THE EXPERIENCE OF INFERTILITY FROM THE MALE PERSPECTIVE

By Tiffany L. Laughlin

Infertility is estimated to occur in 15-20% of couples in the United States. Although infertility has psychosocial consequences of varying intensity for both individuals and couples, available research on infertility predominantly focuses on the woman and her experience. Few studies directly address the male experience of infertility qualitatively.

This qualitative study explored the experience of infertility by men, and their perceptions and expectations of healthcare providers and the healthcare system. King's (1981) Theory of Goal Attainment provided the theoretical framework. The setting was a fertility clinic in the Midwest. A purposive sample of six men with a diagnosis of infertility comprised the sample. Data were collected through a demographic questionnaire and open-ended questions, and analyzed using Colaizzi's (1978) method of data analysis.

Results indicated complex psychosocial and environmental factors impacted the males in their experience of infertility. Three themes emerged as male perceptions of the infertility experience: (a) *goal blockage* consisting of feelings of isolation and disappointment, (b) *goal adjustment* with realistic situational appraisals; as well as embracement of alternative measures to foster goal attainment including positive perceptual adjustments in response to goal blockage, and, (c) active involvement and re-engagement in adjusted *goal attainment*. Three themes emerged on how healthcare providers can assist men living with infertility: (a) empathy, (b) education, and, (c) guidance. Implications for future nursing practice and education indicate an increased need for anticipatory guidance, and development of a holistic, individualized approach to infertility.

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by

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I wish to dedicate this clinical paper to my family. To my parents, who made it possible for me obtain my goal of completing graduate school and this paper. Words can never express my appreciation for the love, encouragement, and unconditional support they have given me throughout my life. They have inspired me to be courageous, to achieve, and to be successful. And, to my son, Mikey, whose beautiful smile and youthful enthusiasm are my greatest joy. You inspired me to complete graduate school, and to be a positive role model. I love you all.

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Chapter I

Introduction

Infertility is a condition that generates a variety of meanings among those experiencing it, including those who care for people with infertility, family members and friends of people with infertility, and the society in which infertility occurs. The medical definition of infertility is failure to conceive after one year of unprotected (without contraception) sexual intercourse, or the inability to carry a pregnancy to live birth (Schuiling and Likis, 2006). For women over the age of 35, this definition is revised to six months instead of one year because of the limited time to conceive due to age. Unwanted infertility is estimated to occur in 15% to 20% of couples in the United States (Schuiling and Likis, 2006).

Infertility may be a stressful event that may disrupt psychological functioning in individuals experiencing it. It may be a major life crisis, yet it continues to remain a highly stigmatized and isolating condition, often changing the perception individuals have of themselves (Pearson, 1992). According to Sherrod (2004), infertility is "a state of crisis that threatens individuals' emotional and psychological well-being" (p. 24). McQuillan, Greil, White, and Jacob (2003) found that infertility is associated with substantial long-term psychological distress in individuals experiencing infertility.

Couples who are infertile often experience feelings of devastating loss. For those experiencing infertility, infertility represents a loss of one's dreams, hope, and plans for the future. The effects of infertility may include social isolation, and stress on marital, interpersonal, and social relationships. Feelings of sorrow, failure, loneliness, grief, and isolation may stem from infertility.

Available studies on the effects of infertility on individuals are from the 1980's and 1990's. These studies have indicated the overall experience of infertility to cause psychological and physical exhaustion among couples (Menning, 1988). Many studies have indicated that infertility is more stressful for women than men (Abbey, Andrews & Halman, 1991; Peterson, Newton, & Rosen, 2003). Hsu and Kuo (2002) studied couples undergoing infertility treatment and found that infertile women experienced more emotional disturbance than men; however women employed more coping behaviors to deal with infertility. The study by Hsu and Kuo also found that childless couples had more difficulty coping and managing their emotions. Studies have found that women perceive infertility more stressful than men; however women cope better than men (Abbey et al, 1991; Hart, 2002; Hsu & Kuo, 2002; Peterson et al., 2003).

Bell (1981) studied 10 infertile couples and found that 50% of the couples experienced significant emotional disturbances, and seven couples reported severe strain in their marital relationship. The severity of marital strain was related to the longevity of the fertility treatment. The longer the couples were undergoing fertility treatment, the more marital strain they experienced. Wright, Allard, Lecours, and Sabourin (1989) studied the psychosocial impact of infertility on individuals, couples, and relationships. The results of this study indicated that

individuals undergoing fertility treatment displayed nearly 40% higher levels of psychosocial distress than their control group counterparts.

Infertility is a problem that affects both partners (Sherrod, 1988). There is an abundance of literature pertaining to studies investigating the effects of infertility on women, but relatively little on the effects of infertility on men. Hart (2002) found that most studies involving men and infertility did not involve psychological issues; and that men, more so than women, were frustrated at not being able to solve their infertility. Baluch, Nasseri, and Aghssa (1998) performed a study investigating the psychosocial responses of men to infertility, and found that social isolation and the degree of anxiety and depression experienced by men increased after a diagnosis of infertility was made.

Although infertility is considered a couples' issue, available studies performed in the eighties and nineties have primarily focused on the effects of infertility on the couple as a unit, and on women. This descriptive, qualitative study will investigate the experience of infertility from the male perspective.

Significance to Nursing

The quality of human interaction between health care providers and patients experiencing infertility has been identified as one of the most powerful determinants affecting a couple's perception of their infertility (Milne, 1988). Infertility is considered to be a stressful experience. A health care provider's competency and sensitivity are key components that mediate a patient's stress

level (Blenner, 1992). Infertility is a very personal and sensitive experience for most patients, and treating infertility patients requires a significant amount of compassion, empathy, and support by health care providers. Nurses need to be cognizant of the fact that the psychological aspect of infertility is equally important as the physical component.

Problem Statement

Infertility is an event that affects both women and men; however, few qualitative or quantitative studies have focused on the experience of infertility from the male perspective. It is important for health care providers to be apprised of how men perceive the experience of infertility in order to anticipate needs, as well as provide appropriate education, understand patient expectations of health care providers, and understand male psychosocial and physical needs.

Purpose of the Study

The purpose of this study was to explore and describe the experience of infertility by men, as well as their perceptions and expectations of health care providers and the health care system. By addressing this question and revealing patients' feelings and attitudes towards infertility, valid and valuable information is provided to health care providers who work closely with this population, along with providing information for and anticipating the needs of this population.

Research Questions

- 1. What is the lived experience of infertility from the male perspective?
- 2. What are their expectations of health care providers?
- 3. What are their expectations of the health care system?

Definition of Terms

Conceptual definitions.

Lived experience: Lived experience refers to the way that a man lives and understands his life as real and meaningful. Lived experiences describe those aspects and meanings of a situation as one experiences it.

Infertility: The failure of a couple to conceive a pregnancy after trying to do so for at least one full year.

Male perspective: Subjective evaluation of relative significance, or point of view, by a male.

Expectation: A looking forward to as proper or necessary, or anticipation of looking forward to something.

Healthcare providers: Individuals who by education, training, certification, or licensure are qualified to and are engaged in providing health services to health care consumers (i.e. patients).

Healthcare system: The complete network of agencies, facilities, and all providers of health care.

Operational definitions.

Lived experience: The thoughts, feelings, and emotions describing the meaning of the lived experience of infertility by the male.

Infertility: Infertility in this study required documentation by a physician or nurse practitioner of the inability after one year to conceive or maintain pregnancy.

Male perspective: The male perspective in this study was the subjective evaluation of relative significance, or point of view, of the experience of infertility, by voluntary male participants, over the age of 18, whose primary language spoken and written was English.

Expectation: Expectation in this study was the presumed probability or anticipation of occurrence of preconceived behavior or outcome.

Healthcare providers: Healthcare providers in this study were Registered Nurses, Nurse Practitioners, and Physicians working with the male living with infertility.

Healthcare system: The healthcare system in this study was the complete organization of people, institutions, and resources capable of delivering healthcare services to meet the health needs of male living with infertility.

Assumptions

Assumptions of this research study included:

- A male's perception of the infertility experience impacts him psychologically and/or emotionally.
- 2. Males have expectations of health care providers when experiencing infertility.
- 3. Males have expectations of the health care system when experiencing infertility.
- 4. Participants are honest with their responses on the demographic questionnaire and during the interview.
- 5. Self-report is an adequate method to collect demographic and personal information.

Summary

In chapter one, the overview of this study was presented. The purpose of this study was to explore the experience of infertility in men, their expectations of health care providers, and their expectations of the health care system. Infertility may be a very emotionally distressing and sensitive issue for both men and women. Past research has focused primarily on the experiences of women with infertility, with few studies focusing on the perceived experience by men.

Knowledge of the experience of infertility in men will assist the health care

provider in supporting and attending to the needs of men. The statement of the problem, purpose, and research questions were introduced with pertinent conceptual and operational definitions. In chapter two, an in-depth description of the theoretical framework supporting this research study is presented, followed by a review of literature.

Chapter II

Theoretical Framework and Literature Review

The purpose of this study was to explore and describe the experience of infertility in men, as well as to describe their perceptions and expectations of health care providers and the health care system. In the first section of this chapter, the theoretical framework for this study is presented. First, an overview of King's Theory of Goal Attainment (1981) is discussed in relation to the pursuit of pregnancy and infertility. Second, an application of this model to this study is included as it relates to the male perception of the experience of infertility. In the second section of this chapter, available literature on experience of infertility by men is reviewed.

This study focused on men who enter the health care system with the desire to conceive a biological child with their female partner but lack the ability to do so. This goal directed behavior is exemplified within the context of King's Theory of Goal Attainment. Placing nursing research within the context of theory aided in guiding and strengthening this study.

Theoretical Framework

Derived from King's Open System's Theory, the Theory of Goal

Attainment (1981) provided the theoretical basis for this study. The conceptual

framework and the Theory of Goal Attainment are based on an overall assumption

that the focus of nursing is human beings interacting with their environment and others, leading to a state of health for individuals, which is an ability to function in social roles.

King's Theory of Goal Attainment is derived from the conceptual framework of interpersonal systems. Three dynamic interacting systems exist within King's Theory of Goal Attainment: personal, interpersonal, and social systems. Each individual is an inherent part of these three systems. King states that human beings are an open system in constant interaction with the environment.

The conceptual framework that King developed involves three interacting sets of systems. On the smallest level are personal systems, comprised of individuals. Examples of personal systems are individual nurses and patients. The second level consists of interpersonal systems, or groups. These are generally small groups which interact with one another. A couple consisting of man and wife is an interpersonal system, and when nurse and patient interact they also form an interpersonal system. The largest systems are social systems, or societies. Examples of social systems are religious organizations, universities, and hospitals.

For the purposes of this study, *the personal system* identified how a person deals with roles, stress, goals, perception of experience, and definition of self.

The personal system is the male experiencing infertility and the nurse, and their interaction and communication within the interpersonal system of their dyad.

The *interpersonal system* identified nurse-patient interactions that lead toward

goal attainment. The nurse-client dyad is one relationship within King's (1981) interpersonal system, and helped define nurse-client interactions that lead toward goal attainment. The *social system* is society.

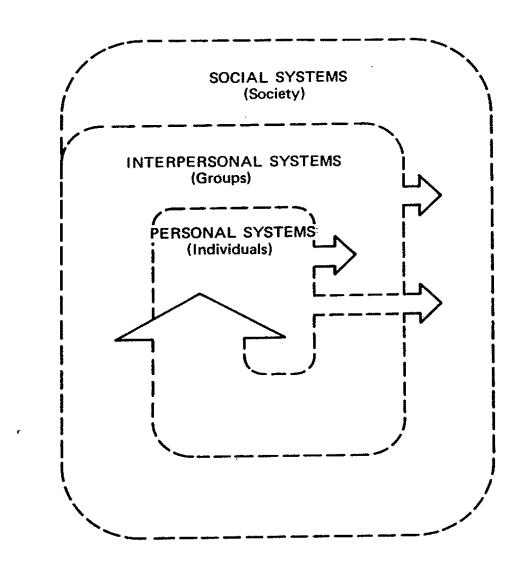


Figure 1. Conceptual Framework of King's Theory of Goal Attainment

Major concepts in this study associated with King's Goal Attainment
Theory (1981) included: self, stress, role, communication, interaction, transaction,
perception, and time. King believed that knowledge of these concepts helps
nurses and healthcare providers understand self and the behaviors of others.

King's Theory of Goal Attainment helped this researcher define concepts as they
related to the male experience and perception of infertility, as well as how these
concepts related to the nurse-client relationship.

According to King (1981), the concept of *self* relates to "who we are, the 'I' that we perceive ourselves to be" (p.26). Self is an integral part of a person's human experiences, and makes "me" what "I" am and what "I" appear to be. The self is a composite of thoughts and feelings which constitute a person's awareness of his individual existence, and the conception of who and what one is. The self includes, among other things, a system of ideas, attitudes, values, and commitments (King, 1981, p. 27). The concept of self helped this researcher define how the male experiencing infertility defined himself.

Stress is a dynamic process that changes as perceptions change. When goals are incongruent or not being met, stress is increased in individuals, their perceptual field narrows, and their decision-making decreases in rationality (King, 1981). These factors may lead to decreased interactions and goal setting and to ineffective nursing care. Infertility represents a stressful experience, often accompanied by feelings of intangible loss. This concept helped the researcher define how the male experiencing infertility dealt with the inability to attain his

goal. This concept also helped the researcher define the perceived expectation of the health care provider by the male experiencing infertility.

The concept of *role* defines a set of behaviors that are expected when one occupies a certain position in a social system (i.e. what is expected of an adult man, or a man experiencing infertility). Often the role of "fatherhood" is viewed as synonymous with "manhood". The role of the "nurse" is defined by the functions expected of professional nurses based on knowledge, skills, and values of the profession (i.e. what does the adult male experiencing infertility expect of a nurse/health care provider) (King, 1981). The concept of role helped the researcher define how these males perceived themselves, as well as their perceptions of the nurse.

The concept of *perception* is each person's subjective world of experience. King (1981) stated that "perception is defined as each person's representation of reality. It is an awareness of persons, objects, and events" (p. 146). A person enters into each encounter bringing with oneself past and current perceptions. King defined the perceptual process as "the process by which a particular person from his particular behavioral center attributes significance to his immediate environmental situation", and "The significances which he attributes are those which he discovered from past experiences have further his purpose" (p. 146). Perceiving takes place in each person's concrete world and is an essential part of living. The concept of perception helped the researcher define how the male experiencing infertility perceived the experience of infertility.

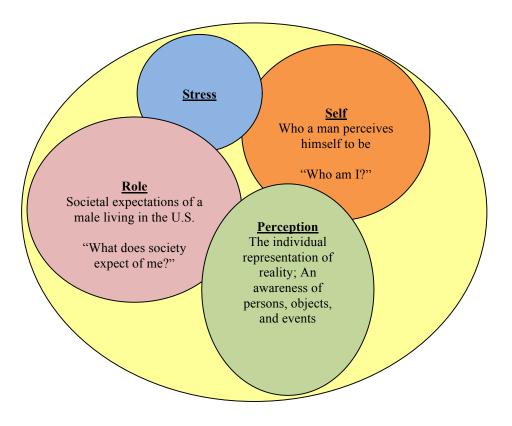


Figure 2. The Personal System of the Male Infertility Patient.

The concept of *communication* relates to the information sharing component of the interaction process (i.e. the nurse/health care provider and the male infertility patient). Communication encompasses both verbal and non-verbal processes. "To be effective, communication must take place in an atmosphere of mutual respect and desire for understanding (King, 1981, p. 62). Communication is a vital concept in the nurse-client relationship. The concept of communication helped the researcher define the perceived relationship between nurse/health care provider and the male experiencing infertility.

Interaction involves the process of perception and communication between individuals. An individual's needs, knowledge, and goals all influence the interaction process. This concept helped the researcher define how the male experiencing infertility perceives control of fertility and communication, while living with infertility.

The concept of *transaction* is the exchange of values relative to the situation. The nurse and client share a frame of reference so that goals can be set. King described goals as "events that one values, wants, or desires" (p. 13).

In this study, during the *communication, interaction, and reaction phases*, the nurse and male experiencing infertility are brought together for purposeful interaction and communication. There is discussion of goal blockage, what the goals are, assessment of knowledge, and eventually mutual decision-making leading to preparation of re-adjusted goals (*transaction*). During the *transaction phase*, there continues to be purposeful interaction between the nurse and the male, with a focus on goal attainment.

Time implies a sequence of events and moving toward a future. This concept helped the researcher define further the perceived relationship between the nurse and the males.

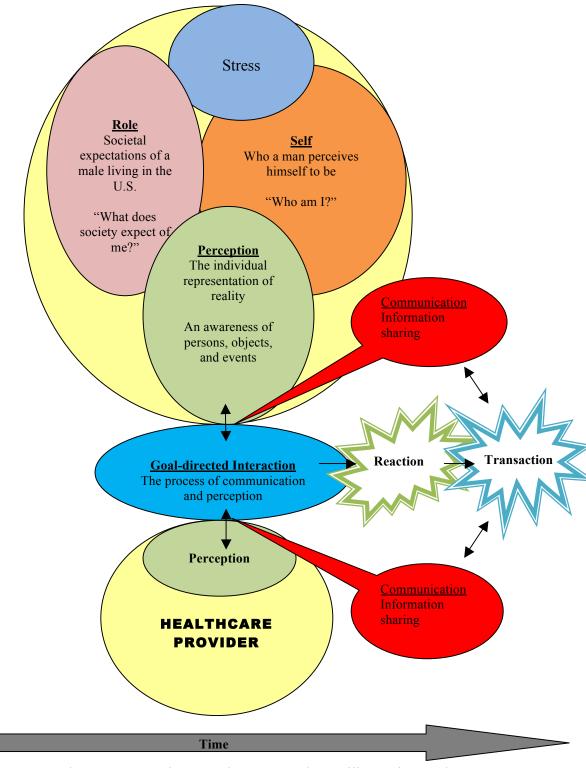


Figure 3. The Interpersonal System between Male Fertility Patient and Healthcare Provider Involving Communication, Interaction, and Reaction Phases.

Specific assumptions within King's Theory of Goal Attainment about human beings were:

- 1. Individuals are social beings.
- 2. Individuals are sentient beings.
- 3. Individuals are rational beings.
- 4. Individuals are reacting beings.
- 5. Individuals are controlling beings.
- 6. Individuals are purposeful beings.
- 7. Individuals are action-oriented beings.
- 8. Individuals are time-oriented beings.

Specific assumptions about nurse-client interactions were:

- 1. Perceptions of nurse and client influence the interaction process.
- 2. Goals, needs, and values of nurse and client influence the interaction process.
- 3. Individuals have a right to knowledge about themselves.
- 4. Individuals have a right to participate in decisions that influence their life, their health, and community services.
- 5. Health professionals have a responsibility to share information that helps individuals make informed decisions about their health care.
- 6. Individuals have a right to accept or to reject health care.
- Goals of health professionals and goals of recipients of health care may be incongruent.

Case Study and Application of King's Theory

Maria, age 33, waits anxiously with her husband, Wayde, in the waiting room of an infertility clinic. Today is their first appointment with a reproductive endocrinologist. Maria and Wayde have been attempting to conceive a child for three years without success. The health care provider and the couple begin their interaction with dialogue concerning past and present practices, beliefs, and perceptions of expectations, desires, and past experiences. This sharing of information and communication allows for a clearer perception of expectations, desires, and past experiences. Maria and Wayde emotionally express their desire to "become pregnant".

Through a goal-directed transaction, communication, and purposeful behavior, the couple and the healthcare provider are able to adjust their goals during the reaction phase so that mutual goal setting can occur in the transaction phase. The health care provider understands what the couple's perceived expectations are of the healthcare provider and the healthcare system, as well as the couple's perceptions about the experience of infertility. It is through King's (1981) personal and interpersonal systems that the Theory of Goal Attainment is exemplified within the context of this model case. Understanding concepts within the Theory of Goal Attainment will allow a healthcare provider to anticipate and provide for the needs of these individuals experiencing infertility.

Application of the Theory to this Study

King's Theory of Goal Attainment was used to guide this study. This theory served to help the researcher understand the male experience of infertility, as well as their perceived expectations of healthcare providers and the health care system. King's theory assisted with the interpretation of study results, in understanding the male perspective of living with infertility, as well as how healthcare providers can anticipate and provide for the needs of this population.

Literature Review

Over the past several decades, numerous studies have been performed on the effects of infertility on women and couples, with relatively little research focusing on the effects of infertility on men. Since women in infertile couples have been studied longer and in greater detail than men, there is little research on the male perspective.

In studies comparing subsets of fertile and infertile men to their female counterparts, significant contrasts appear. Pohlman (2007) conducted a quantitative study examining the relationship between stress and depression in infertile men, and examined how infertile women and men cope. A non-experimental, descriptive comparative design was used. A convenience sample of 21 married men and women, ranging in age from 25-35, who had been diagnosed with infertility for at least one year, comprised the study sample. Results of this study indicated that infertility is a moderately stressful event for both women and

men, with men reporting moderate levels of depression and women reporting mild levels of depression. Pohlman also found that men cope with infertility through distraction, while women cope by communicating with their spouse, family, friends, and others who experience infertility.

Berg and Wilson (1990) studied 104 married couples who met researcher criteria for infertility. A convenience sample was drawn from the National support group RESOLVE and two University Medical Schools. Psychological functioning was assessed using the Symptom Checklist Revised (SCL-90-R) and the Global Severity Index (GSI). Results from the SCL-90-R showed conflict in interpersonal sensitivity with the second highest elevation present in dimensions of depression. The GSI showed "borderline" functioning among infertile women. According to the SCL-90-R guidelines, 44% of the men and 52% of the women were identified as positive cases, thus indicating pronounced psychiatric symptomology requiring intervention. The researchers concluded that the pattern seen was a "profile of distress" associated with the experience of infertility and treatment regimens. Negative emotional factors documented in these individuals included anger, frustration, lower self-esteem, strain, fatigue, anxiety, and depression.

Hirsch and Hirsch (1995) conducted a quantitative study on a sample of 94 subjects to explore the psychosocial effects of infertility and the role that social support plays. Subjects were recruited through RESOLVE. Thirty-three male subjects along with their spouses, and twenty-eight female subjects (whose

spouses chose not to participate in the study) participated in the study. Median age was 32 years, and the range was 25-41 years of age. Fifty-four percent cited the woman as the primary cause of the couples' infertility, 8.5% cited the male, 31.9% cited both partners as responsible, and 5.3% did not know which partner was responsible for the problem leading to infertility. Subjects were mailed questionnaires every six to nine months for a total of four times. Two instruments were utilized: one instrument on self-esteem, marital satisfaction, and sexual satisfaction; and a second instrument assessed the infertile person's support network. The results revealed that over time, infertile persons who coped with infertility by increasing their social support network found ways to maintain their self-esteem, and pursued additional treatment options. The researchers also concluded that nurses can be instrumental in educating infertile persons about the importance of increasing their social support, reducing the amount of pressure they are experiencing, and identifying coping strategies.

Phipps (1993) conducted a phenomenological study of couples' infertility. Eight white middle-class couples were used to identify the common infertility experience. The only interview question asked was, "What is it like for you as a man or a woman not able to have an infant when you want to?" Audiotapes were transcribed, and the software Ethnograph was used to process the data. The results revealed that women cope differently than men. Women needed to verbalize, seek out information, and distance themselves from social functions involving children. Men used avoidance and religion to help cope with infertility.

A study conducted by Abbey, Halman, and Andrews (1992) found that men's distress while experiencing infertility increases with mounting medical costs, and has been attributed to the importance men place on their role as providers. Another finding from this study showed that women's distress when experiencing infertility may be linked to socialization, with women's identity and sense of self-efficacy being impacted more than their male partner.

Abbey, Halman, and Andrews (1992) investigated self-esteem, internal control, and interpersonal conflict on infertility. The authors recruited 185 married couples with a diagnosis of infertility. Interviews were conducted with each person. The researchers concluded that the stress associated with infertility had harmful effects on men and women's global life quality. They found that the higher the stress level experienced, the higher their interpersonal conflict and loss of internal control. They concluded that negative effects of fertility-related stress were displayed at a higher level by women than men.

Hsu and Kuo (2002) performed a quantitative study exploring the differences between wives and husbands in their emotional reactions and coping behaviors. The authors used structured questionnaires to gather information from 120 infertile couples attending an intrauterine insemination or in vitro fertilization program. Instruments used to collect data consisted of a demographic data form, Profile of Mood States (POMS), and Ways of Coping Questionnaire. The results showed that infertile wives experienced more emotional disturbance than their husbands. The researchers believed their results, and understanding of the

differences between husbands and wives' emotional behavior, would help health care providers provide better medical treatment.

Mahlstedt (1985) examined the psychological component of infertility. Mahlstedt stated that mens' experiences and responses to infertility are different than women's. "He has to deal with his own physical pain, the inconveniences of medical appointments and treatment, the attitudes of others toward his infertility, as well as the emotional responses of his wife" (Mahlstedt, p. 343). The author stated that a man's silence sometimes confuses and upsets a woman, because she believes that her husband is not as involved or concerned about the problem of infertility as she is.

In summary, available literature has revealed that most studies investigating the effects of infertility are dated, with the majority of studies being conducted in the 1980's and 1990's. The review of literature provided well-documented psychosocial effects of infertility in women and couples, and the effect of social support on infertility. Most studies reviewed used a quantitative study design.

Summary

King's Theory of Goal Attainment was presented and discussed as the supporting theory for this research study. Concepts of the model were explained, referencing how these concepts will apply to this study. A model case was presented illustrating how the construct in which men experiencing infertility may

interact with health care providers. Available literature was dated which necessitates this study to identify gaps in current literature in regards to a qualitative analysis of the male experience of infertility. In chapter three, a description of the design, setting, sample, data collection procedures, instruments, protection of human participants, data analysis method, and limitations are provided.

Chapter III

Methodology

The purpose of this study was to explore and describe the experience of infertility in men, as well as to describe their perceptions and expectations of healthcare providers and the healthcare system. In this chapter, the methodology is presented, followed by a description of the sample, setting, criteria for participation in the study, and methods used to obtain participants. Procedures for data collection, instruments, protection of human participants, and data analysis are presented, followed by a discussion of study limitations.

Study Design

The researcher used an exploratory, descriptive, qualitative design for this study. The central focus of phenomenological inquiry is to describe particular phenomena as lived experience, and to describe the meanings that this experience has for the individual experiencing the phenomena. This type of design helped the researcher comprehensively describe the phenomenon of interest and reveal essential truths about reality that are difficult to discover through quantitative methodology. It was anticipated that the results of this study would help develop new knowledge about the male perspective of living with infertility, which can have practical implications for nursing and the healthcare system.

Population, Sample, and Setting

The target population included men living with a diagnosis of infertility. Purposive sampling was used to recruit voluntary participants living with a diagnosis of infertility from an Obstetrics and Gynecology clinic in Northeast Wisconsin. A convenience sample was utilized and participants were obtained on a voluntary basis. The researcher intended to recruit ten participants for this study. Inclusion criteria for this study were: 1) Participants were at least 18 years of age; 2) The participant, his partner, or both must have been diagnosed with infertility by a health care provider; and 3) Participants must have been able to read, write, and speak English. Purposive sampling was used to recruit the participants.

Data Collection Instruments

A researcher-developed demographic questionnaire was used to gather demographic information from the participants (Appendix A). The use of close-ended questions on the demographic questionnaire allowed the participant to answer specific questions, and required minimal effort on the part of the participant. Demographic information collected included: age, gender, marital status, ethnicity, primary language, annual gross income, and highest level of education achieved. This instrument validated that each participant fits the criteria for inclusion in the study.

Interviews were conducted by phone. Each participant was asked three open-ended questions by the researcher. The use of open-ended questions allowed participants to verbalize their experiences, as well as permit flexibility in how participants answered the questions. These questions were: "What is your experience living with infertility?", "How can nurses and healthcare providers help men with the experience of infertility?", and "How can the health care system help men experiencing infertility?"

Following data analysis, the researcher returned to each participant for feedback and discussion of the researcher's interpretations and conclusions.

Participants were asked if the exhaustive description obtained reflected the participant's experience. If elements were noted to be unclear or misinterpreted, the researcher returned to the analysis for review and revision.

Bias

Bias may influence a qualitative study. "Before starting a qualitative study, it is in the researcher's best interest to make clear his or her thoughts, ideas, suppositions, or presuppositions about the topic, as well as personal biases" (Speziale & Carpenter, 2007, p. 26-27). This permits the researcher to approach the inquiry openly and honestly, avoiding judgments that may occur during phenomenological analysis that are based on personal opinion rather than on actual data collected. This study researcher's self-awareness promoted honesty in finding the truth, which decreased the influence of bias on data interpretation.

The researcher developed new material and new ideas, seeking new truths from the assembled data. The researcher bracketed her own beliefs about infertility, which was accomplished by refraining from asking leading questions because of the researcher's own knowledge and experience with infertility (being an employee of the health care organization from where participants were recruited), allowing participants to verbalize experiences, and not making judgments about what she observed or heard, remaining open to data as they were revealed.

The researcher was employed by the organization from which the sample was obtained. At the request of the researcher, the healthcare provider distributing the study packet to a potential participant never disclosed any identifying information regarding the individuals to whom the study packets were given. The only information the researcher received from the healthcare provider was the number of packets dispensed.

Trustworthiness

Four criteria are used to define and support rigor, or trustworthiness, in qualitative studies: credibility, dependability, confirmability, and transferability. The goal of rigor in research is to "accurately represent study participants' experiences" (Speziale & Carpenter, 2007, p. 49).

Credibility is the likelihood that the production of credible findings will occur. In order to achieve credibility, the researcher must spend a large amount of time with both the subject matter and the participants. After the data are

collected, member checking should occur. Member checking is when the study participants review data for accuracy and make sure derived themes are appropriate. Credibility was also enhanced by peer review of the manuscript by the researcher's faculty advisor. In this study, the researcher spent 15-45 minutes interviewing each participant followed by self-transcription of all interviews. After themes and subthemes were developed, the researcher returned to the participants for confirmation of the findings.

Dependability is met only after credibility is met. Dependability asks the question "How dependable are these results" (Speziale & Carpenter, 2007, p. 49). Dependability in this study was confirmed by member checking with participants. Dependability was also enhanced by attempting to triangulate the findings of the study with a diverse population of participants, although this was not achieved because the study sample was not sufficiently diverse.

Confirmability is the process by which another researcher may follow the thoughts and activities of the initial researcher. In this study, the researcher recorded her steps as she conducted interviews, analyzed the transcripts, and developed themes and subthemes so that the process could be understood by another researcher. Confirmability in this study was strengthened by the creation of an audit trail and detailed field notes taken by the researcher. The audit trail consisted of a binder with individual sections for raw data and researcher notes illustrating the emerging themes. A flow chart outlining emerging themes was developed, along with subthemes under each theme. The researcher used

bracketing, putting aside personal belief and refraining from making judgments about what was observed or heard, and remained open to data as they were revealed. This activity was repeated throughout data collection and analysis, and assisted the researcher with self-reflection and self-disclosure. The researcher journaled personal thoughts and feelings throughout data collection and analysis in an effort to remain aware of the potential impact that imposing personal agendas can have on the process of data collection and analysis. Personal thoughts were continually compared with emerging themes throughout this process in an effort to maintain objectivity and prevent the researchers own personal thoughts, feeling, and values from becoming part of the data.

Transferability is the ability of the study findings to have meaning to other people in similar situations. The determination of whether or not the study findings fit or are transferable rest with potential users of the findings and not with the researcher (Speziale & Carpenter, 2007).

Data Collection Procedure

Potential participants presenting to the clinic and seeking evaluation and/or treatment of infertility at an Obstetrics and Gynecology clinic in the Midwest were introduced to the study verbally by the healthcare provider from whom the participants were seeking evaluation or treatment of infertility. If the potential study participant expressed a desire to learn more about the study, the healthcare provider presented the individual with a sealed information packet

prepared by the researcher. Ten packets were distributed, but the study group consisted of only six participants. Four of the potential participants who initially expressed an interest in participating in the study did not return the demographic questionnaire, and therefore, were not contacted by the researcher. The information packet contained the informed consent letter and specific information pertaining to this study (Appendix B), the demographic questionnaire (Appendix A), and a postage-paid return envelope with the researcher's address.

After the researcher received the completed demographic questionnaire from the participant, she contacted the participant at the phone number specified by the participant on the demographic questionnaire to arrange for the phone interview. The researcher then performed the interview while simultaneously taking notes, and audiotaping the conversation.

Protection of Human Participants

Prior to data collection or contact with any participants, permission to conduct this study was obtained from the University of Wisconsin Oshkosh Institutional Review Board Protection of Human Participants Committee. In addition, the researcher contacted administrators from the clinic from which the participants were to be recruited, for review and approval of the study for safety and ethical considerations, prior to any data collection or contact with any of the participants. Participation in the study was voluntary and anonymous. A letter obtaining informed consent explaining the study, goals, procedures, risks, and

benefits accompanied the demographic questionnaire (Appendix B). Instructions for completion, rights of the participant to participate or withdraw, maintenance of confidentiality, and how data will be handled (Appendix B) were explained in the letter. Participants were reminded not to place their name or any identifying information on the questionnaire form in an effort to maintain anonymity and confidentiality (Appendix A). The completed demographic questionnaires and audiotapes were kept in a locked file throughout the course of the study. The researcher alone performed the interview, and then reviewed and analyzed the data.

Data Analysis

Data were transcribed verbatim for analysis. According to Speziale and Carpenter (2007), the purpose of data analysis is to "preserve the uniqueness of each participant's lived experience while permitting an understanding of the phenomenon under investigation" (p. 96).

Colaizzi's method of phenomenological data analysis and interpretation guided the researcher through the data analysis portion of this study. The steps are:

 Read all of the subject's descriptions in order to acquire a feeling for them, a making sense out of them. The researcher reads each interview multiple times to develop an understanding of them.

- 2. Return to each interview, extract from them phrases or sentences that directly pertain to the investigated phenomenon. This is known as extracting significant statements.
- 3. Try to spell out the meaning of each significant statement. The researcher gathers data from the interviews and develops a meaning for each statement. This is known as formulating meanings.
- 4. Organize the formulated meanings into clusters of themes, noting discrepancies among or between the clusters. Themes emerge as the data and significant statements are reviewed by the researcher.
- Integrate results into an exhaustive description of the phenomenon under study. Themes are established and data compiled into a comprehensive description of the lived experience of infertility by men.
- 6. Formulate an exhaustive description of the phenomenon under study in as unequivocal a statement of identification as possible.
- 7. A final validating step may be achieved by returning to each subject, and asking participants about the findings thus far. (Colaizzi, 1978, p. 59-62).

The researcher also listened to the audiotapes of the patients verbal descriptions, and reviewed the verbatim transcriptions and written responses. Identification and extraction of specific statements was performed as the researcher became immersed in the data. Apprehending the essential

relationships, meanings, and themes among the statements helped the researcher prepare a comprehensive and exhaustive description of the experience of infertility.

Limitations

The following is a list of potential limitations related to conducting this study.

- Data were collected from one region in Wisconsin; therefore the generalizability of the study findings to other regions may be limited.
- 2. Generalizability may be limited due to the small sample size of six participants.
- 3. The sample represented only voluntary participants [through purposive sampling] who experienced infertility.
- 4. Because infertility-related health care coverage is not mandated in the state of Wisconsin, individuals who lacked the monetary means to seek treatment may not be represented in this study.
- 5. Response bias may have occurred with participant awareness of the researcher being a health care provider. This may have caused participants to unintentionally respond in a way they felt they should respond versus how they actually perceived the experience of infertility.
- 6. Lack of investigator triangulation may have increased the potential for researcher bias.

- 7. Lack of theoretical triangulation may have decreased completion and confirmation of data in research findings.
- 8. Cost and time constraints limited this study. Cost to perform the study was limited to a \$250.00 budget, and the study was to be completed by April 22, 2011.

Summary

In this chapter, a description of the design, setting, sample, data collection method, instruments, protection of human participants, data analysis procedure, and limitations were provided. The design of the study was non-experimental. Purposive sampling was used to voluntarily recruit male participants with a diagnosis of infertility from an ObGyn clinic in Northeast Wisconsin. After obtaining approval from the University of Wisconsin Oshkosh Institutional Review Board and the clinic, participants volunteering for the study were provided with informed consent in a participant letter. Participants completed a demographic questionnaire and a 15-45 minute phone interview with the researcher. Interviews were audiotaped and transcribed verbatim. Data were analyzed using Colaizzi's method of phenomenological data analysis.

Chapter IV

Research Findings and Discussion

The purpose of this study was to explore the experience of infertility in men, their expectations of healthcare providers, and the healthcare system. In this chapter, the results of the study are presented along with the discussion of the findings.

Sample Description

Ten packets were distributed; however, the study sample resulted in only six participants. Four of the potential participants who initially expressed an interest in participating in the study did not return the demographic questionnaire, and therefore, were not contacted by the researcher. The six participants who returned the demographic form expressing an interest in participating in the study were contacted by the researcher. Demographic information (Appendix A) consisted of age, marital status, ethnicity, highest level of education completed, primary language, and annual gross income. Additional demographic information included whether or not the participant and his partner were attempting to conceive at the time of the interview, approximate length of time participant and partner had sought medical treatment for infertility, if participant was seeking medical treatment at the time of the interview for infertility, reason for the infertility, if the participant had children, and if so, whether the children were

conceived as a result of fertility treatment. The demographic data were analyzed using demographic statistics and are summarized in Table 1.

Participants ranged in age from 33-46 years of age. At the time of the interview, all six participants were Caucasian and married; 66% reported the highest level of education achieved as 12-16 years; all reported English as their primary language they used to read, write, and speak; all had a gross annual income of over \$45,000/year. All six reported that they were actively attempting pregnancy, and were seeking medical treatment for infertility; 49.9% reported seeking treatment for infertility for 1-2 years; all reported they were given a reason for their infertility, and all already had children conceived with the aid of infertility treatment.

<u>Demographic Profile of Participants</u> (N = 6)

Age (in years) 33-46 39.5 6 (100%) 0 (0%) Ethnicity African American
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1 – 2 years 3 49.9% 3 – 5 years 2 33.3%
3 – 5 years 2 33.3%
,
5+ years 1 16.6%
Have participant and partner been given a reason for the infertility
they have experienced
yes 6 100%
no 0%
Participant has children
Yes 6 100%
No 0 0%
If yes, the children conceived with or without the aid of fertility treatments?
With 6 100%
Without 0 0

Table 1. Participant Demographic Data.

Results

Data were collected through the use of a researcher-developed demographic questionnaire, and the use of a non-structured interview process. Each participant expressed his thoughts and experiences related to his experience with infertility. The interviews were audiotaped and transcribed verbatim, and were then analyzed using Colaizzi's (1978) methodology for data analysis. Participant's descriptions of their experiences were reviewed multiple times by the researcher to gain a feel for the data. Significant phrases and statements were identified in the text by means of highlighting, underlining, and notetaking. These statements were reviewed in an attempt to uncover meaning in the statements. Three main themes emerged, and these served as the framework for the description of the lived experience of infertility from the male perspective.

The three main themes that emerged were: 1) Goal Blockage, 2) Goal Adjustment, and 3) Goal Attainment. The theme of Goal Blockage included two subthemes of (a) isolation, and (b) disappointment. The theme of Goal Adjustment included four subthemes of (a) acceptance of goal blockage, (b) relationship with healthcare provider, (c) education, (d) moving forward with new goals. For the category of Goal Attainment, the subthemes included (a) peace with new goals and direction, and (b) renewed sense of hope.

Goal blockage.

The first theme, Goal Blockage, was developed based on descriptions of experiences males believed accompanied the initial diagnosis of infertility. The

six participants interviewed described being forced to confront challenges due to the inability to meet desired goals as being diagnosed with infertility. The subthemes that were a result of the sequelae of goal blockage described by the participants in this study included: (a) isolation, and (b) disappointment. Subsequent discussion of goal adjustment and goal attainment stem from this discussion of goal blockage.

Initially upon diagnosis of infertility, the male is faced with the inability to meet the set goal. Who we perceive ourselves to be can be threatened in several realms including self-concept and defined roles (Stanton, Tennen, Afleck, and Mendoza, 1991). The theme Goal Blockage involves a situational appraisal by both the male and the healthcare provider, and recognition of the threat to the personal system of the male, and reality that goals as they are set will not be met with the current approach. The subthemes of Disappointment and Isolation are included in this theme because significant statements were reflecting these feelings. It is this recognition of interruption in pursuit of conception and journey to achieve the set goal (goal blockage) that precipitates the psychosocial reactions of feelings of isolation and disappointment in the male.

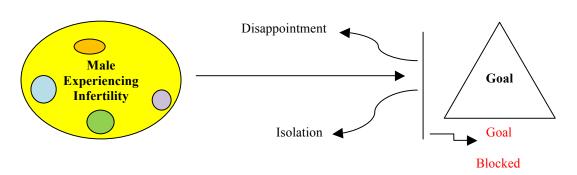


Figure 4. Failure to Meet Set Goal Results in Feelings of Isolation and Disappointment.

Isolation.

A feeling of isolation was a common subtheme among, and resulted from the initial diagnosis of infertility. A feeling of isolation accompanied Goal Blockage. Of the six participants, five mentioned feelings of isolation as a result of being diagnosed with infertility. Two participants described experiences that were especially difficult for them. All five of these participants provided insight into feelings of isolation that caused intense feelings of emotional grief and pain.

I was devastated after we came home from a visit with my wife's doctor, and he told us that the chance of conceiving on our own was like slim to none. I mean, you go through your whole life taking for granted that you'll be able to have children some day. I was, like, numb for a few days after that visit. I didn't know what to do. Here I am, supposed to be supporting my wife and helping her come to peace with this whole thing, and I can't even function or make sense of it myself. I just wanted to crawl into a hole and hope I would wake up one day and it would all be a dream. I didn't want to talk to anyone

about it. I didn't want my wife to talk to anyone about it. I was embarrassed about it, I guess.

This same participant reported months after being diagnosed with infertility:

Yeah, I cried a lot and was angry a lot in those following months, I can't lie. I was angry that I didn't ask the doctor any questions; and I was angry that I didn't know what questions to ask. This was before the days of the internet and easier access to information. I felt hopeless and alone. I didn't want to be around my family when there were pregnant women around or little kids, because, it just, like, made me feel terrible. I tried to avoid those situations as much as I could; when now in retrospect, I was pushing away the people that would ultimately end up being very supportive of my wife and I and our struggles with having a baby.

Another participant spoke of his feelings of isolation, recalling his reaction initially with the diagnosis of infertility as precipitating feelings of isolation and loneliness.

So, my wife comes home after meeting with the doctor, after, I don't know, maybe nine months of trying to have a baby. She tells me the doctor says that we either need to adopt, keep trying, do IVF, which will cost thousands of dollars, or just don't have children at all. I was like, what are you talking about? That's it? So I called the doctor myself, and he was like, yep, those are pretty much the options. Let me know if you have any other questions. There

was no discussion about the other options, just that those were what they were; take it or leave it. I had no one else to talk to, and my wife was as much in the dark as I was. It was so frustrating and, like, lonely; like you just had the wind knocked out of you and you're the only one on the playing field. It's not like you just call up one of your buddies and say, "Hey, dude, wanna have a beer and talk about my feelings? I'm bummed my wife and I can't have babies". It just doesn't work like that. So I pretty much just crawled up into the cave inside of myself and didn't talk to anyone about it.

Another participant recalled distinctly a scenario describing the isolation of living with a diagnosis of infertility.

So, I was out with the guys one night after a football game. My wife and I had been deciding whether or not to adopt, or take out a huge loan to do IVF, around that time. My buddy who knew what was going on, came up to me and gave me a hug. He said he was sorry to hear what was goin' on, and hoped everything worked out in our favor. He told me he didn't know of anyone that would be a better dad than me, and that any kid would be lucky to have me as their dad. I didn't know what to say. I was like, paralyzed. It was the worst, because even though this guy totally would have been cool talking with me about it, I didn't even want to talk about it. It was like the words just wouldn't come out. I couldn't talk to anyone about it, because I figured no one would get it, and I didn't want to hear, "Oh, everything will be okay", because everything was NOT okay. So, I just pretty much kept it all to myself.

These reported feelings of isolation are a consistent finding throughout the literature. The participant responses in this study mirror the responses by males in Phipps' 1993 phenomenological study of couples with infertility. Phipps' respondents listed isolation as a predominating feeling men experienced over infertility, and described feeling isolated from others and physically isolated from their spouses as a part of infertility treatment. Although they recognized their circumstances were not unique, their feelings were not lessened. A male respondent from Phipps' study stated,

"Infertility is something that is not understood by anyone unless they have gone through it, because the pain and the agony are so deep. It's a very isolating and lonely experience. It's not really something that get...that you can really overcome" (Phipps, 1993).

Disappointment.

A feeling of disappointment was a common subtheme reported by participants in this study as a result of Goal Blockage. A profound feeling of disappointment resulted from failed expectations or hopes. All six participants reported disappointment as a feeling accompanying the diagnosis of infertility. Similar to the feeling of isolation, a feeling of disappointment stemming from Goal Blockage resulted from disruption in the male personal system. There was a reported disappointment in the anticipation of failing to reach the expected goal, as well disappointment stemming from a sense of failure to meet perceived role expectations.

One participant shared his feeling of disappointment, likening the initial shock of being diagnosed with infertility to the end of the world as he knew it.

You know, you just go through life, taking for granted that you will one day be able to be a father and have children. You take extra precautions for most of your life to not get pregnant, and then when you do try to get pregnant and can't, it's like...it's like...so defeating. I felt like the wind was knocked right out of me. We live in a society...that...it's just expected that if you're a man you should be able to have kids...It's a blow to your manhood a little. You know, you try to stay positive about it, but deep down inside you are super disappointed and wish you could change it somehow, but it is out of your control and you just can't.

Another participant described his feelings of disappointment precipitating the isolation he felt, corroborating the finding by Meyers, Diamond, Kezur, Scharf, Weinshel, and Rait (1995) that males experiencing infertility generally adopt silent stances, believing that this strategy will protect their wives from further distress.

It was so disappointing to know that we probably would not be having a child naturally. I didn't know what to think about it initially. I mean, you have all of these exciting expectations, and like, in one day, they are completely shattered. I didn't know what to do. I withdrew a little, I think. So, here I am, supposed to be a source of support for my wife and I'm like inaccessible

emotionally. Then, I felt bad for being a bad spouse. But, like, I didn't want her to be more upset than she already was, so I just sort of kept it to myself.

One male participant stated that he felt like his world was turned upside down upon diagnosis, and he didn't know how to deal with it initially.

I will never forget, sitting at that doctor's office, and hearing that we probably would need medical help in order to get pregnant. A year of trying, hundreds of dollars in medical bills, like, pregnancy tests, only to find out we were going to need more help. It's like one moment you are thinking about what color to paint the baby's room and what you will name your child, and the next moment your wife is crying and the doctor is telling you might need to adopt, use a sperm donor, or not have children at all. It is unbelievably traumatic to hear that. It's like instantaneous disappointment and sadness replace any hope that you had.

Consistent with existing literature, the theme of Goal Blockage and subthemes of Isolation and Disappointment are supported by the theoretical framework of Kings Theory of Goal Attainment. The male's personal system, operating in an open system, and its concepts of perception, self, stress, and role, over a continuum of time and within the overarching system of society, are challenged in response to the inability to meet expectations. The findings in this study were consistent with the findings in studies conducted by Abbey, Halman, and Andrews (1992), Baluch, Nasseri, and Aghssa (1998), and Wright, Allard, Lecours, and Sabourin (1989). The results of these studies also confirmed that

males living with infertility show an increase in psychosocial distress, feelings of isolation, strained marital relationships, and distress related to the importance men place on their roles and the situational challenges to that perceived role expectation with a diagnosis of infertility.

Following Goal Blockage, the patient moves into the stage of Goal

Adjustment on his continued journey to meet his goal, or goals are abandoned altogether and never achieved. With the assistance of healthcare providers, mediated by open communication and goal-directed interaction, males are able to transition into the stage of Goal Adjustment and King's Reaction Phase.

Goal adjustment.

The second theme, Goal Adjustment, was developed based on descriptions of males who had reached the Goal Blockage stage. In this theme, King's Theory of Goal Attainment (1981) offers theoretical support for the one individual personal system (the male experiencing infertility) interacting with another system (the healthcare provider). The Goal Adjustment stage involves these two, interacting personal systems, and the formation of the interpersonal system.

In this theme, goal-directed interaction between the two systems, mediated by communication, moves the male going through the stage of Goal Adjustment into King's Reaction Phase. The subthemes that are a result of the sequelae of goal adjustment described by the participants in this study included: a) acceptance of goal blockage, b) relationship with healthcare provider, c) education, and d) moving forward with new goals.

During Goal Adjustment and King's Reaction Phase, there is open interaction and communication between healthcare provider and the male experiencing infertility. The patient has reached the Goal Blockage stage, and in desiring to continuing his journey to meet his goal of having a child, moves into the Goal Adjustment stage. This stage includes realistic situational appraisals by the male, mediated by the healthcare provider. As a result, there is embracement of alternative measures by both the male and the healthcare provider, as well as positive perceptual adjustments by the male. The male has realized that the initial goal will not be attained as he had perceived, and now adjusts the goal and how to reach it through education and alterative options offered by the healthcare provider.

During the *communication, interaction, and reaction phases*, the nurse and male experiencing infertility are brought together for purposeful interaction and communication. The concept of *communication* relates to the information sharing component of the interaction process. *Interaction* involves the process of perception and communication between individuals. In this stage of King's Theory of Goal Attainment, there is discussion between healthcare provider and client of goal blockage, what the goals are, assessment of knowledge, and eventually mutual decision-making leading to preparation of re-adjusted goals. According to King's theory, when the healthcare provider and the patient engage in mutual goal-setting in the Goal Adjustment and Reaction phases, mediated by open communication and perception and agreement on the means of achieving the

goal, the goal will be achieved. This interaction-transaction healthcare providerpatient interpersonal system process facilitates favorable outcomes and meeting of mutual goals.

Acceptance of goal blockage.

Following Goal Blockage, the male and his partner needed to decide if they would accept the goal blockage and pursue other alternatives to achieving a biological child, such as adoption, childfree living, or using donor gametes, depending on the reason for their infertility. All of the male participants in this study chose to pursue other alternatives in order to conceive a biological child. Following the Goal Blockage stage, these men entered the Goal Adjustment stage, meeting together with healthcare providers, to discuss options for achieving their goal, albeit by adjusted measures. The Goal Blockage stage correlates to King's Reaction phase in the Theory of Goal Attainment. All male participants verbalized that they accepted the diagnosis of infertility, and chose to continue moving forward in pursuit of their goal.

One male participant stated that he felt he had no other choice, but to accept the reality of his situation and keep moving forward.

I mean, once you get over the initial blow, you realize you need to move forward if this is something that you really want. I wasn't happy about it...in fact, I was super disappointed that this whole thing was going to be a lot of time and work...but, I guess, it's like you either accept it and keep trying, or you don't and just say forget it.

Another male participant recalled having a conversation with his wife, and how he realized he either needed to accept that they would need to pursue pregnancy by means other than they had initially banked on, or accept it and choose other options than having a biological child.

So after the office visit when the doctor told us it was IVF or no biological children, my wife is crying, looking to me for answers, and for support. I looked at the whole situation objectively, and was like, okay, these are the cards on the table, how do you want to play them now. It was either accept the situation and deal with it, or don't accept it and be angry. I told her that, unfortunately, it is what is, and we either need to deal with it and don't go forward, or not deal with it and move forward. Either way, you have to accept it, or you choose to stay in a bad spot mentally.

Relationship with healthcare provider.

The relationship the participant had with his wife's healthcare provider was a subtheme that all six participants stated was a part of their process of Reaction and Goal Blockage. The participants unanimously agreed that the relationship with their healthcare provider was one of the most important and pivotal parts of goal readjustment. Being able to communicate with the healthcare provider was denoted as one of the most important aspects their experience. In particular, participants pointed to nurses and nurse practitioners as the healthcare providers they had the most frequent communication and contact

with, and therefore, these healthcare providers played an important role in goal readjustment, and subsequent goal attainment.

One participant felt strongly that without the nurses, his experience would have been suboptimal. He felt as though it was the nursing staff who best understood what he was going through, and therefore, was able to provide him with the most support and education throughout the process.

If I had to say who had the biggest impact on my experience with this whole process, my answer would be the nurses...hands down. I mean, it was the nurses you talk to when you call with a question; it was the nurses you talk to about test results and what you are supposed to do next; it was the nurses you call when you need to talk about something; it was the nurses who, I would say, were the most helpful and resourceful. I mean, I know that the doctor was running the show...but really, I think it was the doctors making the decisions, but the nurses were running the show. You go to the doctor every so often, but you are talking to the nurses, like, several times a week. They were the ones that, I felt, really knew what we were feeling and going through.

Another participant recalls that it was the nursing staff who best facilitated readjustment of goals, keeping the lines of communication open, and anticipating his needs.

We worked with the same nurse throughout the entire treatment. She became like a part of our family. We confided things in her we didn't with others. We trusted her because we felt comfortable in her. We felt like she was, like, there

for us, no matter what. She would answer our questions before we even knew what questions to ask. It was really the nurses who kept us going...like, kept us in the loop, and kept our spirits up. She followed through if she said she was going to do something. You know, in the whole unpredictable process, it was nice to have someone reliable and predictable on your side. It just really helped me realize that we were doing the right thing for us.

Another participant recalled feeling like abandoning the treatment plan, but it was the nursing staff who kept his hopes alive, and helped him stay positive.

You know, we were at the clinic like every week, sometimes a few times a week. I'm having to give samples, which is very awkward and embarrassing. Then I have to sit there in front of the nurse that just took my sample, with my wife, discussing what our plan of care was. The nurse was always very courteous, and businesslike. She never made me feel awkward. In fact, she always was very straight-forward. She always involved me and engaged me in the conversation. Whereas sometimes, the doctors focused mainly on my wife and it was like I was only there as a bystander. But the nurse, she always made me feel like I was involved and had an equal part in this whole investment. She made me feel like, you know, a person, equally invested in this whole things as my wife. And for that, I was very grateful.

These statements support King's Theory of Goal Attainment (1981) and the value of the nurse interaction and communication with regards to keeping the patient engaged in goal-directed behaviors and activities. According to King's

theory, the healthcare provider must engage the patient in goal-directed activities, and keep the lines of communication open, to best optimize the chances of the patient to meet the desires healthcare outcome and goal. These participants' comments support the value of the healthcare provider in moving them through the Goal Adjustment phase and King's Reaction phase into the Goal Attainment Phase. A pillar of the therapeutic patient-healthcare provider interpersonal system and interaction, is constant feedback between the personal system of the patient, and the personal system of the healthcare provider.

Education.

Lack of education was a common theme among participants, and contributed to the stress related to Goal Blockage and Goal Adjustment. A participant stated that now, in retrospect, he wished someone would have talked to him about fertility issues before he was married and thought about having children.

You know, I started going to the doctor every year when I was 20. Never once did any doctor ask me if I ever planned on having children, or even bring up the issue. Then, I get married, we can't get pregnant, and still no one is talking to me about what the issues could be and how to fix them. It's like they just expected that we knew what they were talking about, or that someone had talked to us about these issues before; but in reality, we were clueless and had no idea what they (the healthcare providers) were talking about. If I had any suggestions to make at all it would be that: don't take for granted that patients

know what you are talking about, or that someone before you told them.

Because then we felt like, stupid, like someone should have told us this stuff sometime before, which made us think that it was our fault we were ill-informed.

One participant's wife was a nurse practitioner. He reported that if his wife did not have any healthcare knowledge, or the ability to make connections, that he and she would have had a lot more difficult time than they were already experiencing.

Really, I mean, if it weren't for her being an NP, we would probably be sitting here childless today. I honestly believe that. Because she had connections to the doctors and the staff, we were able to get stuff done. If we didn't have that, I wouldn't have even known where to start because I had no clue. I think they thought that just because my wife was an NP in ObGyn, that we knew what our options are and what we should be doing; when in reality, we had no idea. I think we wasted a lot of time doing nothing. I wish someone would have been straight-forward and honest right from the beginning, basically saying, 'Okay, here are your options, this is the associated cost and time for each', and then we could have made an informed decision instead of sitting around for months frustrated and not making any progress. Yeah, I guess if I had to make one suggestion it would be that. More education.

According to Mahlstedt (1985), subjects reported that assurance from their provider that these emotions and what they were feeling were common would

have made infertility testing and treatment easier. Patients often begin their infertility experience ill-equipped to deal with the stressors that are associated with it. The role of healthcare providers is to facilitate patients through this process, and to provide anticipatory guidance and education through open communication. In addition to focusing on the medical treatment of infertility, healthcare providers should validate patient's emotional responses, which can ease the stress of goal readjustment and threats one's personal concepts.

Moving forward with new goals.

The link between goal-setting and hope is that they promote focus and something to look forward to. Goals may promote the feeling of having a purpose in life, and increase optimism. Thinking about and planning goals can increase hope and optimism, and then optimism can boost one's ability to achieve goals. When an individual with hope is able to define his/her goals, they are motivated to participate in behaviors to reach those goals.

One participant describes how new goal-setting renewed his hope, motivation, and outlook on his infertility experience.

When I finally had something to work toward, I was motivated and excited to get the ball rolling. I felt like I had some control. I felt better about myself, and our situation. I had a more constructive attitude about what we could accomplish, and about things that I couldn't control.

By helping patients gain a sense of control over their situation, through communication, education, and anticipatory guidance, healthcare providers can help patients create realistic goals and expectations; which, in turn, produce a renewed sense of hope that the patient is able have some control over what once seemed like an uncontrollable situation.

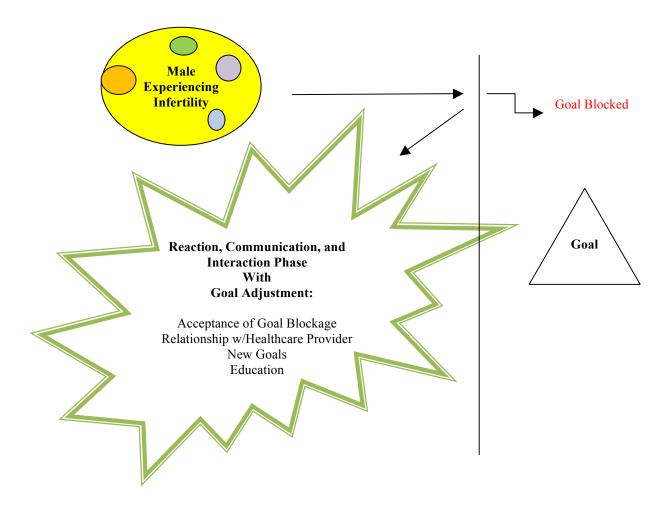


Figure 5. Goal Blockage Resulting in Reaction Phase with Goal Adjustment.

Goal attainment.

Goal Attainment, the subthemes included (a) peace with new goals and direction, and (b) renewed sense of hope. During this phase, the male moves forward towards reaching his readjusted goal. He has moved through the Goal Adjustment phase and King's Reaction phase, and now has moved on to a clear, straighter path towards his goal. He feels at peace with the decisions that are being made, and has a renewed sense of hope that was once shattered in the Goal Blockage stage. He feels alive again, being an active participant in his own healthcare and decision-making, in partnership with a healthcare provider that anticipates his needs, that he trusts, and that he can openly communicate with. His thoughts are positive and he is optimistic about moving toward attainable goals.



Figure 6. Reaction Phase Leading to Transaction Phase and Goal Attainment.

Peace with new goals and direction.

One participant described the emotional freedom the he felt following the goal readjustment phase, and working toward a viable goal.

It was like, finally, I felt like I wasn't treading water anymore. I felt like we were moving in a direction, at least, instead of sitting still and spinning our wheels. I felt like a weight had been lifted off of me and I could finally breathe, knowing that we had a plan and were moving forward toward a viable option.

Another participant described the peace he felt, having readjusted his goals toward more realistic goals. He related how important guidance and education are in finding peace through the process of Reaction to Transaction.

My wife has told me that after I had all of the pieces of the puzzle in front of me, and knew what our options were, I was like a different person. It's like I came out of my shell and the sun was shining again on what was a very gloomy time in my life. You can't make clear decisions walking around in a cloud of confusion. I look back now at that time in my life, and I really...I was very stressed out and probably depressed but just didn't realize it. My life was turned upside down. But once I knew what was going on, and what I needed to do, I was at peace with the whole situation. I was like a different person then.

Renewed sense of hope.

In this subtheme, patients described a renewed sense of hope; feeling positive and optimistic about reaching new goals. One participant described his newly hopeful feelings, and a sense of emotional and psychological reattachment stemming from the Goal Readjustment phase and into the Goal Attainment phase.

You know, for a long time I felt like I was just kind of sitting on the sidelines and watching it all go by, just sort of going with the flow. I had sort of detached emotionally for a while, you know, from everyone, including my wife. But once we met with the doctor, knew what our options were, and had a plan on what we needed to do, I didn't feel like I was gambling anymore. I guess in retrospect, what I needed was to be educated. That's it. I used to feel like the whole thing was like spinning a roulette wheel because I had no clue what was going on. I was just happy that we had a plan in place. I was hopeful that this time, we might actually be successful.

Another participant described how a loss of hope corresponded to a feeling of loss of control.

Looking back, I think if I wouldn't have been so crushed by the shock of being told that we had an infertility problem, and lost all sense of hope, I probably would have been more optimistic and hopeful about the whole deal. I probably would have been able to live with it better. I think when you lose that hope, you know, it's like a goner...You don't know where to turn or what to do. But if you have a plan, and know what your options are, you can make decisions

and approach it the way you want. You at least have a little hope if you feel like you have some control of the situation and know what is going on.

Discussion

The results of this study confirm the findings of previous studies in that males living with infertility showed an increase in psychosocial distress, feelings of isolation, strained marital relationships, and distress related to the importance men place on their roles and the situational challenges to that perceived role expectation with a diagnosis of infertility. King's Theory of Goal Attainment (1981) offers theoretical support for the individual interacting within an open system, forming an interpersonal system with the healthcare provider through active communication and goal-directed behavior. The personal system that is the male, struggles with the blockage and reality of his inability to meet his goal. In partnership with the healthcare provider, he moves through the stage of goal blockage, to the stage of goal readjustment corresponding with King's Reaction Phase in the Theory of Goal Attainment, into the stage of Goal Attainment corresponding with King's Transaction Phase. Purposeful and meaningful interaction between the two personal systems, create a functional interpersonal system with a unified goal.

Summary

The purpose of this study was to explore the experience of infertility in men, their expectations of health care providers, and the health care system. In chapter four, sample characteristics were analyzed, and the results were discussed. Using Colaizzi's method of data analysis, three themes emerged: 1) Goal Blockage, 2) Goal Adjustment, and 3) Goal Attainment. The theme of Goal Blockage included two subthemes of (a) isolation, and (b) disappointment. The theme of Goal Adjustment included four subthemes of (a) acceptance of goal blockage, (b) relationship with healthcare provider, (c) education, (d) moving forward with new goals. For the category of Goal Attainment, the subthemes included (a) peace with new goals and direction, and (b) renewed sense of hope. In chapter V, a summary of the study conclusions and implications for practice and education are presented, as well as recommendations for future research.

Chapter V

Summary, Conclusions, and Recommendations

The purpose of this study was to explore and describe the experience of infertility in men, as well as to describe their perceptions and expectations of health care providers and the health care system. A summary of the study conclusions and implications for practice and education are presented.

Recommendations for future research are also discussed.

Summary

The purpose of this study was to describe the lived experience of infertility by males. A qualitative descriptive phenomenological approach was used to describe the experience of infertility in these men. King's Theory of Goal Attainment (1981) was the theoretical framework for this study. Six men who were experiencing infertility or had experienced infertility during their lifetime participated in this study. Each participant responded to three research questions: They were: (a) What is the lived experience of infertility from the male perspective? (b) What are your expectations of health care providers? (c) What are your expectations of the health care system? Responses were analyzed using Colaizzi's (1978) methodology for data analysis. Three main themes emerged from the data: goal blockage, goal adjustment, and goal attainment. The theme of Goal Blockage included two subthemes of (a) isolation, and (b) disappointment.

The theme of Goal Adjustment included four subthemes of (a) acceptance of goal blockage, (b) relationship with healthcare provider, (c) education, (d) moving forward with new goals. For the category of Goal Attainment, the subthemes included (a) peace with new goals and direction, and (b) renewed sense of hope.

The first theme, goal blockage, was developed based on descriptions of experiences males believed accompanied the initial diagnosis of infertility. Initially upon diagnosis of infertility, the male is faced with the inability to meet his goal of conceiving a biological child with his wife. The theme Goal Blockage involved a situational appraisal by both the male and the healthcare provider, and recognition of the threat to the personal system of the male. Based on King's Open Systems Theory, the personal system of the male comprised of 4 concepts: self, stress, role, and perception. When the male experiences the inability to meet his goal, these concepts are challenged. This is Goal Blockage. The subthemes of Disappointment and Isolation are included in this theme because significant statements reflecting these feelings were provided by the males. Men talked about their thoughts, feelings, and challenges they experienced when their pursuit of conception was interrupted, and how this precipitated the psychosocial reactions of feelings of isolation and disappointment.

The second theme, Goal Adjustment, was developed based on descriptions of experiences males believed followed the realization that conception of a biological child may require the assistance of medicine. The subthemes that were a result of the sequelae of goal adjustment described by the participants in this

study included: a) acceptance of goal blockage, b) relationship with healthcare provider, c) education, and d) moving forward with new goals. During Goal Adjustment and King's Reaction Phase, there is open interaction and communication between healthcare provider and the male experiencing infertility. The patient has reached the Goal Blockage stage, and in desiring to continuing his journey to meet his goal of having a child, moves into the Goal Adjustment stage. In this theme, there is recognition by the patient and the healthcare provider of the need for problem-solving in an effort to set new goals, and a plan to meet those goals. This stage includes realistic situational appraisals by the male, mediated by the healthcare provider. In this theme, King's Theory of Goal Attainment (1981) offers theoretical support for the one individual personal system (the male experiencing infertility) interacting with another system (the healthcare provider).

The Goal Adjustment stage involved these two systems, interacting personal systems, and the formation of the interpersonal system. In this theme, goal-directed interaction between the two systems, mediated by communication, moves the male going through the stage of Goal Adjustment into King's Reaction Phase. The reaction phase relates to the patient actively participating in problem solving, decision-making, accurate appraisal of his situation, and realistic, readjusted goal setting. The most important facets of this theme are communication on both the part of the patient and the healthcare provider, and goal-directed interaction. Without communication and goal-directed interaction, this interpersonal system does not function well, and the ability to set readjusted

goals (and subsequently reach them), is compromised. These are crucial components to this process.

Patients reported that during this phase, they developed a strong, trusting, mutually-respectful relationship with healthcare providers. In particular, nurses were mentioned as the healthcare professional that had the greatest impact on the experience, more so than the treating physician. The participants unanimously agreed that the relationship with their healthcare provider was one of the most important and pivotal parts of goal readjustment. Being able to communicate with the healthcare provider was denoted as one of the most important aspects their experience. Education was noted as one of the most important factors in the satisfaction, and success, in working through the phase of goal blockage and into the phase of goal adjustment. Most importantly, it was noted that anticipatory guidance played an important role in reducing the stress caused by goal blockage and readjustment to new goals. Communication is the glue that holds the pieces of this phase together, in addition to mutual goal-directed interaction between the healthcare provider and the nurse.

The third theme, Goal Attainment, was developed based on descriptions of experiences males believed accompanied after realistic, readjusted goals have been created. Goal Attainment, the subthemes included (a) peace with new goals and direction, and (b) renewed sense of hope. During this phase, the male moves forward towards reaching his readjusted goal. He is motivated, and possesses a renewed sense of hope and ability to reach his goal. The male is optimistic about

the future, and feels a sense of control as he works toward King's Transaction Phase and meeting his goal. Three themes emerged upon review of the males descriptions of their experience with infertility, with healthcare providers, and with the healthcare system. These themes were: (a) empathy, (b) education, and (c) guidance. Empathy and an understanding of the experience from the male perspective were viewed as an important attribute for healthcare providers to possess. Healthcare providers who showed empathy and an effort to understand the patient's feelings were viewed as caring individuals by the patient, and partners in healthcare. All participants stated that education was the most important component comprising the foundation of their relationship with the healthcare providers, as well as the building blocks for sound decision-making and realistic goal-setting. Guidance, and, in particular, anticipatory guidance emerged as an important aspect of the male experience with infertility. All of these themes merge together and are difficult to separate in the reality of practice; however, these themes form a symbiotic, synergistic relationship, working together to improve the experience of infertility and promote positive outcomes.

King's Theory of Goal Attainment (1981) and the Open Systems Theory provided the theoretical basis for this study. This conceptual framework and the Theory of Goal Attainment are based on an overall assumption that the focus of nursing is human beings interacting with their environment and others, leading to a state of health for individuals, which is an ability to function in social roles. Major concepts in this study associated with King's Theory of Goal Attainment

included: self, stress, role, communication, interaction, transaction, perception, and time. King's Theory of Goal Attainment (1981) recognizes the unique needs of patients, and the importance of healthcare providers' cognizance of the needs of individuals living with this psychosocially stressful medical diagnosis.

Conclusions

The conclusions of this study are:

- 1. The lived experience of infertility by men is a unique individual experience.
- 2. Complex psychosocial and environmental factors impact the male experience of infertility.
- Infertility is a stressful experience, representing an inability to achieve a set goal, requiring goal adjustment through a dynamic process of goal-directed interaction and communication with healthcare providers.
- 4. Infertility challenges males perceived social role expectations and their ability to function in this role.
- Support from healthcare providers is a necessary component in helping patients reach their healthcare goals.
- Open, interactive communication between males and healthcare
 providers fosters a therapeutic relationship, enabling mutual-goal
 setting to occur.

- 7. Healthcare providers can facilitate a mutually supportive relationship with patients based on mutual respect, trust, and sensitivity in an effort to minimize stress and create a patient-provider relationship that fosters positivity, and minimizes feelings of isolation and disappointment.
- Healthcare providers can assist males living with infertility in realistic situational appraisal and creating positive perceptual adjustments.
- 9. King's Theory of Goal Attainment (1981) is a useful theoretical framework to guide the interaction between males living with infertility and the healthcare provider.
- 10. Education and anticipatory guidance provided by the healthcare provider are important facets to successful goal-setting and achievement.
- 11. Healthcare providers can empower patients through education to make autonomous decisions
- 12. Clarifying understanding of the plans for and concerns about healthcare treatment is a necessary component to realistic healthcare expectations.

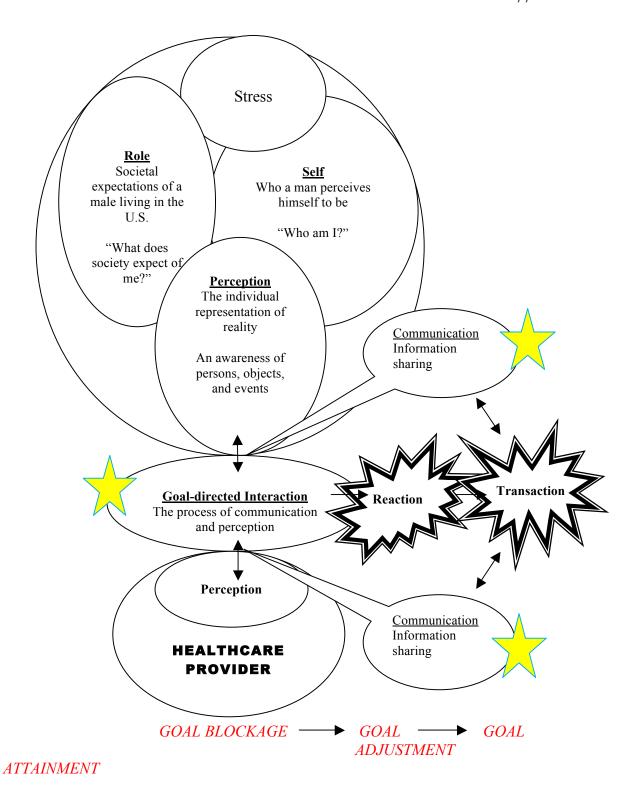


Figure 7. Schematic Summary of King's Theory of Goal Attainment and Study Themes.

Implications for Nursing Practice

Patients experiencing infertility may view healthcare providers and the healthcare system as providers of hope. It is well-recognized that infertility treatment leads to stress, which can interfere with the ability of the patient to understand and retain information. Understanding the experience of infertility from the male perspective will help the healthcare provider better anticipate for the needs of this population, provide anticipatory guidance regarding diagnostic, treatment, and procedural information, and help patients become well-informed about their healthcare options. By doing so, the healthcare provider is empowering the patient, thereby permitting the patient to make educated, autonomous decisions.

As evidenced by the findings in this study, it is imperative that healthcare providers verify patient's level of understanding, and encourage patients to become engaged in healthcare decisions and treatment plans. Additionally, it is important that the healthcare provider and patient clarify understanding of the plans for and concerns about treatment, as well as the reality of expectations regarding the likelihood of achieving established goals. Healthcare providers may facilitate a mutually supportive relationship with patients based on mutual trust, respect, and sensitivity in an effort to minimize stress and create a therapeutic environment that fosters positivity, and minimizes feelings of isolation.

Implications for Future Research

Both qualitative and quantitative studies have investigated the effect of infertility on both women and men; however, few qualitative or quantitative studies have focused on the experience of infertility from the male perspective. It is important for healthcare providers to be apprised of how men perceive the experience of infertility in order to anticipate needs, as well as provide appropriate education, understand patient expectations of healthcare providers, and understand male psychosocial and physical needs.

Infertility is a complex physiopsychosocial process that will continue to challenge healthcare providers. Advanced practice nurses are in a position to help patients effectively manage all aspects the infertility experience. Advanced practice nurses are pillars of hope and strength for individuals with infertility. Understanding the experience of infertility from the patient's perspective helps the APN therapeutically direct patients through the stage of goal blockage, into the stage of goal readjustment and goal attainment. The advanced practice nurse harbors all of the tools necessary to therapeutically assist patients in their journey through the phases of Goal Attainment.

The following recommendations are made for future nursing research:

 A larger sample size is recommended to see if similar results are found. The larger the sample size, the greater the credibility of the findings.

- 2. The sample should be selected from other geographical locations to increase generalizability.
- 3. Research studies should be conducted using King's Theory of Goal Attainment (1981). King's theory can provide a useful framework as a basis for future nursing research examining the role of healthcare providers interacting with patients in goal-setting, goal adjustment, and goal achievement.
- 4. All participants in this study were Caucasian with similar socioeconomic backgrounds. Future study consisting of participants from other cultures or ethnic groups is needed to determine if there are cultural differences among males experiencing infertility.
- 5. Additional qualitative studies that explore and describe the lived experience of infertility by men can help understand health behavior patterns and environmental interactions. These studies can also provide better insight for health care providers resulting in more effective treatment and management of these individuals.
- 6. All of the participants in this study had children conceived as the result of infertility treatment. Further study is needed to investigate the perspective of males experiencing infertility who have not had any children.
- 7. All of the participants in this study conceived within five years of treatment for infertility. Further study of males experiencing infertility

- for more than five years is needed to see if there are differences in those experiencing infertility for less than five years.
- 8. All of the participants in this study had achieved at least a high school education. Further study is needed to investigate the perspective of males who have not achieved at least a high school education.
- 9. All of the participants in this study earned at least \$45,000/year.
 Further study is needed consisting of participants who earn less money, and whether or not financial status factors into the process of goal attainment, and, if so, in what ways.
- 10. Much of the research regarding the male experience of infertility consists of dated quantitative studies. Further research through quantitative analysis is warranted.

Summary

In this chapter, a summary of the study and its findings were presented.

Conclusions and implications for future practice were drawn based on these results. In addition, recommendations for future nursing practice and nursing research were presented. The male experience of infertility is multifactorial, with an often predictable course of experience. Health care providers who provide services to these males can use the information presented in this study to better understand the dynamic nature of infertility, as well as understand and anticipate the sequelae of consequences experienced by these men.

APPENDIX A

Demographic Questionnaire

Demographic Questionnaire

Please answer the following questions about yourself. Your answers are confidential, you will not be identified personally, and your data will be combined with that of others to obtain group information. Please do not place your name or any identifying information on this questionnaire aside from your response to the questions.

Date	today:
Your	today: phone number is:
The b	best date and/or time to reach you is:
1.	What is your age? years old
2.	Marital status married single
3.	Ethnicity African American Latino/Hispanic/Non-White Asian Native American Other
4.	Primary language used to read, write, and speak is English. YesNo
5.	Annual gross household income (please circle one answer) Under \$15,000 \$15,001 - \$24,999 \$25,000 - \$34,999 \$35,000 - \$44,999 \$45,000 and over
8.	Highest level of education achieved (example: high school = 12 years) years
9.	Are you and your partner attempting to conceive at this time? yes no

10.	Approximate length of time you have sought medical services for your
partne	r to become pregnant:
	< 6 months
	6 months – 1 year
	1-2 years
	3-5 years
	5+ years
11.	
inferti	lity you and your partner have experienced?
	yes
	If yes, what is the diagnosis?
	no
12.	
pregna	ant at this time?
	yes
	no
13.	Do you have children?
	yes
	If yes, were the children conceived with or without the aid of
	fertility treatments?
	with
	without
	no

APPENDIX B

Participant Letter

Informed Consent

THE EXPERIENCE OF INFERTILITY FROM THE MALE PERSPECTIVE

My name is Tiffany Laughlin and I am a registered nurse currently completing my Master's Degree at the University of Wisconsin-Oshkosh. As a Master of Nursing candidate, I am conducting a clinical research project investigating the male experience of infertility. You are invited to participate in my research study, which investigates your experience. Your participation in this study will provide valuable insight and will assist me in making recommendations to nurses and health care providers for improving the needs of men living with infertility.

Your participation in this study is completely voluntary and anonymous, and you may decide to stop or withdraw from participation at any point. Participation in this study is solely for the purpose of research and is not diagnostic. I do not anticipate that participation in this study will pose any medical, psychological, financial, or social risk to you. Confidentiality will be maintained, and no identifying information will be requested of you. Once the study is completed, I would be happy to share the results with you. The study results will be made available to you per your request at no charge, and in a confidential and anonymous manner.

Participation in this study will require you to complete a demographic form, and at least a 30 minute phone interview with me. If you are willing to participate, please complete the enclosed demographic questionnaire. Please do not sign the questionnaire or identify yourself in any way. It will take you approximately ten minutes to complete the requested written information. Please return the completed questionnaire in the enclosed postage-paid envelope. Upon receipt of your completed demographic questionnaire, I will contact you by phone and arrange a date and time for a phone interview that is convenient for you. The interview will be audio taped and notes will be taken during the interview.

Please know that I greatly appreciate your consideration to participate in my study, and am excited by this opportunity to gather your very important perspective. Although I could research the male experience of infertility by interviewing nurses, physicians, and women, I feel that obtaining this information directly from you is the best way to understand this. Although the results of this study may not benefit you directly, I am hopeful that this study will yield information that will benefit future patients.

If you have any questions, please do not hesitate to contact me directly by phone at (920) 606-2697, or by email at laught15uwosh.edu.

Sincerely,

Tiffany L. Laughlin, B.S., B.S.N., R.N.

If you have any complaints or concerns about your treatment as a participant in this study, or any questions about your rights as a participant, please call or write:

Chair, Institutional Review Board for Protection of Human Participants
Office of Grants & Faculty Development
Dempsey Hall, Suite 214
University of Wisconsin Oshkosh
Oshkosh, WI 54901
(920) 424-3215

APPENDIX C

UW Oshkosh IRB Approval Letter



November 16, 2010

Ms. Tiffany Laughlin 725 N Melcorn Circle Depere, WI 54115

Dear Ms. Laughlin:

On behalf of the UW Oshkosh Institutional Review Board for Protection of Human Participants (IRB), I am pleased to inform you that your application has been approved for the following research: The Lived Experience of Infertility from the Male Perspective.

Your research has been categorized as NON-EXEMPT, which means it is subject to compliance with federal regulations and University policy regarding the use of human participants as described in the IRB application material. Your protocol is approved for a period of 12 months from the date of this letter. A new application must be submitted to continue this research beyond the period of approval. In addition, you must retain all records relating to this research for at least three years after the project's completion .

Please note that it is the principal investigator's responsibility to promptly report to the IRB Committee any changes in the research project, whether these changes occur prior to undertaking, or during the research. In addition, if harm or discomfort to anyone becomes apparent during the research, the principal investigator must contact the IRB Committee Chairperson. Harm or discomfort includes, but is not limited to, adverse reactions to psychology experiments, biologics, radioisotopes, labeled drugs, or to medical or other devices used. Please contact me if you have any questions (PH# 920/424-7172 or e-mail: rauscher@uwosh.edu).

Sincerely,

Dr. Frances Rauscher

IRB Chair

cc: Dr. Jaya Jambunathan 1914

GRADUATE STUDIES

DEC 2 1 2010

UW OSHKOSH OSHKOSH, WI 54901-8621

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