who were either currently in treatment for infertility; had received fertility treatments in the past two years; or were having difficulty becoming pregnant but were not receiving treatment, took part in the study. Eligible women completed a 15-minute survey, in their local language, between 20 October 2009 and 30 October 2009. The survey was custom-designed for this study and consisted of 50 closed-ended and contingency questions. The questions were determined by the authors, based on clinical experience. The survey included questions under the headings of screening, risk factors, current treatment situation (with dropdown questions specific to the answers given under the screening section for those who either experienced ART treatment or no treatment), impact of fertility issues on quality of life and relationships, and basic demographics.

Descriptive statistics were prepared for all data with a determination of 95% confidence intervals, using the Signa Stat v3.5 software package. Pre-defined statistical comparisons were performed for those respondents previously/currently receiving treatment, versus those not currently receiving treatment and for potential differences

between responses by country using appropriate non-parametric tests (χ^2 and Fisher's exact tests). Statistical significance was set at $P < 0.05$.

The results showed that overall, infertility resulted in lower self-esteem. Forty percent of the women described feeling embarrassed; 55% agreed that they felt inadequate and flawed as a woman; 58 % felt they had waited too long to try to become pregnant; and 58 % of the women receiving treatment tended to feel more vulnerable and overwhelmed, therefore significantly more likely ($P < 0.05$) to be focusing on trying to cope than those not receiving treatment. Most women felt that they had a supportive partner (59%), especially those receiving treatment (63%). Only 24% of women strongly agreed that difficulty in becoming pregnant had resulted in a closer relationship with their partner; however, significantly more women in treatment stated that this was the case (33 versus 19%; $P < 0.05$). Women in treatment reported greater anxiety surrounding sex, as they worried that fertility problems had taken the fun and spontaneity out of their sexual relationship.

With respect to extended relationships, almost two-thirds of respondents (288 women) confided in family and friends about their difficulty in becoming pregnant, and the majority (74%) of respondents who did so found them to be supportive. Women receiving treatment were significantly more likely ($P < 0.05$) to believe that they had to constantly explain any progress in the fertility process, but that having support systems available made it easier to deal with their fertility issues. Many women did, however, report that their difficulty conceiving strained relationships with family and friends. Three-quarters (74%) reported that they felt resentment toward people who took becoming pregnant for granted because it was easy for them. More than half (67%) were

tired of being offered suggestions on how to get pregnant and felt uncomfortable around pregnant women or women with babies (64%) (Domar, Gordon, Garcia-Velasco, LaMarca, Barriere, & Beligotti, 2012, p. 1074-1077).

Ranjbar, Akhondi, Borimnejad, Ghaffari, & Behboodi-Moghadam (2015) conducted a hermeneutic phenomenological study in Iran on the paradox on the lived experiences of assisted pregnancy. The Max van Manen approach guided the inquiry. A purposive sample of 12 married Iranian women who met the sample criteria participated in the study. Semi-structured interviews were performed in 17 sessions and during a six-month process from August 2013 to February 2014. The focus of the interview was on their experiences with assisted pregnancy after infertility and their feelings and perceptions toward pregnancy. Data was analyzed using van Manen's interpretative phenomenological strategies and themes were identified and conceptualized.

Findings revealed three major themes: finding peace in life, paradoxical feelings, and struggling to realize a dream. Women in the study reported financial stress related to incomplete health insurance coverage in Iran and difficulty finding the infertility drugs. The women reported feeling a sense of power and security as the greatest achievement after getting pregnant. This connected to satisfying their husbands, improving marital satisfaction, and keeping their marriage alive (Ranjbar, Akhondi, Borimnejad, Ghaffari, & Behboodi-Moghadam, 2015, p. 3-6).

Fernandez-Sola, Martinis-Caba, Hernandez- Padill, Carmona-Samper, & Granero-Molina (2016) conducted a phenomenological qualitative study in Spain. Experiences of Spanish women undergoing hysteroaldpigraphy as part of the infertility process were under investigation. Gadamer's hermeneutic phenomenological approach guided the

inquiry. Ten Spanish women who had undergone hysterosalpingography and who met the sample criteria participated in the study. The interviews took place from October 2012 to May 2013. Each interview focused on the experiences and perceptions of women who had undergone hysterosalpingography. Data was coded, and themes identified and conceptualized.

Findings consisted of three major themes and subthemes. Major themes included becoming a mother to feel complete as a person and as a woman; infertility as an intimate experience that provokes negative feelings, and undergoing the hysterosalpingography procedure. Subthemes included maternity as a life objective; maternity in terms of gender identity; negative feelings related to own infertility as an experience that is little shared with others; treatment by medical providers and areas for improvement regarding the service given by the providers.

The participants identified the personal treatment received with friendliness, trust, humanity, comfort, care etc. On the whole, the relationship with the professionals was a relationship of help; receiving respectful personal treatment that also instilled feelings of optimism and trust. However, some participants stated that the gynecologist was cold during the consultation and they referred to a lack of understanding on his/her behalf. Also identified by the participants as a factor to be improved was response time, or excessive delays/wait times, which caused distress (Fernandez-Sola, Martinis-Caba, Hernandez- Padill, Carmona-Samper, & Granero-Molina, 2016, p. 497-501).

Bagheri- Lankarani, Zarei, Zandi, Samani, & Karimi (2016) conducted a qualitative study in Tehran on the experiences of women fertilized through egg donation during their treatment process. The approach used in the study was not mentioned.

Fourteen women who met the sample criteria and had been fertilized through egg donation and pregnant or had children at the time the study was carried out participated. Unstructured interviews were conducted between July 2014 and September 2014. Each interview focused on the feelings and experiences with the process of being fertilized through egg donation. Data was coded, and themes identified and conceptualized.

Findings consisted of major themes and subthemes. Major themes included: religious barriers, treatment difficulties, treatment frustration, dissatisfaction with services provided, confusion in treatment, and perception of relative peace. Subthemes included: fatigue, despair and the experience of frequent failures. The participants reported treatment difficulties as problems arising from the treatment process, including physical and psychological complications, a lack of facilities for clients and financial problems. Having no means to accommodate patients traveling from other cities, long waiting lists, intense physical, psychosocial and financial pressures caused by treatment methods, the center advised couples to find donors themselves, and the potential financial abuse by the donors were among the problems cited that made treatment more difficult for these women.

Economic pressure presents itself in direct opposition to psychological pressure. Mental and physical exhaustion due to frequent treatment failures; fatigue due to the constant burden of traveling for tests; losing hope of getting pregnant; getting disheartened and depressed were among the most commonly cited treatment difficulties. The participants also reported that undergoing many examinations by various physicians, inadequate explanations about the process of treatment, and feeling a lack of coherence

and harmony in providing care and treatment contributed to dissatisfaction with the services provided (Bagheri- Lankarani, Zarei, Zandi, Samani, & Karimi, 2016, p. 65-67).

This section of the literature review reveals that barriers to infertility treatments, particularly from the perspective of the population involved in this process, obstruct suitable solutions, and plays an important role in designing treatment programs for infertile couples (Mosalanejad Parandavar, Gholami, & Abdollahifard, 2014). The impact of infertility is multifaceted, causing a range of emotions. Despite the negative impact of infertility, a number of women who struggle with infertility do not consult a physician. It has been identified in the literature that many women decide against consultation because of a fear of being labeled infertile, concerns of lack of family and social support and worry about the treatment process.

The literature suggests that socio-cultural norms may act as a barrier or even cause problems later. Participants need support from healthcare providers to help them deal with the challenges of advance reproductive therapy and the financial hardship associated with infertility care (Ranjbar, Akhondi, Borimnejad, Ghaffari, & Behboodi-Moghadam (2015). Gaining more knowledge about the problems and limitations infertile couples face, informs a plan to resolve the problems related to infertility, informing infertile couples of the treatment process, providing emotional support during the treatment process and better management of the services provided with a focus on the challenges related to infertility treatment are challenges that must be addressed to meet the specific needs of infertile patients (Bagheri- Lankarani, Zarei, Zandi, Samani, & Karimi, 2016). Fear of failure is the most important emotional barrier to treatment and fertility experts need to become more aware of the importance of providing a more

patient-friendly treatment protocol to improve the patient well-being and reduce the stress and burden associated with treatment (Domar, Gordon, Garcia-Velasco, LaMarca, Barriere, & Beligotti, 2012). Infertility affects individuals from all socioeconomic levels, racial, ethnic, and religious groups. Maternity may be seen as a life objective that may identify a woman as a woman, so knowing the experiences of these women may help nurses, midwives and physicians provide better care (Fernandez-Sola, Martinis-Caba, Hernandez- Padill, Carmona-Samper, & Granero-Molina, 2016). This study addresses the gap in the literature when it comes to the experience of African-American women who suffer from infertility and why they are less likely to seek infertility treatment.

Experiential Context

This investigator developed an interest in infertility which grew from family members and friends experiencing infertility, as well as a personal experience with infertility. A neighbor and her husband who had been married for years did not have children because of infertility; at that particular time, it was not realized that this woman may be suffering inside. Reflecting back, I always wondered what my neighbor felt at that particular time and what it must have been like for her to remain childless. As I became an adult working in an obstetrician gynecological office, I witnessed how determined some women were to try any medical procedure that would assist in getting pregnant.

Having my own personal experience of coping with infertility and the determination to have a second child, I began to realize that there are challenges and stigmas associated with the diagnosis of infertility, resulting in emotional silence. As a

researcher with personal experiences with infertility, it is vital for me to be vigilant to any bias that might hinder analysis of the data in a new light and from the participants perspective. In order to discover the true meaning and essence of the experience of African-American women and infertility, measures will be taken to bring forward personal biases and an attempt will be made to put aside preconceived ideas, learned feelings, and personal experiences to allow only the participants' voices to be heard.

Reflexivity describes the process in which the researcher is conscious of, and reflective about, the ways in which his or her questions, methods and subject position may have an impact on the data or the psychological knowledge produced in the study (Sloan & Bowe, 2014). In the case of reflexivity, the researcher in this study allows her own background, prior knowledge and experience of the research subject to influence the processes of data gathering and analysis of this phenomenological study. Experiential context allows the researcher to disclose personal knowledge or experiences with the phenomenon.

As the researcher, I disclosed my personal knowledge and experience with infertility with the research participants and practiced reflexivity to avoid influencing the study. I relied on self-reflections to expose pre-supposition by continually verbalizing, audio recording, and journaling throughout the study process. I also kept a neutral mind and attentively listened to the participants as they talked about their experiences. Lastly, I consciously avoided leading statements or verbal cues that may color the participants' thoughts and responses.

Heidegger's philosophy makes it clear that the essence of human understanding is hermeneutic, meaning our understanding of the everyday world is derived from our

interpretation of it. Interpretive phenomenology informs the research question that asks for the meaning of the phenomenon and the researcher does not bracket his or her biases and prior engagement with the question under study. Heidegger believed it was impossible to negate personal experiences related to the phenomenon under study; instead, personal awareness was recognized as intrinsic to phenomenological research. He believed that bracketing was not warranted, because hermeneutics presumed prior understanding. Heidegger asserted that human existence is a more fundamental notion than human consciousness and human knowledge (Reiners, 2012).

When using hermeneutics as a methodology, reflexivity--which is a person's reflection upon or examination of a situation or experience can help interpretation of the meanings discovered, or add value to those types of interpretations. In qualitative research, the researcher is intimately involved with the research participants, as the phenomenologist's experiences are also the possible experiences of others (van Manen, 1990). Van Manen's phenomenological approach allows the researcher to use experiences common to the researcher and participant to conduct a structural analysis of what is most common, most familiar and most self-evident to the researcher (Sloan & Bowe, 2014).

Chapter Summary

This chapter discussed the lived experience of infertility and some of the psychological factors, psychosocial factors and barriers associated with infertility treatment among some cultures; however, there is a gap in the literature on the specifics of the lived experience of infertility from an African-American women perspective. This study will contribute to the knowledge of the infertile African-American woman's

emotional needs. The African-American woman's experiences with infertility and the choices made by infertile African-American women regarding alternative forms of treatment reflect the need for a sensitivity to cultural diversity in infertility medical treatment and in counseling.

Cultural beliefs lend particular meaning to the infertility experience. Infertile women enter therapy informed by their cultural backgrounds and life experiences, and these need to be respected (Sewpaul, 1999). The findings from this research should be an invaluable data resource to nurses and infertility healthcare specialists in an active role in infertility clinics. There is a gap in the literature that warrants further studies in this population. This study provides an essential understanding with which to begin to address the needs of African-American women experiencing infertility. Chapter Three follows with a presentation of the research design.

CHAPTER THREE

Methods

The purpose of this hermeneutic phenomenological study was to gain a deeper understanding of the lived experience of African-American women who have experienced infertility. The researcher's purpose was to discover and gain in-depth understanding and awareness of the participants everyday life-world as they experienced it. The content areas that was investigated and discussed in this chapter are: research design, sample size, setting, access and recruitment procedures, inclusion criteria, exclusion criteria, ethical consideration/protection of human subjects, data collection procedures, interview questions, demographic data, data analysis, and research rigor.

Research Design

To achieve the purpose of this study, the researcher utilized van Manen's (1990) hermeneutic (interpretive) phenomenological approach because it was best to investigate the lived experience of African-American women experiencing infertility because its focus is on understanding experiences of the phenomena from the participants view. Hermeneutic phenomenology research design has the notion that human beings interpret or attach meanings to their experiences as humans. Hermeneutic phenomenological studies describe the common meaning for several individuals of their lived experience of a concept or a phenomenon, focusing on describing what all the participants have in common as they experience a phenomenon; its basic principle is to reduce individual experiences with a phenomenon to a description (De Chesnay, 2015). Hermeneutic phenomenological research differs from other disciplines, because its aim is not to explain meanings specific to a particular culture (ethnography), to certain social groups

(sociology), to historical periods (history), to mental types (psychology), or to in individual's personal life history (biography). Instead, hermeneutic phenomenology attempts to explicate the meanings as people live them in their everyday existence in their life worlds: lived space, lived time lived body, and lived relation discussed earlier. Therefore, hermeneutic phenomenology is the best approach to explicate the life-world experiences of African-American women who have experienced infertility. van Manen (1990) explains that the method of hermeneutic research is not meant to be a prescribed mechanistic set of procedures, but is meant to animate inventiveness and stimulate insight (van Manen, 1990).

van Manen (1990) described research as a dynamic interplay among six research activities:

1. Researchers first turn to a phenomenon
2. Have an abiding concern, which seriously interest them.
3. Reflect on essential themes, what constitutes the nature of this lived experience.
4. The researcher also writes a description of the phenomenon,
5. Maintain a strong relation to the topic of inquiry
6. Balance the parts of the writing to the whole (Manen, 1990, p. 30)

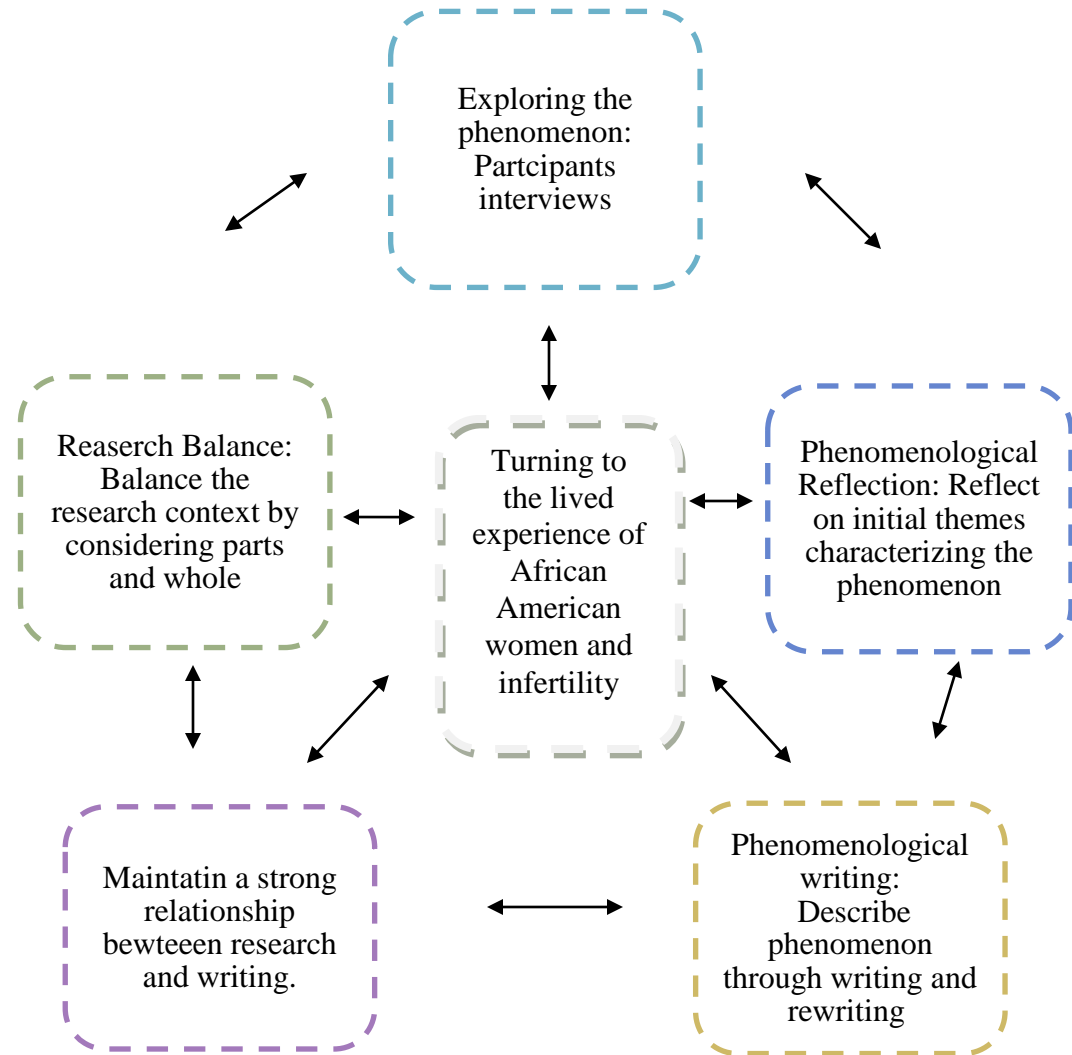


Figure 3. Hermeneutic (Interpretive) Phenomenological paradigm of "The Lived Experiences of African-American Women and Infertility. (Roberts, 2016, adopted from van Manen, 1990).

Max van Manen's methodology was chosen to explore the subjective experiences of African-American women who have experienced infertility using a phenomenological interpretivist paradigm in hopes to reduce the individual experiences with the phenomena to a description of the universal essence. van Manen's approach in this study of the lived experiences of African American women who suffer with infertility aimed to explore and provide an understanding of this complex phenomena through the lived experiences of the women in the study. Max van Manen advocates an inductive approach of being open to the thematic possibilities that can emerge from any given set of categories the research is looking for (De Chesnay, 2015). *Figure 3* illustrated how van Manen's research activities was used to guide this study. The study focused on the subjective experience of the individuals and the research question was best addressed using an exploratory approach, using an interpretivist paradigm. The goal of this hermeneutic phenomenological study with a qualitative method of inquiry utilizing Max van Manen's approach is to give voice to the participants to develop rich and thick context of the phenomenon being investigated.

Sample and Setting

Sample

This study utilized a purposive sample and snowball sampling. A purposive sampling is a non-random sample selected because prior knowledge suggests it is representative, or because those selected have the needed information (Fraenkel & Wallen, 2009). Snowball sampling is a non-probability sampling technique whereby existing study participants recruit future subjects from among their acquaintances who have the same experience with the study purpose as they do. This sampling technique

was utilized by asking research participants who are knowledgeable about the research to make referrals to other potential participants who met the criterion for the study. Using the snowball techniques may also bring awareness of the study through the word of mouth (Fraenkel & Wallen, 2009). The estimated sample size for this hermeneutic phenomenological study was a maximum of 25 African American women. This sample size was based on Polkinghorne (1989) sample size recommendations of 5 to 25 individuals who have all experienced the phenomenon (Creswell, 2013). The sample size in this study was 16.

Setting

In the research phase of this study, the researcher met with the participants where there was a natural setting and the participants felt comfortable talking about their experiences. The setting for data collection was mutually-agreed upon by the researcher and participants. The setting was conducive to engaging in a meaningful and in-depth discussion regarding their experience with the phenomena being studied.

Access and Recruitment of the Sample

The participants in this study were African-American women experiencing infertility and who met the sample criteria. Upon the approval of Barry University Institutional Review Board (Appendix A) an access letter was sought from Resolve Organization (Appendix C) to allow recruitment. It included emailing the flyer to the designated representatives of the Resolve Organization for posting on their website. In addition, permission was sought to post flyers in churches, community centers, beauty salons, physician's offices, and fertility clinics in Broward, Dade, and Palm Beach County (Appendix D). The purpose of the flyer was to provide information about the

study and the researcher's contact information which facilitated recruitment of participants. In addition, snowball sampling was utilized by asking research participants to make referrals to other potential participants who met the criterion for the study. Interested participants contacted the researcher by the phone number or by the email address provided on the flyer. Interested participants were given an explanation about the study, also including how the information will be collected. Participants were informed that there were two interviews; the total time for both interviews was 100 minutes, which included no more than 60 minutes for the first face-to-face interview, 10 minutes for the demographic questionnaire and no more than 30 minutes for the second interview which was face-to-face or by phone to review the transcript for verification. The women who met the inclusion criteria and agreed to participate in the study after receiving information from the researcher signed the consent agreeing to take part in the study and the participants were given a \$25 gift card as a token of appreciation. The participants were informed they may choose to drop out at any time during data collection procedure and the gift card was theirs to keep.

Inclusion Criteria

To participate in the study, participants must have self-identified as an African-American by the definition of African-American explained earlier. They also had to have self-identified as a woman having or had a fertility problem (not being to conceive naturally) for over a year prior to the beginning of the study, reside in Broward, Dade, or Palm Beach County, Florida, 18 years old or older, willing to speak openly about their experience, have access to a telephone or internet, as well as read, write, and speak in English, and had a willingness to be interviewed and audio tape recorded.

Exclusion Criteria

Exclusion criteria include women who did not self-identify as African-American by the definition of African American explained earlier. Did not self-identify as a woman having or had a fertility problem (not being to conceive naturally) for over a year prior to the beginning of the study, did not reside in Broward, Dade, or Palm Beach County, Florida was not 18 years old or older, was not willing to speak openly about their experience, did not have access to a telephone or internet, as well as did not read, write, and speak English, and was not willing to be tape recorded.

Ethical Considerations/Protection of Human Subjects

Phenomenology includes human subjects in its research; therefore, the researcher must be sensitive to the needs of the participant, site, stakeholders, and publishers of research. According to Creswell (2013), researchers must consider ethical considerations involving participants by "assessing issues that may be fearful of disclosing, establishing supportive and respectful relationships without stereotyping, and using labels that the participants may not embrace" (Creswell, 2013, p. 56). On account of the national institutes of health (NIH), a web based training course on protecting human research participants has been completed. The researcher adhered to the guidelines and core principles set forth by the NIH to protect human subjects. The researcher had an ethical responsibility to protect the human rights of the participants who voluntarily agreed to participate in this study.

Upon approval from Barry Intuitional Review Board for the proposed study and obtaining access approval from Resolve organization, the flyer was emailed to the administrator for distribution via email for posting on the websites. Once contacted by

interested participants, the study was reviewed. If the interested participants met the inclusion criteria and volunteered to participate in the study, a face-to-face meeting place and time that was mutually agreeable was confirmed. During the initial meeting, the researcher explained the purpose and process of the study and a written signed informed consent was obtained if they chose to participate. The informed consent outlined the protection to the participants and included voluntary participation, the right to withdraw from the study at anytime, no risks to participants, protection of privacy, and future use of the data obtained (Appendix B). Participants were advised of their rights to refuse to answer any question they were not comfortable with, the right to withdraw from the study at any time without consequences and advised that if they chose not to continue the study, any information obtained would be destroyed immediately.

After obtaining consent from the participant, the gift card was given to the participant. The participants were informed if they decided to withdraw from the study that the gift card was theirs to keep. Participants were also advised that there were no direct benefits from this study, but the study may provide an understanding from an African-American woman's perspective on the experiences of infertility that can be influential in developing coping strategies, health and public policy, nursing and healthcare education and bring awareness tailored to the African-American population experiencing infertility from an African American woman's perspective. The participant was then asked to select a pseudonym, write the pseudonym on the demographic questionnaire form, and complete the form (Appendix F). Participants were informed that data would be disseminated in the aggregate and only their pseudonyms used. If the participants did not provide a pseudonym, one was assigned to them by the researcher.

Procedures to protect the confidentiality of participants was implemented to the extent provided by law as it pertains to the protection of human participants. Participants were asked to select a pseudonym that could not be traced to their identity. Records, including transcriptions and published results of the study were identified by pseudonyms and stored in a locked file cabinet separate from the consent forms. Signed informed consent forms were stored in a separate locked cabinet separate from other study records. Digital recordings were stored on a password protected computer accessible only by the researcher. Participant demographics and transcribed data has been kept in a separate file cabinet in the researcher's home and only the researcher has access to it for a minimum of 5 years and then indefinitely. All voice recordings were destroyed or erased after member-checking. The findings of the study were reported in the aggregate to protect participant confidentiality.

Data Collection Procedures

The data collection was initiated upon the approval of Barry University Institutional Review Board. After receiving a signed access letter from Resolve, the flyer was emailed to the designated representative at Resolve for posting on their website. In addition, flyers were also posted in churches, community centers, beauty salons, physician's offices, and fertility clinics in Broward, Dade, and Palm Beach County (Appendix D). Once the participants contacted the researcher, a mutually agreeable place and time for the interview was set. At the first meeting with the prospective participant, the researcher thanked the participant and provided information about the purpose of the study, explained their rights as a research participant, and informed the participant that there was no risk associated with participating in the study. If they chose to participate

in the study, a signed consent was obtained (Appendix B). The gift card was given as a token of appreciation for her willingness to volunteer for the study and the participant was informed it was hers to keep whether or not she chose to continue with the interview.

Each participant was also informed that she had the right not to answer some questions or she may choose to withdraw from the study at any time. She was then asked to select a pseudonym to be used throughout the study for identification purposes instead of her real name, and she was asked to complete the research design demographic questionnaire on which she included her pseudonym, which took no more than 10 minutes. She was informed that there will be a total of two interviews: the first one to collect the data lasting no more than 60 minutes, and the second interview which was face-to-face or by telephone scheduled two to three weeks later for the purpose of reviewing the transcribed data for verification. That meeting lasted no more than 30 minutes. The total time for both interviews was 100 minutes. At this point, the semi-structured face-to-face interview began. The researcher used a conversational tone during the semi-structured interview, to allow the researcher to probe beyond the answers to the prepared standard questions. In this research, each interview was recorded with two visible digital tape recorders; a Samsung cell phone voice recorder and a Jensen cassette recorder with consent from each participant.

The questions were open-ended to allow for more individualized responses (Appendix G). The researcher was attentive throughout the interview. Probing questions were used to gain additional information and to ensure that comprehensive and rich data was obtained from each participant. Once the interview was concluded, the researcher thanked the participant again and advised her that she would be contacted

again in two to three weeks once the data had been transcribed so that she could review the transcription for accuracy. Email addresses were obtained for those participants who chose to review their interview by email. A copy of the transcript was emailed for member-checking and verification of the transcribed data to participants who chose the second meeting to be via phone. Immediately after the interview, the researcher found a quiet place away from the site of the interview to make notes and journal about the interview experience, including each participant's nonverbal cues or body language during the interview.

All data was transcribed by a transcriptionist. The transcriptionist signed a third party agreement for confidentiality before transcribing the audio recordings (Appendix H). A copy of the transcript was emailed to participants for member-checking and verification to participants who chose the second meeting to be via phone. This second interview took no more than 30 minutes.

Interview Questions

The purpose of the interview was to discover and ask open ended research questions that focused on understanding the phenomenon in the study. The initial interview was conducted face-to-face to enter the participants' life-worlds as they experienced the phenomena. This initial interview took no more than 60 minutes. Using open-ended questions (Appendix G) allowed the participants to contribute as much detailed information as they desired and allow them to fully express their viewpoints and experiences (Turner, 2010). Van Manen (1990) states that the hermeneutic phenomenological interview is used specifically as a means of investigating and collecting observed narrative material that can be used as a resource for expanding a

richer and deeper understanding of the human phenomenon, and it may also be used as a means to increase the discussion with participants about the meaning of the experience which is the researcher's responsibility to conduct the interview. The grand tour question was broad and open ended: "What has the experience of infertility been like for you ?" Follow up questions explored the phenomenon and to guided the interview process to gather detailed information about the participants experience (Appendix G). During the interview process, the researcher avoided leading the participants toward a particular answer and making assumptions about what the participants meant about their experiences. McNamara (2009) suggests that during the interview stage, the researcher should occasionally verify that the tape recorder is working; ask one question at a time; remain neutral by not showing strong emotional reactions to their response; encourage the participants to keep talking with occasional nods of the head; be mindful of facial expressions, such as surprise or anger; provide transition between major topics by letting the participant know that another topic will now be discussed; keep control of the interview, by keeping the participants focused on the topic and not stray to another topic; and control the interview to ensure all questions are answered in the specified time (McNamara, 2009).

Demographic Data

A researcher-designed demographic questionnaire (Appendix F) was used at the beginning of the study to obtain attributes about each participant. Research participants were asked to provide their current age, marital status, last grade level of education finished, number of children if any children, household income, health insurance, in-vitro fertilization coverage, use of in-vitro fertilization, how many cycles if any, and if any

pregnancy as a result of in-vitro fertilization (Appendix F). After signing the consent, the participants were asked to complete the questionnaire which took no more than 10 minutes. The data provided the researcher with the characteristics of the population. The results from the demographic questions were documented through the use of pseudonyms. The questionnaire along with other documents related to the study and the participants was kept in a separate locked cabinet in the researcher's home office, to which only the researcher had access.

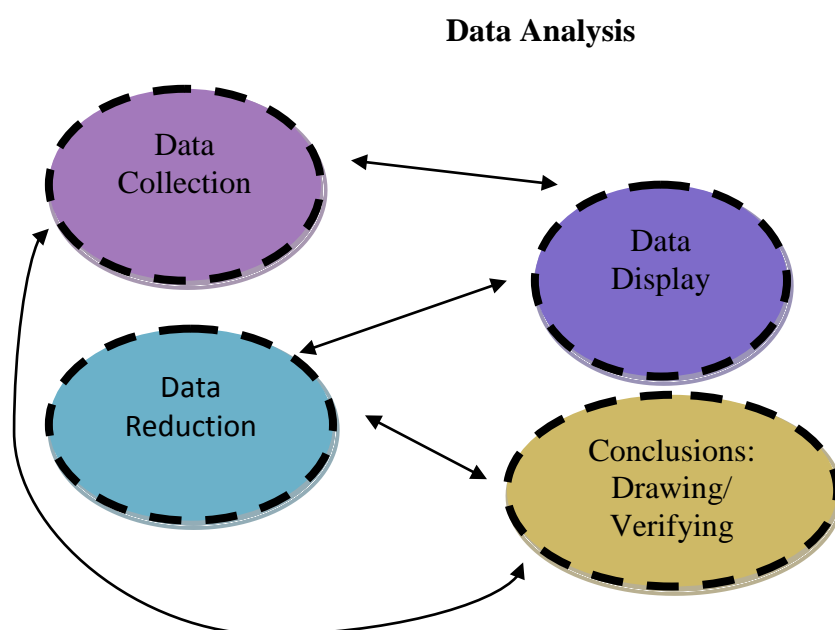


Figure 4. Components of Data Analysis: Interactive Model (Roberts, 2017, adapted from Miles & Huberman 1994)

The data analysis process began with data collection. *Figure 4* above reflects the Interactive Model of Analysis described by Miles and Huberman (1994). The process started with data collection which included face-to-face semi-structured interviews with the research participants. Documents included journals and notes taken in the field after each interview, as well as the audio-taped interviews. The data collection step was not

explained by Miles and Huberman, although they include that step in their schematic which describes the data analysis process. Miles and Huberman indicate that qualitative data analysis consists of "three concurrent flows of activity: data reduction, data display, and conclusion drawing/verification as reflected in *Figure 4*. After the data was collected, data reduction occurred continuously throughout the analysis during editing, segmenting and summarizing the data. In the middle stages it happened through coding and memoing and was associated activities such as finding themes, clusters and patterns. In the later stages, it happened through conceptualizing and explaining. Data reduction reduced the data without significant loss of the information given by the participants. The researcher read the entire transcript of each interview or journal entry as many times as necessary to gain understanding.

Data displays were used to organize, compress, and assemble the information. The process of interpreting data included organizing the data. For this study, data was displayed in a visual format to present the findings. This visual format allowed the researcher to draw credible conclusions about the phenomenon (Miles & Huberman, 1994). Analysis was driven by displays that were focused enough to permit a viewing in the same location of a full data set systematically arranged to answer the research question (Miles & Huberman, 1994).

Therefore, the researcher constructed a full data set of condensed and distilled data drawn from all participants and their shared events. The display of data was organized so that all relevant responses of all participants were visualized. This display of data allowed for initial and ongoing comparisons between responses and participants. This visual format allowed the researcher to draw credible conclusions about the

phenomenon (Miles & Huberman, 1994). Drawing and verifying conclusions logically followed reduction and display of the data. Drawing and verification was the third part of the analyses and involved developing propositions (Miles & Huberman, 1994).

Research Rigor

Rigor is a requirement for any qualitative research. The criteria to evaluate rigor and merit of phenomenology is critical to specific strategies for assuring, adhering to, and verifying rigor in phenomenological research (De Chesnay, 2015). This study utilized Lincoln and Guba's (1985) trustworthiness criteria as a qualitative methodology. Trustworthiness reflects the truth of the qualitative research inquiry. The trustworthiness criteria requires (1) credibility, (2) dependability, (3) conformability, and (4) transferability (DeChesnay, 2015).

Credibility

Credibility is described as truth of the findings of a particular inquiry for the subjects within which the inquiry was carried out (De Chesnay, 2015). Strategies this study utilized to enhance credibility were investing sufficient time to meet the purpose of establishing the trust of the participants, and clarifying misinformation from either the researcher or the participant. In addition, the content was reviewed with the committee who are research experts. Member-checking was utilized to establish credibility in this qualitative study. Participants were given a copy of their transcript to provide critical feedback regarding truthfulness of the data transcribed from the audiotape, Any interpretation errors or inadequacies were corrected and the participant member checked again. These steps ensured credibility in the study. Memoing was used in this process by documenting presuppositions, biases, feelings, assumptions, preconceived notions, and

ideas of the investigator. To achieve credibility was the responsibility of the researcher to report data through the lens of the participants. The essence of credibility will lie in the truth of the findings through continued observations, engagements, and relationships with the participants, member checking (verification of data), peer debriefing, and the dissertation committee reviewing the data analyzed to ensure precision and trustworthiness of the study.

Dependability

Dependability determines whether the findings of an inquiry will be repeated if the inquiry were replicated in the same participants in the same context. Without credibility there is no dependability. The one strategy strongly advocated in qualitative and phenomenological studies is the inquiry audit or the audit trail which will be utilized in this study (De Chesnay, 2015). The process and results of this study were systematically documented to allow for verification. This study audit trail furnished an adequate amount of evidence to stakeholders interested in reconstructing the process. Other strategic ways of validating dependability were delineated through accurate record keeping of the study's materials, such as field notes, summaries, and thematic analysis.

Confirmability

Confirmability refers to the quality of the results produced by an inquiry in terms of how well they are supported by the research participants involved in the study. This means the conclusion of the study is dependent upon the participants and the context, rather than what the researcher thinks. The researcher utilized reflexivity in the form of memo writing to make biases and assumptions explicit. Confirmability refers to objectivity (neutrality) and the control of researcher bias. Bias in qualitative research is

an ever-present factor; unbiased interpretations will more likely emerge once the researcher's self-reflection has recognized them. Maintaining reflective bracketing through journaling was integral in the process by documenting presuppositions, biases, feelings, assumptions, preconceived notions, and ideas of the researcher. To achieve credibility, the data was reported through the lens of the participants interpreted by the researcher. Therefore, it was imperative for this researcher to lay aside all preconceived notions, ideas, presuppositions, and biases about the experiences of African-American women and infertility through journaling, diary entry, or memoing to secure tangible results pertaining to confirmability.

Transferability

Transferability refers to the generalizability of the data or to what extent the findings can be transferred to another group or setting. The researcher accomplished transferability by providing enough information for readers to make that determination. The strategy of thick description, whereby the widest possible range of information was provided allowed judgments of transferability by appliers (De Chesnay, 2015). The results from this study and collaborations with experts in the field allowed transferability to other similar studies. The researcher gave adequate information about the phenomenon, the research context, processes, members, and each research participant's connections to make it possible for the reader to decide how the findings can be transferred.

Chapter Summary

In this chapter the methods used to guide this study situated in van Manen's hermeneutic (interpretive) phenomenological paradigm were explained. This chapter

covered the methodology for transmission of the study through research design pathways covering the rationale for utilizing qualitative and phenomenological inquiries with the employment of van Manen's six research activities. In addition, this chapter covered sample size and setting, access and recruitments, inclusion and exclusion criteria, ethical considerations, data collection procedure, interview questions, demographic data, data analysis, and research rigor. This chapter discussed how the data was analyzed and interpreted for meaningful themes to represent the experiences of African-American women with infertility. Chapter Four summarized the findings of the inquiry.

CHAPTER FOUR

Findings of the Inquiry

The purpose of this hermeneutic phenomenological study was to gain a deeper understanding of the lived experiences of African-American women who have suffered infertility. This chapter presented the findings from the data analysis of 16 African-American women who shared their experiences with infertility. A summary was carried out on the demographics of each participant in this research study. Thematic analysis was extracted through data analysis, which was in congruence with the participants' feelings and thoughts they shared relevant to their lived experiences of infertility. Findings of this inquiry revealed and illuminated the essence of the participants' life-worlds as they perceived and experienced the phenomenon and a textural display of the participants' lived experience were presented. The data analysis revealed four themes that reflected the participants' feelings of being an African-American woman experiencing infertility. Also included is the connection to a theory.

According to van Manen (2014), hermeneutic phenomenology means that reflections on experience must aim for discursive language and sensitive interpretive devices that make phenomenology analysis explication possible. Lived experience means that phenomenology reflects on the pre-reflective life of human existence as living through it (van Manen, 1990). The purpose of this hermeneutic phenomenological study was to gain a deeper understanding of the lived experience of African American women who are experiencing infertility. This research study utilized hermeneutic phenomenology to investigate the participants' lived experience with the phenomenon and uncover the meaning they attach to it. Prior knowledge and insights allowed the

researcher to interpret the meanings and essence the participants attached to the phenomenon and to provide a vivid textual representation of the participants experience with the phenomenon.

Kuhn's seminal work, *The Structure of Scientific Revolution* (1962), emphasized that the route to normal science is firmly based upon one or more past scientific achievements that some particular scientific community acknowledges for a time as supplying the foundation for further practice. Paradigms guide how we make decisions and carry out research and provide scientists not only with a map, but also with some directions essential for map-making. According to Kuhn (1962), in relation to this scientific paradigm, this researcher adopted van Manen's 1990 hermeneutic phenomenological approach for data collection to investigate the lived experiences of African American women with infertility.

After approval from Barry University Institution Review Board, data collection began. Data collection began with a face-to-face, relaxed, and conversational interview in a natural setting. This allowed the participants to feel relaxed and willing to elaborate on their experiences with the phenomenon. This setting also allowed the researcher to build a collaborative relationship with each participant during the data collection process. To begin the process of this inquiry, the researcher used personal experiences with infertility and the experiences from other African-American women by obtaining personal and deeply compelling narratives from each participant. The researcher began the data collection process with an open mind and eagerness to hear the participants talk about their experience with infertility; the researcher listened attentively to what the experience meant to each participant.

Phenomenology fosters a reflective process through writing, which permits the researcher to distance herself from the lived experience and at the same time by doing this, the researcher discovers existential structures of the experience (van Manen, 1990). After each interview, the researcher kept a journal about personal thoughts and observations not only to add as an outlet, but also for the researcher to be aware of her personal thoughts and document the participant's unspoken language. Reflecting on the participant's unspoken language such as facial expressions, tone, body language, and non-verbal cues during the interview provided the researcher with additional insights that added to their experiences with infertility. To allow for an in-depth insight of the essence of the meaning and to be absorbed in each participant experience with the phenomena, the researcher listened to each audio recording after each interview. A third party transcribed the digital recordings verbatim; once the transcriptions were completed the researcher read the entire transcript of each participant interview while listening to the audio-taped interview to gain an understanding and verify accuracy. To ensure credibility of the participants' transcribed narratives, the transcripts were verified by the participant for accuracy.

The data collection and analysis continued until there was no new information reported related to the phenomenon. The repetitive occurrence of the same thoughts, feelings, and experience signified to the researcher that data saturation had occurred. Data saturation was achieved after interviewing a total of 13 participants, but an additional 3 interviews were conducted to confirm data saturation. According to Munhall (2012) the concept of *saturation* means no new information. Miles and Huberman (1994) Interactive Model of Analysis was used to analyze the data. As the researcher immersed

herself in the participants' stories with openness and interest, the data collected was reduced during editing, segmenting, summarizing the data, and in the middle stages through coding and memoing, which resulted in four emerged themes that described the lived experiences of African-American women with infertility. Themes in qualitative research is defined as broad units of information that consist of several codes aggregated to form a common idea (Creswell, 2013). The researcher immersed into the subjective life-worlds of the participants lived space, body, time, and relation embedded in the women's narratives through multiple reading and re-reading and writing and re-writing in understanding what meaning the participants attribute to dealing with infertility. Findings of the inquiry were summarized as the sample description, demographic representation, characteristics of the participants, results, restatement of the research question, connection of a theory, and the chapter summary.

Sample Description

A purposive and snowball sampling was used for participants' participation with the purpose of exploring and providing insights into the lived experience of African-American women who had experiences with infertility. Participants who met the inclusion by self-identifying as an African-American by the definition of African-American explained in Chapter Three, identified as a woman having or had a fertility problem (not being able to conceive naturally) for over a year prior to the beginning of the study, resided in Broward, Dade, or Palm Beach County, 18 years old or older, and willing to speak openly about their experience, access to a telephone or internet, as well as read, write, and speak English, and had a willingness to be interviewed and audio tape recorded participated in the study.

Demographic Representation

The demographics of the participants were composed of 16 African-American women who had experienced infertility. The participants' age group, marital status, completed grade level, child/children, access to health insurance, annual household income, in-vitro coverage, use of in-vitro, conceived by in-vitro, number of in-vitro cycles, and in-vitro success were included in the demographics presented in Table 1. The participants in the 26-40 age range was 25% (N = 4) of the population and the participants between the ages of 41 -55 were 75% (N = 12). The marital status of the participants with 6.25% being single and never married (N = 1); married 81.25 % (N = 13) separated 6.25 % (N = 1); divorced 6.25 % (N = 1). Participants completed grade level were included; 6.25% of the participants had a high school diploma (N = 1). 31.25% of the participants had completed some college courses (N = 5); 62.5% of the participants had a bachelor's degree or higher (N = 10). 100% of the participants had health insurance during their experience with infertility (N = 16). 100% of the participants had an annual household income of over \$50,000 (N = 16). 6.25 % of the participants insurance covered some of the in-vitro treatments (N = 1). 81.25% of the participants insurance did not cover in-vitro treatments (N = 13). 12.5% of the participants were unsure if their insurance provided in-vitro treatment (N = 2). 18.75% of the participants used in-vitro fertilization to try and conceive (N = 3). 81.25% was non- applicable because they did not attempt in-vitro fertilization to conceive (N = 13). 12.5 % of the participants conceived through the use of in-vitro fertilization (N = 2). 6.25% of the participants was unsuccessful to conceive after attempting in-vitro fertilization (N = 1); and 81.25 % was non-applicable because they did not attempt In-vitro fertilization (N =

13); 81.25% did not participate in in-vitro fertilization (N=13). 18.75% of the participants completed three cycles of in-vitro fertilization (N = 3) while 81.25% of the population was non-applicable because they did not participate in in-vitro fertilization. 12.5% had a successful birth after using in-vitro fertilization to conceive (N=2). 6.25% was unsuccessful in carry a fetus to full term and delivering a live baby (N= 1). 81.25 % was non-applicable because they did not attempt in-vitro fertilization(N= 13). These demographics are depicted in Tables 1, 2, and 3.

Table 1

Demographics of Participants by Age Group, Marital Status, Completed Grade Level, and Number of Children

| Variable | Category | N | % |
|---|-----------------------------|----|-------|
| Participants by Age Group | 18-25 | 0 | 0 |
| | 26-40 | 4 | 25 |
| | 41-55 | 12 | 75 |
| | >55 | 0 | 0 |
| Participants Grouped by Marital Status | Single, never married | 1 | 6.25 |
| | Married | 13 | 81.25 |
| | Separated | 1 | 6.25 |
| | Divorced | 1 | 6.25 |
| | Widow | 0 | 0 |
| Participants Grouped by Completed Grade Level | | | |
| | Less than primary | 0 | 0 |
| | Primary only | 0 | 0 |
| | High School | 1 | 6.25 |
| | Some college courses | 5 | 31.25 |
| | Bachelor's degree or higher | 10 | 62.5 |
| Participants Grouped by Having a Child/Children | | | |
| | Yes | 11 | 68.75 |
| | No | 5 | 31.25 |

Table 2

Demographics of Participants by Access to Health Insurance, Household Income, In-vitro Fertilization Coverage, Use of In-vitro Fertilization to Conceive

Participants Grouped by Access to Health Insurance

| Variable | Category | N | % |
|----------------------------|----------|----|-----|
| Access to Health Insurance | Yes | 16 | 100 |
| | No | 0 | 0 |

Participants Grouped by Household Income

| | | |
|-------------------|----|-----|
| Under \$25,000 | 0 | 0 |
| \$25,000-\$30,000 | 0 | 0 |
| \$31,000-\$40,000 | 0 | 0 |
| \$41,000-50,000 | 0 | 0 |
| Over \$50,000 | 16 | 100 |

Participants Grouped by In-vitro Coverage

| | | |
|--------|----|-------|
| Yes | 1 | 6.25 |
| No | 13 | 81.25 |
| Unsure | 2 | 12.5 |

Participants Grouped by Use of In-vitro

| | | |
|-----|----|-------|
| Yes | 3 | 18.75 |
| No | 13 | 81.25 |

Table 3

Demographics of Participants by Number of In-vitro Cycles, and In-vitro Success

| Variable | Category | N | % |
|--|----------|----|-------|
| Participants Grouped by Conceived by In-vitro | | | |
| | Yes | 2 | 12.5 |
| | No | 1 | 6.25 |
| | N/A | 13 | 81.25 |
| Participants Grouped Number of In-vitro Cycles | | | |
| | N/A | 13 | 81.25 |
| | >1 | 3 | 18.75 |
| Participants Grouped by In-vitro Success | | | |
| | Yes | 2 | 12.5 |
| | No | 1 | 6.25 |
| | N/A | 13 | 81.25 |

Characteristics of Participants

Participants in the study all met the inclusion criteria. To provide confidentiality, all of the participants selected a pseudonym to conceal their identity. All of the participants experienced infertility, resided within Dade, Broward, or Palm Beach County and volunteered their participation. The following descriptions of each participant were obtained from information provided on the demographic questionnaire.

Celine is married and between the ages of 41 and 55 and has two children from a previous marriage. **Celine** and her husband do not have any children together and she has tried alternative methods to get pregnant in the past. **Celine** has a master's degree in nursing and has an annual household income greater than \$55,000. At the time when **Celine** sought help to become pregnant her insurance only covered diagnostic testing. After being diagnosed with infertility related to hormone imbalance, **Celine** took Clomid to assist with being pregnant, but was unsuccessful with the treatment.

Chloe is an unmarried woman between the ages 26 and 40 and has been in a relationship for over 14 years. Her highest level of education is a bachelor's degree and she is currently working on her master's degree in nursing. **Chloe** does not have any children. Although **Chloe** has health insurance, In-vitro fertilization (IVF) is not covered. She has a household income greater than \$50,000 and has used some of her savings in combination with loans to have In-vitro fertilization. **Chloe** was in her mid-forties when she completed three cycles of IVF; however, she was unsuccessful in becoming pregnant.

Crystal is an unmarried woman between the ages 26 and 40 and is currently in a relationship. **Crystal** has a bachelor's degree with a household income over \$50,000. **Crystal's** insurance only covers infertility diagnostic testing and does not cover In-vitro

Fertilization (IVF); therefore, she has never pursued the treatment because of the out of pocket cost. **Crystal** has one child from a previous relationship.

Esther is married and between the ages of 41 and 55. She has a bachelors' degree in nursing and has a household income greater than \$55,000. **Esther** has one child from a previous relationship, but no children from her current husband. **Esther** has health insurance but it only covers infertility diagnostic testing and in-vitro fertilization is not covered.

Jasmine is a married woman between the ages of 41 and 55. She appears to be happy and upbeat and ready to begin the interview. She has a doctorate of nursing practice degree and has been a nurse practitioner for 15 years with a household income over \$50,000. She does not have any children and would have tried in-vitro fertilization (IVF), but her insurance only covered diagnostic testing for infertility. As a result **Jasmine** did not attempt in-vitro fertilization because of the high cost associated with infertility treatments.

Joy is a married woman between the ages 26 and 40. She has completed some college courses and is working toward a bachelor's degree in criminal justice. **Joy** does not have any children. **Joy** does have health insurance; however, in-vitro fertilization is not covered, otherwise she states she would have definitely sought alternative methods. Joy and her husband tried to have a baby for the past two and a half years and have consulted with an infertility specialist in the past. **Joy** has taken Clomid to conceive, but was unsuccessful.

Kalia is a married woman between the age 41 and 55. She has 2 sons from a previous relationship and desperately wanted to have a child from her husband. **Kalia**

completed high school and has annual household over \$50,000. She did have health insurance at the time she sought help for infertility, but infertility treatment was not covered on her insurance. **Kalia's** infertility was related to hormones and she was put on Clomid. **Kalia** at the age of 40 had a positive pregnancy test with both pregnancies, but eventually lost both fetus.

Lashelle is a married woman between the ages the ages 41 and 55 and does not have a child. **Lashelle** has completed some college courses and has a house-hold income of over \$50,000. She does have health insurance; unfortunately, in vitro fertilization is not covered; therefore she has never tried in-vitro fertilization.

Marcia is a married woman between the ages of 41 and 55. **Marcia** has completed some college courses and has an associate's degree and has a household income over \$50,000. She does have medical insurance, but besides infertility diagnostic testing, she is unaware of any infertility treatment coverage. She has one child who was 15 years old when she began trying to conceive for a second child but she was unsuccessful. **Marcia** was not a candidate for in-vitro fertilization but was put on hormones by an infertility specialist and was able to conceive.

Maria is a married woman between the ages of 41 and 55. She has doctorate of nursing practice degree with a household income over \$50, 000. The health insurance she had at the time of trying to become pregnant covered infertility diagnostic testing but did not cover infertility treatments. **Maria** was able to conceive after being put on Clomid.

Sabine is a newly-married woman in her 20s. She recently graduated from nursing school, bought a house and a car, has an annual household income above \$50,000, and is now ready to start a family. **Sabine** began trying to conceive in

2014. After trying to conceive naturally for approximately two and half years without success, she and her husband starting seeing an infertility specialist and also implementing natural holistic approaches. **Sabine** has a history of fibroids and polycystic ovarian syndrome which prevented her from becoming pregnant. Sabine believes the acupuncture and herbal therapy she included as a part of her infertility treatment significantly reduced her fibroids. **Sabine** has one child after using intrauterine insemination to conceive. **Sabine** has health insurance; however, intrauterine insemination or any other alternative treatments for infertility was not covered; therefore, she paid out of pocket for the procedure.

Sasha is a married woman between the ages of 41 and 55. Sasha is pharmacist with an income over \$50,000 annually. **Sasha** believes her problem started at the age of 25, but she was not diagnosed until her late 30s. **Sasha's** insurance did cover in-vitro fertilization to an extent, but she still had some out of pocket cost and travel expenses. **Sasha** completed three cycles of in-vitro fertilization before conceiving and delivering a baby boy.

Shelia is between the ages 26 and 40 and has been married for three years. **Sheila** has a bachelor's degree in criminal justice and has one child from a previous relationship. **Shelia** and her husband have an annual household income above \$50,000. **Sheila's** health insurance only covered infertility diagnostic testing, but did not cover any infertility treatments. **Sheila** and her husband tried without intervention for over a year without success. After seeking help from an infertility specialist, she was able to conceive after taking hormones and losing weight.

Sophia is currently divorced but was married during the time she had in-vitro fertilization. **Sophia** has a master's degree with an annual household income of over \$50,000. **Sophia** is between the ages of 41 and 55 who noticed there was a problem in her mid-30s. She had a diagnostic test to evaluate if her fallopian tubes were open and functioning which she described as being very painful; the results of this test was within normal limits. After a couple of years of trying and without getting pregnant naturally she went to an infertility specialist for help. Infertility treatment was not covered by her insurance; therefore, she tried artificial insemination first because the cost was significantly less than in-vitro fertilization. After four cycles of artificial insemination she still was not pregnant; therefore, she saw another infertility specialist who performed the in-vitro fertilization procedure. **Sophia** paid out of pocket for all of her infertility treatments because her insurance only covered diagnostic testing. **Sophia** was told that because of her being in her mid 40s it was better for her to use an egg donor. After having three cycles of in-vitro fertilization, **Sophia** was able to conceive using donor eggs and gave birth to a boy and a girl. **Sophia** explains the stress of going through the whole process and raising two children eventually had an impact on her marriage and she divorced four months later.

Terry has been separated from her husband for a few years. She is currently in a relationship with a man who has no children and desperately want to give him a child. **Terry** has some college courses and has a annual income over \$50,000. **Terry** has three children from her ex-husband but has dealt with the challenge of becoming pregnant again. **Terry's** health insurance did not cover infertility treatments but she was willing to pay out of pocket for infertility treatments. After seeing an infertility specialist, she was

told that, because of her age the risks were too high for in-vitro fertilization. Therefore, she was never able to conceive again.

Trish is a married woman between the ages 41 and 55. **Trish** has a doctorate of nursing practice degree and has a household income over \$50,000 annually. **Trish** did have health insurance, but in-vitro fertilization was not covered under her insurance. Trish has not used in-vitro nor was it a consideration because of the cost.

Results

Miles and Huberman's (1994) Interactive Model of Analysis was used to analyze the data, which included data reduction, data display, and drawing conclusions. In this study, data reduction took place throughout the analysis, including editing, segmenting, and summarizing the data without losing the participants' voices. A summary of each participants' story was developed and the data was coded into derived themes. As the researcher reflected on the participants stories of their lived experiences with infertility, four themes clearly grounded in the data were uncovered. Creswell (2013) defined themes as broad units of information that consist of several codes aggregated to form a common idea (p. 186).

The four themes identified in this study were: (a) *Desiring*, (b) *Stressing Out* (c) *Perceiving Social Support* and (d) *Spiritual Coping*. The themes revealed in this study were incumbent of each other, representing all participants. The data was displayed by providing personalized statements from each participant relating to each theme. Propositions and an interpretation of the participants' experiences were displayed on what the participants experienced while dealing with infertility to provide a meaningful

and coherent picture of the data. A conclusion was drawn after comparing statements from each participant and then across all participants.

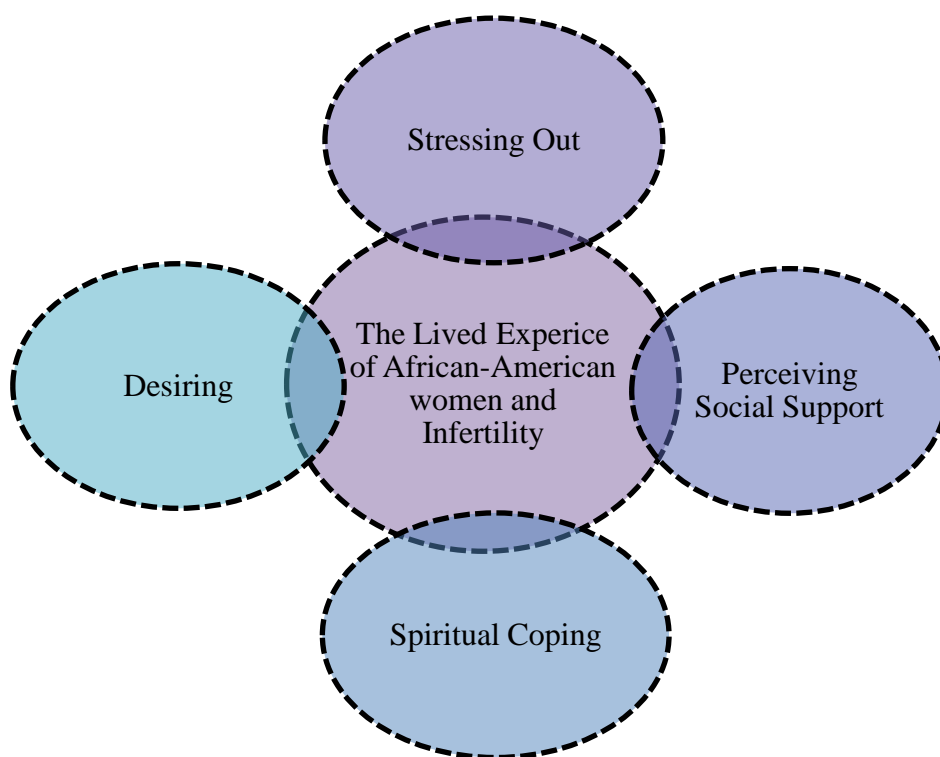


Figure 5 Conceptual Presentation of the Themes of the Lived Experience of African-American Women and Infertility (Roberts, 2017)

Desiring

The participants in the study repeatedly spoke about their desire to be a mother. *Desiring* is defined as an emotion moving a person to action or having a urge (Schroeder, 2006) This theme essentially captured each woman's desire to have a child or extend their family. Most of them believed that all women were born to be mothers. One by one, each woman described how important it was for them to become a mother or extend their family; not only for themselves, but also for their spouse or significant other. *Lashelle*

explained she and her husband had considered adoption, but she wanted to experience feeling a baby moving inside of her, carrying a child for nine months, and delivering that child. *Sheila* had such a desire to be a mother that she decided if by chance she was not able to conceive, she and her husband would adopt. *Celine* questioned herself asking "why can't you do it?" She said she had a lot of guilt about it and questioned her womanhood. *Kalia* felt at times like she was not a good woman because she was unable to give her husband a child which they both wanted. *Chole's* opening statement in the interview embodied this theme in sharing her experience with infertility.

Chole

It has left a space of emptiness, a feeling of not being a woman, and missing the chance to be a mother. In my opinion, a missed opportunity of having someone who's solely dependent upon you and showing them how much you can just love unconditionally. I felt very empty inside to have not ever conceived or had a child because that's what society look at what you could do, you know, procreate. And here it is I can't even do that.

They all commented on feeling inadequate or feeling less of a woman because they could not naturally get pregnant. *Jasmine* explained that it is painful to see other women in her age group with children; especially friends and family, because you are able to see their children's' milestones. She stated that she is happy for others who have children, but sometimes it hits her and it's hard for her to wrap her head around the fact that she will not become a mother. She also reported that she is still trying to make peace with the fact that she will not be a mother.

Jasmine

To become a mother to me is to impact the future, you know. Ongoing, that legacy of impacting the future and -- and like it's almost like hey, here is my contribution to the future of the world, you know.

Crystal

As a woman it, in a way it's hard to say like you feel a little inferior because you have everything but you have that one thing that you can't do naturally.

Basically it makes you feel less than a woman. So you just feel like you're not whole 'cause you can't get pregnant and go through the normal pregnancy cycles like a normal woman would.

Esther

Women, we're made to have children. So it was very difficult that I couldn't conceive another child and this was my second marriage, so it was hard that I couldn't conceive a child with my husband. I want a child with my husband. I did. I felt, you know, it's a very inadequate feeling not to be able to conceive. We both had children from previous relationships, but I wanted us to have a child together for our -- mainly just for us to have a family. And in some sense, I feel even until today that our family's not really complete. Like it's us, but we don't have a family because we never had a child together. I really desired to have another child. Like I said, I felt it was very important, it was important to my marriage. It was important to our relationship. It was just -- it was important. I really desired. I prayed about it, you know, night and day. It was really, it was important to have another child, but it didn't happen, so. The one thing in life, I set goals and I

meet them with my education, with everything. But this was the one thing that was totally out of my control that I wanted to have another child and I just -- it didn't happen. So it was just a blank thing and in some ways almost like a failure in terms of that aspect of my life, I feel that way.

Joy

It makes me feel like I'm incapable of doing what a woman should be able to do as far as providing a child for my husband that we both want so badly. I feel that as a woman that was my God-given right and I don't have that. I don't have the opportunity to make that happen.

Kalia

It made me feel like I wasn't, you know, maybe the wife that he thought he could have children, knowing that it just was not happening and he never really had children at the time, so I felt very, you know, I don't know, I guess desperate. I had the same feeling for maybe 14 years now.

It is clear from these testimonies that the women had a desire to be a mother, which was affected by some form of infertility. There were some emotional moments when the participants spoke about wanting to have a child and experience the joy of being a mother. Some of the women said they desired a child because they were concerned about failing to fulfill their requirements of giving their husband or significant other a child. The thoughts of having a child or extending their family was associated with positive emotions and experiences such as love, joy, laughter, nurturing, and the perception of children as a gift. Children were described as making the family complete.

Stressing Out

The second theme that became evident in the data is stress. Stress is defined as a person–environment relationship that is perceived as taxing or exceeding a person’s resources (Lazarus & Folkman, 1984). The question "what has your experience with infertility been like for you?" elicited reference to terms such as stressful, brutal, and other similar words or phrases to convey the fact that infertility was perceived as emotionally stressful. *Celine* recalled how she would cry every month when she did not get pregnant and after trying and trying she felt like a failure. She said she was stressed and the experience also was stressful on the marriage. *Chole* explained going through in-vitro fertilization as a emotional roller coaster in process and an emotional letdown at an unsuccessful conclusion. The theme of stress was markedly evident when the participants continually referred to experiencing infertility as a stressful event. *Jasmine* explained that she gained a lot of weight from stress eating. *Trish* said that not being to have more than one child has been devastating for her. *Marcia* said her husband wanted another child as much as she did and that this was very stressful and emotional because she was unable to get pregnant. Some of the women stated that they were preoccupied with thoughts related to infertility, and some had become obsessed with those thoughts, making the experience even more stressful. Depression was common among all of the participants; they felt as though they were suffering, and was saddened each month that their menstrual cycle came on or when the pregnancy test was negative time after time which signaled no pregnancy or a failed treatment which added addition stress. *Kalia* explained that after taking Clomid three times on separate occasions she was able to get pregnant, but lost all three of the pregnancies. The experiencing of trying to get pregnant

for years without success, then finally getting pregnant to only lose the pregnancies was very stressful and frustrating and was diagnosed with post-traumatic stress. *Lashelle* explained that she would sometimes go into a depressed state, knowing that she was trying to have a child but was not successful. *Terry* said her experience with infertility has been very stressful and although she has children already she feels cheated from the opportunity to have another child. *Esther* was stressed by not having the option to try in-vitro because the procedure was too expensive. *Esther* stated that if her insurance covered infertility treatment she definitely would have tried in-vitro. *Chole* explained that during her first IVF cycle, she received higher dosages than normal because of her age. The physician told her she had a 30% chance of getting pregnant. She explained that after the eggs were implanted into her body, she fell at work and blamed herself for the egg not attaching. During her second cycle of IVF there was a lack of communication on when she should start a new medication, therefore the egg did not attach. The third cycle was also not successful. *Sasha* was frustrated with herself for not paying attention to her body when she was younger. She felt as though there were warning signs she should have noticed.

Chole

This experience has been very stressful and has been an emotional roller coaster it makes you cry and laugh. It was especially stressful going through the In-vitro process. I went to a psychologist and -- because I was going through a bout of depression. you're doing all this for something that you might, you, you might and you might not get. But they must implant the -- this, this, this, this fertilized egg and you're hoping it matures so that it will attach. So you're walking around for

three days just wondering, you know, should I move, shouldn't I move. You go home. You lay down for six hours hoping that it attached this and that. I had an incident where I actually fell. So it's like damn did, did I just make it not attach? And when you get your period after you've gone through all of this, it's just an emotional letdown. You cry, then you call them, and you tell them that your cycle is on. Then they make you come in and have a pregnancy test, blood pregnancy test, but you know already in your mind that I'm not pregnant.

Esther

It was stressful because like I said, before it was high --something of high priority and I really wanted to have a child.

Sabine

It was very stressful because every month when your period comes on, you get disappointed.

Sasha

It was a lot of times in church I would just like be crying and nobody knew but it was just that that was my time with God and that was like one of my confirmations like through God like with this whole process, like I remember one weekend I was so depressed and confiding in one of my friends and she actually went to church with me that Sunday.

Trish

Trying to get pregnant has been very stressful. I began to doubt myself and just went through a lot of emotions personally as to how I saw myself as a woman.

All participants in this study experienced some form of psychological stress related to their infertility problems. The participants inability to conceive was not only stressful, but was coupled with depression, sadness, and anxiety at times. Most of the participants view having a child as one of the things to do on their list and as a goal fulfillment in their life.

Perceiving Social Support

The third theme that became evident in the data was perceiving social support. Social support is defined as a network of family, friends, neighbors, and community members available in times of need to give psychological, physical, and financial help (The National Cancer Institute, 2017). Social support is a source of coping of great importance for the infertile woman to help preserve her physical and mental health. Social support is a valuable coping method that contributes to love, affection, confidence, self-expression, self-knowledge and sense of belonging (Erdem, & Ejder Apay, 2014). Most of the women described their husbands as their most important source of support. *Celine*, *Jasmine*, and *Terry* said their husbands were very supportive when they were dealing with infertility problems. *Crystal* explained that her ordeal with infertility brought her and her boyfriend closer. She explained how she would talk to him about what she was going through, and he would comfort her and tell not to worry, it will happen. *Joy* recalls her husband telling her that he's fine and it's going to be okay. He also reassured her that there are other alternatives. Although *Kalia's* husband was very supportive, she sought professional help from a psychiatrist for three years.

Esther

He just kept saying well, we'll just keep trying and he would reassure me that will happen.

Marcia

He was supportive in the sense that he says whatever I wanted he was okay with that. He wanted to make sure that I was happy and on the other hand he wouldn't have done anything extra but if I was willing to do whatever he would have been there.

Sheila

We stuck together. We were working together. We are partners. We're a couple. We are always there for each other. He was very sweet and said well, I didn't marry you for kids. I married you for you.

Trish

He was very encouraging me to get to the bottom of what the issue was.

All of the participants in this study appreciated the support they received from their spouse, friends, and family. They believed that if their infertility problem could not be treated and they would never have children together, the husbands would be understanding. These husbands were supportive from the beginning to the end of the infertility process, regardless of interventions taken. The data from this study showed that social support was an important aspect to the participants, to help buffer the negative effects of the stress of not being able to naturally conceive.

Spiritual Coping

All of the participants in this study utilized emotional-based coping by adopting spiritual coping strategies. *Coping* is defined as the cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands created by a stressful transaction (Lazarus & Folkman, 1984). All turned to religion, but some questioned why they were having trouble conceiving a child when it should come so naturally. Others saw it as God's will. To cope with their infertility problems all participants used prayer as a coping mechanism. *Shelia and Celine* said they prayed a lot. In addition, *Celine* would also ask people to pray for her.

Chole

I was thinking maybe God didn't bless me with that because I wasn't married, you know. He's a God of order and I was trying to do it out of order. I was thinking maybe God is upset with me because I'm trying to do it out of order. But I still prayed, and I think that's what helped me got through it.

Terry

I have a strong faith in God. I just felt like, you know, growing up in the church that faith is bigger than the results of a doctor can tell me because at the age of 18 I felt I could never have kids and I ended up having three so that's how big my faith was. And then going through this trimester I felt like God was saying again we were wrong and that has not happened to me.

Crystal

I prayed a lot. God with prayer and lots of prayer and just coping mechanisms I think that's what helped me get through it.

Esther

I left everything in the hands of God and I just said if it was meant to be, it would happen. It just never did. I have a strong faith and I pray a lot and I believed that whatever is meant to be will be. So if it was God's will, I felt I would have conceived and, you know, carried a child to term. I prayed about it, you know, night and day.

Joy

I just pray to God about it and I just trying to keep my faith that hopefully I'll get a miracle out of it.

Kalia

I went to church and I prayed a lot.

Marcia

We scheduled the hysterosalpingogram, you know, we did that. I was cleared but still nothing happened for a few years. So, you know, so I still question what was the problem but I had faith and I knew it would happen at the right time.

Most of the research participants had close connections with God and relied on prayer as a coping mechanism. They lived with the problem by turning to God and some coped by telling themselves it was in God's hands All had faith in God and asking for His

help was common among all of the participants. The data showed that using religious and spiritual meaning helped the participants cope with the stress of infertility.

Restatement of Research Question

The overarching research question for this phenomenological study is "What is the lived experience of African-American women and infertility?" The researcher engaged in a careful analysis of the data collected utilizing Miles and Huberman (1994) data collection guide. This method was appropriate for analyzing the transcribed narratives of the participants.

Connection of a Theory

In this study, all of the participants appraised their experiences with infertility as stressful. In conjunction with the study findings, the Lazarus and Folkman (1984) Transactional Model of Stress and Coping Theory was applied to the lived experience of African-American women with infertility. Lazarus and Folkman's (1984) Transactional Model of Stress and Coping Theory is a framework which emphasizes appraisal to evaluate harm, threat, and challenges, which results in the process of coping with stressful events (Lazarus & Folkman, 1984). The stress of not being able to conceive naturally was clearly linked to the assumptions associated with this transactional model of stress and coping theory. This was evident as the participants talked about being on an emotional roller coaster, as in being happy one moment in hope of becoming pregnant to crying every month the pregnancy test came back negative and coping through the use of prayer and talking to God. The Transactional Model of Stress and Coping Theory is further discussed in Chapter Five.

Chapter Summary

Chapter Four provided the narrative stories and multidimensional experiences of African-American women and infertility. A discussion of the findings of this phenomenological inquiry into the lived experience of African-American women and infertility is presented in this chapter. The researcher investigated the meaning and essence the participants assigned to this phenomenon. Max van Manen's (1990) hermeneutic phenomenological approach was used for data collection and Miles and Huberman's (1994) data analysis guide provided the researcher with deeper knowledge and understanding of the participants life-world as they experienced the phenomenon. The researcher investigated what the participants' subjective meanings of their experiences directed toward the phenomenon were. The participants allowed the researcher to dig deep into their thoughts and feelings, permitting the researcher to develop themes and propositions that accurately reflected their experiences with infertility. Through a hermeneutic approach, the researcher identified four themes that embodied the experiences African-American women had with infertility. Chapter Five follows with a discussion on the study results, its significance to nursing, and recommendations for future nursing research.

CHAPTER FIVE

Discussion and Conclusion of the Inquiry

The purpose of this hermeneutic phenomenological study was to gain a deeper understanding of the lived experience of African-American women who have experienced infertility. This chapter discusses and summarizes the results from the data analysis to depict meaning and conclusion on the lived experience of African-American women and infertility. The intention of this study was to attain an epistemology of African-American women's life-worlds as they experienced the phenomenon. An interpretative analysis of the themes that emerged from the study were delineated and linked with published literature (Chapter 2). A discussion of the relationship between the findings of the study and the transactional model of stress and coping theory, the significance of the study, significance to nursing, the implications for nursing education, nursing practice, nursing research, health/public policy, strengths and limitations, indications for future studies, and a conclusion are the topics of discussion in this chapter.

Exploration of the Meaning of the Study

This research utilized a qualitative phenomenological inquiry in combination with Max van Manen's (1990) hermeneutic approach for data collection and Miles and Huberman's (1994) data analysis approach for analyzing the data collected. This study began with a thought, a personal interest, and a strong desire to uncover the meaning of this phenomenon among this population. The rationale for this study was supported by the paucity of existing literature regarding the lived experience of African-American women and infertility.

Participants' views on their experiences were obtained through face-to-face semi-structured interviews. As the personal narratives were collected from the participants, the researcher engaged in intensive listening to the words the participants used to convey meaning, while also searching for the essence of the phenomenon. This research uncovered the emotional turmoil confronting these African-American women while they experienced infertility. Many of the participants spoke about how stressful the experience was for them. Meaning and themes emerged from the data as the researcher examined each transcript, carefully editing and reducing the data which led to the textual explanation of the phenomenon.

To reflect trustworthiness and strength in this study, Lincoln and Guba's (1985) trustworthiness criteria on credibility, dependability, conformability, and transferability was utilized. *Credibility* is the believability of findings in a qualitative study, which replaces the term internal validity used in quantitative study. It is considered the truth established through the adaptation of the research method to collect data and report findings. The criteria to achieve credibility include prolonged engagement; triangulation (of methods, data sources, theories, and investigations); peer examination; group discussion; negative case analysis; and member-checking (Lincoln & Guba, 1985). Credibility was established by the researcher through strict adherence to the approved Barry University Institutional Review Board protocol, which included recruitment, data collection, and analysis by the researcher. To ensure credibility, the transcripts were also verified by the participant for accuracy.

Dependability refers to the consistency of an in-depth methodological description to allow the study to be repeated. In the case of qualitative studies, the researcher gathers

evidence to support the claim that similar findings would be obtained if the study were repeated (Lincoln & Guba, 1985). In this study, the researcher ensured dependability by keeping a paper trail of the study, including all documents collected and created throughout the study that were used in the final report. The researcher also kept a description of the research method in order to provide a stepwise replication of the study.

Confirmability refers to the researcher's ability to demonstrate that the data represents the participants' responses interpreted by the researcher. In this study, the researcher utilized reflexivity in the form of memo writing to make biases and assumptions explicit. The essence of credibility laid in the truth findings of this study through member checking of the transcripts by each participant for accuracy. The researcher interpretation of the participants text ensured that the findings of the study would be consistent if the study was repeated with the same participants or in a similar circumstance.

Transferability refers to evidence supporting the generalization of findings to another group or setting. The researcher accomplished transferability by providing enough information for readers to make that determination. The researcher gave adequate information about the phenomenon, the research context, processes, members, and research participant's connections to make it possible for the reader to decide how the findings can be transferred.

Interpretive Analysis of the Findings

The participants in this study echoed the same experiences with infertility. They all described the experiences as stressful relating to their want to have a child or another child so strongly that trying to conceive consumed their daily thoughts and moments.

Through the process of dealing with infertility, the participants' husbands were as supportive the best that they knew how. Although all the participants received support from their husbands or significant other, they all relied on prayers and talking to God to get them through the pain of infertility. Through the process of data analysis and interpretation of each participant experience, the emerging themes were identified which yielded the textural statement and the final composite of the essence of the experience.

Desiring

The overall impact of infertility on the participants was similar and influenced by factors such as the importance of having a child, extending their family, as well as the expectation that all women should procreate. The women spoke about other women taking for granted that they were able to conceive so easily and how some women who did not deserve to have children was able to have many children. *Sasha* describe her feeling of inferiority to other women who were able to conceive, as described in her comment, "everybody in my family is able to get pregnant. Why I can't do it, you know? This is not common. This is not the norm for usually black people. Like that's all we do is have babies. I have a cousin, she has seven kids, you know, and then like I used to hear all the time, oh, she's pregnant again, oh, she's pregnant again. She even made a comment one time she was like, "You want one of my babies?"

Most of the women desired to have a child so badly, that they tried alternative methods, which increased the stress that they were already experiencing with being infertile. As a last resort of conceiving, some of the women took hormones and some went through In-vitro fertilization in hopes of conceiving a child. Furthermore, these women echoed sentiments of feeling less than a woman because they were not able to

naturally conceive. Karaca & Unsal (2015) also reported similar findings where infertile women felt excessively responsible toward society and their spouses, and deemed being unable to have a child as a burden. Miles, Keitel, Jackson, Harris, & Licciardi (2009) found that for women in their study who had undergone treatment for infertility, motherhood was seen as a biological imperative and a very significant life role. When these life roles were not fulfilled, these women experienced distress and feelings of failure became part of their daily experiences. Having children was vital to the women and being unable to do so negatively affected their view of life and caused great harm to their self-perception (Karaca & Unsal, 2015). The women in this study blamed themselves for not giving children to their husbands and wondered what they had done wrong to deserve the battle with infertility. It is very hard to separate a woman's desire to have children from society's expectation of her role as chief caretaker (Miles, Keitel, Jackson, Harris, & Licciardi, 2009).

The theme of desire was apparent as the participants spoke of their experiences of not feeling complete unless they had a child. In a study conducted by Tabong & Adongo (2013), the researchers reported similar descriptions found in this study of the infertile woman desiring to have a child. Some of the women in the study felt that childlessness denied them full membership in their husband's family, and that their role in the family would not become secure until they had a child (Tabong & Adongo, 2013). Not being able to conceive meant the women in this study saw themselves as unable to adhere to the requirements set forth by society that a woman should be able to conceive a child. This study findings is consistent with another study on the wish for a child among women who conceive with advance reproductive technology by Papadatou & Bellali (2012). The

researchers found that the underlined wish to reproduce increases when women realize that they may not be able to have children and their desire is socially-constructed based on the mother model in their early years. This requirement insists that a woman must prove her fecundity as a woman (Papadatou & Bellali (2012). *Chole* depicted that with her comment, " I felt very empty inside to have not ever conceived or had a child because that's what society look at what you could do, you know, procreate. And here it is I can't even do that." *Crystal* also felt incomplete "you just feel like you're not whole 'cause you can't get pregnant and go through the normal pregnancy cycles like a normal woman would. "*Sasha* also echoed the same feelings with her comment " I can't do the one thing that mostly everybody expects women to do, have babies."

Sabine

That is my only other dream in this world. Becoming a nurse was first and being a mother is second. There's no other goals in life that I have. I've always seen myself to be a mother. I've always been the mother figure to people and I – I just love children. I want a big family.

Sasha

That was the one thing on my long list of things that I wanted to do; that was my last thing. Like I would have felt complete at that point. Like okay, anything that I set out to do I accomplished, you know, become a nurse, did it; you know, get married, did it; become a pharmacist, did it; become a mother, can't do it. Like that was my completion. Everything was in place except that. That was the one thing that I was missing. So it felt to me like I was left incomplete basically, to me.

Maria

I only saw myself as a mommy. So if I was not a mommy, I don't think my life would not be complete.

Sophia

I feel very strong about being a mom. I think it's the most beautiful experience.

Shelia

To be a mother is just a most beautiful thing. I wanted to see how my children would look like. I want to have children.

Terry

It's kind of daunting. Very disheartening to you when you want to produce a child and find out that you can't and then the person you're with really wants one.

For many of the participants, this experience was the first time that they realized that their lives were not unfolding as they had planned with the expectation to have children.

Trish

I wanted to be able to have an expanded family and also to fulfill my role as a woman. It was part of how I saw myself as a woman and to be able to produce, and in this case more than one. It was, I thought, part of my role as a wife and the expectation that I would be able to produce and extend my family. My expectation was to have more than one child and when it became an issue I thought that – I began to feel like I was less than a woman.

All of the women expressed that the inability to fill their desire naturally has made them feel less than a woman. They weren't able to give themselves, husbands or

significant other the one thing that should come so easily. *Sasha* recalls how not being to conceive took an effect on her physically and emotionally. *Marcia* explains since her son would be going off to college soon, her husband and herself would become empty nesters. She felt that having another child would keep her feeling young. After trying for a few years to become pregnant, nothing was happening.

Sasha

I wasn't able to give him the one thing that I know he wanted so badly. I apologized to him like I'm so sorry, you know, had I known this I would have told you up front before you married me.

Lashelle

I can see the look in his eyes sometimes that he's sad and my heart is saddened as well.

Marcia

You feel like a failure because you feel like something is wrong, like you were the problem, you know, something is wrong, you know. Especially if your husband wants another one it's very hard emotionally, especially if you're trying. Study participants described their desire of having children as stressful and felt pain for not being as fertile as other women who seemed to become pregnant so easily.

Joy

I feel like everybody else can do it so why can't I?

Sabine

Nobody else in my family has a problem. They pop out babies left and right. But I would be able to provide and care for and give a stable, loving home whereas other people in my family live on welfare and Social Security. So I question, you know, why everybody else? Why can they have all these children and we're having so much problem.

Trish

When I saw other people having more than one child then it started to bother me that I was not able to conceive or it was harder for me to conceive. I began to doubt myself and just went through a lot of emotions personally as to how I saw myself as a woman.

Consequently, the women in this study struggled to reconcile with an identity as an infertile woman. All of the participants in this study questioned their role as a woman because the one thing that they desired was to conceive a child or extend their family. These findings were consistent in a study by Ceballo, Graham, and Hart (2015) that recorded the experiences of socioeconomically diverse African-American women with infertility. These researchers reported that experiencing infertility greatly impairs a woman's sense of self and gender identity. The desire of these women to have a child placed great value on conceiving and carrying to term. A song by Kellie Coffey titled "I would die for that," expresses her personal desire to be a mother. This song gave meaning to the feelings shared by the women in this study.

Jenny was my best friend.

Went away one summer.

Came back with a secret

She just couldn't keep.
A child inside her,
Was just too much for her
So she cried herself to sleep.
And she made a decision
Some find hard to accept.
Too young to know that one day
She might live to regret.
But I would die for that.
Just to have one chance
To hold in my hands
All that she had.
I would die for that.
I've been given so much,
A husband that I love.
So why do I feel incomplete?
With every test and checkup
We're told not to give up.
He wonders if it's him.
And I wonder if it's me.
All I want is a family,
Like everyone else I see.
And I won't understand it

If it's not meant to be.

'Cause I would die for that.

Just to have one chance

To hold in my hands

All that they have.

I would...

"I Would Die for That" (Coffey, 2007).

Stressing Out

The results of this theme highlighted the emotional consequences of infertility. Participants in this study identified some experience of infertility with anxiety, sadness, depression, and stress. In a study conducted by Lakatos, Szigeti, Ujma, Sexty, & Balog, (2017) on anxiety and depression among infertile women, the results indicated depressive and anxiety-related symptoms of infertile women are more prominent than those of fertile females. Many of the women in this study talked about how they would cry each month when they got their menstrual cycle. *Chole* explained she was very stressed when her doctor's office left the incorrect information on her answering machine on when she should have taken a medication to stop ovulation; therefore, she had to start the process all over again and pay for all the medications again which was very costly which emotionally and financially stressed her out. The findings in this study are consistent with the results of a study which found infertile women deal with major life changes which include various physical, emotional changes and the emotional roller coaster of feelings is renewed and reinforced with every menstrual cycle (Imeson & McMurray, 1996). Most of the participants of that study spoke of being devastated or crying for days and many

spoke about frustration and stress at not being able to naturally conceive. *Trisha* explains how she had anxiety related to not being able to conceive. *Celine* explained it was very hard for her every month she did not get pregnant, and she would cry frequently, no one know except her husband know what she was going through. She could not understand why she was not able to pregnant a second time. All she wanted was to have a baby with her husband.

Chole

You cry. To want to be a mother and not be able to be a mother is really emotionally draining and psychologically you can find yourself getting depressed.

Crystal

I was really sad and a little depressed. The emotions are that, you know, you have to go an extra measure to conceive.

Jasmine

Because, you know, you expect that you're just going to have a child, children, whenever you decide to, you know, you just assume you're going to. When that doesn't happen, it's sort of tires you and becomes stressful; it's not something that everyone experiences, so some people don't understand why it's so stressful to you.

Joy

It's been very stressful. Very stressful. I get deep in thought about it. I can't eat and I'm up all night thinking about it and trying to figure out what can I do to help

it or to change the situation? So it's been a very stressful thing. *Sheila* explains her experience as brutal.

Kalia

Due to the stress of infertility, getting pregnant, and losing the pregnancies, I had to go to a psychiatrist and I was under psychiatric help for three years due to it. I did not feel like I was worth anything at that moment. I even felt suicidal at times. It was so stressful making sure that I was ovulating or not ovulating, keeping up when to take the pills, and going for regular checkups. It was frustrating because I could not go when I wanted I had to go at a special times of the month. It was just very frustrating and depressing, I would say.

Esther

When we first got married everybody knew we were trying and then I would see other people pregnant. I did cry a lot because I felt a sense of emptiness inside. It made me feel inadequate and I would get sad because I wished I was pregnant. I felt like a failure in terms of that aspect of my life, It was difficult to deal with.

Marcia

I was sad, down, and depressed. I felt very down because I wanted another child. I wanted three children. You feel like a failure like something is wrong with you. I felt like I was the problem. It was very hard emotionally.

Maria

I would cry daily. I was miserable. It was stress on the marriage also. When I would try to talk to my husband or bring up the subject, he would try and change the subject, maybe it was too touchy for him.

Sasha

I was sad for myself. I blamed myself, I was embarrassed and ashamed because everyone around me, my family, my aunts, my friends would say, girl, you need to get pregnant. They would ask, why you're not pregnant? Or they would say, you're going to be too old to get pregnant.

Sophia

It was very emotional, it was a roller coaster up and down. When I say emotional roller coaster, it's from tears one day to fear, anticipation. Highs and lows. I would be up and down. It's kind of when you start, it's a cycle. It's like you can't get off that cycle. You can't get off that wheel. It just keeps driving and keeps turning and keeps turning. You go through the process and then you like if they're not successful at the end, you said okay, I'm not going to do it anymore, I'm not going to do it anymore. Then a few months will pass and like I got to, I got to, I got to. I got to try it again, I got to try it again. It's tremendously stressful. It's stressful on your body. It's tremendously stressful. It's stressful on your body. You have to go certain times of the day, first thing in the morning so they can do the pelvic exam, so it's a lot of, you know, you're going in a lot when the cycle is on. They're taking blood and the injections is another tremendous

part of the process. The injections. Menopur, which one of the young ladies in the lab at the doctor's office termed liquid -- no, a liquid knife. So when you inject that one into -- subcutaneous injections, when you inject that into your abdomen, that one actually was a sharp pain. The highs and the lows are one of the scary things about it because you just don't know. Then the physical discomfort, sometimes you just want to cry because you're in pain.

Most of these women expressed feeling depressed and frustrated by not being to do something that was supposed to come naturally as a woman. This finding was supported by a study conducted by Wong, Jin Jia, Tan, Siew, and Jiaqi (2012). The researchers found that depression is one of the most prevalent psychological disorder experienced by women with infertility. The stress experienced by these women developed from the desire to conceive. The desire to have a biological child in society can result in unhealthy practices (Tabong & Adongo, 2013). Some of the women reported being constantly preoccupied with thoughts of their inability to have a child and experienced insomnia and weight gain due to stress eating.

These findings were consistent with similar findings that infertility significantly influences the physical and emotional health of infertile women (Obeidat, Hamlan, Callister, 2014). Conceiving a child was a major milestone in the participants lives; therefore, the inability to conceive lead to their distress. This findings in this study were consistent with a study conducted by Hasanpoor-Azghdy, Simbar, and Vedadhir (2014) which found infertility is a psychological suffering with devastating effects on the psychological well-being of the infertile woman. The stress stemming from unaffordability of the infertility treatment cost were also found in the study (Hasanpoor-

Azghdy, Simbar, and Vedadhir, 2014). The poem "Infertility" gives meaning to the ongoing stress of dealing with infertility shared by the women in this study.

Trying and trying

So she goes to pee

She holds the thing in her hand

And she can see.

Not the result that she wanted

Not again.

Every time she does this she has empty hands.

Now she gets help from an outsider

She thinks "It's cold in here & That things go were?"

Now, She's nervous and anxious and this isn't fair!

The next visit should tell her why.

Until then she tries not to cry.

What are the results of the blood they took?

What does this mean? How does her uterus look?

Do they know what's wrong or is this just bad luck?

She is angry and sad and confused as f--k!

But.. she still won't give up.

"*Infertility*" (Surg girl, 2014).

Perceiving Social Support

From the research participants' experiences with infertility, the theme of perceived social support emerged. Most of the women felt supported by their husbands

and did not feel pressured to have a child. Mosalanejad, Parandavar, Gholami, & Abdollahifard (2014) also reported similar reflections from infertile women in another culture where positive interaction between the husbands and wives were a source of hope and social relationships were effective in making decisions regarding infertility. This study highlighted the importance of spousal support above other kinds of support from family and friends. In this study, many of the participants' husbands reassured their wives that they married them for them, not just to have babies. Another study also supported the findings in this study that husbands were very supportive when their wives were experiencing fertility problems (Kenarsari, Ghahiri, Habibi, & Boroujeni, 2015; Ried & Alfred, 2013). Prior researchers have identified that a partner's support plays a vital role and decreases the need for others' support (Akizuli & Kai, 2008; Soltani, Shaeiri, Roshan, 2012). In this study all of the participants in this study identified their partner as the main source of support through their infertility experience and the participants expressed great appreciation that they side by their side.

Sasha

I felt support from my husband and he was probably the main person that really knew all of the details, of course, 'cause we would, you know, check when my cycle was on and check to see if it was scheduled. Like we were trying to get pregnant so he was very supportive.

Trish

He was encouraging me to get to the bottom of what the issue was. Once we found out what the problem was, he was okay with it and not wanting to pursue

anything other than what I wanted to do. So he was willing to have me make the decision of what direction to take regarding the issue.

Some of the women saw their family and close friends as a source for support; noting that they thoughtful and sensitive in regard to what they were going through. especially those who had similar experiences with infertility. The participants reported they felt supported by family and close friends by advocating for them.

Sabine

I talked to many fellow coworkers or people that have had fertility issues themselves.

Sasha

One of my friend girls she knew what I was going through so she would support me and she would like tell me what supplements to take, she would buy it for me, she was like, hey, read this article because she was going through the same thing. So she was doing the same thing. So I felt a support there.

Sophia

I had a conversation with my brother about what I was going through. As a matter of fact, I even showed him the profile of the donor.

Many of the women in this study only talked to their husbands about their infertility problems. This was consistent in a similar study conducted by Gourounti, Lykeridou, & Vaslamatzis (2012) which found the partner to be a potentially crucial source of support for women who are reluctant to discuss their fertility difficulties with others (Gourounti, Lykeridou, & Vaslamatzis, 2012). Few found support in family members and friends. The husbands support and empathy for their wives were expressed

in the words of the song titled "Her Diamonds"

Oh what the hell she said

I just can't win for losing

And she lays back down

Man there's so many times

I don't know what I'm doing

Like I don't know now

By the light of the moon

She rubs her eyes

Says it's funny how the night

Can make you blind

I can just imagine

And I don't know what I'm supposed to do

But if she feels bad then i do too

So I let her be

And she says oh

I can't take no more

Her tears like diamonds on the floor

And her diamonds bring me down

Cause I can't help her now

She's down in it

She tried her best but now she can't win it

Hard to see them on the ground

Her diamonds falling down
She sits down and stares into the distance
And it takes all night
And i know i could break her concentration
But it don't feel right
By the light of the moon
She rubs her eyes
Sits down on the bed and starts to cry
And there's something less about her
And I don't know what I'm supposed to do
So I sit down and I cry too
And don't let her see
And she says oh
I can't take no more
Her tears like diamonds on the floor
And her diamonds bring me down
Cause I can't help her now
She's down in it
She tried her best but now she can't win it
Hard to see them on the ground
Her diamonds falling down
She shuts out the night
Tries to close her eyes

If she can find daylight
She'll be alright
She'll be alright
Just not tonight
And she says oh
I can't take no more
Her tears like diamonds on the floor
And her diamonds bring me down
Cause I can't help her now
She's down in it
She tried her best but now she can't win it
Hard to see them on the ground
Her diamonds falling down
"Her Diamonds" (Thomas, 2009).

Spiritual Coping

The results from the participants' voices brought forward the theme of spiritual coping. All of the participants said that being unable to conceive naturally was very stressful and they had to find a way to cope with their situation. All of the participants' appraisals of their infertility led them to turn to spiritual coping as source. The findings in this study was supported by a similar study among Iranian women. The researchers found that the participants used religious coping strategies to promote psychological competence. Relying on a higher being gave the participants a deeper understanding and discovery of self, which led to being happy with the God-given phenomena, leaving the

self in trust of a higher being, spiritual growth and development and as a result, gaining the strength to deal with the burden of infertility so that they can be at peace with themselves (Latifnejad Roudsari, Allan and Smith, 2014). All of the women in this study said they turned to God. The participants felt that in spite of their diagnosis, they must leave everything in God's hands. This is consistent with the results in a study by Obeidat, Hamlan, & Callister (2014) which found that trust in God was a powerful coping strategy for women experiencing infertility. *Sophia* explained how she received Intrauterine Insemination from a doctor who was not authorized to perform in-vitro. She was very frustrated with the fact that she would have to seek help from another physician, starting the process all over again. One of *Sophia's* co-workers shared her experience with infertility, opening a dialogue between the two of them. The number of a physician who performs in-vitro was given to her. *Sophia* believed it was God's divine intervention and God was listening to her prayers. *Sophia* also explained that Prayers got her through a lot of days and a lot of nights. *Trish* explained that her being diagnosed with infertility caused her to question her faith, but she later resorted to it was God's plan for her not to have another child. *Trish* resorted to the thinking that her life was the way it was suppose to be according to God plan.

Lashelle

We just pray about it and I hoped that one day that I would conceive a child for my husband. We believe if it was God's will it would happen.

Maria

I am Catholic. So I have to go back in my faith. I prayed a lot. My thing was I wanted to seek what I had been working for. So I just prayed and then I knew that

it was going to happen. God knows everything that is going on in your heart. I said to God, you know I want a baby.

Marcia

I just believe in God. I prayed because I am a child of God. spoke to my gynecologist and she suggested that I did hysterosalpingogram where in which they clear the tubes to make sure that there is no blockage. Because when she did an ultrasound she thought there was a small blockage. So we did that. We scheduled the hysterosalpingogram, you know, we did that. I was cleared but still nothing happened for a few years. So, you know, so I still question what was the problem but I had faith and I knew it would happen at the right time.

Sabine

I knew that he wanted me to be a mother because he would show me that he wanted me to be a mother. Like, just the dreams he would send me or the desire. Like, he doesn't give you a burning desire if he's not going to help you fulfill that. Everything is in God's timing.

Sasha

Prayer. Lots of praying. Oh, I -- I mean, this really brought me closer to God because throughout all of this like, you know, doctors saying no and saying there won't be a chance and it's really true like when a doctor says no you can still say yes so really having a close relationship with God, lots of prayers. It was a lot of times in church.

In this study, all participants used positive religious coping strategies, which gave them some relief from the anguish of being diagnosed with infertility and helped them obtain a feeling of empowerment and the ability to control their emotions. This has been reported in a previous study by Latifnejad, Roudsari, Allan, & Smith, (2014). Marks, Nesteruk, Swanson, Garrison, & Davis (2005) conducted a qualitative study on religion and health among African-American women, which found the same concept of relying on God through prayer. They reported that their participants expressed the view that their religious faith gave them the peace, strength, confidence and power needed to overcome their life challenges. Donkor & Sandall (2009) similarly found that among women seeking infertility treatment in Southern Ghana, the majority of the women prayed. In another study by Hamilton & Lobel (2008) religion used as a coping strategy diminished psychological systems and had a positive impact on health. In this study on the lived experiences of African American women with infertility, the participants turning their faith to God was a common coping strategy used to decrease their stress level. The following Bible verse is a reflection of how the women in this study's relationship with God gave them as much comfort as woman who already had children. " He settles the childless woman in her home as a happy mother of children. Praise the LORD. " (Psalm,113:9).

Transactional Model of Stress and Coping Theory

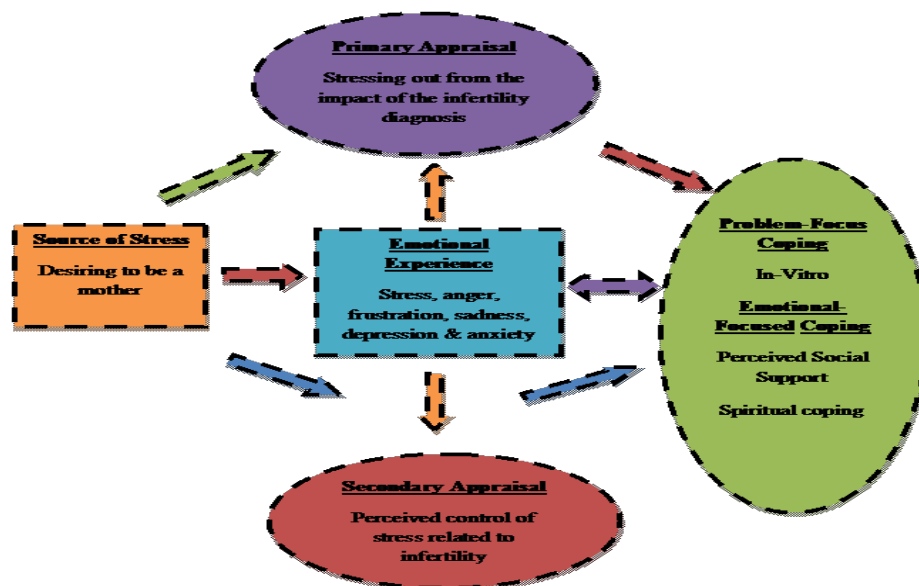


Figure 2. Transactional Model of Stress and Coping Theory (Roberts, 2017, Adapted from Lazarus & Folkman, 1984).

The participants in this research described their experiences as stressful, as they explained how they would often cry, how they felt depressed, had experiences with anxiety and felt frustrated with not being able to naturally conceive. Their willingness to

participate and speak openly about their experiences allowed for this researcher to explore and provide a deeper understanding on what it means for an African-American woman to be infertile. The findings of this study may be linked to the Lazarus and Folkman (1984) Transactional Model of Stress and Coping Theory. The theory's core assumptions of stress and coping can be linked to the emerged themes of the current study of *Desiring, Stressing Out, Perceiving Social Support, and Spiritual Coping*.

In the 1960s Richard Lazarus began his research and writing at Johns Hopkins, at a time when there was little interest in stress or emotion, except on the part of the military. By the 1970s, after interest was stimulated by his influential 1966 monograph, *Psychological Stress and the Coping Process*, and the work of other academic pioneers, it became apparent that emotion and stress were important not only to the military, but for all of academia. The 1966 monograph was eventually considered a classic in behavioral science, and its influence was felt in sociology, anthropology, physiology, and medicine. These experiments led Lazarus to establish the UC Berkeley Stress and Coping Project, in which he extended his ideas on the importance of appraisal to explain exactly what stress is and what coping involves. This project culminated in the publication in 1984 of "Stress, Appraisal, and Coping," which became one of the most widely-read and cited academic books in psychology. Professor Lazarus also emphasized that the way people cope with stress is crucial in their physical, social, and psychological well-being. A basic premise of his was that stress and coping are reciprocal of each other. When coping is effective, stress is usually controlled. But when coping is ineffective, stress mounts and

can get out of control, leading to physiological disturbance, subjective distress, and impaired social functioning.

In his theoretical approach to stress and emotion, Professor Lazarus proposed that emotions, far from being intrapsychic feelings, reflected the fate of one's goals. He proposed the concept of appraisal to refer to the impact of events on a person's strivings, and that different patterns of appraisals accounted for the rich array of different emotional states. In 1984 Richard Lazarus collaborated with Susan Folkman who was a former student of his to develop The Transactional Model of Stress and Coping Theory. This theory sought to explain the relationship that occurs between people and their environments and how they cope with perceived stress. The level of stress experienced in the form of thoughts, feelings, emotions and behaviors, as a result of external stressors, depends on appraisals of the situation. This involves a judgment about whether internal or external demands exceed resources and the ability to cope when demands exceed resources. When faced with a stressor, a person evaluates the potential threat (primary appraisal). Primary appraisal is a person's judgment about the significance of an event as stressful, positive, controllable, challenging or irrelevant. The second appraisal follows, which is an assessment of people's coping resources and options. Secondary appraisals address what one can do about the situation. Actual coping efforts aimed at regulation of the problem give rise to outcomes of the coping process (University of Twente, 2010).

Theoretical Perspectives

Lazarus and Folkman believed that coping involves constantly changing cognitive or behavioral efforts to manage specific external and internal demands that are deemed challenging or exceeds the resources of the person (Lazarus & Folkman, 1984). Coping is

a process provoked by stimuli, and coping styles that are consistent with personal dispositions are maintained through different stressful events. To assess these events, Lazarus' team developed a self-report questionnaire to measure coping directly or indirectly, as well as a frame-work related to stress and coping (Lazarus & Folkman,1984).

According to Lazarus, there are two types of coping factors. The first are *emotion-focused coping* tactics directed to regulating the affect surrounding a stressful encounter. These most often include expression of feelings to others, negative self-focus expression, overt emotional expression, and emotional identification. The other coping factor is *problem-focused coping*. Problem-focused coping is directed toward alleviating the circumstances that created the stress, and include planning, information seeking, and finding solutions for the specific problem. Emotion and problem-focused coping are independent coping strategies, However; both coping strategies can facilitate and impede each other during the coping process (Puente, Carmona-Monge, Marin-Morales, & Naber, 2013). Coping has two major functions, regulating stressful emotions and managing the problem that is causing the distress. Problem-focused forms of coping are usually used in situations that are changeable, whereas emotion-focused forms of coping are used in situations that are not changeable and uncontrollable (Lazarus & Folkman,1984).

Concepts of Transactional Model of Stress and Coping Theory

The two major concepts of Lazarus and Folkman's Transactional Model of Stress and Coping Theory are stress and coping The concept of *stress* is defined by Lazarus and Folkman as a person–environment relationship that is perceived as taxing or exceeding a

person's resources. When faced with a stressful situation, a person will evaluate its potential personal relevance and significance in terms of its impact on valued personal goals (Lazarus & Folkman, 1984).

The concept of stress in this case fits well with the themes of *Desiring to be a Mother* and *Stressing out*. The participants explained that becoming a mother or extending their family was so significantly important to them that it was causing them a lot of stress because they were faced with the challenge of natural conception. *Crystal* was really sad and thinking that she had to go through so many measures before she could possibly have a child. *Jasmine* could not wrap her head around the fact that she was not going to be a mother. *Kalia* explained that she still had post-traumatic stress from her experiences with infertility and even felt suicidal at times. *Sasha* explained how she was so stressed at wanting to have a baby, that she was jealous of other women who had a baby. *Chole* explained she was stressed also because of not being to conceive naturally. After trying in-vitro fertilization three times, she felt like she had let her fiancé and her mother down by not giving her grandchildren. All of the participants felt their whole ordeal was extremely stressful because they had always imagined they would be able to have children when they were ready.

The second concept of Lazarus and Folkman's (1984) Transactional Model of Stress and Coping Theory of the was derived from the word "cope," indicating a primary meaning, for example, "she coped with the problem." It is also derives from the Latin word *colpus*, meaning "a blow" and in the French, *couper*, or "to cut." Coping must contain elements of modification or alteration. Because of the psychological features of the concept, coping can take the form of either modification of external factors, or

internal adaptation to them. In either case, the goal is to reduce or eliminate stress by modifying or removing the external stressor (Lazarus & Folkman, 1984). Lazarus and Folkman defined coping as the behavioral and cognitive efforts that allow an individual to overcome stressful situations and their negative consequences (Lazarus & Folkman, 1984). The concept of coping supports the themes perceiving social support and spiritual coping. The mental anguish from the experiences of infertility produced a lot of stress in all of the participants, so an emotional based coping tactic was utilized. The emotional based coping that all of the participants used was spiritual coping and was an important factor in reducing their stress. This was prominent by the women relying on God for help. *Sheila* explains that her mother prayed for her, but she would also pray for herself to have a child and to see what her children would look like.

Esther

I pray a lot and I believed that whatever is meant to be will be. I knew that we would have been good parents. You know, I say we would have been excellent parents and we're good people. It's not that I questioned my faith, but you know, I'm like God, you know what we would have been, you know, if you had given us a child

Joy

Sometimes it felt like God was trying to punish me for it or something. Like why me? Why am I the one that gets the short end of the stick and everyone else gets to enjoy motherhood and I can't?

I just pray to God about it and I just try to keep my faith and hopefully I'll get a miracle out of it.

Lashelle

We just kept praying and trying to coach one another.

Marcia

I just believe in God. I got myself involved in the church. I was very involved in the church.

Sabine

I knew that He wanted me to be a mother because He would show me that. I mean, I definitely prayed to God. It would – I knew that He wanted me to be a mother because He would show me that He wanted me to be a mother. Like, just the dreams He would send me or the desire. Like, He doesn't give you a burning desire if He's not going to help you fulfill that.

Sasha

I thank my doctor because, you know, he was there but God placed him there for me 'cause this was all God's doing. I coped with lots of praying. This really brought me closer to God because throughout all of this like, you know, doctors saying no and saying there won't be a chance and it's really true like when a doctor says no you can still say yes and like I am -- so really having a close relationship with God. One Sunday in church I felt like the preacher was preaching to me 'cause he was saying like, you know, all the things that, you know, people have told you no, you know, and then he was like well, the doctor say no, Jesus says yes.

Trish

I just chalked it up to it is what it is and it was what it was supposed to be. It made my faith stronger. It also helped that I already had a child. So I just resorted to thinking that that was what it was supposed to be. It was God's plan.

Significance of the study

This study explored the lived experience of African-American women with infertility. The significance of this study was to bring an awareness of the struggles African-American women deal with as a result of being diagnosed with infertility and to address the gap that exist in the literature. The emerging themes of the study were relevant in understanding what it means for an African-American woman not being able to naturally conceive resulting in the themes; *Desiring*, *Stressing Out*, *Perceiving Social Support*, and *Spiritual Coping*. The findings of this study highlighted the experience of infertility among African-American women and illuminated their existence, because in the past they have been hidden from public view and has been nonexistent in the literature, as outlined in Chapter Two. Infertile African-American women often suffer in silence; therefore, this study will highlight the psychological stressors common among African-American women. This study should encourage others to seek support so that they are not suffering in silence and alone. This study should also advance the science of infertility by providing a context for other disciplines such as psychology and Sociology, so that they are aware of the experiences of an African-American women and decrease the stigmatization associated with infertility and encourage others experiencing it to seek help.

Significance to Nursing

Healthcare professional must be able to recognize and acknowledge the emotional stress among African-American women experiencing infertility. The findings of this study indicate that not all women have the choice of utilizing advance reproductive therapy to assist them in getting pregnant with a major factor being the high cost associated with infertility treatments and lack of insurance coverage. This study adds to the knowledge of infertility among African-American women and the results are significant in providing information to nursing education, nursing practice, nursing research, and health/public policy. The results indicated that being diagnosed with infertility is a stressful life crisis, and nurses must be able to offer support and provide culturally-competent care. Acquiring knowledge on the lived experience of African-American women and infertility is significant to the nursing profession in hopes of normalizing their experiences with infertility through interactions, communication, skills, referral of support group, and being supportive during this life event. In addition, this study provides an understanding that the African-American women's experiences with infertility are based on their life-world views expressed in their interviews. This research has the potential to empower the nursing profession with a contextual guide for cultural competent care of this population.

Implication for Nursing Education

Implications of this study for nursing education are significant for many reasons. Infertility is a global problem that can affect the mental health of a woman if she does not have support; therefore, it is important for academia to include infertility as a part of the curriculum to address the care of infertile women and her family. The findings of this study clearly demonstrated a fundamental need for nursing students and healthcare

professionals to become knowledgeable about the impact infertility can have on a woman's wellbeing. Therefore, educational institutions should implement courses which discuss cultural differences and commonalities in women affected by infertility. In addition, there is a need for nursing students and nurses to be educated on the fact that infertility is a condition that can be caused by any of several diseases or conditions having physical, psychological and psychosocial consequence like any other disease.

Implications for Nursing Practice

This study clearly identified that infertility creates long-term emotional stress. Therefore, healthcare workers need to be aware of how to be sensitive to their patients' needs and recognize when the patient's stress is becoming taxing. Healthcare workers should be knowledgeable about supportive services to meet the patients' needs and also help them with problem-solving skills that may help them manage through the course of actions with infertility. Effective and sensitive clarity of communication empowers the patient seeking help. Nurses need to be trained in the art and skill of this factor. The findings of this study can be translated into clinical practice to add to the body of nursing education by providing a context for the development of educational programs geared towards African-American women who are experiencing infertility. Health care providers must be aware of the issues faced by African-American women with infertility to provide cultural competent care. Not only do they encounter pressure from their own biological and emotional experiences, but they are also challenged with views placed on them by society. Healthcare workers who provide care for these women must be informed and identify those women at greater risk for an emotional breakdown and try to minimize the amount of stress they experience.

Implications for Nursing Research

This study represented a small portion of an existing gap of nursing knowledge regarding the phenomenon of African-American women and infertility. As mentioned in Chapter One, there is paucity of nursing literature about this phenomenon among this marginalized group of women. More research is needed to build a strong foundation of support and provide a reference to other women of African-American descent with infertility and to health care providers. Nurses and health care providers must use this knowledge to develop sensitive, anticipatory guidance for African- American women diagnosed with infertility and build from its body of research to provide appropriate information and support.

Implications for Health/Public Policy

The findings of this study revealed the need for public policy change on infertility insurance coverage. As indicated in the study, not all infertile women have the option for paying out of pocket for infertility services. In addition, it is imperative that healthcare and public policy makers be educated to the concept that infertility is a condition not by choice and no women chooses to be infertile. As mentioned in Chapter One, only 15 states in the United States provide insurance coverage for infertility treatments. The findings in this study has relevance for providing a universal country-wide solution towards the treatment of infertility that may lessen the impact of the crisis among this marginalized population.

Strengths and Limitations

Strengths of this study included the rich interpretations on the lived experience of African-American women and infertility. The use of Max van Manen (1990) research activities for data collection and Miles and Huberman's (1994) model for analysis provided an outline for the novice researcher to follow. The data obtained from the participants was powerful and subjective to interpret the meaning ascribed to their lived experiences.

This study presented several limitations. The researcher was a novice, and face-to-face interviews required driving to different locations, making it difficult with scheduling dates and times convenient for the participants and the researcher. The researcher also had a challenge in recruiting potential research participants, due to the sensitive nature of this topic. In addition, three potential research participants who had originally verbally agreed to participate in the study decided not to participate due to the sensitive nature of the topic. Some of the participants had suppressed their experiences with infertility because it was so painful; therefore, some of the participants elaborated on their answers and some did not elaborate.

Recommendations for Future Study

The results of this study support the need for future research in infertility among African-American women and other women of color. It is recommended that future studies explore the experiences of African-American women's husbands and address their experiences of their wife's infertility. It is also recommended that future studies focus on identification of the lived experience of infertility and the marital dynamics among African-American couples who remain childless and the lived experience of

infertile African-American men. Finally, it is also recommended to conduct research on the effects of infertility counseling on reducing psychological stress.

Conclusions

This study of the lived experience of African-American women with infertility was designed to investigate and gain an understanding of this experience among this population. A total of 16 African-American women affected by infertility and who met the research criteria participated in the study using hermeneutic phenomenology as a guide. Face-to-face interviews were utilized to collect the data, and a third party transcriptionist transcribed the transcripts verbatim. The researcher checked for accuracy of each transcript and member-checking was performed by the participants. Individual textural statements and propositions were created after each interview.

Once data saturation was reached, the interviews were completed and four themes emerged from the data: *Desiring*, *Stressing Out*, *Perceiving Social Support*, and *Spiritual Coping*. A composite of the textural statements was synthesized to become the essence, which captured the participants' experiences with infertility as African-American woman. This study supports the need for health emphasis on culturally competent care for infertile women. Nursing students and health care workers need to have a context for referral when training in facilities where infertile women are diagnosed or receive treatment.

Chapter Summary

Chapter Five presented a discussion of the study results, an interpretation of the meaning ascribed by African-American women to infertility, and a linked theory. Also discussed were the significance of the study, the significance to nursing, implication to

nursing education, nursing practice, nursing research, and health/public policy. Chapter Five concluded with the study strengths and limitations, followed by recommendations for future study and a conclusion of the study.

References

- Aflakseir, A., & Zarei, M. (2013). Association between Coping Strategies and Infertility Stress among a Group of Women with Fertility Problem in Shiraz, Iran. *Journal Of Reproduction & Infertility*, *14*(4), 202-206.
- American Society for Reproductive Medicine (2015) Disparities in access to effective treatment for infertility in the United States: An ethics committee opinion. *Fertility and Sterility*, *104*(5), 1104-1110.
<http://doi.org/10.1016/j.fertnstert.2015.07.1139>
- Arizona Center for Infertility Studies. (2015). History of Infertility. Retrieved from http://www.acfs2000.com/history_of_infertility.html
- Armstrong, A., & Plowden, T. C. (2012). Ethnicity and assisted reproductive technologies. *Clinical Practice (London, England)*, *9*(6), 651–658.
<http://doi.org/10.2217/cpr.12.65>
- Audibert, C., & Glass, D. (2015). A global perspective on assisted reproductive technology fertility treatment: an 8-country fertility specialist survey. *Reproductive Biology & Endocrinology*, *13*1-13. doi:10.1186/s12958-015-0131-z
- Bagheri-Lankarani, N., Zarei, F., Zandi, M., Samani, R. O., & Karimi, M. (2016). The Experiences of Women Fertilized through Egg Donation during Their Treatment Process. *Journal Of Evidence-Based Care*, *6*(1), 63-70.

- Behboodi-Moghadam, Z., Salsali, M., Eftekhari-Ardabili, H., Valismordi, M., & Ramezanzadeh, F. (2013). Experiences of infertility through the lens of Iranian infertile women: A qualitative study. *Japan Journal of Nursing Science, 10*, 41-46. <http://dx.doi.org/10.1111/j.1742-7924.2012.00208.x>
- Bell, A.V. (2009). "IT'S WAY OUT OF MY LEAGUE": Low-income Women's Experiences of Medicalized Infertility. *Gender And Society, (5)*, 688.
- Bitler, M., & Schmidt, L. (2006). Health disparities and infertility: Impacts of state level insurance mandates. *Fertility and Sterility, (85)*, 858-865. <http://dx.doi.org/10.1016/j.fertnstert.2005.11.038>
- Bos, H. W., & Van Rooij, F. B. (2007). The influence of social and cultural factors on infertility and new reproductive technologies. *Journal Of Psychosomatic Obstetrics & Gynecology, 28(2)*, 65-68. doi:10.1080/01674820701447439
- Burns, L. H. (1987). Infertility as boundary ambiguity: One theoretical perspective. *Family Process, (26)*, 359-372. <http://dx.doi/10.1111/j.1545-5300.1987.00359.x>
- Ceballo, R., Graham, E. T., & Hart, J. (2015). Silent and infertile: An intersectional analysis of the experiences of socioeconomically diverse African American women with infertility. *Psychology Of Women Quarterly, 39(4)*, 497-511. doi:10.1177/0361684315581169
- Centers for Disease Control and Prevention. (2016). Infertility. Retrieved from <https://www.cdc.gov/reproductivehealth/infertility>

- Chen, Y.Y., Shek, D. T.L., & Bu, F.F. (2011). Applications of interpretive and constructionist research methods in adolescent research: Philosophy, principles, and examples. *International Journal of Adolescent Medical Health*, 23(2), 129-139. <http://doi.org/10.1515/IJAMH.2011.022>
- Cipolletta, S., & Faccio, E. (2013). Time experience during the assisted reproductive journey: a phenomenological analysis of Italian couples' narratives. *Journal Of Reproductive & Infant Psychology*, 31(3), 285-298. <http://doi.org10.1080/02646838.2013.813627>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mix methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Cohen, D., & Crabtree, B. (2006). *Qualitative Research Guidelines*. Retrieved from Project <http://www.qualres.org/HomeInte-3516.html>
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks CA: Sage.
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Crotty, M. (2013). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- De Chesnay, M. (2015). *Nursing Research Using Phenomenology*. New York, NY: Springer.
- Drummond, J.(2015). Intentionality, phenomenological perspectives. In *The Routledge Encyclopedia of Philosophy*. Taylor and Francis. <http://doi:10.4324/9780415249126-DD3590->

- Ferland, P., & Caron, S. L. (2013). Exploring the long-term impact of female infertility: A qualitative analysis of interviews with postmenopausal women who remained childless. *The Family Journal*, 21(2), 180-188.
<http://doi.org/10.1177/1066480712466813>
- Fernandez- Sola, C., Martiniz-Caba, M. I., Hernanadex-Padilla, J. M., Carmona-Samper, E., & Granero-Molina, J. (2016). Experiences of Spanish women undergoing hysterosalpingograpy as part of the infertility process: A phenomenological study. *Journal of Clinical Nursing*, (25), 494-504.
<http://doi.org/10.1111/jocn.13077>
- Fouquier, K. F. (2013). The concept of motherhood among three generations of African-American women. *Journal of Nursing Scholarship*, (43), 145-453.
<http://dx.doi.org/10.1111/j.1547-5069.2011.01394.x>
- Fraenkel, J. R., & Wallen, N. E. (2009). *How to Design and Evaluate Research in Education*. New York, NY: McGraw- Hill.
- Gourounti, K., Lykeridou, K., & Vaslamatzis, G. (2012). Increased anxiety and depression in Greek infertile women results from feelings of marital stress and poor marital communication. *Health Science Journal*, 6(1), 69-81.
- Greil, A. L., McQuillan, J., Shreffler, K. M., Johnson, K. M., & Slauson-Blevins, K. S. (2011). Race-Ethnicity and Medical Services for Infertility: Stratified Reproduction in a Population-based Sample of U.S. Women. *Journal Of Health & Social Behavior*, 52(4), 493-509. doi:10.1177/0022146511418236

- Greil, A. L., Slauson-Blevins, K., & McQuillan, J. (2010). The experience of infertility: a review of recent literature. *Sociology Of Health & Illness*, 32(1), 140-162.
doi:10.1111/j.1467-9566.2009.01213.x
- Harris, D. L., & Daniluk, J. C. (2010). The experience of spontaneous pregnancy loss for infertile women who have conceived through assisted reproduction technology, *Human Reproduction*, 5(3), <https://doi.org/10.1093/humrep/dep445>
- Hasanpoor-Azghdy, S. B., Simbar, M., & Vedadhir, A. (2014). The emotional-psychological consequences of infertility among infertile women seeking treatment: Results of a qualitative study. *Iranian Journal Of Reproductive Medicine*, 12(2), 131-138.
- Husserl, E. (1970). *The Crisis of European Sciences and Transcendental Phenomenology* (D. Carr, Trans). Evanston, IL: Northwestern University Press .
- Karaca, A., & Unsal, G. (2015). Psychosocial Problems and Coping Strategies among Turkish Women with Infertility. *Asian Nursing Research*, (9)39, 243-250.
<http://doi.org/10.1016/j.anr.2015.04.007>
- Kenarsari, F. J., Ghahiri, A., Habibi, M., & Zargham- Boroujeni, A. (2015). Exploration of Infertile Couples' Support Requirements: A Qualitative Study. *International Journal Of Fertility & Sterility*, 9(1), 81-92.
- Kumar, N. & Singh, A.K. (2015). Trends of male factor infertility, an important cause of infertility: A review of literature. *Journal Of Human Reproductive Sciences*,, 8(4), 191-196 (2015) <http://doi:10.4103/0974-1208.170370>

- Latifnejad Roudsari, R., Allan, H. T., & Smith, P. A. (2014). Iranian and English women's use of religion and spirituality as resources for coping with infertility. *Human Fertility, 17*(2), 114-123.
- Lindsey, B., & Driskill, C. (2013). The Psychology of Infertility. *International Journal Of Childbirth Education, 28*(3), 41-47.
- Lopes, V. M., & Leal, I. M. (2012). Personality and emotional adjustment in infertility. *Journal of Reproductive Medicine, 57*(3), 153-158.
- Lykeridou, K., Gourounti, K., Sarantaki, A., Loutradis, D., Vaslamatzis, G., & Deltsidou, A. (2011). Occupational social class, coping responses and infertility-related stress of women undergoing infertility treatment. *Journal of Clinical Nursing, 20* (13), 1971-1980. <http://doi: 10.1111/j.1365-2702.2011.0396.x>
- Manen, M. v. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Ontario, Canada: The Althouse Press.
- Manen, M. v. (2007), Phenomenology and practice. *Phenomenology of Practice, 1*, 11-30. Retrieved from <http://www.maxvanmanen.com/files/2011/04/2007-Phenomenology-of-Practice.pdf>
- Marshall, C., & Rossman, G. (2011). *Designing qualitative research (5th ed.)*. Thousand Oaks, CA: Sage.
- McNamara, C. (2009). General guidelines for conducting interviews. Retrieved from <http://managementhelp.org/evaluatn/intrview.htm>
- Meyers, M., Weinshel, M., Scharf, C., Kezur, D., Diamond, R., & Rait, D. S. (1995). An infertility primer for family therapists: II. Working with couples who struggle with infertility. *Family Process, 34*(2), 231-240. <http://dx.doi.org/10.1111/j.1545-5300.1995.00231.x>

- Miles, M. B. & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Munhall, P. L. (2012). *Nursing research: A qualitative perspective* (5th ed.). Sudbury, MA: Jones & Bartlett Learning.
- Murray, S., Awartani, A. K., & Peloquin, S. (2015). International challenges in patient centered care in fertility clinics offering assisted reproductive technology: Providers gaps and attitudes towards addressing the patients' psychology needs. *Journal of European, 4*(1), 1-7. <http://dx.doi.org/10.3402/jecme.v4.27578>
- Musa, R., Ramli, R., Yazmie, A. A., Khadijah, M. S., Hayati, M. Y., Midin, M., & ... Ravindran, A. (2014). A preliminary study of the psychological differences in infertile couples and their relation to the coping styles. *Comprehensive Psychiatry, 55*(1), S65-S69. <http://doi.org/10.1016/j>
- National Conference of State Legislatures. (2017). State laws related to insurance coverage for infertility treatment. Retrieved from <http://www.ncsl.org/research/health/insurance-coverage-for-infertility-laws.aspx>
- Nelson, C. J., Shindel, A. W., Naughton, C. K., Ohebshalom, M., & Mulhall, J. P. (2008). Prevalence and predictors of sexual problems, relationship stress, and depression in female partners of infertile couples. *Journal of Sexual Medicine, 5*(8), 1907-1914. <http://doi.org/10.1111/j.1743-6109.2008.00880.x>
- Novak, J. D. (1998). *Learning, Creating, and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporations* Mahwah, NJ: Erlbaum.

- Obeidat, H. M., Hamlan, A. M., & Callister, L. C. (2014). Missing motherhood: Jordanian women's experiences with infertility. *Hindawi Publishing Corporation Advances in Psychiatry*, 2014(2014), 1-7. <http://dx.doi.org/10.1155/2014/241075>
- Parham, G. P., & Hicks, M. L. (2005). Racial Disparities Affecting the Reproductive Health of African-American Women. *Medical Clinics Of North America*, 89(Minority Health and Disparities-Related Issues: Part II), 935-943. doi:10.1016/j.mcna.2005.04.001
- Piaget, J. (1968). Genetic Epistemology: A series of lectures delivered by Piaget at Columbia University (E. Duckworth, Trans). New York, NY: Columbia University Press. Retrieved from www.marxists.org/reference/subject/philosophy/works/fr/piaget.htm
- Parham, Peterson, R. (2016). Medical imaging and infertility. *Radiologic Technology*, 88, 169-190. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/27837126>
- Platt, J. (1985). Weber's Verstehen and the History of Qualitative Research: The Missing Link. *The British Journal Of Sociology*, (3), 448. <http://doi.org/10.2307/590460>
- Polit, D.F., & Beck, C.T. (2012). Nursing research: Generating and assessing evidence for nursing practice (9th edition). Philadelphia, PA: Lippincott Williams & Wilkins.
- Ponterotto, J.G. (2010). Qualitative research in multicultural psychology: Philosophical underpinnings, popular approaches, and ethical considerations. *Cultural Diversity and Ethnic Minority Psychology*, 6(4), 581-589.

- PR Newswire. (2012). African-American women and infertility: An unmet need. PR Newswire Retrieved from <http://ezproxy.barry.edu/login?url=http://search.proquest.com/docview/963517703?accountid=27715>
- Priyanka, N. J. & Reddy, K. J. (2013) Psychosocial aspects of infertility. *Indian Journal of Applied Research*, 8 (3), 634-636.
- Purdie- Vaughns, V., & Eibach, R. P. (2008). Intersectional invisibility: The distinctive advantages and disadvantages of multiple subordinate-group identities. *Sex Roles*, 59 (5), 377-391. <http://dx.doi.org/10.1007/511199-008-9424-4>
- Ranjbar, F., Akhondi, M. M., Borimnejad, L., Ghaffari, S. R., & Behboodi-Moghadam, Z. (2015). Paradox of modern pregnancy: a phenomenological study of women's lived experience from assisted pregnancy. *Journal of Pregnancy*, (2015) 1-8. <http://dx.doi.org/10.1155/2015/543210>
- Ridenour, A., Yorgason, J., & Peterson, B. (2009). The Infertility Resilience Model: Assessing Individual, Couple, and External Predictive Factors. *Contemporary Family Therapy: An International Journal*, 31(1), 34-51. doi:10.1007/s10591-008-9077-z
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative Research Practice: A guide for social students and researchers*. Thousand Oaks, CA: Sage
- Roupa, Z., Polikandrioti, M., Sotiropoulou, P., Faros, E., Koulouri, A., Wozniak, G., & Gourni, M. (2009). Causes of infertility in women at reproductive age. *Health Science Journal*, 3(2), 80-87.

- Scotland, J. (2012). Exploring the Philosophical Underpinnings of Research: Relating Ontology and Epistemology to the Methodology and Methods of the Scientific, Interpretive, and Critical Research Paradigms. *English Language Teaching*, 5(9), 9-16.
- Shaw, J. A., & Connelly, D. M. (2012). Phenomenology and physiotherapy: Meaning in research and practice. *Physical Therapy Reviews*, (17) 398-408.
<http://dx.doi.org/10.1179/1743288X12Y.0000000043>
- Sherrod, R. A., & Houser, R. (2013). Infertility help-seeking: Perceptions in a predominantly rural southern state. *Online Journal of Rural Nursing and Health Care*, 13(2), 110-121.
- Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*, 48(3), 1291. doi:10.1007/s11135-013-9835-3
- Smith, B. (1988). *Philosophical Investigations on Space, Time and the Continuum*. Retrieved from <http://www.eBookstore.tandf.co.uk>
- Sternke, E., & Abrahamson, K. (2015). Perceptions of Women with Infertility on Stigma and Disability. *Sexuality & Disability*, 33(1), 3-17. <http://doi.org/10.1007/s11195-014-93486>
- Steuber, K.R. & High, A. (2015). Disclosure strategies, social support, and quality of life in infertile women. *Human Reproduction*, 30(7), 1635-1642.
<http://dio.org/10.1093/humrep/dev093>

- Turner, D. I. (2010). Qualitative interview design: a practical guide for novice investigators. *The Qualitative Report*, (3), 754.
- United States Census Bureau. (2010). The black population:2010. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf>
- VanScoy, A., & Evenstad, S. B. (2015). Interpretative phenomenological analysis for LIS research. *Journal of Documentation*, (71), 338-357. <http://dx.doi.org/10.1108/jd-09-2013-0118>
- Yuit Wah Wong, C., & Ser Hua Tan, G. (2012). The impact of infertility on women's psychological health: A literature review. *Singapore Nursing Journal*, 39(3), 11-17.
- Welford, C., Murphy, K., & Casey, D. (2012). Demystifying nursing research terminology: Part 2. *Nurse Researcher*, 19(2), 29-35.
- World Health Organization. (2016). Multiple definitions of infertility. Retrieved from <http://www.who.int/reproductivehealth/topics/infertility>
- World Health Organization. (2017). Infertility definition & terminology. Retrieved from <http://www.who.int/reproductivehealth/topics/infertility>
- Yazdani, F., Kazemi, A., & Ureizi-Samani, H. R. (2016). Studying the relationship between the attitude to infertility and coping strategies in couples undergoing assisted reproductive treatments. *Journal Of Reproduction And Infertility*, (1), 56.
- Zelic, T. (2007) On the phenomenology of the life world. Retrieved from <http://hrcak.srce.hr/file/58496>.

Appendix A

Institutional Review Board Approval

Barry University

Division of Academic Affairs

Institutional Review Board
11300 NE 2nd Avenue, Miami, FL 33161
P: 305.899.3020 or 1.800.756.6000, ext. 3020
F: 305.899.3026
www.barry.edu

Research with Human Subjects Protocol Review

Date: May 26, 2017

Protocol Number: 170518

Title: The lived Experience of African American Woman and Infertility

Meeting Date: May 17, 2017

Name: Ms. Erica Roberts
Address: 1065 Grove Park Circle
Boynton Beach, FL 33436

Faculty Sponsor: Dr. Jessie Colin – Nursing

Dear Ms. Roberts:

On behalf of the Barry University Institutional Review Board (IRB), I have verified that the specific changes requested by the convened IRB on May 17, 2017 have been made.

It is the IRB's judgment that the rights and welfare of the individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with requirements and that the potential benefits to participants and to others warrant the risks participants may choose to incur. You may therefore proceed with data collection.

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved by the IRB. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form.

It is a condition of this approval that you report promptly to the IRB any serious, unanticipated adverse events experienced by participants in the course of this research, whether or not they are directly related to the study protocol. These adverse events include, but may not be limited to, any experience that is fatal or immediately life-threatening, is permanently disabling, requires (or prolongs) inpatient hospitalization, or is a congenital anomaly cancer or overdose.

The approval granted expires June 29, 2018. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with an IRB Application for Continuing Review (Progress Report) summarizing study results to date. The IRB will request a

progress report from you approximately three months before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB point of contact, Mrs. Barbara Cook at (305)899-3020 or send an e-mail to dfeldman@barry.edu. Finally, please review your professional liability insurance to make sure your coverage includes the activities in this study.

Sincerely,



David M. Feldman, PhD
Chair, Institutional Review Board
Barry University
Department of Psychology
11300 NE 2nd Avenue
Miami Shores, FL 33161

Cc: Dr. Jessie Colin

Appendix B
Barry University
Informed Consent Form

Your participation in a research project is requested. The title of the study is; The Lived Experience of African-American women and infertility. The research is being conducted by Erica Roberts, a doctoral student in the College of Nursing and Health Sciences at Barry University. The researcher is seeking information that may be useful in providing a context on African-American women experiences with infertility and what is important in proving an environment that is conducive to supporting their needs and addressing them. The study's primary purpose is to gain understanding of the meaning of the lived experience of African-American women who have experienced infertility. We anticipate the number of participants to be a maximum of 25 individuals.

If you decide to participate in this research, you will be asked to do the following: Complete the study's demographic form for approximately 10 minutes, participate in a face to face audio-taped interview with the researcher lasting approximately 60 minutes and complete a follow up interview that will last approximately 30 minutes. The total interview time for both interviews and completing the demographic form will be approximately 100 minutes.

Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects on your decision to not participate.

There are minimal risk as a result of your involvement in this study. You will be provided with a flyer which includes 2 counseling centers, one in Dade county and one in Broward county. If you voice or experiences and/or display emotional distress such as depression, anxiety, or grief as a result of the study you may contact any of the two community social service program provided at no cost to you. Although there are no direct benefits to you, your participation in this study may provide an understanding from an African-American woman perspective on the experiences of infertility that can be influential in developing coping strategies, health and public policy, nursing education, and bring an awareness of what it is like being an infertile African-American woman.

As a research participant, information you provide will be held in confidence to the extent permitted by law. Any published results of the research will presented in the aggregate and pseudonyms will be used. Data will be kept in a locked file in the researcher's office only the researcher has access to and on computer software/external hard drive on a personal password protected computer that is accessible only by the researcher. The consent will be kept separate from the data, in a separated file cabinet in the researcher's home office. Audiotapes will be destroyed by the researcher by erasing the recording after you have read and verified the transcription. All data will be kept separate and personally secured in the researcher's home for 5 years and then indefinitely after completion of the study.

A \$25 gift card will be given by the researcher at the beginning of the interview after signing the consent and completing the demographic questionnaire, as a token of appreciation for participating in the study.

If you have any questions or concerns regarding the study or your participation in the study, you may contact me, Erica Roberts, at (954) 980-5006, erica.roberts@mymail.barry.edu; my supervisor Dr. Jessie M Colin, at (305) 399 3830, email jcolin@barry.edu; or the Institutional Review Board point of contact, Barbara Cook, at (305)899-3020, email bcook@barry.edu;

If you are satisfied with the information provided and are willing to participate in this research, please signify your consent by signing this consent form.

Voluntary Consent

I acknowledge that I have been informed of the nature and purposes of this study by Erica Roberts and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent to participate in this experiment.

Signature of Participant Date

Researcher Date Witness Date

Researcher Date Witness Date

Appendix C

Letter of Request for Access

Erica Roberts, MSN, RN
[REDACTED]
[REDACTED]

954-980-5006

Date

Name and address of administrator

Dear _____,

My name is Erica Roberts; I am a doctoral student at Barry University. I am conducting a study titled "The Lived Experience of African-American women and Infertility" This study is for my dissertation in partial fulfillment of PhD in nursing requirements. The study's primary purpose is to explore the lived experience of African-American women who had experiences with infertility.

I am writing today to ask for your permission and assistance in gaining access to African-American women who have experienced infertility. Upon IRB approval, flyers will be sent to you for distribution via email or for posting, if you agree to give me access. Participants who agree to be in the study will contact me at the number provided in the flyer. They will be asked to complete a demographic questionnaire for approximately 10 minutes. In addition, they will be asked to participate in individual audiotape interviews that will last for about 60 minutes. This will be followed by another session that will last for 30 minutes after the initial interviews. This is to review and verify the transcribed data. The total time is approximately 100 minutes.

Thank you for your consideration to provide access and for assistance in recruiting volunteers for this study.

Please contact me at (954) 980-5006 or email: erica.roberts@mymail.barry.edu for any questions or concerns. You may also contact my faculty sponsor, Dr. Jessie M. Colin, at (305) 899-3830, or email to jcolin@mail.barry.edu. The IRB contact is Barbara Cook who can be reached at (305)899-3020 or email bcook@barry.edu. I look forward to your response at your earliest convenience.

Yours Respectfully,


Erica Roberts, MSN, RN
Barry University, PhD in Nursing Student

**Appendix D
Barry University
Recruitment Flyer**



Are you an African-American woman having or have had problems getting pregnant?

You are invited to participate in a research study: Exploring your experiences as an African-American women who is dealing with the challenges of infertility.

| | |
|---|--|
| <p>Inclusion Criteria:</p> <ul style="list-style-type: none"> • Self identify as an African-American. • Self identify as a woman having or had a fertility problem (not being to conceive naturally) for over a year prior to the beginning of the study. • Reside in Broward, Dade, or Palm Beach County • 18 years old or older • willingness to speak openly about experience • Access to a telephone or internet, • Read, write, and speak English • willingness to be tape recorded. • First Interview: 60minutes • Follow- up interview: 30 minutes • Complete Demographic Questionnaire: 10 minutes • Total time: 100 minutes • Visa Gift Care: \$ 25 token of appreciation for participating on the study. | <p>Researcher Erica Roberts, MSN, RN (Doctoral student) Phone: (954) 980-5006 Email: Roberts5531@yahoo.com</p> <p>University Faculty Sponsor Dr. Jessie Colin, PhD, RN, FRE, FAAN Phone: (305) 899-3830 Email: jcolin@barry.edu</p> <p>Institutional Review Board Barbara Cook Phone: (305) 899-3719 or (800) 756-6000 Email: bcook@barry.edu</p>  |
|---|--|

Appendix E

News Paper Advertisement



Wanted: Volunteers for a research study

Do you self identify as an African-American woman having or had a fertility problems (not being to conceive naturally) for over a year prior to the beginning of this study. reside in Florida, 18 years old or older, willingness to speak openly about experience, access to a telephone or internet,, read, write, and speak English, willingness to be tape recorded?

We want to know your experiences.

Your information will be kept confidential.

please contact **Erica Roberts** at erica.roberts@mymail.barry.edu or call directly at 954-980-5006 to learn more about this study

Appendix F
Barry University
Demographic Sheet

Date & Time
Pseudo Name

1. What is your current age?
 - a. 18-25
 - b. 26-40
 - c. 41-55
 - d. >55

2. What is your marital status?
 - a. Single, never married
 - b. Married
 - c. Separated
 - d. Divorced
 - e. Widow

3. What grade level did you last complete?
 - a. Less than primary
 - b. Primary only
 - c. Complete High school
 - d. Some college courses
 - e. Bachelor's degree or higher

4. Do you have any children? If so, How many?
 - a. Yes
 - b. No

5. What is your Household income?
 - a. Under \$25,000
 - b. \$25,000-\$30,000
 - c. \$31,000-\$40,000
 - d. \$41,000-50,000

6. Do you have Health Insurance?

7. Is Invitro Fertilization covered on your insurance?

Appendix G
Barry University
Questions

Grand Question:

- What has the experience of infertility been like for you ?

Follow up Questions:

- How has your experience of infertility impacted how you see yourself as a woman?
- How did talking about it with those people make you feel?
- How did your significant other or husband support you during this time?
- Tell me about the challenges of getting pregnant.
- What strategies have you used to help you with these challenges?

Appendix H

Confidentiality Agreement

As a member of the research team investigating The lived experience of African-American women and infertility, I understand that I will have access to confidential information about study participants. By signing this statement, I am indicating my understanding of my obligation to maintain confidentiality and agree to the following:

- I understand that names and any other identifying information about study participants are completely confidential.
- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research project that could identify the persons who participated in the study.
- I understand that all information about study participants obtained or accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information unless specifically authorized to do so by office protocol or by a supervisor acting in response to applicable protocol or court order, or otherwise, as required by law.
- I understand that I am not to read information and records concerning study participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.
- I understand that a breach of confidentiality may be grounds for disciplinary action, and may include termination of employment.
- I agree to notify my supervisor immediately should I become aware of an actual breach of confidentiality or situation which could potentially result in a breach, whether this be on my part or on the part of another person.

| | | |
|-----------|------|--------------|
| Signature | Date | Printed Name |
| Signature | Date | Printed Name |

Appendix I

INTERVIEW PROTOCOL

1. Introduce researcher to the participant(s). Welcome and express appreciation for their participation in the study.
2. Explain the purpose of the study, the types of questions to be asked, the expected time frame for the interview, the ability to stop the interview and/or withdraw from the study at any point in time, the process of audio taping and transcribing the interview, and the methods being used to maintain confidentiality.
3. Ask participant if he/she has any questions and give informed consent form to be signed by participant.
4. The participant will be asked to select a pseudo name to be used as an identifier.
5. Give the participant(s) the \$25.00 Visa gift card prior to beginning the interview
6. Conduct the interview using the guide for the individual interview questions.
7. Thank the participant(s) at the end of the interview.
8. Inform the participant that the researcher will be sending the verbatim transcription via email or shared in person for member checking.
9. Take several minutes to self-reflect, take field notes, and journal thoughts and feelings.
10. Have the audio taped interviews transcribed by a transcriptionist.
11. Send transcribed interview participants for the member check and schedule confirmatory interview.

Curriculum Vita

Education:

| | | |
|-------------------|--|---------------------|
| 2014 - present | PhD in Nursing Barry University | Miami Shores, FL |
| 2013 | Practice Workflow & Information Management Redesign Specialist Broward College | Coconut Creek, FL |
| 2012 | Post Master Nursing Informatics - Online Walden University | Minneapolis, MN |
| 2010 | Master of Science in Nursing Education- Online University of Phoenix | Phoenix, AZ |
| 2009 | Bachelor of Science in Nursing - Online University of Phoenix | Phoenix, AZ |
| 2003 | Associate of Science Degree in Nursing Technology Broward Community College | Coconut Creek, FL |
| 1996 | Medical Assistant Program Concorde Career Institute | Fort Lauderdale, FL |

Employment History:

October 2013- Present **Palm Beach State College** **Lake Worth, Florida**

Skills Lab Instructor- Prepare students in an academic setting for clinical practice in the health care facility and responsible for assessing students clinical skills.

April 2012- Present **South University** **West Palm Beach, Florida**

Clinical Instructor (Pediatrics) Provide learning opportunities within the clinical setting for students to gain knowledge, skills, and experience in managing pediatric patients with a different ranges of medical diagnosis.

May 2011- August 2016 **Nova South Eastern University** **Davie, Florida**

Clinical Instructor (Advance Med-surge, Beg-Med-Surge, Community Health, & Pediatrics) Provide clinical experiences in a variety of settings, that assist students to integrate content from the classroom and skill lab into patient care. Coordinated simulation experience for students.

October 2010- May 2011 **City College, Inc Fort Lauderdale, Florida**

Clinical Instructor (Advance Med-Surge, Beginning Med Surge, & Pediatric) Provide clinical experiences in a variety of settings, that assist students to integrate content from the classroom and skill lab into patient care.

December 2004- December 2011 **Broward General Hospital Fort Lauderdale, Florida**

Pediatric Registered Nurse II/Charge Nurse (50 Bed unit) Provided nursing care to acutely ill pediatric patients, fulfill role of a charge nurse, with responsibility to supervise staff, evaluate staffing requirements, floor assignments and organize unit activities, Patient advocate, assess patient status and notify physicians of clinical changes, coordinate services, treatments and consultations for patients. Also perform the role as a clinical coach to new nurses. Clinical Coach Role includes providing guidance, providing feedback, and serving as a clinical resource.

June 2003- December 2004 **Broward General Hospital Fort Lauderdale, Florida**

Medical Surgical Trauma Registered Nurse/Charge Nurse
Delivering care to Post op and trauma patients, and fulfilled the role of a charge nurse. Patient advocate, assess patient status and notify physicians of clinical changes, coordinate services, treatments, and consultations for patients.

Professional Organization:

Florida Nurses Association
Sigma Theta Tau International Honor Society of Nursing

Certification and Licensure

American Nurses credentialing Center Staff Development Certification, 1993-1998
CPR Instructor, 2002-2017
PALS certification 2002-2016
Florida of Nursing Registered Licensure

