

A GROUNDED THEORY APPROACH
TO EXPLORE THE EXPERIENCE OF INVOLUNTARY CHILDLESSNESS
IN COUPLES WITH INFERTILITY

A Dissertation

Presented to the Faculty of the

School of Nursing

Widener University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

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School of Nursing

May 2019



Widener University

School of Nursing

Title of Dissertation: A Grounded Theory Approach to Explore the Experience of Involuntary Childlessness in Couples with Infertility

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Submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

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Dedication

This dissertation is dedicated to my children Ronan and Everly; my dreams that came true.

Acknowledgments

I am forever grateful for the people in my life who have supported and encouraged me throughout my doctoral education.

I would like to extend my sincere gratitude to my committee members, Drs. Anne Krouse, Barbara Patterson, and Deborah Zbegner, whose guidance and expertise have been invaluable contributions to this dissertation. Thank you for inspiring me and challenging me as an educator and a researcher. I would also like to thank my readers, Drs. Normajean Colby, Susan Mills, and Karen May for their constructive feedback, which further influenced this work.

Thank you to all of my supportive colleagues, who have become dear friends, in the Department of Nursing and Public Health at Moravian. Your constant encouragement has been a source of motivation for me over the years. Drs. Kerry Cheever, Lori Hoffman, and Susan Scholtz, thank you for seeing my potential and always steering me forward. Elise Colancecco, thank you for encouraging me to set deadlines.

I would like to extend my love and appreciation to my family who have provided me with unwavering love and support throughout my doctoral journey and always. To my parents, Randy and Gayle Diehl, thank you for being the best ones! To my husband, Jason, thank you for never questioning my (crazy) ideas and staying by my side to see them through. To my children, Ronan and Everly, who were the inspiration for this work before they even existed. I hope that I, too, inspire the both of you to always be curious and never stop learning so that you can move your own mountains.

Last, but certainly not least, I would like to express my utmost appreciation for all of the couples in this study who shared their experiences with me. Without you all, this study would not be possible.

Abstract

Couples who experience involuntary childlessness as a result of infertility are challenged to manage the biological, sociological, and psychological implications of the situation. Furthermore, they are confronted with a variety of options regarding infertility management and resolution of involuntary childlessness. Nurses play a key role in supporting couples as they manage infertility and involuntary childlessness. Since infertility and subsequent involuntary childlessness is a couple's experience, nursing care should aim to meet the needs of both partners. However, there is a lack of evidence to suggest how couples experience and manage this phenomenon. Therefore, the purpose of this study was to describe and explain the basic social process used by couples with infertility experiencing involuntary childlessness.

The grounded theory approach of Strauss and Corbin was used to guide this study. Data were collected from 13 couples who experienced involuntary childlessness despite trying to conceive for at least one year using semi-structured Zoom[®] interviews. Data analysis revealed the basic social process of *Enduring Involuntary Childlessness*. The process is comprised of three stages starting with the initial loss of not being able to conceive a biological child. Next, couples enter the emotionally and physically demanding stage of managing. In this stage, they navigate alternative family-planning options, experience recurrent grieving, and cope with loss, stigma, and pressures to conceive. Eventually, the couple redirects life goals and finds contentment in life by taking on their new normal. During this stage, couples begin to define themselves less on

their ability to parent and instead, place more emphasis on other aspects of life. In doing so, couples are able to find peace within their lives.

This research developed knowledge that nurses can use to guide nursing care of couples with infertility who are experiencing involuntary childlessness. This research supports the notion that infertility and involuntary childlessness is a couple's experience; and therefore, health care providers should consider the physical and emotional needs of both partners when caring for this population.

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Chapter 1

Introduction

Infertility affects approximately 12% of men and women in the United States (Chandra, Copen, & Stephen, 2013). Affecting both men and women equally, infertility is the result of a reproductive disease that impedes the ability to reproduce (American Society for Reproductive Medicine [ASRM], 2013). A consequence of infertility is childlessness, which has a negative connotation implying that the absence of a child is involuntary (Pelton & Hertlein, 2011). Infertility and subsequent involuntary childlessness have the potential to negatively impact physical, psychological, and social well-being as it disrupts reproductive health (World Health Organization, 2006), decreases quality of life (Gonzalez, 2000), and challenges the salient role of parenthood (Katz-Wise, Priess, & Hyde, 2010). Couples are constantly reminded of their involuntary childlessness through their inability to meet biological, developmental, and social norms throughout the lifespan; and therefore, experience grief-related feelings associated with the loss of a child that will never be (Hainsworth, Eakes, & Burke, 1994; Johansson & Berg, 2005; Peters, Jackson, & Rudge, 2011). Since involuntary childlessness has the potential to decrease quality of life and elicit recurrent grief throughout the lifespan, it is imperative that couples work towards resolving their involuntary childlessness to avoid potentially lifelong biopsychosocial consequences.

The resolution process requires the couple to plan, implement, and manage a new life course which may include alternative reproductive and family planning decisions that are best aligned with their values, beliefs, and life goals. However, involuntary

childlessness has the potential to elicit emotions such as depression, anxiety, and anger (Gonzalez, 2000). These emotions may jeopardize how couples manage involuntary childlessness. Nurses and other healthcare practitioners have a salient role in facilitating successful management of infertility and subsequent involuntary childlessness. This study was an exploration of how couples with infertility experience involuntary childlessness.

Background

According to the World Health Organization (2006), reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people... have the capability to reproduce and the freedom to decide if, when, and how often to do so. (p. 5)

Couples who experience infertility are denied of this basic reproductive right, however, they may be able to resolve involuntary childlessness through the navigation of reproductive choices.

Childlessness may be voluntary or involuntary. Voluntarily childless individuals choose not to have children and are typically referred to as childfree (Settle & Brumley, 2014). Involuntarily childless individuals desire a child; however, due to life circumstances or disease, are not able to parent a child (McQuillan, Greil, Shreffler, Wonch-Hill, Gentzler, & Hathcoat, 2012). Hagestad and Call (2007) identified delayed life transitions such as marrying late, divorcing early, and never leaving the parental

home as situational reasons for involuntary childlessness. The biological reason for involuntary childlessness is infertility (McQuillan et al., 2012).

Women who are involuntarily childless due to infertility are generally more distressed than women who are childless because of situational factors (McQuillan, Greil, White, & Jacob, 2003). McQuillan and colleagues proposed that childlessness falls on a continuum of voluntary and involuntariness and the concerns associated with childlessness are influenced by choice. Therefore, the fewer choices that a woman has in deciding to have children, the more involuntary a situation is and vice versa. Empowering couples who suffer from involuntary childlessness to have choice in managing care is particularly important, as couples may feel powerless due to lack of freedom and choice concerning reproductive options (Gonzalez, 2000). Having alternate options for parenthood such as medical treatments and adoptions or making the choice to live childfree may empower couples and facilitate the resolution process.

Infertility

The Centers for Disease Control and Prevention ([CDC], 2014) recognizes infertility as a public health priority as it affects individuals and couples in terms of social, economic, psychological, and physical well-being. The generally accepted clinical definition of infertility is the inability to conceive after one year of unsuccessful attempts (American Society of Reproductive Medicine, 2014). However, definitions of infertility vary widely throughout the literature. For example, the demographic definition refers to the inability of the women to have a live birth, regardless of conceptions (WHO, 2006).

The CDC (2014) identifies several forms of infertility and infertility-related conditions that impact public health and considerations for infertility overall including resolved infertility, primary infertility, secondary infertility, and impaired fecundity. Resolved infertility refers to spontaneous pregnancies that occur after one year of trying without medical intervention. Primary infertility refers to never being pregnant while secondary infertility refers to the inability to conceive after having a previous spontaneous live birth. Impaired fecundity refers to the difficulties in carrying a pregnancy to term. While impaired fecundity is different than infertility, both conditions impede the women's ability to have a live birth and ultimately parent a child, and so therefore, impaired fecundity is often included in infertility research and statistics (CDC, 2014).

In the United States, infertility affects approximately 12% of men and women though this estimate varies with infertility definition and data analysis techniques (Chandra et al., 2013; Thoma, Louis, King, Trumble, Sundaram, & Louis, 2013). Mascarenhas, Flaxman, Boerma, Vanderpoel, and Steven (2012) reported that despite population growth and declines in the preferred number of children, worldwide prevalence of infertility has remained relatively unchanged since 1990. Infertility is caused by a complex interplay of biological and lifestyle factors. Biological causes may be attributed to genetic influence and infectious disease. Lifestyle factors include delayed childbearing, exposure to environmental pollutants, alterations in body mass index, impaired nutrition, lack of exercise, smoking, and caffeine and alcohol consumption (Petraglia, Serou, & Chapron, 2013).

Resolution

When managing infertility and subsequent involuntary childlessness, couples are required to make various decisions throughout their journey towards resolution. Peters and colleagues (2011) found that if couples can redirect their life goals, they may attain positive outcomes such as increased marital satisfaction and less psychological sequelae than couples who do not do this.

While resolution of involuntary childlessness is ideal, total resolution may not be possible, regardless of outcome (Gonzalez, 2000; Letherby, 1999). It has been suggested that individuals affected with infertility experience chronic sorrow (Hainsworth et al., 1994), which is a “periodic recurrence of permanent, pervasive sadness or other grief-related feelings associated with ongoing disparity resulting from a loss experience” (Eakes, Burke, & Hainsworth, 1998, p. 181). Chronic sorrow is triggered by their inability to meet social, developmental, or personal goals. It may be implied that even if a couple achieves parenthood through artificial reproductive technology or adoption, they may continue to experience chronic sorrow due to their inability to meet the biological norm of spontaneous reproduction.

Options for Couples

Some couples with infertility eventually conceive spontaneously. Troude, Bailly, Guibert, Bouyer, and de la Rochebrochard (2012) reported that up to 24% of couples who experience a failed in vitro fertilization (IVF) attempt eventually went on to have a spontaneous pregnancy resulting in a live birth. Furthermore, Kupka, Dorn, Richter, Schmutzler, van der Ven, and Kulczycki (2003) found that 14% of previously infertile

couples had spontaneous conception outcomes. While these studies may provide hope to some couples, the results indicate that the majority of couples do not conceive spontaneously and alternate family-planning options may better facilitate resolution of involuntary childlessness. Alternative family-planning options include medical treatment, adoption, or living childfree.

Medical treatments. Boivin, Bunting, Collins, and Nygren (2007) reported that approximately one-half of women diagnosed with infertility receive medical treatment. Treatment for infertility consists of medical, surgical, and surrogacy options and may include artificial reproductive technology (ART). U. S. statistics indicate that ART was successful at producing live births at a rate of 40.7% for women under age 35. This rate steadily declined for women age 35 or older, with women over 40 having an 11.8% live birth rate (Society for Assisted Reproductive Technology, 2014).

Even though infertility is recognized as a disease (ASRM, 2013; WHO, 2006) and the WHO supports procreation as a reproductive right for all citizens, disparities in treatment exist. Treatment is expensive and insurance coverage in most states is not mandatory. Bitler and Schmidt (2006) found significant access disparities among race, ethnicity, and socioeconomic status, with white, college-educated, affluent women and couples accessing treatment most often, despite the fact that this group reported lesser rates of infertility overall when compared with black and Hispanic races and those who are less than college educated.

Adoption. As the data suggests, reproductive technology is not failproof and does not guarantee a child. Therefore, couples who desire parenthood may need to consider

other family planning options. Though, not a resolution for infertility, adoption is a family-building option that may resolve involuntary childlessness. Infertility and impaired fecundity are often motivating factors for adoption (Hollingsworth, 2000). Daniluk and Hurtig-Mitchell (2003) found that infertile couples chose adoption after exhausting options related to medical treatment to have a biological child. Couples made this decision to adopt only after acknowledging and accepting the loss of a biological child and their desire to parent rather than procreate, believing that they could love a child who was not biologically related to them, and accepting adoptive families as legitimate (Daniluk & Hurtig-Mitchell, 2003). Making the decision to adopt empowered couples to gain back some control in their lives after failed infertility treatments left them feeling powerless (Daniluk, 2001).

Childfree living. Living childfree is an option for involuntarily childless couples. Childfree living is the conscious decision to not have children (Blackstone, 2012). In recent years, childfree living has become more socially acceptable; therefore, more women may choose to be childfree because of infertility (Settle & Brumley, 2014). Daniluk (2001) found that couples felt a sense of empowerment through regaining choice and control of their lives. However, this option may be especially difficult for couples who desire parenthood as it will not resolve their involuntary childlessness.

Psychosocial Effects on the Individual

Parenthood is considered to be the central identity of many adults (Jeffries & Konnert, 2002). When couples are unable to have children, it interrupts the ability to meet this social norm leaving couples at risk for psychological, social, and marital

distress. The loss and grief associated with infertility can have profound effects on psychological well-being. Women who are involuntarily childless experience more grief than women with other reasons for childlessness (McQuillan et al., 2012). The grief reactions that are caused by involuntary childlessness secondary to infertility have been described in the literature as a “cyclic pattern of grief and loss” (Bell, 2013), “life grief” (Johansson & Berg, 2005), and “chronic sorrow” (Hainsworth et al., 1992). All of these terms refer to a cyclic pattern of grief triggered by the inability to meet desired life goals.

McQuillan, Torres-Stone, and Greil (2007) found that the psychological grief and distress associated with infertility only occur if having children is valued, suggesting a social influence on the salience of motherhood. Pronatalism is the belief that social value is dependent upon childbearing capabilities (Parry, 2005). While childlessness is more socially acceptable in industrialized countries than underdeveloped countries (Greil, Slauson-Bevins, & McQuillan, 2009), pronatalist values remain at the core of American society, causing infertile women to feel isolated and alone (Parry, 2005). Consistent with pronatalist beliefs, motherhood is thought to be the main social role of women in the United States (Jordan & Revenson, 1999), with most young women desiring to have children (Thornton & Young-DeMarco, 2000). For couples, and especially women, experiencing involuntary childlessness may be especially challenging, as it is contrary to the pronatalist values of modern society.

Due to the fact that women are mainly affected by pronatalist values, research regarding infertility has traditionally focused on women’s perspectives and excluded the male viewpoint. However, Hadley and Hanley (2011) found that involuntarily childless

men also suffer from psychological sequelae such as experiencing a sense of loss, depression, exclusion, and isolation from not having a biological child.

Psychological Effects on Couples

Couples with infertility are at an increased risk for marital stress. Communication is a concern for couples with infertility. As couples navigate the process of determining their individual preferences, they must consider their partners' desires as well. This requires communication skills such as collaboration and negotiation. Conflict may also occur at any part of the process (Queen, Berg, & Lawrence, 2015). Glover, McClellan, and Weaver (2009) found that men tend to refrain from communicating about infertility, which causes general frustration among women. However, Johnson and Johnson (2009) reported that the male partner's input did influence the couple's decisions regarding infertility, which highlights the importance of open communication between partners.

Couples who remain childless are more likely to separate than couples who become parents through spontaneous conception, IVF, or adoption (Ferreira et al., 2016). These findings support that involuntary childlessness has implications that directly impact the couple as a unit and therefore, it is imperative that researchers consider the dyadic perspective.

Statement of the Problem

Couples with infertility are challenged to navigate the complexities of involuntary childlessness, which includes managing the biological, sociological, and psychological implications of the situation, as well as, exploring a variety of options regarding infertility management and resolution of involuntary childlessness. The advice of

healthcare providers affects patients' healthcare decisions (Queen et al., 2015); and therefore, nurses play a key role in supporting couples as they make decisions related to infertility and involuntary childlessness. Since infertility and subsequent involuntary childlessness is a couple's experience, nursing care should aim to meet the needs of both partners.

Most research on involuntary childlessness focuses on women only, and moreover, fails to account for the couple as the unit of analysis despite the call for couples-based research (Bell, 2013; Chachamovich et al., 2010; McQuillan et al., 2012). Research suggests that nurses and other health professionals are not providing the support, understanding, and sensitivity that individuals with infertility expect from care providers (Peters, 2003). This may be attributed to the fact that the process of how couples manage infertility and involuntary childlessness is not clear.

This study addressed the gap in current knowledge of how couples experience involuntary childlessness. Through this study, the researcher identified and explained the basic social process of how couples with infertility experience involuntary childlessness, which provides nurses with an understanding of the resources and support that couples need at varying stages of the infertility journey.

Purpose

The purpose of this study was to explain the basic social process of couples with infertility experiencing involuntary childlessness.

Research Question

What is the basic social process of couples with infertility experiencing involuntary childlessness?

Definition of Terms

For the purpose of this study, the following definitions were used:

- *Infertility* is the inability to achieve a viable pregnancy despite 12 months of actively trying to conceive (CDC, 2014). This includes couples with primary infertility, and/or impaired fecundity, and resolved infertility.
 - *Primary infertility* refers to never being pregnant (CDC, 2014).
 - *Impaired fecundity* refers to the difficulties in carrying a pregnancy to term (CDC, 2014).
 - *Resolved infertility* refers to spontaneous pregnancies that occur after one year of trying without medical intervention (CDC, 2014).
- A *couple* is a male and female in a mutual, heterosexual relationship, who are 18 years of age or older.
- *Involuntary childlessness* refers to individuals who desire a child; however, due to life circumstances or disease, are not able to have a child (McQuillan et al., 2012). For this study, involuntary childlessness is a result of infertility.
- *Basic social process (BSP)* is a process of social behavior intended to resolve a problem and that accounts for change and variation over time (Glaser, 1978).

Researcher's Background

As a neonatal intensive care nurse, I have cared for newborns with previously involuntarily childless parents. In the case of the parents, they eventually went on to conceive either spontaneously, by means of artificial reproduction technologies, or were building their family through adoption. These parents would often share their stories of how they decided to pursue treatment or start the adoption process. However, it was not until I personally experienced infertility and involuntary childlessness that I recognized the tremendous physical, psychological, and social disparities that involuntary childless couples experienced. My husband and I were challenged to redirect and plan our lives in a different way than what we had imagined. Reflecting on this experience, I understand that our choices were influenced by social norms, financial availability, and individual values, beliefs, and life goals. The decisions that we made were not without conflict and we did not always find an answer. I suspect that other couples that are involuntarily childless go through a similar experience. Therefore, I believe that a better understanding of how couples experience involuntary childlessness may facilitate more positive client education, support, and ultimately, an acceptable resolution.

Researcher's World View

My worldview is influenced by existentialist thought and refined through the lens of the Reciprocal Interaction World View, as described by Fawcett and DeSanto-Madeya (2013). Aligned with this worldview, I believe that human beings are holistic beings of biological, psychological, sociological, and spiritual parts. Yet, these parts are not reducible, as they only have meaning when integrated into a whole human being. Human

beings are in constant interaction with the environment with instances of continuous change, periods of stability, and episodes of acute change for survival.

I believe that one's purpose is to find and make meaning of his or her life. I believe that meanings are individually constructed from personal experiences and social interactions. It is my ontological view that human beings freely behave and experience phenomena according to a complexity of internal and external factors that are influenced by their constructed meanings.

Epistemic claims that I ascribe to are aligned with Interactionism, which acknowledges the need to consider the individual human experience, context of the phenomenon, and how relative the knowledge is to time and place (Fawcett & DeSanto-Madeya, 2013). Therefore, both objective and subjective data are important to develop knowledge. However, unlike the Interactionism view, which emphasizes empirically-derived data with subjective supplementation, I consider qualitative methods to be essential for knowledge development. In this regard, I recognize the constructivist influence on my epistemological beliefs regarding knowledge acquisition in that I believe learning occurs through constructing knowledge through personal experiences.

Methodologic Approach

Grounded theory is the discovery of theory from data through an inductive and systematic process of data collection and analysis pertaining to the phenomenon of interest (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Sociologists, Glaser and Strauss, recognized the need for inductive theory generation in a time when positivism emphasized quantitative methodology. In response, they developed the grounded theory

methodology, which is systematic and rigorous, yet considers the social perspective of the phenomenon (Glaser & Strauss, 1967). This approach highlights the positivist contributions from Glaser and the interactionist perspective from Strauss (Daly, 2007). With time, Glaser and Strauss split from their original work on grounded theory. Strauss collaborated with Juliet Corbin (1990, 1998) to advance grounded theory methods such as data analysis techniques. Strauss and Corbin's method for doing grounded theory was used throughout this study's data collection and analysis process.

An aim of grounded theory is to explain a process of human behavior known as a basic social process (BSP) (Glaser, 1978). Corbin and Strauss (2008) define a process as "an ongoing action, interaction, or emotion taken in response to situations or problems, often with purpose of teaching a goal or handling a problem" (p. 96-97). BSPs are core categories that organize social behavior as it occurs over time. BSP core categories are different than other core categories because BSPs have at least two emergent stages that "process out". Indicating process, change, and movement, BSPs are often labeled as "gerunds" (Glaser, 1978). BSPs may not always be present in a grounded theory, however when present, BSPs enhance the scope and robustness of the data (Glaser, 1978).

There are two types of BSPs that are inherently interconnected. The basic social psychological process (BSPP) refers to the social psychological process of the phenomenon and the basic social structural process (BSSP) refers to the process of a social structure. The BSPP functions within the structure of the BSSP (Glaser, 1978). Glaser explains that a BSP tends to imply a BSPP. Therefore, if a social structural

process should emerge, the researcher needs to clearly articulate this as a BSSP. In this study, the researcher will seek to determine the basic social psychological process used by couples with infertility experiencing involuntary childlessness.

Philosophical Underpinnings

Grounded theory methodology is influenced by symbolic interactionism (Aldiabat & LeNavenec, 2011; Corbin & Strauss, 2008). Symbolic interactionism is a sociological perspective in which meanings are created through social interactions and communicated through symbols (Charon, 1989). The philosophical foundation of symbolic interactionism is influenced by the work of scholars such as Mead and Dewey (Blumer, 1969). However, the term “symbolic interactionism” was coined and refined by Blumer. Blumer posits that symbolic interactionism follows three premises; human beings act towards things based on the meanings of things, meanings are derived from social interaction, and humans determine how to use meanings through a process of interpretations. Additionally, symbolic interactionism focuses on four central ideas. First, human interactions are social in nature. Second, these interactions occur in the present. Third, interactions also occur within the individual. Lastly, these interactions are “active” or free, meaning that human beings are free to make their own choices (Charon, 1989). This philosophical view is a good fit to study couples as they interact with each other and among society while experiencing involuntary childlessness as a result of infertility.

Considerations for Family Research

Historically, family was defined through structural and demographic traits, for example; a husband, a wife, and two children. However, postmodern views now focus on family functions rather than demographic composition, hence families are considered dynamic and diverse “groups that create individual and shared meanings” (Daly, 2007, p. 72). This definition aligns with a symbolic interactionist view as human beings create shared meanings to their role and situation through socialization (Klein & White, 1996). To understand shared meanings between or among family members, postmodern ideas account for the complexities of the unit of analysis and focus on processes in which families “create, sustain, and discuss their own family realities” (Daly, 2007, p. 72). Through the exploration of process, the researcher can explore interactions, dynamics, negotiations, transitions, change, and contextual meanings within the family (Daly, 2007).

Assumptions

For this study, the following assumptions apply:

- Infertility and subsequent involuntary childlessness are life crises (Bell, 2013; Johansson & Berg, 2005; Peters et al., 2011).
- The way individuals perceive infertility and involuntary childlessness is influenced by societal factors, referred to as pronatalism (Bell, 2013, Greil et al., 2009).

- Couples experience infertility and involuntary childlessness together, as a unit. (Chachamovich et al., 2010; Pasch, Dunkel-Schetter, & Christensen, 2002).
- Women and men differ in how they are affected by infertility (Katz-Wise et al., 2010; Pasch et al., 2002; Peterson, Newton, & Rosen, 2003).
- Complete resolution of infertility and involuntary childlessness may not be possible (Letherby, 1999; Gonzalez, 2000).

Biases

This researcher holds the following biases:

- Children bring meaning to one's life. The researcher believes that one's purpose in life is to find meaning. Infertility and subsequent involuntary childlessness create an existential crisis in which one perceives a lack of life meaning and purpose because of the inability to meet expected biological and social milestones.
- It is important that couples work towards resolving involuntary childlessness to prevent potential negative psychological outcomes.
- Couples with involuntary childlessness want to seek resolution.

Significance of the Study

This study is relevant to nursing science, education, and practice. Couples who experience infertility and subsequent involuntary childlessness may be cared for by maternal-child, behavioral, public, and community health nurses. To ensure adequate

and appropriate support and resources, it is critical that nurses and other healthcare providers understand how couples with infertility experience involuntary childlessness.

Nursing Science and Research

The Association of Women's Health, Obstetrics, and Neonatal Nursing (AWHONN)'s (2019) Women's and Neonatal Health research priorities focus on nursing research and scholarship that facilitates the development of knowledge to guide clinical nursing practice and care of women across the lifespan. This research may develop knowledge that practitioners can use to guide nursing care of couples with infertility who are experiencing involuntarily childlessness. While women's experiences of infertility and involuntary childlessness have been explored, the process of how couples experience involuntary childlessness is largely understudied in nursing. This study will advance nursing science by extending knowledge about involuntary childlessness particularly related to the couple as the unit of analysis.

Meleis (2012) called for substantive theories to advance nursing science and close the research-practice gap. By its iterative nature of induction and deduction, the grounded theory approach closes this gap (Corbin & Strauss, 2008; Daly, 2007). This researcher hopes to discover a substantive theory of how couples experience involuntary childlessness that has practical applicability to nursing practice. Furthermore, a theory may provide a foundation for instrument development and further interventional research on infertility and involuntary childlessness.

Nursing Education

This study may provide nurse educators with evidence-based knowledge to inform pertinent concepts related to infertility and involuntary childlessness at all levels of nursing education. At the baccalaureate level, nurse educators have the responsibility to prepare nurse generalists who can care for patients across the lifespan and in multiple settings. Infertility education is included in maternity textbooks, though the extent to which infertility is covered in undergraduate nursing curricula is unclear.

In graduate programs, nurse educators can apply knowledge gained from this study to develop or revise pedagogical approaches such as case studies and simulation scenarios for nurse practitioner students. These newly developed pedagogies will be based on evidence of appropriate resources and support that couples with infertility may need as they manage involuntary childlessness.

At the practice level, hospital and unit-based nurse educators may utilize findings from this study for staff development. The study may provide evidence for nurse educators to create learning modules and continuing education units for nursing staff, which will ultimately improve the quality of patient care.

Nursing Practice

Due to the importance for couples with infertility to successfully manage involuntary childlessness, it is imperative that nurses and other health care professionals assess the couples' knowledge of infertility and possible options, provide unbiased education regarding these options, answer questions, and provide appropriate resources and referrals to facilitate informed decisions. Yet, research suggests that health care

professionals do not have sufficient knowledge to care for infertility patients (Peters, 2003). This study may provide nurses with a better understanding of the experiences that surround involuntary childlessness and provide a framework for evidenced-based care. Nurses can integrate findings into practice to better assess couples' needs and empower them through informing decisions, providing appropriate referrals as applicable, and supporting their choices. In addition, this study will showcase the complex, relational aspects of the couple.

Chapter Summary

Involuntary childlessness is often secondary to infertility. Involuntarily childless couples are at risk for decreased well-being related to the negative psychosocial consequences of the situation. It is important for couples to understand the various options regarding family-building or living childfree to facilitate resolution and maximize well-being. Nurses have a role in educating and supporting couples as they manage infertility and involuntary childlessness. Involuntary childlessness is a shared experience, and so nursing care should consider both partners.

The purpose of this study was to describe and explain the basic social process of couples with infertility experiencing involuntary childlessness. The researcher used a grounded theory approach proposed by Strauss and Corbin (1990) to explore how couples with infertility experience involuntary childlessness. This specific approach is aligned with the researcher's worldview and family-based research.

By identifying a process of how couples experience involuntary childlessness, this researcher contributed new knowledge to nursing science, education, and practice.

Ultimately, nurses and other healthcare professionals will gain a better understanding of how couples experience involuntary childlessness and therefore, provide more appropriate and supportive care.

Chapter 2

Literature Review

The purpose of this study was to describe and explain the basic social process by which couples with infertility experience involuntary childlessness. This chapter will present literature related to involuntary childlessness. More specifically, the author reviewed how couples experience involuntary childlessness and the psychosocial implications of being involuntarily childless.

Purpose of the Literature Review

When doing grounded theory research, the researcher should conduct a literature review to enhance theoretical sensitivity. Theoretical sensitivity refers to the researcher's personal ability to be insightful, give meaning to the data, and to understand what is going on with the phenomenon (Strauss & Corbin, 1990). Additionally, Strauss and Corbin propose that a literature review may be used as secondary sources of data and aid in stimulating questions, directing theoretical sampling, and validating theory. To better understand involuntary childlessness and determine knowledge gaps, this researcher reviewed literature related to the experiences and meanings, psychosocial implications, and resolution of infertility and involuntary childlessness.

This researcher conducted a series of literature searches using the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PsychARTICLES, SocINDEX, and Health Source: Nursing/Academic Edition databases. All the searches were limited to the English language, peer-reviewed articles, and the years 2000 through 2017. To determine experiences and meanings, the researcher used combinations of the following

search terms: childlessness, infertility, couples, experience, and meaning. A search of the terms childlessness, infertility, and experience yielded 95 results. Childlessness, infertility, and couples produced 46 results. Infertility and meaning yielded 19 results. Titles and abstracts of the articles were reviewed for applicability to the phenomenon.

To identify relevant articles related to quality of life, the researcher used the search terms quality of life and infertility, which resulted in 234 articles. By limiting the search to couples, the results were decreased to 16 articles. The terms resolution and infertility yielded 43 results. These article titles and abstracts were also reviewed for relevance.

By scrutinizing reference lists of selected articles, this researcher identified three articles for review that were not found within the limitations of the original searches. A final selection of 13 articles were chosen for review based on their relevance to infertility and involuntary childlessness.

Meanings and Experiences of Infertility and Involuntary Childlessness

Couples may be childless due to a variety of factors including infertility, delayed childbearing, or situational factors such as financial constraints or not having a partner to share the experience with. Childlessness may be voluntary or involuntary. Voluntary childlessness implies that couples have a choice in foregoing parenthood, while involuntary childlessness means that couples' inability to have a child is beyond their control (Blackstone & Steward, 2012; McQuillan, Greil, Shreffler, Wonch-Hill, Gentzler, & Hathcoat, 2012). Infertility is often the cause of involuntary childlessness as it minimizes a couple's choice in childbearing. The lack of choice about reproduction is poignant in accounts of experiences and meanings of infertility (Bell, 2013; Glover et al.,

2009; McQuillan et al., 2012). Additionally, lack of choice compounded with the salience of parenthood has been found to contribute to psychological effects in individuals and couples (McQuillan et al., 2012; Matthews & Matthews, 1986).

Matthews and Matthews (1986) proposed a theoretical framework grounded in symbolic interactionism that acknowledges the couples' infertility experience as a process. This framework serves as one of the earliest works on involuntary childlessness. The framework depicts involuntary childlessness as a process and highlights the influence of control and importance of parenthood on the couple's' perceptions of the meaning of infertility. Matthews and Matthews explained that couples process through reality reconstructions, identity transformations, and role readjustments to transition to "nonparenthood". In this framework, couples first reconstruct their reality. The authors proposed that most married couples expect to have children and when they are unable to do so, must redefine themselves as a childless couple. A major crisis in this stage is loss of control over the ability to have a family. Matthews and Matthews suggested that the way in which couples deal with crisis during this phase determines the degree of psychological effects that the couple may experience.

Next, couples go through an identity transformation in which they modify their self-concept and identity. This is based upon the assumption that identity and self-concept will be most affected when the parenthood role is salient. Also, the more salient the identity, the more active a person will be in trying to fulfill that role. Thus, couples who value parenthood will actively seek options to become parents such as infertility treatments or adoption. Role readjustment is the next stage of the process. In this stage,

couples identify and accept that they are different than fertile couples. Couples may work towards redefining themselves through engaging in alternate activities such as work or leisure activities (Matthews & Matthews, 1986).

Though this framework was introduced over 30 years ago, the concepts are aligned with more recent findings on infertility and involuntary childlessness. For example, Glover and colleagues (2009) explored the meaning of infertility for couples and the findings support Matthews and Matthews (1986) framework. The aim of Glover and colleagues' study was to examine how participants evaluated their infertility experiences, both individually and as a couple, and how they managed differences in meanings. The researchers recruited 10 couples from an infertility clinic. The mean age of the couples was 32.5 ($SD = 4.58$) years for men and 33.3 ($SD = 3.37$) years for women. The mean time that couples were together was 8.6 years ($SD = 4.81$ years) and were trying to conceive for a range of 2 to 6 years. All participants were white. Semi-structured interviews were aimed at exploring the meaning of infertility to the individual, the meaning of infertility to the couple, and how couples managed differences related to infertility.

Glover and colleagues (2009) used thematic analysis to answer the research question. Two supra-ordinate themes emerged with seven subthemes. The first supra-ordinate theme, "Expectations of life- what is it all about?" encompassed personal reflections regarding life without children. This included three subthemes, including subtheme #1 "Life plans and assumptions - when plans derail". The couples in this study

assumed that they would be able to have children whenever they wanted and therefore, required a period of reflection on their inability to reproduce.

Subtheme #2 was “Meaning of and commitment to parenthood”, in which couples evaluated the importance of parenthood (Glover et al., 2009). It was apparent that having a biological child was important to couples. However, women, more than men, were accepting of adoption if a biological child was not an option. In subtheme #3, “Reviewing and protecting the relationship”, couples reflected on the strength of their relationship and potentially living a life without children.

The second supra-ordinate theme was “Dealing with ongoing fertility problems-when it doesn’t happen how we expect”, describes couples’ reactions to fertility treatments as an attempt to gain control over their situation (Glover et al., 2009). Four subthemes were identified. While subtheme #4 is titled “Regaining or losing control”, most couples described instances of not being in control. The uncertainty of treatment outcome, the woman’s biological clock and feeling rushed in treatment, lack of choice in treatment, and treatment failure all contributed to a lack of control among couples. Women, more than men, expressed concern and frustration about lack of control in the treatment process.

Subtheme #5 “Resentment or acceptance”, couples reported feeling resentment or jealousy towards other people who had children (Glover et al., 2009). Women, in particular, expressed jealousy towards seeing pregnant women and babies. Some couples did express acceptance of their situation. In general, men were more accepting of the inability to have biological children than women. Subtheme #6 was “Talking with each

other”. Communication between partners varied among couples. For example, some couples reported talking often about infertility and options, while other couples admitted to purposefully avoiding discussing the topic. In general, couples reported that the women most often initiated the discussions about infertility, which was a cause of frustration for the woman.

Subtheme #7 was “Talking with others- limits, secrets, and taboos” (Glover et al., 2009). Couples reported that they eventually shared their fertility problems with others, though what they shared was censored. Couples reported that they felt other people could not fully understand what they were going through.

The particular methodology of the study was not reported, though the methods were thorough and clearly articulated in the report (Glover et al., 2009). A major strength of the study is that the researchers used dyadic analysis to understand meanings of involuntary childlessness. The research particularly emphasized the significance of choice and gender differences in the importance of a biological child. Gender differences in communication styles were also evident. Glover and colleagues reported that the couples acknowledged disagreements but overall seemed “a united front” during the interview. This could be plausible, however, Daly (2007) cautioned about this phenomenon as limitation of couple interviewing. Specifically, couples may not feel comfortable disagreeing in the presence of the researcher.

A study by McQuillan and colleagues (2012) also supports the influence of choice and perceptions of the salience of parenthood. The researchers conducted a correlational study to determine if associations exist between types of childlessness and childlessness

concerns. Additionally, the researchers sought to determine if motherhood values and social influence are associated with childlessness concerns.

The researchers collected data from the *2002 National Survey of Fertility Barriers (NSFB)*, which is a national random-digit-dial telephone survey. Of the 4,787 women that participated in the original study, McQuillan and colleagues (2012) selected a sample of 1,180 childless women who ranged in age from 25 to 45 years old. The women in the sample all reported that they were not biological or adoptive parents. The response rate for the NSFB was 53.7 percent. The researchers reported that the NSFB research team conducted appropriate measures to confirm validity of the survey but did not delineate those measures.

The survey consisted of three subscales that measured childlessness concerns, the importance of motherhood, and social messages to have children (McQuillan et al., 2012). Childlessness concerns was the outcome variable, which included feeling sad, feeling left out, comparing oneself to others who have children, and perceiving holidays and family gatherings to be difficult. This subscale had a Cronbach's alpha of .88. The second scale measured the importance of motherhood, a mediating variable. The researchers reported that this subscale had a Cronbach's alpha of .78 and high internal consistency. The third subscale measured the participants' perceived social messages to have children. This subscale had a Cronbach's alpha of .63. Background and life course variables were also measured which included race and ethnicity, family income, education, marital status, and religion.

The researchers categorized the participants into groups depending on their reasons for childlessness; biomedical barriers, situational barriers, no barriers, and voluntary childlessness (McQuillan et al., 2012). Biomedical barriers included infertility. Situational barriers consisted of such circumstances as being financially unsettled or the partner did not want children. No barriers referred to women who were delaying childbearing but did not give a biomedical or situational reason for it. Voluntarily childless women referred to those women who did not want children nor did they plan to have children.

Data were analyzed using Analysis of Variance (ANOVA) and Structural Equation Modeling (SEM) to find associations among the variables. Post hoc comparisons using Tukey's Honestly Significant Difference (HSD) test indicated that childless concerns for biomedical barriers ($M = 2.17$, $SD = 0.66$) were significantly different than situational barriers ($M = 1.85$, $SD = 0.58$), no barriers ($M = 1.85$, $SD = .58$), and voluntarily childfree ($M = 1.49$, $SD = 0.52$) (McQuillan et al., 2012). The data suggests that involuntarily childless women with infertility have greater childlessness concerns than other types of childless women.

Additionally, McQuillan and colleagues (2012) found that the importance of motherhood for voluntarily childfree women ($M = 1.64$, $SD = 0.49$) was significantly different from women who had biomedical barriers ($M = 2.88$, $SD = 0.73$), situational barriers ($M = 2.90$, $SD = 0.73$), and no barriers ($M = 2.81$, $SD = .76$) These findings suggest that voluntarily childless women had less concerns about being childless and perceived motherhood to be of lesser importance.

Women who were voluntarily childless ($M = 4.83$, $SD = 2.04$) reported perceiving more social messages to have children than women who had biomedical barriers ($M = 3.55$, $SD = 1.54$), situational barriers ($M = 2.90$, $SD = 1.36$), and no barriers ($M = 3.40$, $SD = 1.60$) (McQuillan et al., 2012). In fact, there was a strong negative correlation between social messages and importance of motherhood ($r = -.500$, $p < .001$), suggesting that voluntarily childfree women tended to perceive higher social messages to have children than involuntarily childless women (McQuillan et al., 2012). However, social messages to conceive were not a significant predictor of childlessness concerns regardless of the degree of perception.

Using SEM, McQuillan and colleagues (2012) found two pathways in which biomedical barriers may affect childlessness concerns both directly and indirectly. Women that had biomedical barriers ($\beta = .43$, $p \leq .10$) had childlessness concerns. Also, childless concerns were affected indirectly through the mediator variable; the importance of motherhood, which accounts for 37% of the variance ($R^2 = .37$). Women who were involuntarily childless because of biomedical barriers rated motherhood to be of importance, and in turn, had an increase in childlessness concerns ($\beta = .11$, $p = .04$).

The analyses also suggested that there is no direct association between voluntarily childfree women and childlessness concerns, however there is an inverse, indirect effect on voluntarily childfree women and the importance of motherhood ($\beta = -.59$, $p = .08$), which in turn affects childlessness concerns (McQuillan et al., 2012). This means that childfree women value motherhood to a lesser degree and therefore, do not have the childlessness concerns that women who aspire to be mothers would have.

Demographic data, socioeconomic status, ethnicity, and relationship status did not predict childlessness concerns, which suggests that people experience childless concerns similarly across these variables. Religiosity was statistically significant ($\beta = .06, p = .02$) indirectly through the mediator of importance of motherhood, suggesting that women who are religious value motherhood, thus impacting childlessness concerns.

To summarize, the findings suggest that women who experience biomedical barriers report more childlessness concerns than those women who have situational barriers or are voluntarily childfree. Women's perceptions of social messages do not impact childlessness concerns; however, what is impactful, is the importance of motherhood to women (McQuillan et al., 2012).

The findings of this study contribute to the literature in that it supports the importance of choice and meanings of motherhood on how women experience childlessness. Women who experience childlessness concerns tend to assign more meanings to motherhood and are infertile; whereas, women who experience none or lesser childlessness concerns choose to be childfree or do not hold motherhood as a high value (McQuillan et al., 2012).

The researchers had a large pool of data in which to select participants and therefore were able to select a diverse sample that was representative of the target population. The researchers reported that they did have numerous accounts of missing data but utilized the "best modern methods for handling missing data" and so, felt confident that the results were not compromised (McQuillan et al., 2012, p. 1171). Another methodological strength of this study is that the researchers acknowledged the different types of

childlessness. The researchers discerned involuntarily childless women and childfree women rather than grouping them together under the general category of childless. This allowed for a thorough analysis and distinct findings among the groups.

Gonzalez (2000) conducted a qualitative descriptive study that investigated the meaning of infertility to women. A purposive sample of 25 married women experiencing infertility were interviewed. The participant ages ranged from 20 to 40 years. Most of the women were Caucasian, two were Hispanic, and one was African-American.

Gonzalez (2000) identified five key themes from the data which completed a framework of the transformational process of infertility. The first theme, failure to fulfill a prescribed societal norm, refers to the participants' feelings of inadequacy related to fulfilling perceived societal roles of woman and motherhood and loss of purpose in life. These feelings of inadequacy related to the next theme, which is assault on personal identity. Related to this theme, participants felt powerless over their own bodies, stigmatized due to their failure to reproduce, alienated from peers, and deprived of biological ties to children. Mourning encompasses a process of hope and denial, awareness of the loss, and coping. Transformation was marked by a definite point in which the participants knew that being childless was their reality. Restitution was reached when participants accepted their inability to conceive a biological child. Through this process, the participants did not reach resolution, rather they experienced "meaningful philosophical or spiritual changes" within themselves (Gonzalez, 2000, p. 626).

This research highlights infertility as a transformational process that is influenced by social, cultural, and biological norms. Additionally, this research supports that total resolution of infertility and involuntary childlessness may not be achievable. Instead, Gonzalez (2000) proposed that the infertility process culminates with restitution, the redefining of the self to accept one's physical inabilities to conceive.

This research appears methodologically sound. Gonzalez (2000) thoroughly explains method, sample, data collection and analysis, and results. Additionally, the researcher reported methods to support the trustworthiness of the study, which included member checking and audit trails. This study is limited in that it did not consider male perspective, nor did it consider the partner's influence on the infertility process. This study would be strengthened with data from both partners because infertility is generally experienced by the couple. Ultimately, couple data may provide a framework that could support both partners as they experience infertility.

Bell (2013) conducted a phenomenological, feminist, grounded theory study to explore Australian women's experiences of involuntary childlessness. Participants were recruited through newspaper advertisements and postings at health services and community centers. All women in the study had past or present use of assisted reproductive services. A final sample of 28 women were interviewed using a semi-structured interview approach. Interviews were conducted face-to-face in the participants' homes and lasted approximately 90 minutes. Interviews were recorded and data were transcribed. The researcher used thematic coding to develop 30 codes, however only themes that focused on the code "experiences of infertility" were reported

in the article. Common themes among women experiencing involuntary childlessness included experiencing a woman's problem, impact on self-concept, pronatalism, coping strategies, loss and grief, and accepting or resolving involuntary childlessness.

Bell (2013) found that many women in the study reported feelings of guilt associated with having infertility, specifically related to how it deprived their partner of a child. The women in the study reported that infertility was a life crisis. They described feelings of devastation, anger, frustration, and loss of control. Regarding the ability to have children, one woman commented "once the choice had been taken away from me, it was hard to deal with because then I thought, well, there's really no choice anymore" (Bell, 2013, p. 289).

Impacts of pronatalism are depicted through women's accounts of experiencing societal influences on involuntary childlessness. All the women in the study reported that they were questioned about the absence of children. One woman reported, "society just expects you to have a child" (Bell, 2013, p. 290). Most of the women in the study reported that comments about childlessness from others were hurtful and not appreciated.

Bell's (2013) findings suggest that women cope with infertility through avoidance strategies. The women in this study avoided places or celebrations where they would be reminded of their inability to have a child. The women in the study described feelings of loss and grief as a cyclic process of hope, despair, and repair.

In terms of resolution, those participants who found resolution achieved parenthood through natural conception or assisted reproduction. In hindsight, these women expressed appreciation of the infertility experience, as they believed they were more

grateful of their children. Women who did not achieve parenthood did not report resolution, and in fact, reported a difficult time accepting their involuntary childlessness (Bell, 2013). These findings are consistent with the Theory of Chronic Sorrow (Eakes et al., 1998) in that chronic sorrow will persist until feelings of despair over anticipated normalcy and reality have vanished. The attainment of parenthood, through assisted or spontaneous reproduction, may accomplish this.

Bell (2013) reported using a combination of three distinct research methods; phenomenological, feminist, and grounded theory; however, the use of grounded theory is unclear. The researcher used non-categorical analysis and did not identify process; both of which would emerge in grounded theory results. As noted by the researcher, a limitation of this study was that most of the participants felt that their infertility was resolved through obtaining parenthood by way of conception, adoption, or foster care (Bell, 2013). Therefore, women who experienced unresolved childlessness were not well represented. However, despite the limitations, the study contributed to the issue of lack of control as the underlying concern of involuntary childlessness. Additionally, the study highlighted the implications of pronatalism and guilt associated with involuntary childlessness. Grief, as a cyclic process, was suggested which aligns with similar findings by Johansson and Berg (2005) and Hainsworth and colleagues (1994).

Psychosocial Implications of Infertility and Involuntary Childlessness

Couples who have difficulty conceiving are constantly reminded of their involuntary childlessness through their inability to meet developmental and social norms and therefore experience grief-related feelings associated with the loss of a child that will

never be (Bell, 2013; Peters, Jackson, & Rudge, 2011; Hainsworth et al., 1994; Johansson & Berg, 2005). The constant grief experienced by infertile couples has been described in the literature as a “cyclic grief” (Bell, 2013), “life grief” (Johansson & Berg, 2005), and “chronic sorrow” (Hainsworth et al., 1994).

Grief Processes

Cyclic grief was identified by Bell (2013) as her findings suggest that women move in and out of hope, loss, and despair. Hainsworth and colleagues (1994) found a similar grief pattern among infertile couples, which they termed chronic sorrow. The researchers conducted four qualitative, pilot studies to determine if chronic sorrow was present in people with chronic conditions. One of the pilot studies explored chronic sorrow in infertile patients. The sample was comprised of five infertile couples, with a mean age of 32.5 years, who were recruited from a Northeast chapter of RESOLVE, an infertility support organization.

The researchers collected data through semi-structured interviews using a modified version of the Burke/NCRCs Chronic Sorrow Questionnaire (Individual and Caregiver Version). The questionnaire is comprised of questions that aim to determine whether chronic sorrow is present, milestones or events that trigger chronic sorrow, coping strategies, and directives for health care professionals (Hainsworth et al., 1994). Minimal modifications were made to the original questionnaire so that the questions could be directed to individuals with chronic conditions. Validity and reliability were established on the original instrument. Two content experts provided face validity and a panel of experts, academics, and clinicians established content validity. Interrater-reliability was

also established through the review of 15 interviews, which were analyzed by two reviewers. The interrater reliability coefficient was 1.0.

Of the five couples or 10 individuals who were interviewed, 90% ($n = 9$) of the individuals with infertility showed evidence of chronic sorrow, a “pervasive sadness that is permanent, periodic, and progressive” (Hainsworth et al., 1994, p. 63). In terms of coping, individuals with infertility used action and cognitive strategies most often. Action strategies were activities that put some control back in one’s life. Cognitive coping involves taking control of one’s life through focusing on positive thoughts. Hainsworth and colleagues attest that chronic sorrow is a normal phenomenon in response to a loss situation. The researchers suggest that nursing care should aim to support healthy coping strategies; which include empowering individuals to take back control of their lives.

Hainsworth and colleagues (1994) recognized infertility as a chronic disease and thus, their findings were aligned with other chronic illnesses. This study adds to the body of knowledge relevant to infertility in that the researchers acknowledged the grief reactions, or chronic sorrow, associated with infertility to be a normal process. Additionally, the researchers identified implications for healthcare professionals.

A major limitation of Hainsworth and colleague’s (1994) work is that the study was a pilot of five infertile couples. Furthermore, aside from mean age, the researchers did not include any other relevant demographics or contextual data. More studies are needed to determine chronic sorrow in this population.

Like chronic sorrow, Johansson and Berg (2005) described instances of oscillating hope and despair in which they termed “life grief”. The researchers conducted a phenomenological study that explored women’s experiences of childlessness two years after in vitro fertilization without becoming pregnant. Participants were recruited from a University hospital in Sweden. The final sample consisted of 8 women ranging in age from 34 to 41 years. Interviews were recorded, transcribed, and analyzed using Giorgi’s phenomenological method.

Life-grief was the essence of the phenomenon and threaded through the lived experiences of all five constituents. First, childlessness is a central part of life. The participants felt that meaning in life was to reproduce and therefore, viewed fertility as a salient aspect of life. Second, IVF treatment was viewed as a positive part of life. Next, the hope of achieving pregnancy always exists. With the onset of each menstrual cycle, came renewed hope for women to become pregnant. The women in the study reported that they anticipated menopause to be the point in which all hope will be lost and the definiteness of infertility will be accepted. Women in the study reported attempts to find other central values in life such as traveling. Lastly, contact with other people was not important in that the participants withdrew from social activities and avoided discussing infertility with others (Johansson & Berg, 2005).

While chronic sorrow is described as a normal response, Johansson and Berg (2005) proposed a different perspective on the grief process in that life grief is a crisis reaction to childlessness. Though different perspectives, the study supports that there are cyclic grief reactions in people with infertility. The researchers suggested that nurses should

anticipate grief triggers and provide appropriate guidance. However, triggers were not discussed.

Quality of Life

Infertility-related stress has been shown to increase, particularly among women, if couples are incongruent in their perceptions of the importance of parenthood and how infertility affects their relationship (Chachamovich et al., 2010; Peterson et al., 2003). Chachamovich and colleagues conducted a study to determine perceptions of quality of life among infertile men and women. They recruited 162 infertile couples from an assisted reproduction clinic at a university hospital in Brazil. The mean age for men was 36.1 years ($SD = 7.7$) and the mean age for women was 32.1 years ($SD = 5.8$). Most of the couples were seeking treatment at the time of recruitment, yet had not utilized artificial reproductive technology (ART) ($n = 136$, 84%). There were 16% ($n = 26$) of women and 23% ($n = 37$) of men had children.

The study participants independently completed the World Health Organization-Quality of Life Brief (WHOQOL-Brief) and the Beck Depression Inventory (BDI) to measure quality of life and depression respectively. The WHOQOL-Brief measures and gives a score for overall quality of life and for quality of life in specific domains, which include physical health, psychological health, social relationships, and environment. Scores under 10 indicate that depression is not present, while higher scores indicate intensifying depression. The instrument has a Cronbach's alpha of .70 for men and .81 for women. The BDI was validated for the Portuguese language and the Cronbach's alpha was .71 for men and .80 for women (Chachamovich et al., 2010).

In addition to completing the instruments individually, the researchers asked the participants to complete a modified WHOQOL-Brief, named the proxy-WHOQOL-Brief, in which the participants responded about their partner's quality of life. Cronbach's alpha reliability was .67 for men and .72 for women. The psychological domain had a Cronbach's alpha reliability of .57 for men and .66 for women (Chachamovich et al., 2010).

The researchers analyzed the data using the couple as the unit of analysis. Paired t-tests were used to determine congruencies or discrepancies between the couple's perceptions of them as a couple and for each other with regard to quality of life. There were significant differences in couples' quality of life perceptions, as both men and women perceived their spouses' quality of life to be lower than what his or her spouse reported (Chachamovich et al., 2010). Men reported significantly higher quality of life ($M = 73.99, SD = 14.3, p \leq .001$), compared to their partner's perception of his quality of life ($M = 53.08, SD = 18.2, p \leq .0001$) (Chachamovich et al., 2010). Likewise, the women's self-reported quality of life ($M = 73.99, SD = 14.2, p \leq .001$) was significantly higher than their spouses' perception of her quality of life ($M = 51.31, SD = 16.5, p \leq .001$) (Chachamovich et al., 2010).

In addition to paired t-tests, the researchers used multiple regression analyses and repeated-measures analysis of covariance (ANCOVA) to determine the effect of depression on quality of life perceptions (Chachamovich et al., 2010). The researchers found that depression in either or both partners minimally predicted whether couples'

quality of life perceptions were congruent. The researchers reported that depression contributed to 9.8% of the variance for congruence in the physical domain only.

Chachamovich and colleagues (2010) provided a thorough background, which flows with the statement of the problem. Research questions were articulated. Methods and data collection and analysis procedures were reviewed. The researchers analyzed the couple as a dyad. The dyadic analysis offers the researchers an opportunity to understand discrepancies between quality of life perceptions that may have gone undetected in typical individual analyses. However, the study was conducted in Brazil and may not be generalizable to the United States. This serves as a limitation to the study.

Another study by Peterson and colleagues (2003) showed similar results regarding stress and perceptions. The researchers recruited 525 couples from a teaching hospital in Ontario, Canada from 1992 through 1998. All couples were referred to the hospital for infertility treatment. The mean ages were 33.8 for males and 32.3 for females. The couples were mailed a series of three questionnaires: the Fertility Problem Inventory (FPI), the Dyadic Adjustment Scale (DAS), and the Beck Depression Inventory (BDI).

The FPI measured infertility stress. It is a 46-item questionnaire with a Cronbach's alpha of .77 to .78. Responses are measured on a 6-point Likert scale on subscales such as social infertility stress, sexual infertility stress, relationship infertility stress, an individual's need for parenthood, and an individual's feelings about living a childfree lifestyle. An overall score is also determined, with higher scores indicating higher levels of overall infertility stress (Peterson et al., 2003).

The DAS measured marital stress. This is a 32-item scale with four subscales: satisfaction, cohesion, consensus, and affectional expression. The Cronbach's alpha was not reported, though the researchers shared the measure had good internal consistency and satisfactory content, criterion-related, and construct validity (Peterson et al., 2003).

The BDI was used to measure depression. The researchers gave minimal information about the scale as they suggested it was a widely known instrument. A score of 10 or more indicates depression. The researchers stated the measure is reliable and valid (Peterson et al., 2003). The results of the paired *t*-tests suggest that females ($M = 132.1$, $SD = 34.4$) experienced significantly higher infertility-related stress than men ($M = 116.2$, $SD = 30.3$, $t = 12.4$; $p < .01$). Females ($M = 5.7$, $SD = 5.9$) also experienced higher levels of depression than men ($M = 3.4$, $SD = 4.5$, $t = 9.2$; $p < .01$). Marital adjustment was not significant (Peterson et al., 2003).

The researchers found strong correlations among female depression and couple incongruence on variables like the need for parenthood ($r = .09$, $p < .01$), relationship concerns ($r = .33$, $p < .01$), and overall infertility-related stress ($r = .33$, $p < .01$) (Peterson et al., 2003). There was a negative correlation among female dyadic adjustment and incongruence on the need for parenthood ($r = -.14$, $p < .01$), rejection of childfree living ($r = -.12$, $p < .01$), and overall infertility-related stress ($r = -.21$, $p < .01$) (Peterson et al., 2003). While male depression was not correlated to couple incongruence, dyadic adjustment was. There was a negative correlation among male dyadic adjustment and incongruence on the need for parenthood ($r = -.12$, $p < .01$), rejection of childfree living ($r = -.10$, $p < .01$), and overall infertility-related stress ($r = -.15$, $p < .01$) (Peterson et al.,

2003). This study is significant to the infertility literature because it supports that couples who have congruent perceptions of infertility-related stressors tend to have increased marital adjustment. Additionally, when congruent perceptions occur between the couple, women tend to have lower rates of depression compared to women who are part of an incongruent couple.

A limitation of the study is that it only included couples that were seeking infertility treatment. Not only were all couples going through infertility treatment, the Ontario government fully paid for infertility treatment until 1996, which comprised four of the six recruitment years. Therefore, this limits the generalizability to the United States, where infertility is typically not covered in full and financial concerns over treatment are stressors for some American citizens (Staniac & Webb, 2007).

Coping with Infertility and Involuntary Childlessness

Peterson, Newton, Rosen, and Shulman (2006) explored coping processes of couples experiencing infertility. The participants included 420 couples that were receiving artificial reproductive treatment (ART) at a hospital in Ontario, Canada. Three months prior to treatment, the participants were given four questionnaires, which included the Ways of Coping Questionnaire (WCQ), the Fertility Problem Inventory (FPI), the Dyadic Adjustment Scale (DAS), and the Beck Depression Inventory (BDI). The WCQ, used to assess coping strategies among infertile couples, is a 50-item scale that consists of eight subscales which include escape/avoidance, confrontive coping, self-controlling, accepting responsibility, planful problem solving, distancing, seeking social support, and positive reappraisal. Responses were recorded on a 4-point Likert scale

ranging from 0 to 4, with 0 meaning never used and 4 meaning used a great deal. The scale was reliable with a Cronbach's alpha of .82 (Peterson et al., 2006).

The FPI measured infertility stress. It is a 46-item questionnaire with a Cronbach's alpha of .78. Responses are measured on a 6-point Likert scale on subscales such as social infertility stress, sexual infertility stress, relationship infertility stress, and individuals need for parenthood and an individual's feelings about living a childfree lifestyle. An overall score is also determined, with higher scores indicating higher levels of overall infertility stress (Peterson et al., 2006).

The DAS measured marital stress. This is a 32-item scale with four subscales: satisfaction, cohesion, consensus, and affectional expression. The Cronbach's alpha of the scale was reported as .87 and an internal consistency of .90 (Peterson et al., 2006).

The BDI was used to measure depression. Scores range from 0 to 63, with higher scores indicating higher levels of depression.

Couples were grouped according to how frequently they used coping strategies. Independent variables were coping group and gender. The dependent variables were infertility stress, marital adjustment, and depression. Coping scores were used as the covariate. Data were analyzed using Multivariate Analysis of Covariance (MANCOVA) to determine if coping differed among the groups and dependent variables (Peterson et al., 2006).

The researchers found significant differences for groups and genders regarding the coping strategies of distancing, self-controlling, and accepting responsibilities.

Distancing refers to making light of the situation, self-controlling refers to keeping

feelings to oneself, and accepting responsibilities refers to criticizing oneself for the problem (Peterson et al., 2006). With regards to distancing, men and women differed on infertility stress ($F = 54.2, p \leq .001$) and depression ($F = 35.1, p \leq .001$). The groups also varied on infertility stress ($F = 7.3, p \leq .001$) and marital adjustment ($F = 3.3, p \leq .001$). To summarize, couples that used distancing had higher infertility stress levels ($M = 132.1, p \leq .01$) than couples that used other strategies. Specifically, females who used distancing had stress levels ($M = 145.5, p \leq .01$) significantly above males ($M = 117.8, p \leq .01$). In couples where men used distancing, female depression scores were increased ($M = 9.5, p \leq .01$) and marital adjustment scores were lower ($M = 118.1, p \leq .05$) (Peterson et al., 2006).

When examining the coping strategy of self-control, the researchers found significant differences among groups for infertility stress ($F = 4.6, p \leq .001$), marital adjustment ($F = 4.3, p \leq .01$), and depression ($F = 4.1, p \leq .01$) (Peterson et al., 2006). Infertility stress and depression were higher among the groups where women used high level of self-control and men used lower levels of self-control. Additionally, gender differences were found in infertility stress ($F = 30.7, p \leq .001$) and marital adjustment ($F = 19.6, p \leq .001$).

This study confirms the interplay between couples during the infertility process and suggests that while men and women may differ in how they cope with infertility, the individual's coping affects his or her partner. Therefore, individual reactions to infertility impact the dyad and congruency among coping strategies is important. Peterson and colleagues' (2006) study is limited in that only couples that were utilizing ART were

eligible. Therefore, couples who did not utilize ART or couples who were unsuccessful with ART were not accounted for.

Literature suggests that resilience in couples promotes increased quality of life when faced with infertility (Herrmann, Scherg, Verres, von Hagens, Strowitzki, & Wischmann, 2011; Peters, Jackson, & Rudge, 2011). Peters and colleagues conducted a study using a qualitative narrative design to explore how couples face adversity related to involuntary childlessness after IVF treatment. Participants included five married couples that were childless despite utilizing infertility treatments. Data were collected through interviews. Participants were interviewed separately and data were recorded and transcribed. The researchers analyzed the data using a combination of qualitative strategies such as prolonged engagement with the text, listening, and identifying themes.

Peters and colleagues (2011) determined that couples move past the adversity of childlessness through experiencing the following themes: the difficulties of living a different narrative, having a strong dyadic bond, and setting achievable goals and redirecting creativity. The theme, difficulties of living a different narrative, represents the couples' knowledge of not fulfilling a social norm. The participants reported accounts of grief that were triggered by milestones reached by friends such as pregnancies, childbirth, and becoming grandparents. Couples reported using withdrawal and avoidance strategies to cope with the grief. For example, one participant reports not attending a baby shower that was too painful to go to.

The second theme was the strong dyadic bond. The couples in the study perceived their bond to be strong. Specifically, the participants believed that infertility made their

relationship stronger due to the hardships that they weathered. The third theme, setting achievable goals and redirecting creativity, signified the importance of setting and achieving new goals. For example, couples reported engaging more deeply in careers, travel, and education. The researchers concluded that resilience allows couples to move beyond this adversity and accept their childlessness (Peters et al., 2011).

This study exemplifies how resilience in couples facilitates resolution of involuntary childlessness and acceptance of a childfree lifestyle. To cope, couples engaged more deeply in other activities, and this supports findings from other studies (Hainsworth et al., 1994; Johansson & Berg, 2005). Additionally, the accounts of triggerable, reoccurring grief supported Hainsworth and colleagues' (1994) chronic sorrow. A limitation of this study was the small and homogenous sample of five Caucasian middle-class couples, as the results may not be transferable to other populations.

Herrmann and colleagues (2011) also found that couples with infertility, that were resilient reported less stress and increased quality of life than those couples with infertility who possessed less resilience. The researchers recruited couples that were receiving treatment from a Fertility Consultation Service at the Women's Hospital of Heidelberg University in Germany. The researchers mailed a series of questionnaires to prospective couples. The survey response rate was 46.9% and included 199 infertile couples, or 436 questionnaire sets. Ninety-nine percent of the participants were of German background. The participants' mean age was 33 years for women and 35.6 years for men. The average duration of couples' relationships was just under 10 years

with a range of two to 27 years. Couples were trying to conceive on average for about 4 years and 5 months with a range of 5 months to 14 years (Herrmann et al., 2011).

The questionnaires included the WHO Quality of Life assessment (WHOQOL), Fertility Problem Inventory (FPI), and the Resilience Scale (RS). The WHOQOL is a 24-item questionnaire that measures quality of life in four domains: physical, psychological, social relationships, and environment. The German WHOQOL was standardized with a sample of 2,432 German people. The researchers reported that internal consistency in all domains was above .70. Reliability was not established (Herrmann et al., 2011).

The FPI is a 46-item questionnaire that measures distress from infertility using six scales which include social concern, sexual concern, relationship concern, rejection of childfree lifestyle, need for parenthood, and a sum of global stress. The researchers used a sample of 2,302 childless Canadian patients to standardize scores. All scales were reliable on the Canadian tool, with Cronbach's alpha values ranging from .77 to .93. The German scale had no established reliability (Herrmann et al., 2011).

The RS, a 25-item questionnaire, measured resilience with higher total scores indicating resilience. The researchers reported that it was not possible for the German version to replicate certain structure sets on the original RS (Herrmann et al., 2011). Therefore, only total scores were used. Reliability of the total scale was not reported. In addition to the questionnaires, participants were also asked to rate the intensity of their desire for a child and their suffering from childlessness.

The researchers did not find any significant correlations among quality of life and desire to have a child (Herrmann et al., 2011), which differed from findings by other

researchers who have found this variable to be important in determining the childless experience (McQuillan et al., 2012). However, women who reported high levels of suffering due to childlessness rated their quality of life to be lower in the physical ($M = 77.57, SD \pm 12; p \leq .01$), psychological ($M = 63.48, SD \pm 13.09; p \leq .001$), environment ($M = 74.44, SD \pm 9.91; p \leq .01$), and global stress ($M = 66.32, SD \pm 16.74; p \leq .001$) domains than those women who reported low suffering scores. For men, suffering scores were not correlated with quality of life.

Quality of life was found to be highest among those men and women who were resilient (Herrmann et al., 2011). For men, resilience scores significantly ($p \leq .001$) and positively correlated with all WHOQOL domains: physical ($r = .34$), psychological ($r = .46$), social relationship ($r = .34$), environment ($r = .33$), and global stress ($r = .28$). Likewise, for women, resilience scores significantly ($p \leq .001$) and positively correlated with all WHOQOL domains: physical ($r = .40$), psychological ($r = .61$), social relationship ($r = .41$), environment ($r = .38$), and global stress ($r = .33$).

Herrmann and colleagues (2011) also found that, for women, there were significant negative correlations between FPI scores and resilience. Women with higher resilience scores had less infertility-specific stress in all domains which included social concern ($r = -.38, p \leq .001$), sexual concern ($r = -.41, p \leq .001$), relationship concern ($r = -.34, p \leq .001$), rejection of childfree lifestyle ($r = -.16, p \leq .05$), need for parenthood ($r = -.25, p \leq .001$), and global stress ($r = -.44, p \leq .001$).

This research further supports the importance of resilience to facilitate quality of life among couples experiencing involuntary childlessness. A critique of the study suggests

the results are dependable. The researchers gained Ethics Committee approval, explained the methods used to conduct the study, and accounted for the German translations of the scales. The WHOQOL and RS were standardized to provide reliability; however, the FPI was not standardized and reliability was not determined (Herrmann et al., 2011). While Peters and colleagues (2011) found that couples reached resilience after failed infertility treatments, Herrmann and colleagues did not correlate RS scores with years trying to conceive. This is a limitation of the study and would have been helpful to understand temporal aspects of resilience.

Potential Resolutions for Involuntarily Childless Couples

There is conflicting literature about resolution of infertility and involuntary childlessness. Some research suggests that couples do adapt to involuntary childlessness (Daniluk, 2001); while other researchers propose that total resolution may not be possible (Gonzalez, 2000). Daniluk conducted a 3-year, longitudinal, phenomenological study to understand and describe how couples make sense of their infertility and reconstruct their lives when faced with biological childlessness. The participants consisted of 37 heterosexual couples with ages ranging from 25 to 58 years. All of the couples pursued medical treatments for at least five years and had made the decision to cease treatment. Daniluk interviewed the couples for a total of four, semi-structured interviews and analyzed the data using Colaizzi's method of data analysis.

The first theme was hitting a wall, meaning that couples became acutely aware that their infertility, and subsequent biological childlessness was permanent. The couples felt physically and emotionally depleted and hopeless (Daniluk, 2001). The next theme,

reworking the past, was the period in which couples attempted to make sense of their losses, which included personal, social, and financial losses. Anger was present during this stage of reworking. The next period was termed, turning toward the future. Couples could envision life without a child, explore other parenting options such as adoption, and engage in hobbies, careers, and education. The final stage was renewal and regeneration. Couples identified infertility as part of them and recognized they were strong to have dealt with it. Couples described this stage as gaining back control of their lives. One participant stated, "It's exactly about choice, knowing that you have a choice and that your partner supports that choice... that makes all the difference in the world" (Daniluk, 2001, p. 79).

Daniluk's (2001) study considered couples that have previously utilized artificial reproductive technology, though did not include couples that have not used this technology. While this study gave support for resolution, all couples recruited made the conscious decision to stop treatment, thus not acknowledging those couples who may not have made strides towards resolution.

The results of the study appear to be trustworthy as multiple data analysis methods were used to ensure the trustworthiness of the findings. Daniluk (2001) reported prolonged engagement with participants at each of the four interviews to facilitate thick and rich descriptions. For data analysis, multiple researchers used comparative pattern analysis until consensus about themes and meanings were met. The researchers performed member checking by presenting the data to eight couples to confirm that descriptions were accurate accounts of their experiences.

While the study appears methodologically strong, Daniluk (2001) acknowledges that the demographic profile for the majority of the participants were Caucasian, educated, and middle to upper-middle class; and therefore, the study lacked diversity. Another limitation of the study is that participants were excluded if they had a mental illness. Individuals with pre-existing mental illness may have more difficulties transitioning to childlessness than individuals without mental illness.

Synthesis of the Literature

The conceptualization of involuntary childlessness as a process was initially proposed by Matthews and Matthews (1986). Since then, research surrounding involuntary childlessness has mainly focused on the woman's perspective. Applying the couple's viewpoint to the process is necessary to understand the unique dynamics of the dyad.

The literature implies that choice and the desire for parenthood are important predictors of well-being in childless couples (Bell, 2013; Glover et al., 2009; Matthews & Matthews, 1986; McQuillan et al., 2012). Couples with infertility who are involuntarily childless desire to be parents; however, they are deprived of the ability to make the choice to have a biological child. The lack of control over reproductive choices and the inability to meet the desired social role of parenthood may lead to psychosocial concerns such as stress, depression, and marital discord (Peterson et al., 2003; Peterson et al., 2006).

While infertility as a result of involuntary childlessness is a shared experience between partners, the literature suggests that men and women may experience this

phenomenon differently (Peterson et al., 2003; Peterson et al., 2006). Women tend to report lesser quality of life than men (Herrmann et al., 2011) and have higher rates of depression (Peterson et al., 2006). Both partners perceive the others quality of life incongruently (Chachamovich et al., 2010). The grief experienced with infertility and involuntary childlessness has been described as cyclic and reoccurring in nature (Bell, 2013; Hainsworth et al., 1994; Johansson & Berg, 2004).

While couples that are resilient report better quality of life and coping than couples that are less resilient (Herrmann et al., 2011; Peters et al., 2011), the evidence remains equivocal if total resolution of infertility is attainable for couples. Some researchers propose that couples process through stages and eventually resolve (Daniluk, 2001), while other researchers suggest that total resolution is not possible (Gonzalez, 2000).

Chapter Summary

In this chapter, the researcher explained that when doing grounded theory research, the purpose of the literature review is to enhance theoretical sensitivity (Strauss & Corbin, 1990). A thorough review of the literature as it applies to meanings and experiences of infertility and involuntary childlessness is capable of enhancing this researcher's awareness and knowledge of these concepts.

The researcher reviewed the literature starting with the conceptualization of involuntary childlessness as a process. Additionally, the review emphasized how choice and the desire for parenthood impact the experience of involuntary childlessness (Bell, 2013; Glover et al., 2009; Matthews & Matthews, 1986; McQuillan et al., 2012). While couples experience involuntary childlessness together, they may react differently or

perceive each other's feelings incorrectly (Chachamovich et al., 2010; Peterson et al., 2003; Peterson et al., 2006). It is not clear if and how couples resolve infertility and involuntary childlessness.

As this literature review highlighted, there is a paucity of research in the infertility literature focused on the dyadic relationship. Although the experiences of involuntary childlessness have been explored among women with infertility, the basic social process that occurs, specifically between couples, as they navigate infertility and resultant involuntary childlessness has not been explained.

Chapter 3

Methods

The purpose of this study was to develop a theory of how couples with infertility experience involuntary childlessness. To determine the basic social process, the researcher used grounded theory methodology; specifically, Strauss and Corbin's (1990) methods for doing grounded theory. In this chapter, the researcher provides an overview of grounded theory methodology, rationale for selecting the grounded theory approach, and discussion of research methods, human subjects' protection, and methods to establish trustworthiness of the study.

Grounded Theory Methodology

Introduced in 1967 by Barney Glaser and Anselm Strauss, grounded theory is a methodology that upholds generating theory through a systematic process of data collection and analysis. The methodology marries two philosophical traditions: positivism and pragmatism. Glaser's positivist background from Columbia University influenced the logical and systematic approach to grounded theory. The philosophical views of pragmatism and interactionism from the Chicago school influenced Strauss and thereby contributed to the importance of human existence and social meanings in grounded theory (Charmaz, 2006; Corbin & Strauss, 2008).

Glaser and Strauss diverged after their original work on grounded theory. While Glaser upholds the classic approach to grounded theory, Strauss collaborated with Juliet Corbin (1990, 1998) to advance grounded theory methods with a focus on more prescriptive methods and techniques to analyzing data. Both Strauss and Corbin identify

symbolic interactionism as the philosophical view that underpins grounded theory.

Furthermore, Corbin acknowledges that social justice and constructivism influence her work (Corbin & Strauss, 2008). Strauss and Corbin's method for doing grounded theory was used throughout this study's data collection and analysis process.

While grounded theory methodology has evolved, the basic research approach consists of several techniques that are distinct to grounded theory including the constant comparative method, theoretical sampling, theoretical coding, theoretical sensitivity, and memo writing. Constant comparative analysis is a classic grounded theory technique by which the researcher engages in a continuous cycle of data collection and data analysis until theoretical saturation occurs (Glaser & Strauss, 1967). Theoretical sampling is a sampling strategy used in conjunction with comparative analysis. The researcher collects, codes, and analyzes the data and then decides what to collect next based on theoretical relevance (Glaser & Strauss, 1967). Thus, sampling in grounded theory is determined by the emerging theory. In grounded theory, the researcher uses theoretical coding to generate core categories and to determine how the categories relate to each other. From these core categories, a basic social process, or the theory, may emerge (Glaser & Strauss, 1967).

The researcher should possess theoretical sensitivity throughout the research process. This refers to how the researcher is engaged with data based on prior knowledge, experience, and awareness of the phenomena. Literature, professional and personal experiences, and the analytic process may influence theoretical sensitivity (Corbin & Strauss, 2008). Throughout the data collection and analysis process, the

grounded theorist should write memos regarding theory development. Memos provide a written record regarding data analysis and theoretical development (Glaser & Strauss, 1967; Strauss & Corbin, 1990).

According to Strauss and Corbin (1998), the purpose of grounded theory is to generate a theory for a process that is grounded in data. Corbin and Strauss (2008) define process as an “ongoing action/interaction/emotion taken in response to situations, or problems, often with the purpose of reaching a goal or handling a problem” (p. 96). This researcher identified a gap in scientific knowledge regarding the basic social process of couples as they experience involuntary childlessness. Thus, grounded theory is an appropriate method to discover a process of how couples act and interact in response to their situation, which in this study, is involuntary childlessness secondary to infertility.

Strauss and Corbin’s (1990, 1998) approach to grounded theory accepts the belief that a process will be complicated by the complexities of the world and cannot be understood without context. This is aligned with the researcher’s worldview as this approach allows the researcher to consider complexities of the world in terms of contextual factors such as social, political, cultural, racial, gender-related, informational, and technological; all of which have the potential to influence couples’ emotions, actions, and interactions with regards to involuntary childlessness.

Family Based Research

According to Daly (2007), family-based qualitative research aims to uncover shared meanings between or among members of a family unit. In its broadest sense, families are “groups that construct individual and shared meanings” (Daly, 2007, p. 72). This study

considered the heterosexual couple as a distinct family dyad. The individual and shared meanings of involuntary childlessness were explored to explain the basic social process of the phenomenon.

Dyadic Interview Approach

Joint interviewing is a dyadic research approach that was used in this study. The researcher's aim was to discover a jointly-constructed basic social process of how infertile couples experience involuntary childlessness through the exploration of relational aspects such as decision-making, communication, emotional management, negotiation of roles, and gender influences in response to involuntary childlessness. To uncover relational aspects and understand shared meaning within a relationship, the researcher considered the couple as a unit of analysis (Daly, 2007). To elicit dyadic data for analysis, joint interviews are ideal (Manning & Kunkel, 2015). Joint interviewing is especially useful when the phenomenon is a shared experience as it "potentially pushes the data towards the shared experiences of the phenomenon under study rather than capturing the individual perspective" (Norlyk, Haahr, & Hall, 2015, p. 4).

Participants

This research study explored couples' experiences with involuntary childlessness due to infertility and therefore, the researcher sought to recruit heterosexual couples to interview about these experiences. The following inclusion and exclusion criteria were applied.

Inclusion Criteria

Participants were eligible to participate in the study if they were involuntarily childless or had experienced involuntary childlessness in the past. Additionally, couples met the following inclusion criteria: were in a mutually exclusive heterosexual relationship and had experienced the inability to conceive or have a viable pregnancy for a minimum of one year despite actively trying to conceive. Additionally, both partners were at least 18 years old and spoke English. Couples agreed to be interviewed together.

Exclusion Criteria

Couples were excluded from participating in this study if they did not consider themselves to be involuntarily childless or had not considered themselves to be involuntary childless in the past. Couples were excluded if they had not actively tried to conceive a child for at least one year or did not have a medical diagnosis of infertility or impaired fecundity. Additionally, couples were excluded if either of them was less than 18 years old, could not speak English, or did not agree to be interviewed together. Couples in a primary relationship other than heterosexual were not eligible to participate in this study.

Sampling and Sample Size

Data were collected from October 2017 through December 2017. Time constraints precluded the researcher from using grounded theory sampling methods such as purposive and theoretical sampling. Therefore, convenience and snowball sampling methods were used which yielded couples at varying stages of the infertility journey and with differing types of family situations. Based upon existing literature (Glover, 2009),

the researcher anticipated approximately 10 couples for data saturation. The researcher interviewed 14 couples total. One couple was excluded from the study due to not meeting all inclusion criteria. Thirteen couples were included in the final sample and data saturation was achieved.

Recruitment

Participants were recruited through RESOLVE: The National Infertility Association. The researcher submitted a research request application to RESOLVE, which was granted approval. RESOLVE administration administrators posted the recruitment letter (Appendix A) on their community discussion board, *Inspire*. According to a RESOLVE representative, the post may have reached approximately 30,000 members nationwide (B. Campbell, personal communication, May 26, 2017). The recruitment letter (Appendix A) included an explanation of the study, inclusion criteria, and researcher's contact information. In addition to recruiting through RESOLVE, the researcher shared the recruitment letter with professional contacts and on the researcher's personal social media account. Recruitment also occurred through snowball sampling.

Social media proved to be the most effective means for recruiting participants. Snowball sampling occurred through posting the recruitment letter on social media which allowed the researcher's contacts to share the recruitment letter with others. Though one couple from RESOLVE did inquire about the study, posting a flyer to RESOLVE's discussion board was not effective for participant recruitment.

Participant Characteristics

There were 13 couples who were included in this study for a total of 26 total participants. Female participant ages ranged from 27 to 38 years with a mean of 32.7. Male age ranges were 27 to 54 years with a mean of 35.5. All couples were married and Caucasian. The couples in this study all had infertility diagnoses ranging from unexplained to more specific infertility concerns. While couples were at varying stages of their journey, they reported trying to conceive for a mean of 2.9 years. The demographic data are presented in Table 1.

Setting

The researcher interviewed participants together using Zoom[®] video chat conferencing. The use of Zoom[®] diminished the geographical barriers of traditional face-to-face interviewing, facilitating a wider geographic sampling area. Twelve of the interviews used the video chat option for Zoom[®] while one of the interviews used telephone conferencing without video. Interviews were digitally recorded and took place during a mutually agreed upon time between the researcher and the couples. The researcher conducted the interviews from her private office. The couples could choose to participate in a setting of their choice; however, all couples chose to be interviewed from their own home. The typical couple was sitting side by side on their couch, both wearing casual clothing, some of them with a cup of coffee in hand, which facilitated a relaxed environment.

Table 1

Participant Demographics

<i>Pseudonym</i>	<i>Ages</i>	<i>Religion</i>	<i>Married*</i>	<i>TTC*</i>	<i>Children</i>
Diane & Lee	31, 32	Christian	4	2	No
Courtney & Greg	33, 40	None	<1	3.5	2 A; 2 PC.
Chloe & Eric	27, 30	None; Christian	4	3	1 ART
Stacey & Alex	29, 31	Christian	5	1.5	1 SB
Shelly & Kevin	33, 33	Christian	11.5	7	1 A
Hannah & Mark	31, 31	Christian	6	2	1 ART
Sara & Jeff	38, 35	None	5	1	No
Kelly & Ben	33, 32	Christian	9	5.5	1 A; 1 SC
Nicole & Mike	33, 39	None	13	1	CF
Paige & James	42, 47	Christian	16	2	1 ART
Renee & Jason	36, 54	Buddhist	13	5	1 ART; 3 PC
Brianna & Matt	30, 27	Christian	5	2	No
Tanya & David	29, 30	Christian	11	2.5	1 ART

Note. A= adopted; ART= artificial reproductive technology; SC= spontaneous conception; PC= children from a previous relationship; SB= stillborn; CF= childfree; TTC=trying to conceive. * in years

Protection of Human Subjects

Approval to recruit participants for this research study was obtained from Widener University Institutional Review Board (IRB).

Risks

There were no foreseeable physical risks to participate in this study. However, infertility is a sensitive topic and discussing this topic had the potential to elicit strong emotions. Therefore, due to the possibility of psychosocial risk, contact information for counseling and support groups was included with the consent form (Appendix B). At the start of the interview, the researcher informed the participants that they could stop the interview at any time if they felt upset or uncomfortable. No participants requested to stop the interview.

Benefits

There were no known direct benefits to the participants for being in this study. However, the participants had the potential to share their story and allow nurses and other healthcare providers to gain a better understanding of how couples experience involuntary childlessness.

Confidentiality

Privacy and confidentiality were maintained. The researcher coded all data and used pseudonyms when referring to participants and will use with future dissemination of the research. The researcher digitally recorded the interviews and only the researcher and the dissertation committee had access to the transcripts.

Informed Consent

Informed consent was emailed to the participants. The informed consent included the purpose, procedure, risks, and benefits of the study. Additionally, the consent form indicated the right of the participants to withdraw from the study at any time. The consent form described how the researcher planned to keep the information confidential. There was a space on the informed consent for two signatures and both partners were required to sign the informed consent and return to the investigator prior to the start of the interview. Participants could choose to electronically sign through Adobe Acrobat® or they could print and sign the form. The printed form could be scanned and emailed or photographed and emailed as an attachment to the researcher. Since the consent was in email form, participants had a copy of the form at all times. The Flesch-Kincaid Reading Level of the consent form was at the 8th grade reading level. The word “infertility” had been omitted from the Flesch-Kincaid interpretation because the population of interest understands the meaning of this term.

Data Storage

Only the researcher and the dissertation committee have access to the raw data; however, data may be reviewed by Widener University’s Institutional Review Board, which is responsible for overseeing all research at Widener University. Raw data is stored on a secured flash drive and kept in the researcher’s locked office. The researcher destroyed all identified data at the completion of the study. De-identified data will be kept in perpetuity.

Termination of Participation

Participation in this study was voluntary and declining to participate resulted in no penalty or loss of benefits to which the participant would otherwise be entitled. The participants could discontinue participation at any time without penalty. If one or both members of the couple chose to discontinue participation, the couple's data would be destroyed and not used in the study. None of the participants requested to leave the study.

Compensation and Costs

There were no costs to the participants to be in the study. At the conclusion of the interview, the researcher sent each couple a thank you note with a \$50 electronic Amazon gift card as a token of gratitude for their participation.

Instruments

Demographic Questionnaire

Data were collected on participant demographics via a demographic questionnaire (Appendix C). The purpose of collecting demographic data was to describe the sample and to enhance transferability. Detailed descriptions of the sample assisted the researcher in understanding how couples experience involuntary childlessness. The researcher verbally asked participants the demographic questions which include age, gender, ethnicity, and religion. Couples were also asked to report how long they tried or were trying to conceive.

Researcher as Instrument

Corbin and Strauss's (2008) method of grounded theory assumes that concepts and theories are co-constructed by the researcher and the participants. The researcher does not construct the experiences, rather constructs the presentation of experiences as told by the participants. Therefore, since data collection is co-constructed, it was necessary for the researcher to be reflexive during data collection and analysis.

The primary researcher served as the data collection instrument. This researcher was aware of the perspectives, knowledge, and biases that she brought to the research. The researcher is qualified to collect data as she completed all doctoral level coursework including two qualitative methods courses. Furthermore, she had the support of her dissertation committee to help guide her research. To maintain consistency among interviews, the primary researcher conducted all interviews.

Semi-Structured Interview Guide

The researcher used a semi-structured interview guide to facilitate asking broad, open-ended questions. Strauss and Corbin (1990) recommend that initial interview questions be derived from literature or experience. For this study, the interview guide was developed around concepts of involuntary childlessness and served as a beginning focus for the study (Appendix D).

Data Collection

Couples who were interested in participating in the study contacted the researcher via the contact email that is listed on the recruitment letter. When appropriate, the researcher's email reply (Appendix E) included a set of screening questions to determine

eligibility for the study, request for interview dates and times, and attached informed consents.

The participants were asked to confirm their eligibility to participate in the study. The researcher tracked eligibility using a screening tool (Appendix F). Participants who met the inclusion criteria provided the researcher with potential dates and times that were convenient to conduct an interview. Participants were asked to review, sign, and return the informed consent prior to the interview. The researcher reviewed the informed consent with the participants prior to starting the interview. If consent to participate in the study was granted by the participants, participant interviews commenced.

Interview

All of the interviews were conducted using Zoom[®] conferencing. Twelve of the couples were interviewed using the video conferencing option. One couple preferred to call in using the telephone option without video. The researcher sent the participants a link to the Zoom[®] meeting prior to the interview date. At the scheduled interview time, the researcher and the participants joined the meeting. First, the researcher asked the participants basic contact information in the event that a follow up conversation was needed for additional data or to confirm concepts. The researcher recorded contact information on a participant information sheet (Appendix G). Next, the researcher asked the participants demographic questions. Lastly, the researcher asked questions according to the semi-structured interview guide. The researcher developed the semi-structured interview guide using suggestions from Strauss and Corbin (1990) and Charmaz's (2006) qualitative interview guidelines. Interviews lasted approximately 60 to 90 minutes and

were digitally recorded. Immediately following the interview, the researcher wrote field notes about the interview. These notes included descriptions of the researcher's initial impressions, thoughts, or concerns related to the interview.

Data Analysis

Aligned with a grounded theory approach, the researcher used a constant comparative method for data analysis. Using this method, the researcher engaged in a continuous cycle of data collection and data analysis until theoretical saturation occurred. The researcher began analyzing transcriptions immediately after the first interview and continued analysis after each subsequent interview. To analyze data, the researcher used three coding strategies proposed by Strauss and Corbin (1990): open coding, axial coding, and selective coding.

Open Coding

Open coding is the first stage of coding by which the researcher conceptualizes and categorizes the data (Strauss & Corbin, 1990). In this stage, the researcher reviewed transcriptions to develop concepts related to involuntary childlessness. The researcher separated the data into manageable sections and then proceeded with a line-by-line analysis of the transcription; looking for sentences, phrases, and words that described or represented the phenomenon. The researcher compared data and asked questions about the data. Data from each interview were analyzed in the same way, with special attention to comparing interview data to the previous interview data.

Axial Coding

In axial coding, which occurs simultaneously with open coding, the researcher makes connections between the categories using both inductive and deductive thinking (Corbin & Strauss, 2008). The researcher reviewed each category and focused on how the categories were connected to each other. In this study, the researcher used the paradigm concepts to facilitate the consideration of the complexities of involuntary childlessness. The Paradigm Model provided a systematic framework for thinking about categories, which consists of causal conditions, phenomenon, context, intervening conditions, action/interaction strategies, and consequences (Strauss & Corbin, 1990).

Selective Coding

In conducting grounded theory, selective coding is the final and most abstract level of analysis (Strauss & Corbin, 1990). During this stage of coding the researcher reviewed all codes and determined a new core category that encompassed all codes. The researcher was able to relate all codes to the core category, or the basic social process. This stage may include follow-up interviews from participants if a phenomenon is unclear. In this case, participant follow-up was not required.

Memos and Diagrams

Memo writing and diagramming is an essential component of conducting grounded theory (Corbin & Strauss, 1990). Starting with the first coding session and throughout the data analysis process, the researcher wrote memos to serve as written representations of analytical thinking (Appendix H). Memos contained the researcher's reflections about what the data were showing, comparisons about the data, and asked questions about the

data. The relationships among data were visualized through diagramming. The researcher created and modified diagrams throughout the data analysis process to gain a better conceptualization of the phenomenon and basic social process.

Trustworthiness

Trustworthiness in qualitative research refers to the quality of the research findings. Structured guidelines set forth by Corbin and Strauss (2008) were used to ensure the trustworthiness of this study. Corbin and Strauss suggest 10 criteria to guide evaluation of qualitative research, which include: fit, applicability, variation, concepts, contextualization of concepts, logic, depth, creativity, sensitivity, and evidence of memos.

The criterion of fit can be evaluated through determining if the findings resonate with the experience of the participants and the target population (Corbin & Strauss, 2008). The researcher accomplished this through member checking. The researcher presented her findings to all participants for confirmation of concepts. All couples responded that the process accurately captured their experiences with involuntary childlessness.

Additionally, the findings should fit the criterion of applicability, which refers to whether or not the findings are useful. Theoretical sampling facilitates greater variation in data, thus giving the study wider applicability (Strauss & Corbin, 1990). Variation as a criterion considers the varying complexities of the phenomenon and requires the researcher to understand that not all experiences will be the same. A diverse sample can increase variation of the findings (Corbin & Strauss, 2008). Although the researcher was

not able to theoretically sample, demographic data indicated participants had varying family circumstances and thus potentially contributed to variation in data. For example, some participants had biological children, while others had adopted children. Some couples used IVF while other couples preferred to not use advanced ART methods. One couple chose to live childfree.

The criteria for concepts and contextualization of concepts are met if the theoretical concepts are clearly developed, dense, varied, and have contextual understanding (Corbin & Strauss, 2008). To meet this criterion, the researcher used the paradigm model to guide analytical decisions and develop contextual understanding. Additionally, the researcher provided a transparent description of her logic in determining the BSP through an audit trail (Appendix I).

Sensitivity is a criterion of trustworthiness that requires the researcher to interpret the data as presented by the participants rather than through a biased lens, while the criterion of creativity implies that the researcher can present the findings in an innovative way (Corbin & Strauss, 2008). This researcher assured these criteria were met by being theoretically sensitive to the data. The researcher acknowledged that the literature review and personal and professional experiences with infertility and involuntary childlessness have enhanced her capacity to understand and give meaning to the data. Additionally, theoretical sensitivity was maintained through constant interactions with the data throughout the research process. Creativity was achieved through the development a new BSP of couples enduring involuntary childlessness.

Memo writing is the last criterion to determine quality (Corbin & Strauss, 2008). In this study, the researcher wrote memos throughout the research process to provide evidence of analytical thinking and depth (Appendix H). Diagrams served as visual depictions of the researcher's thought process and were used to enhance conceptualization of the BSP.

Chapter Summary

In this chapter, the researcher provided an overview of grounded theory methodology and the rationale for selecting the methodological approach. Grounded theory is an appropriate approach to use to discover process and can methodologically be applied to family research. Additionally, the approach aligns with the researcher's philosophical worldview.

The researcher recruited participants through RESOLVE's online support community, the researcher's personal social media accounts, and professional networking. The researcher conducted interviews using Zoom[®] conferencing. Data collection and analysis were completed using the constant comparative method. The researcher analyzed transcripts through a series of coding steps, and this analysis, at its essence, consisted of continuously comparing data to previous data until core categories emerged.

An overview of how the researcher protected the rights of human subjects and maintained trustworthiness of the data was provided. Informed consent was obtained from all participants and pseudonyms were used to maintain confidentiality. To establish trustworthiness, the researcher utilized the 10 criteria suggested by Corbin and Strauss

(2008). Memo writing, a strategy that is essential to doing grounded theory and developing credible research results, was performed.

Chapter 4

Findings

The purpose of this study was to develop a basic social process (BSP) that explains how couples with infertility experience involuntary childlessness. The researcher used Strauss and Corbin's (1990) methods for grounded theory (GT) to analyze participant interviews and field notes. Guided by the paradigm model (Strauss & Corbin, 1990), the researcher identified a process of enduring involuntary childlessness that is systematically linked by causal and intervening conditions, action and interaction strategies, and consequences. Additionally, this process is grounded within the context of infertility and the dyadic relationship. The following sections of this chapter will provide the BSP in terms of the categories identified through the guidance of the paradigm model.

Enduring Involuntary Childlessness

During the interviews, participant couples consistently referred to their experiences as a journey, alluding to the natural process that was occurring among them. The researcher identified this process as *Enduring Involuntary Childlessness* and is depicted in Figure 1. The diagram represents the BSP of how couples endure involuntary childlessness starting with perceiving a loss of a child that will never be, then managing the day to day realities of being involuntarily childless, until eventually taking on a new normal as infertility becomes a part of them.

The data did not capture a single category that was broad enough to capture the entire process of the phenomenon, involuntary childlessness.

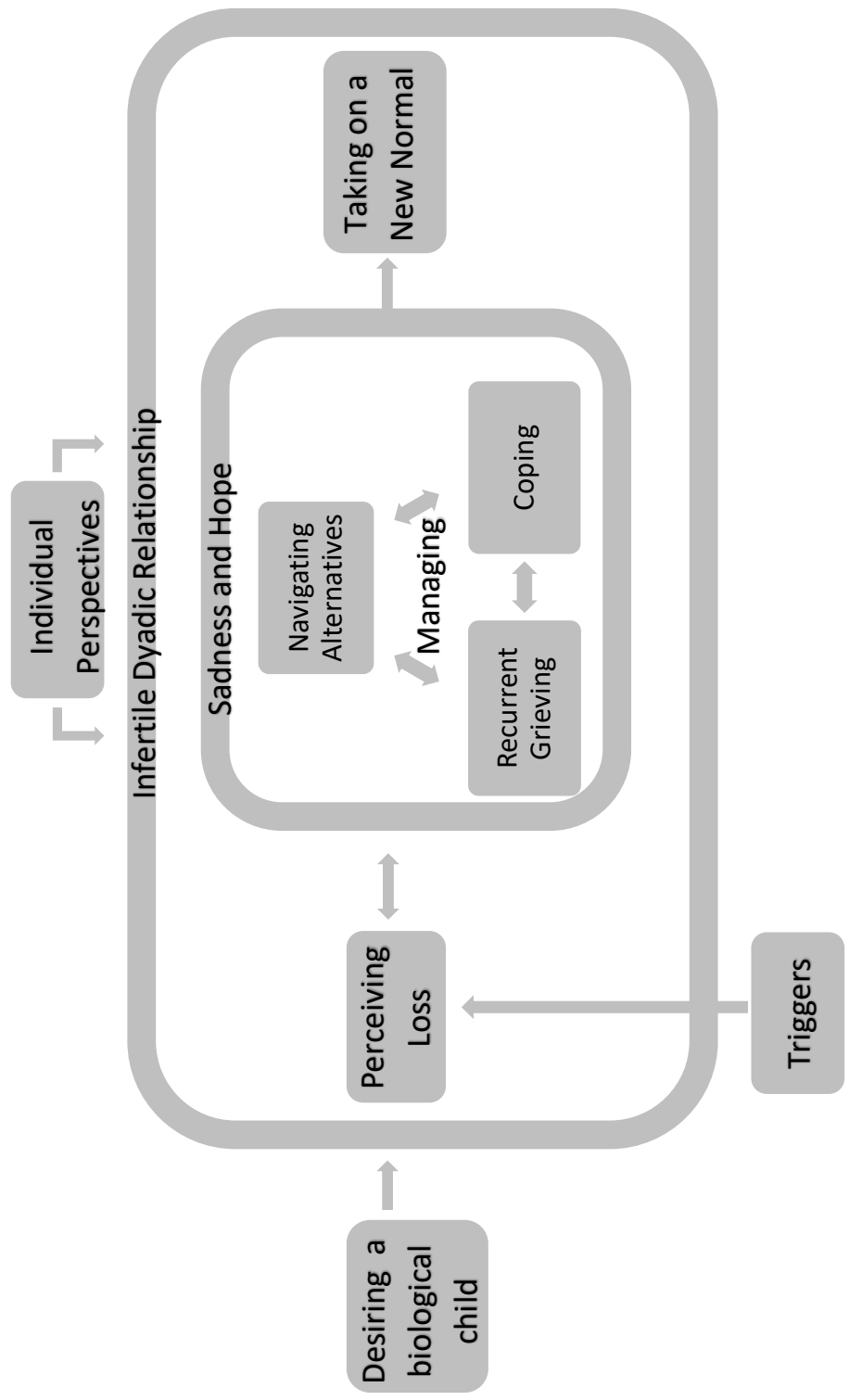


Figure 1. Enduring Involuntary Childlessness

Therefore, following Strauss and Corbin's (1990) recommendation for data analysis, the researcher identified a new category that encompassed all other categories and became the basic social process. This category is *enduring*. Endure means to "continue to exist, to last, to suffer without yielding"; "to support adverse force or influence of any kind", and finally, "to have or gain lasting acknowledgement or recognition as of worth, merit, or greatness" ("Endure," 2018).

These data suggest that participants have endured through involuntary childlessness. The BSP develops within the context of the infertile dyadic relationship. When couples were unable to have biological children due to infertility, they *perceived a loss* of ever having biological children. Consequences of perceiving loss are constant sadness and hope which become the context for managing involuntary childlessness. All participants described their experience as a painful struggle that they had to manage. *Managing* consumed the couple and consisted of navigating alternatives for family planning, grieving losses, and coping with stigma and pressure. Couples cycled through the managing phase until, eventually, becoming emotionally and physically exhausted. At this point, they began to redefine their individual role and family expectations. Through redefinition, couples were able to *take on a new normal*. During this phase, couples begin to define themselves less on their ability to parent and instead, place more emphasis on other aspects of life. In doing so, couples acknowledged the worth in their struggles, as it contributed towards a deeper appreciation of each other and their current lives.

Context and Causal Conditions

Strauss and Corbin (1990) explain that context serves to describe specific properties of the phenomena and also influences the actions and interactions of the process. In this study, the process unfolded within the context of the infertile dyadic relationship.

Infertility was the cause of the couples' childlessness and therefore, also served as context for this process. Understanding infertility as the context lends itself to the dyadic nature of the problem and the importance of studying the process from the standpoint of the couple.

Causal conditions are those events that lead to the occurrence of the phenomenon (Strauss & Corbin, 1990). All of the couples in this study desired to become parents; and therefore, infertility meant that they were unable to fulfill their goal of having biological children leading to the involuntariness of their childless situation. The couples perceived a loss of a child that might never be. Renee shared, "It's a weird thing to feel a loss for something that doesn't exist." Similarly, Hannah shared that "It's almost like a sense of grief, like you've lost something that you never had." Alex compared being unable to have a child with being "no different than a death in the family."

Perceiving a loss prompted couples to grieve their involuntary childlessness and also seek a solution for their situation. As a consequence, couples entered the management stage of the process, which is consequently aimed at finding a solution to fulfill parenting goals, grieving loss, and coping with stigma and pressures surrounding their inability to conceive.

Sadness and Hope

Sadness and hope were consequences of perceiving a loss and then, became the context for which managing occurred. All couples spoke about feeling great sadness over the inability to conceive a child; describing it as a very sad time in their lives. Kelly described it like, “I was still very functional and could be happy... but it’s just like this running-in-the-background sadness.”

Hoping for a biological child was a driving force among all couples. Stacey stated ‘there's always that hope, no matter what. It's definitely less [now] but it's still always there. I think if it wasn't we wouldn't keep trying because it wouldn't be worth it. What is there without hope?’ Regardless of how many losses a couple endured, they described a spark of hope that kept them going. Courtney and Greg had been trying to conceive for years and eventually decided to pursue adoption. While they knew their chances of conceiving a biological child were minimal, Greg shared, “It could still happen, you don’t know...there’s always hope.” Nicole and Mike, who chose not to have children, still wonder if a “miracle baby” might happen.

While always present, hope did tend to decrease over time for couples in this study. For example, those couples who moved forward with infertility treatments were hopeful in the beginning of their journey. As couples pursued alternatives without success, they became increasingly less hopeful. For example, Alex stated,

I still remember the day when we got our first positive. That was like the greatest day ever. I mean I remember hugging her and we were crying. We were so excited. I am not saying I won't be excited if we get a positive, but given our infertility

experiences, I'm going to be like "OK this is good, but I know what can happen." I mean I'm at the point right now where because of our infertility and our losses, that until I'm holding my crying baby in my hands and the doctor says your baby's healthy, it's going to be very difficult for me to get excited.

Individual Perspectives

According to Strauss and Corbin (1990), intervening conditions are those conditions which more broadly pertain to the structural context and promote or hinder action within a process. In the process of enduring involuntary childlessness, couples experience involuntary childlessness together, as a unit; however, it was evident that they also manage individual thoughts and feelings regarding the phenomenon, specifically how infertility affected each one's identity. These thoughts and feelings influenced couple actions and interactions as they endured childlessness. Therefore, individual perspectives served as an intervening condition throughout the process. For example, Shelly stated,

I had always just wanted to be a mom and that was the only thing I felt sure of in my life. And then when that doesn't happen it's like, "Well, then who am I?" Broken, or in some way not whole.

Similarly, Renee stated, "It was really hard to deal with that big question of identity and something that feels like it's part of how I saw myself as an adult." Kelly echoed these feelings with, "I think as a woman, you feel like your body is betraying you, that you can't do this very natural thing. Personally, I think I associated it very strongly with

being a woman, and so it was frustrating to be in a body that you felt wasn't working the way it should." Sara also felt an insult to her identity,

I think because as a woman, being a mother is like a rite of passage almost. If I can't do that, what does it mean for my identity? I think it's just more challenging [for women than men] because where is our place in society if I can't have children?

Though she expected to have children, Nicole was the only woman in the study who did not have a strong desire to be a mother. While she admitted that there was a grieving period over loss of her expectations for a biological child, she was able to reach acceptance much sooner than the other women and did not struggle through this process with her partner.

The men in the study could not relate with this loss of identity and voiced difficulties understanding what their wife was experiencing and therefore had trouble providing support through her grief. Most of the men did not view infertility as a personal assault on their identity and viewed childlessness as a problem to tackle. For example, Eric stated,

I think we were experiencing two different things you know she was experiencing one thing and I was experiencing something totally different as a man. I think it was different because after she was diagnosed like she said it almost seemed like she took it personal. And I didn't know how to be there for her in that sense.

Having differing perspectives of identity presented opportunity for disagreements and lack of communication between the couple. Mike explained, "there was definitely a stage where we weren't happy about [infertility], and we were upset about our own selves

and we had to deal with that personally before we could communicate.” Dave felt similarly by stating,

From a male perspective, I don't quite understand the difficulty and the depth of pain and emotional struggle of the situation that these kinds of issues bring. I strongly want to have children, I love children, I want to have children. I was very disappointed when we couldn't have children, but it just was nowhere near the level of disappointment and emotional pain and suffering that I knew Tanya was going through. I felt like I couldn't relate, and at times, I think she felt I couldn't relate to what she was going through. I think that also caused barriers at times.

Many couples shared that frustrations with infertility intensified emotions, leaving them more irritable and at risk for conflicts. Couples who considered themselves a team, reported less relationship conflicts than those couples who had difficulty communicating. For example, Matt states, “I am obligated to be there for her because it's our struggle together. Even though it's the anatomy problem, it's us. It can't be just her or it's not just me, it's us as a couple. We charge forward together.” Diane and Lee also reported minimal conflicts throughout their journey. Diane shared that “It's not just one of us going through this. It's both of us and we are able to lean on each other.” Lee echoed with “we're not going to lay blame even if we find out what the cause is. There's no blame here. It's just if it can't happen for one reason or another it's nobody's fault. And we will just work around it.”

The less couples were able to communicate with each other about their feelings, the less likely they were able to cope with grief throughout the process and work towards

managing their situation. For example, Courtney and Greg shared that Courtney became depressed while seeking infertility treatments. They agreed that due to alternate work schedules and differing perspectives, communication between the two of them was lacking. Additionally, Chloe shared,

I think we were really on the verge of calling it quits like with our marriage in general. I was like this is so hard and all I want is a baby. But we can't communicate or get along to even try to have a baby. You have to communicate and get a long first. And so, at that point, I was like let's just seek some treatment maybe that will help us. We had like five months of counseling and it really made a huge difference. It was just a communication issue.

Similarly, Sara and Jeff recently began couples' therapy for their inability to communicate and shared that it has been helpful to their relationship.

Managing Involuntary Childlessness

During the managing stage process, couples' actions were aimed at navigating options to resolve their childlessness, coping with losses, social stigma, and pressures to conceive, and seeking support from peers. In this stage, couples viewed involuntary childlessness as a problem to work through. During this phase, all of the couple's efforts were focused on conceiving and managing day-to-day life was daunting. Alex stated, "Infertility took a lot out of us. It takes over your life. That was our focus."

Additionally, Sara and Jeff shared that they put vacation plans on hold. They also put buying a house on hold. Sara said, "It's like we can't move forward with life because we don't know if we're going to end up having a child or if all our money is going to go to

IVF.” Shelly described going through infertility treatments as a “treading water cycle” and it wasn’t until she and her husband were okay with not having a biological child could they feel “happy and free” again.

Navigating alternatives. All of the couples in this study initially consulted reproductive specialists to explore potential alternative ways to conceive. Ultimately, 12 of the 13 couples used some type of medical treatment to try to conceive. While some couples spoke of making decisions together regarding treatment, many of the men in the study commented on letting the women make the decisions. The men tended to agree with whatever the decision made by the woman was. They voiced that it was her body and they were there to support her.

Whereas some couples ultimately decided to adopt, they often pursued medical treatments first to have a biological child. The couples explained that they needed to grieve and accept their inability to have a biological child before moving on to adoption.

Intervening variables that affected couples’ decisions about family planning included religion, physical and emotional state, finances, and healthcare providers. Of the couples who pursued infertility treatments, some refused in vitro fertilization (IVF) for religious and ethical reasons, while others decided to forgo IVF due to the high cost of the treatment. Other couples could not bear the emotional and physical pain that accompanies treatments. Some couples rationalized that they preferred to put their money towards adoption rather than a gamble on IVF.

Healthcare providers both negatively and positively affected the participants’ experiences. Couples expected healthcare providers to be knowledgeable and

compassionate. Couples who felt that they had supportive and kind healthcare providers, reported more positive experiences with treatments. Other couples felt like “lab rats” as they reported constantly doing treatments and not understanding the rationale for why they were doing them. They did not feel as though they were treated as individuals, but rather as just another couple on an assembly line of patients.

Recurrent grieving. Couples reported that the constant sadness could be triggered and bring on grieving. Couples described their grieving to be like a “rollercoaster,” as each miscarriage, monthly onset of menstruation, or other failed attempt to conceive brought about another loss situation that triggered sorrow. Hannah explained, “You were hopeful and then it was negative, and then you’re back into that cycle.” Even couples who became parents or reached transformation described periodic sadness, though not as intense as when they were actively trying to conceive.

All of the couples were acutely aware of these triggerable accounts of sadness, which were generated by situations and events that amplified the couples’ perception of their inability to be parents such as going to baby showers, seeing pregnant women, and being childless during holidays. Alex and Stacey agreed that even seemingly benign things could be triggers. Alex explains,

when you’re wanting to have a child or when you lose a child that’s when you notice all the baby commercials and it’s the small stuff. Like I teared up at a man’s perfume commercial because there was a portion of a poem that reminded us of our [stillborn son]. You can try to avoid them but in everyday life it’s the tiniest things. It could be a song, it could be a commercial, it could be seeing

another child, it could be somebody talking about their grandson and how much time they spend together. They are triggers and they are unavoidable.

Coping. The couples in this study referred to social expectations for the progression of their lives together. They spoke of getting married, buying a house, and then having a child. Many couples spoke of seeing other married friends having children and wondering when it would happen to them. Mark explained,

you almost felt sad that you couldn't share in their joy because you were so distraught with our own [situation]. They're having kids and we should be. We are very excited for them but we don't want to spend time with them because it makes us feel like we're the only ones not able to get there.

Due to the social expectations to conceive, couples felt pressured to have children. For example, couples felt pressured to conceive when family or friends would ask about their infertility. Therefore, couples purposefully would not tell other people about their situation to avoid feeling pressured. Diane and Lee preferred to keep their infertility struggles private. Diane stated, "I had friends who always said things like 'oh we're going to start trying to get pregnant now' and I would never say that in case something didn't work out." Lee added, "we hadn't told people that we were trying, so I guess we kind of protected [ourselves] that way."

Couples felt stigmatized for not being able to conceive. Women, especially felt like something was "physically wrong with them." Men spoke of their inability to "provide" a child for their wife. With regards to providing, men often felt that they should be able to "fix" things. Due to the stigma they perceived, most participants were private about their

infertility and childlessness in an attempt to protect themselves emotionally. Mike explained,

I think in general it's viewed as an imperfection so, you don't really tell people what your bad habits are if you don't have to or you don't tell people what's wrong with you if you don't have to. If you are an alcoholic, you hide it. If you've got an addiction, you hide it. Whatever your problems are you kind of keep them to yourself and this is a similar situation. It's easier to say, "Oh, we've decided not to have kids", than, "We can't have kids", because people view the decision to not have them as a powerful decision, whereas, the inability to have children is viewed as something wrong with you.

Often, participants attempted to rationalize their childlessness. For example, Brianna questioned "Why can't I have a child? Do I not deserve one? Does God hate me?" Some participants assumed they didn't deserve a child because they could easily be frustrated at a pet or children. For example, Mike explained, "If I get angry at the dogs for something silly, I think 'Well that's why I shouldn't have kids', I'm always justifying why it's not meant to be." Courtney recalled similar situations, where after growing frustrated with her niece and nephew, believed that she was "not supposed to be a mom."

Couples acknowledged that even though they remained quiet about their struggles, they do believe that infertility is something that should be talked about in hopes of removing stigma. Lee explained that "in the present when you're dealing with it, it's better not to give up that information. Whereas in the future I would be open to talking about it with friends. After we've figured out what our solution is."

To fulfil the void of not having a child, couples spoke of attempting to engage in other activities that would create happiness and take their mind off of conceiving. For example, some couples traveled, others kept busy with their careers, while others had pets that they claimed to treat like children. It should be noted that while couples attempted to engage in fulfilling activities, becoming a parent remained the central goal during this phase. In addition to being private about their childlessness, couples would often cope by avoiding triggers. Stacey explained, “I think it helped to excuse ourselves from things because it does get overwhelming and sometimes it's just better to excuse yourself from things and not subject yourself to another first birthday party for your friend's kid.”

While both men and women identified triggers, women seemed to be most aware of and affected emotionally by the triggers. The husband's role in avoiding triggers often would be to act as a buffer between the wife and the trigger. For example, regarding pregnancy announcements, Jeff said that he “curates and disseminates that information for Sara”. At family functions, Mike stated “I felt like I need to run around her to make sure people weren't asking her about being pregnant. I would feel like I'd have to say to others ‘Hey don't ask about these topics [referring to pregnancy]’ just to try to prevent that additional burden.”

Isolation was often a consequence of avoiding. The women in this study were more affected by isolation, though feelings of isolation were felt by both members of the couple since, for example, if a woman chose to not go to a child's birthday party, the husband would not go either. Isolation was intensified by the fact that couples generally

did not talk to anyone about their situation, whether it be family, friends, health care professionals, or support groups.

With time, couples were able to better cope with triggers. Mark recalled “I don’t know if you become numb to it or you just figure out enough coping mechanisms to not be in a bad place.” Couples who were able to achieve parenthood were able to manage triggers better than those without children, especially those women who were able to conceive a biological child. However, even couples who became parents stated that they continue to feel heartache due to triggers from time to time, although not as poignantly as when they were trying to conceive.

Both male and female participants expressed the need for peer support. While couples appreciated supportive healthcare providers, they really wanted support from other couples who have experienced or were experiencing infertility and childlessness. Couples thought that in-person support groups were most helpful. Many couples expressed their disappointment at the lack of support services available to them. They, identified the lack of support available for men, specifically. While female participants could usually identify at least one peer to confide in, men generally felt that they had no one to talk to about their experience. While some men preferred to not discuss their situation with others, those that wanted support did not have it.

Taking on a New Normal

Eventually, couples who did not conceive a biological child, reported becoming mentally and physically exhausted from managing and were ready to move on. Mark explained,

you realize after you get through several disappointments month after month that you need to protect yourself and start to separate. We can't put everything, all of our hopes, on this one thing, because if it doesn't happen, then you're completely destroyed. I think through time we just tried to focus more on the daily life than putting all of daily life into this one issue. There are other things too.

Kelly could remember the moment that she was ready to move on,

I noticed that I was just bitter. It wasn't just that I was sad, I was not a nice person inside. My response was just like, "Ugh." Even I didn't like how I was responding anymore and when I saw that, I had this breaking point of, I guess, surrender with the whole thing. That's when things changed. I was able to just embrace adoption and a different way to think about life. To embrace the story that we were being given and that I was fighting for so many years, and trying to control it, and trying to think of different endings. When I finally just released it, for me, that's when the peace came.

As couples took on their new normal, they began to redefine meanings of themselves and their family. Shelly shared,

We just tried to live more freely and I think that got us a little bit further along on the journey of acceptance and peace. I think we both felt at peace about being done. That chapter's closed. We've learned a lot, we've grown a lot, we've grieved a lot. That loss, I think is always going to be there. I don't think you ever just get over infertility, but I don't think we are defined by it.

Couples started to envision their family without biological children. Mike shared “as we adjusted and talked about different options, we got used to the idea of not having children, the new lease on life, vacations, things that nature. Our conversations were more geared towards not ever having children.”

Couples who were ready to take on their new normal explained that they reached a sense of peace. Some explained that they had to “trust the process” and know that there is a bigger plan for them. For example, Hannah stated, “you just have to get your own sense of peace about it and know that there is a plan.” Shelly echoed these sentiments, explaining “It was moving into a place of surrender for what God was working on in our hearts.” As couples redefined expectation of family, they felt as though they had regained control over lives. For example, during this stage couples spoke of taking a break from treatment, taking vacations they have been putting off, and pursuing new career paths. Some couples discussed and pursued adoption. One couple started to have conversations about living childfree and became increasingly accepting of this option. Couples without children spoke of seeking opportunities to start over. Two couples discussed moving across the country as a way to “reinvent” themselves and surround themselves with young professionals who were also childless.

From speaking to couples who experienced this stage, the researcher sensed that infertility was no longer a “problem to solve,” but instead it became part of them and one could no longer separate the two. They have changed and grown as a result of their struggles. Renee explained that she eventually began to view her childlessness “less about a problem that needed to be solved but something that psychologically was

happening to me that I was kind of grappling with.” Both Renee and Jason felt that infertility was such a huge part of their existence that it was difficult to differentiate their relationship before versus after involuntary childlessness. Ben stated that “I think there’s a depth to us individually, but also together as a couple that I don’t think we would have otherwise.”

Couples often referred to being “on the other side” of things. As a result, they were able to accept their struggles and find the positive despite the pain that they endured.

Kevin stated,

It’s a different journey and it’s not the journey we expected it to be, but it’s our journey. I think that the other healing part is when you embrace it as, “this is our journey”. This is what it’s going to look like and it’s not going to look like everybody else’s [journey]. I think that we’ve kind of embraced that it’s just going to be different, but it’s going to be a good different.

Some couples described appreciation for the difficulties that they endured. Kelly stated

I’m thankful for that time because I see the depths that came from that season, and I know that they couldn’t have been achieved otherwise. I’d like to think that I’m a better mom because I am able to appreciate things differently; hopefully, I’m going to have a little more perspective with things.

Couples who did eventually conceive a biological child were incredibly thankful for their child. They rationalized that while their family might not have as many children as they once envisioned, they were able to achieve parenthood and therefore felt as though having at least one child “eased” some of their heartache.

All of the couples in the study expressed that their relationship was stronger as a result of their suffering. For example, Dave said, “I would say we are probably closer. Generally, any time you go through a difficult thing and you end up on the other side it does end up strengthening your relationship.”

Couples who reached this stage felt an inclination to support others who experience involuntary childlessness. Couples felt as though they could more readily understand the hardships of others. Ben shared, “I think we find ourselves better able to relate to people, even those that aren’t dealing with infertility but that are dealing with some other type of grief. I think it gives us a way to have more compassion and connection to people who are dealing with all kinds of brokenness.” With regard to helping someone with infertility, Hannah shared,

I went back and I gave her my book. I had someone slip it into her mailbox. I don’t know if she read it, but I’m like, ‘that was something that was great for me. It brought me a sense of peace so maybe I can pass that along’. It was interesting to then be on the other side and to see how far we’ve come but then your heart grieves a little for her because you know the struggles that she had been going through too. Your heart hurt for her a little bit.

Shelley shared that she hopes to “perhaps run an infertility support group. I think I’m far enough emotionally that it won’t be triggering for me at this point.” Both Tanya and Dave agree that being able to support others who are involuntarily childless is one of the greatest gifts gleaned from their infertility experience.

While a couple may achieve parenthood, the heartache of childlessness stays with them indefinitely. For example, Shelly voiced, “I think there’s still some areas where we’re not completely healed. I don’t know that we ever will be. There will always be a hole there.” Dave said “I don’t think it’s ever going to go away- it’s an experience we had that shaped who we are.”

Although couples expressed that they will always have some heartache from their infertility, the heartache lessens with time. Tanya explains that in the beginning of her journey,

it was every [pregnancy] announcement I would have to excuse myself from the room because I emotionally couldn’t handle it, whereas now I can at least process and be thankful for what I do have. It’s definitely a growing feeling of being more comfortable and content... even though we're getting to the other end of it, I don't feel like I'll ever not have that little bit of a sting when somebody announces that they're pregnant. Not that I don't feel happy for them, but it's almost like I still have that desire. It has definitely gotten better over time, but I think it's definitely something that will always be there.

Chapter Summary

Using Strauss and Corbin’s (1990) paradigm model as a guide, the researcher developed a substantive theory of how couples with infertility endure involuntary childlessness. The theory, or basic social process, unfolds within the context of infertility and the dyadic relationship. The individual’s perspective serves as an intervening variable throughout the process; influencing actions and emotions that occur.

Couples endure through involuntary childlessness which starts with perceiving a loss. This loss prompts couples to find a solution to their involuntary childlessness which includes managing options, stigma, and pressure, and seeking support.

Communication between the couple proves to be a major factor in successfully managing infertility and involuntary childlessness. Couples continue managing in this phase until they conceive or become emotionally and physically exhausted. Eventually couples begin redefining family expectations, and ultimately begin to live, what has become, their new normal.

Chapter 5

Discussion

The purpose of this study was to develop a theory of how couples who are infertile experience involuntary childlessness. The basic social process, *Enduring Involuntary Childlessness*, emerged through an iterative process of data collection and analysis. The BSP unfolds within the context of the infertile dyadic relationship and is influenced by the couples' individual perspectives and their desire to have a biological child.

Involuntary childlessness propels couples into an emotionally and, at times, physically painful process that they must endure. The process starts with the couple *perceiving a loss* of a biological child that may never be. As a result, couples become deeply saddened and are challenged to manage their situation. *Managing* overwhelms the couples' time and energy as they engage in the phases of the stage which are navigating alternatives for family planning, grieving losses, and coping with stigma, pressure, and triggers. After enduring the emotional and physical pain of infertility, couples begin *taking on a new normal*. During this stage, couples begin to define themselves less on their ability to parent and instead, place more emphasis on other aspects of life. In doing so, couples are able to find peace with their lives. With peace came gratitude towards all that they have endured and a deeper appreciation of each other and their current life.

A discussion of the stages of this process with regard to selected professional literature is presented in this chapter. Additionally, methodological considerations for interviewing couples is included. Implications for nursing science and research,

education, and practice are discussed. Lastly, recommendations for future research are addressed.

Desiring a Biological Child and Perceiving Loss

Infertility, in and of itself, is not a catalyst for the BSP, rather it is infertility compounded with the desire to have a biological child. Having children is considered to be a natural progression of life (McQuillan et al, 2012) and in the current study, when couples who desired biological children were unable to have them, they became involuntarily childless. Couples perceived this as a significant loss, generating feelings of intense sadness. Therefore, within the context of infertility, the BSP of couples enduring involuntary childlessness begins with their desire to have a biological child.

In the current study, only one couple chose to be childfree, meaning that despite infertility, they made the conscious choice to not parent a child. The childfree couple reported feeling happy and satisfied with life. This couple did not report experiencing the same degree of emotional anguish as the other couples who desired to be parents, and in turn, reached the final stage of the BSP rather quickly. All of the couples who desired to be biological parents, endured an emotionally painful experience that required them to manage grief and loss for an indefinite period of time. These couples reported feelings of intense emotions such as sadness, anger, and frustration.

The loss experienced from infertility is profound yet intangible. It has been described as a lost dream (McCarthy, 2008). Ferland and Caron (2013) conducted a qualitative study to explore the long-term impact of infertility on 12 childless women after menopause. Recalling their experiences with infertility, participants compared the

loss of a biological child to “experiencing the death of a child I never had,” while another participant compared the pain of infertility to losing her brother in a car accident. Additionally, all 12 women in the study reported that the pain from infertility never goes away.

McCarthy (2008) conducted a qualitative descriptive study to explore women’s experiences with infertility after failed medical treatments. The findings from this study also suggest that the feelings of loss from infertility persist indefinitely. McCarthy described infertility loss as having an “enduring” quality and could be prompted with triggers. Furthermore, the loss of fertility created an existential crisis for the women in this study. In addition to the loss of a hoped-for child, the women in this study also experienced a loss of meaning in their lives.

The desire to have a child is a finding that is consistent with the literature as other researchers have found this concept to be an important determinant of psychological reactions to infertility. For example, McQuillan and colleagues (2012) explored reasons for childlessness among 1,180 women from the United States to determine whether or not the reason for childlessness mattered with regards to their psychological response. The researchers grouped women into the following groups, depending on their childless situation; voluntarily childless and having biomedical barriers, situational barriers, and no barriers to conceiving. McQuillan and colleagues found that women who could not have children due to biomedical barriers, which is infertility, experienced more negative psychological effects than those women who chose not to have children.

Hope

Despite their immense sadness, hope for a child persisted among couples in the current study. Initially a consequence of loss, hope became the context for managing within the BSP. Hope decreased with time and with each failed pregnancy attempt; yet it was always present to some degree. Even participants who were infertile due to sterility still experienced feelings of hope despite their definite inability to conceive. The couples' wavering, yet ever-present, hope provided the motivation to start and continue managing their infertility and involuntary childlessness despite the physical and emotional pain they endured.

This finding supports the work of Johansson and Berg (2005) in which the concept of hope was identified as a central theme in their study of eight infertile women. The researchers conducted a phenomenological study to understand women's experiences of childlessness two years after the end of in-vitro fertilization. The findings demonstrated that hope was the driving force in life and was always present regardless of how dismal a prognosis was. The researchers also concluded that while hope decreases over time, it is not until menopause that all hope is lost. Menopause represented a definite end to hope.

Conversely, there is concern with holding onto hope for too long, especially in the above example of hoping until the point of menopause. Boden (2007) conducted a phenomenological study exploring the experiences of failed IVF treatment among infertile women and couples. Boden interviewed 15 women and 18 couples in the United Kingdom for a total of 33 interviews. The study suggests that while hope serves to give couples strength to continue with treatments, it simultaneously prevents the couple from

moving on and facing the reality of childlessness. Relinquishing hope and investing in new life goals aided couples in achieving normalcy and contentment in their lives. In Boden's (2013) other work regarding the same study, she further discussed the implications of hope and called out the critical role of professionals to counsel couples to realistically balance hope and reality during the infertility journey. Healthcare providers should individually assess each couple to determine emotional, physical, and financial realities and foster hope appropriately.

Managing Involuntary Childlessness

The managing stage consumes the couple's life and consists of navigating alternatives for family planning, recurrent grieving, and coping. In addition to the loss of a biological child, couples experience recurrent grieving with each trigger that they experience. For example, one couple shared that seeing families with children was triggering to them. In turn, it is necessary for couples to cope with the sadness that these triggers might present. While navigating options, couples look for and learn about alternative ways to have a biological child. After exploring the options, many of the couples ultimately decided to pursue infertility treatments during this stage.

Navigating alternatives. Couples in this study explored alternative approaches to family planning. While most of the couples pursued assisted reproductive technology to help them conceive, one couple chose to live childfree. In all cases, couples wanted and expected factual and trustworthy information and support from healthcare providers. It is at this point in the couples' processes that healthcare professionals are critical in

providing education about topics such as medical treatments, adoption, and living childfree.

All participants in this study consulted healthcare professionals at some point throughout their infertility journey. Participants reported feeling satisfied with their care by those healthcare professionals who supported them, answered questions, and provided empathy. Unfortunately, many couples found that healthcare providers were not compassionate and did not fully answer questions, leaving them to rely heavily on online resources for information. Couples reported feeling like they were “lab rats” and thought that practitioners were just going through the motions to educate and care for them.

This supports the findings of Peters (2003) who found that women felt unsupported by healthcare practitioners due to the lack of individualized care. Peters used a phenomenological approach to explore infertility and assisted reproduction experiences in six women. Participants reported feeling worthless, humiliated, rushed, and ignored by healthcare staff. They also stated that healthcare providers did not answer questions and downright ignored them. A lack of individualized care was also apparent in the results of Glover and colleague’s (2009) subsequent study. In their study, the researchers interviewed ten couples with infertility to determine what being infertile meant to the couple. In one instance, a participant compared the course of infertility treatment to being on a “conveyor belt” (Glover et al., 2009).

Recurrent grieving. During the management stage, participants explained that they experienced a “roller coaster” of emotions. These emotions included low times of intense feelings of sadness resulting in recurrent grieving. In addition to the initial loss of a biological child, couples’ grief was illuminated with each new instance of a trigger. Events such as baby showers and children’s birthday parties served as triggers for some couples because it magnified a life goal that they did not meet. Another trigger was the onset of the woman’s menstrual cycle indicating another month without a pregnancy. All of these triggers caused couples to grieve their involuntary childlessness. These findings are aligned with similar findings in the literature.

Patterns of grief reactions related to infertility have been described by Bell (2013) as a “cyclic pattern of grief and loss.” Bell used a combination approach of feminism, phenomenology, and grounded theory to explore 28 infertile Australian women’s experiences with involuntary childlessness. Participants in Bell’s study mentioned how the monthly onset of the menstrual cycle was a recurrent disappointment and would trigger despair. Bell (2013) explained that the women in the study were in a “seemingly endless loop of hope, despair, repair, and back to hope” (p. 291).

Hainsworth and colleagues (1994) also described recurrent grief in couples with infertility through the term chronic sorrow. To this researcher’s knowledge, this is the first and one of the only published studies to explore chronic sorrow in infertile people, although the concept has been studied extensively in other populations, such as in parents of chronically ill children (Coughlin & Sethares, 2017). Hainsworth and colleagues conducted a pilot study to interview five couples with infertility. Using the Chronic

Sorrow Questionnaire to develop semi-structured interview questions, the researchers found that 90% of the couples with infertility experienced chronic sorrow, which is defined as the “periodic recurrence of permanent, pervasive sadness or other grief-related feelings associated with ongoing disparity resulting from a loss experience” (Eakes et al., 1999, p. 181). Hainsworth and colleagues (1994) recognized that chronic sorrow is a normal reaction to loss rather than a pathologic reaction or maladaptation of grief. Normalizing feelings of grief-related emotions may help to promote positive coping in couples with infertility.

Coping. Couples who experience involuntary childlessness are challenged to continuously employ coping mechanisms to cope with loss, stigma, and pressure surrounding involuntary childlessness. Due to the couples’ individual reactions to infertility and involuntary childlessness, coping mechanisms were often different. Women, particularly, felt stigmatized for not being able to conceive a biological child. For the women in this study, motherhood was an expected life transition. Their inability to conceive initiated conflicts regarding role and identity expectations. The men in this study did not feel defined by infertility and fatherhood, instead, they often felt like they needed to protect their partners from stigma and pressure and fix the problem.

In the United States, the role of motherhood is an expected life transition and salient to the female role (Parry, 2005; Thornton & Young-DeMarco, 2000). Infertility and involuntary childlessness challenge this central role and stigmatizes women (Bell, 2013). The concept of stigma among infertile women has been identified in the literature. The women in Bell’s (2013) study described the “courtesy stigma” where, due to gender-

based assumptions, society views infertility as the women's problem; and therefore, women felt guilt and shame over being unable to conceive. The implications of the courtesy stigma were apparent in Ferland and Caron's (2013) work. The women in this study questioned their worth as women and not fitting in to society. Due to these feelings, women felt grief and isolation over the course of their infertile lives.

Participants in the current study referred to situations in which they employed avoidance strategies to cope with involuntary childlessness. Couples avoided triggers that reminded them of their inability to conceive. For example, couples shared that they avoided going to baby showers or spending time with friends and family who had young children because these situations intensified feelings of sadness about being childless. Women were more affected emotionally by triggers than the men. Men reported that they were not affected by triggers as intensely as their partners were. For men, a main reason for avoiding triggers was to protect their partners. The men could identify triggers for their partners and often attempted to avoid them if possible.

The findings from the current study related to trigger avoidance supports previous literature about coping among infertile women and couples. In her previously discussed study, Bell (2013) found that involuntarily childless women avoided places or celebrations that reminded them of their inability to conceive. Similar findings were found by Sormunen, Aanesen, Fossum, Karlgren, and Westerbotn (2018). These researchers conducted a study of 199 women with primary or secondary infertility to determine communication and coping strategies. The researchers determined that of the women with primary infertility ($N = 152$), approximately 25% ($n = 68$) avoided pregnant

women or women with children and 49% ($n = 75$) left the area when people talked about pregnancies or children.

Gender differences in coping support the work of Lechner, Bolman, and Dalen (2007). In their study, the researchers explored coping styles and distress among 116 involuntarily childless men and women. The researchers described active coping to be a positive type of coping and was exemplified by approaching infertility as a problem to be solved. Alternatively, passive coping, such as avoiding, is emotionally-driven and associated with more distress. The women in Lechner's and colleague's study were more likely than men to use passive coping strategies such as avoidance, while men used active coping such as problem-solving. As a result, the findings indicated that women, more than men, experienced complicated grief, anxiety, and depression and suggested that coping styles indicate the amount of distress people experience.

While Lechner and colleagues (2007) posited that avoidance negatively impacts well-being, avoidance strategies seem to be essential for couples in the current study to manage their situations. Women, in particular, spoke of avoiding in an empowering way. For example, one couple discussed how after years of engaging in upsetting activities such as baby showers, they finally realized that it was okay to not engage in situations that reminded them of their inabilities to conceive.

Most participants in the current study did not communicate with friends and family about infertility and childlessness because they felt as though others could not understand their situation. Some couples also voiced that they felt pressure from others to conceive and therefore, avoided interacting with others to escape this unwanted pressure. The

findings from the current study support those reported by Glover (2009) who found that infertile couples censored what they shared with others or refrained from discussing infertility problems at all due to feeling pressured to conceive. Likewise, Sormunen and colleagues (2018) found that the majority ($n = 129$, 85%) of women in their study kept feelings about infertility to themselves.

In the current study, avoidance created a self-imposed isolation among couples. Couples reported that they felt unable to connect and identify with peers because they were in different places in their lives. Therefore, couples would refrain from engaging in social events and reported that infertility was lonely and isolating. This is similar to the findings from Johansson and Berg (2005) who found that childlessness was a central part of these women's lives and consumed their existence. Due to this, the women did not have time to socialize and did not feel like socialization with peers was important. The findings of the current study, however, do not support the notion that peer socialization was not important. Rather, the couples in the current study wanted socialization, yet felt unable to connect to other couples who had children. Not only did couples feel like they could not relate to peers who had children, but they also refrained from socializing to protect themselves from experiencing negative emotions such as hurt, anger, and jealousy. The couples' lack of socialization was not due to a time constraint, instead it was a necessary mechanism to cope with their situation.

Peer support is a form of active coping, which is associated with positive outcomes (Lechner et al., 2007). Many of the participants in the current study wanted support from peers, particularly in the form of support groups. Women, more so than men, found

comfort in the ability to talk to a friend or peer in a similar situation. While some of the men in the study preferred not to discuss infertility with peers, other men wanted this option and found they had no one to talk to. Some men spoke of the difficulty in finding support groups for men. This could be attributable to the fact that infertility and childlessness has generally been viewed as a woman's issue and so little attention has been given to the needs of men in this situation.

The findings regarding a lack of support for men dealing with infertility support the findings of Malik and Coulson (2008). The researchers accessed an infertility online support group and used thematic analysis to analyze messages posted to a "Men's Room" discussion board. This discussion board provided a means by which men could interact with others who were going through a similar situation with infertility. The findings showed that men were appreciative of the support group as it fulfilled the void of the male perspective in their support network.

Taking on a New Normal

In the beginning of the process in this study, couples envisioned their families to consist of biological children and resisted a life that was different from this expectation. By the time couples reached the final stage of *Taking on a New Normal*, they began to accept alternate role and family realities. Through the process, infertility became a part of the couple's identity. In this stage, couples were at peace with the fact that their family might not be what they had once envisioned and were excited to plan and meet new family goals, which included living childfree or adopting. At this point, couples were better able to cope with triggers, and were generally happy with their lives.

Couples believed there was a purpose to their struggles. Enduring the pains of infertility and childlessness facilitated a deeper appreciation for each other and their current life together. All of the couples in this study explained that they endured through a painful and life-changing crisis and as a result, believed their relationship was stronger than ever. In addition to realizing infertility's purpose in their own lives, couples sought to help and support others who were going through similar childless situations. Peters and colleagues (2011) found similar findings in their narrative study. The researchers interviewed five couples who were involuntarily childless after ceasing treatment for infertility. Resilience was described as a process of creating positive outcomes in response to on-going life grief. Couples who demonstrated resilience were better able to cope with childlessness and reported a stronger dyadic bond. Additionally, resilient participants wanted to use their personal experiences to prevent others from suffering. Nurses can help couples to redirect goals to promote resilience.

The overall findings from *taking on a new normal* support the findings of Gonzalez (2000), who conducted a qualitative study to examine 25 infertile women's experiences with infertility. Gonzalez described infertility as a transformational process that starts with failure to fulfill the societal norm of having children, which challenges the woman's identity. Next, the woman mourns the loss of her identity and ability to conceive. Eventually, in the transformation stage, the woman experiences a definite turning point where she faces the reality that she might never bear children. This leads to the final stage of restitution, in which acceptance of the infertile situation occurs. *Taking on a New Normal* aligns with Gonzalez's final two stages of transformation and restitution in

which women acknowledge themselves as infertile and then redefine themselves, respectively. In the restitution stage, women spoke of feeling a sense of “calm” and knowing things happen for a reason. The findings of the current study, that couples take on new identities, support the additional finding from Gonzalez (2000), who reported that the infertility process “resulted in meaningful philosophical or spiritual changes within the lives of the participants” (p. 626).

Infertility resolution is defined as having transitioned through the stages of grief and achieved emotional peace with infertility decisions (RESOLVE, 2019). The findings from the current study contradict this definition in that although the participants felt at peace with their lives, some said that they do not feel resolved. Others shared that they will always have some sadness or longing in their hearts. This supports the finding by Gonzalez (2000) that all of the participants in the study agreed that their infertility was not resolved. The women in Gonzalez’s study achieved a realistic perspective of their inability to conceive, yet were still profoundly defined by it, causing them to feel unresolved. Similarly, the findings in Ferland’s and Carslon’s (2013) study of long-term impacts of infertility on childless women, indicated that the grief from infertility never goes away. Women reported experiencing recurring times of grief throughout their infertile lives until menopause.

The discrepancy between the definition of resolution and the findings of the current study, as well those of Gonzalez (2000) and Ferland and Carslon (2013), may be that RESOLVE’s definition implies that grief is a linear process. Findings from the current study suggest that grief from infertility is not linear, rather it is recurrent and iterative.

Grief can be triggerable at all stages of the process; and therefore, there is the potential for feelings of sadness to return. This was exemplified in participants who shared that they were affected by triggers even when an acceptable alternative was achieved such as parenthood. The data from the current study suggests that it is possible to still experience hurt with resolution. This researcher suggests that a definition of infertility that acknowledges its chronicity and normalizes the associated grief-related emotions, will better define the phenomenon.

Methodological Reflections on Couple Interviews

To gain an understanding of the couples' experience with involuntary childlessness, this researcher conducted semi-structured interviews with couples using Zoom[®] video conferencing. The couples shared profoundly personal and detailed accounts of their experiences which facilitated a sincere understanding of how couples endure involuntary childlessness.

Based on the literature, the researcher was prepared for the potential negative aspects of joint interviews such as conflict between partners (Daly, 2007) or one partner dominating the discussion (Norlyk et al., 2005). Instead, no major conflicts took place. Couples disagreed with or corrected each other without tension or uncomfortableness. Additionally, both partners readily responded to questions. These positive interview experiences could be due to the fact that couples participating in this study genuinely wanted to help others who were in a similar childless situation. For them, participating in this study was a way for them to tell their stories and potentially help other infertile couples. Additionally, all of the couples felt their relationship was strengthened due to

their infertility struggles; and therefore, this may have facilitated better communication, ultimately leading to less conflict during the interview.

The use of the video application on Zoom[®] enhanced this understanding, as it allowed for a seemingly personal connection between researcher and participants. One couple was not able to use the video option and the interview experience was markedly different than the interviews with couples who did use the video option. During this interview, the researcher did not hear the depth of responses or view non-verbal expressions that were apparent in the other interviews. While this difference could have been coincidental, another explanation could be that without the video component, the interviews were impersonal. For example, the researcher could not see the couple and their use of nonverbal cues to determine if they understood the questions that were being asked. The participants could also not see the researcher, which may have hindered the formation of a trusting relationship. These explanations indicate the importance of face-to-face interviewing with couples. Another plausible explanation could be that the researcher's expectations of the interview was not aligned with the couple's expectations of what the interview was to be about. This possibility highlights the importance of clear communication between researcher and participants.

Implications for Nursing Science and Research, Education, and Practice

This study explored the complex, relational aspects of the couple with infertility as they endured involuntary childlessness. This research provides a theory of how couples experience involuntary childlessness, a topic that is minimally understood in the professional literature. The results of this study appear to be transferable to couples with

infertility suffering from involuntary childlessness; and therefore, implications for nursing science and research, education, and practice are evident.

Nursing Science and Research

Using a grounded theory approach, the current study was rooted in symbolic interactionism. This philosophy posits that human beings use social interactions to assign meanings to objects and experiences, and then act towards those meanings (Blumer, 1969). The BSP that emerged from this study is a result of the participants' reactions to involuntary childlessness in accordance with the meanings that they attached to being unable to conceive and parent a child. For women, motherhood was a deeply ingrained social role and expected life transition. Infertility and subsequent involuntary childlessness challenged this role. For men, the inability to parent a child was less about their identity as a father; rather, childlessness challenged their ability to be a provider for the family and protect his partner from hurtful experiences. Studying involuntary childlessness from this lens has provided a deeper understanding of couples' experiences.

This research advanced nursing science through the identification of a theory of how couples experience involuntary childlessness, a topic that is minimally understood in the professional literature. This research substantiates the viewpoint that involuntary childlessness due to infertility is a couple's experience, therefore concluding that nurses should provide comprehensive care to the couple, in addition to each individual. This perspective serves as the foundation for a practice level theory of caring for the infertile couple. There is a need for interventional studies to determine psychosocial outcomes associated with specific nursing interventions directed at the couple.

Evidence to suggest that couples experience chronic sorrow is apparent in the findings and validates the work of Hainsworth and colleagues (1994). A significant loss situation is the primary antecedent for chronic sorrow and hinder one's ability to fulfill anticipated social, developmental, and personal goals (Eakes et al., 1994). In the current study, couples who desire to be parents are faced with the loss of a biological child due to infertility. This condition, which is involuntary childlessness, triggers the basic social process to unfold. Couples in this study desired to become biological parents and anticipated meeting this milestone in their lives. Involuntary childlessness created an unanticipated reality that changed the couples' desired life course. Trigger instances brought about intense grief in participants. It was not until couples could create a new identity and accept a new family reality that they could move on from the management stage of the process.

Likewise, the recurrent grief reactions experienced by couples in the current study can be synthesized with Theory of Chronic Sorrow (1998). According to Eakes and colleagues (1999) chronic sorrow is not caused by the loss itself, but rather the disparity that the loss creates between the anticipated life course and reality. The inability to meet anticipated social, developmental, and personal goals creates feelings of despair related to the disparity between what was anticipated and what is reality (Eakes et al., 1998). As long as a negative disparity is perceived, the potential for chronic sorrow exists (Eakes et al., 1999). Periods of sadness and other grief-related feelings occur when the disparity is realized by trigger events. Due to continuous feelings of sadness and grief, chronic sorrow has the potential to elicit negative consequence such as stress, physical illness,

and depression if positive coping does not occur (Eakes et al., 1998). Since chronic sorrow has been identified in couples with infertility, instrument development is needed to quantitatively measure chronic sorrow in infertile and involuntarily childless individuals.

In addition to theoretical development, this study contributes to the methodological approach to interviewing couples using video conferencing. Prior to this research, few nursing studies considered the couple as the unit of analysis. Furthermore, the researcher's reflections on interviews contrasted current literature regarding difficulties of joint interviewing. This study extends an opportunity to explore couple interviewing within the context of infertility and involuntary childlessness.

This study also challenged the current definition of infertility resolution, calling for a new definition which acknowledges the chronicity of infertility and the recurrent grief that may occur. Acknowledging chronic sorrow will normalize the reactions for those struggling with infertility and childlessness. This contrasts with the current definition of resolution which assumes a definite end to one's grieving (RESOLVE, 2018).

Nursing Education

There is an opportunity to include infertility topics in all levels of nursing education. Nurse educators can apply findings from this study into nursing curricula and, ultimately, extend nursing knowledge of how couples experience involuntary childlessness into practice. The results of this study indicated that couples were unanimous in the type of resources they need and expect from healthcare practitioners. Newly developed or revised curricula and pedagogies based on the evidence from this study will provide

resources and support that couples with infertility may need as they manage involuntary childlessness. While it is unclear to what extent infertility education is covered in nursing curricula, at the very least, nurse educators should be sure to include infertility education that focuses on care for the couple, rather than caring for solely the women.

In addition to emphasizing the couples' experience, nurse educators could implement case studies and simulation to provide opportunities for nursing students at both the undergraduate and graduate level to practice therapeutic communication and education techniques. Infertility is a sensitive topic; and therefore, creating a safe space for students to practice these techniques may enhance their ability to talk with real patients.

At the practice level, nurse educators may utilize findings from this study for staff development. Nurse educators can develop electronic learning modules and other types of continuing education units for nursing staff to inform practice. In addition to learning modules for staff nurses, couples with infertility may also benefit from the convenience of electronic, self-paced, learning resources. These types of learning modules for patients can supplement face-to-face education.

Nursing Practice

Peters (2003) suggested that healthcare providers do not have sufficient knowledge to care for patients with infertility. The findings in this study confirm that couples want healthcare practitioners who are knowledgeable and compassionate. Couples wanted to be listened to and have a voice in the treatment process. Additionally, couples wanted to feel "normal" and not alone. Nurses can integrate these findings into practice by forging

caring relationships, listening to couples' perspectives and concerns, and providing referrals for support services when appropriate.

Health care professionals should educate couples about the normalness of their reactions, coping strategies, and how to minimize triggers. Nurses should be aware of the types of coping strategies commonly used among couples with infertility and recognize individuals that may be at high risk for increased stress, depression, and anxiety. Additionally, nurses must understand that triggered, grief-related reactions are normal and in turn, educate patients so that they are aware of this normal response to loss. "Normalizing" the experience may decrease stigma surrounding infertility and childlessness. Rather than instill hope, nurses should provide realistic counseling and support the couple during all stages of the process.

Due to the isolation that occurs with infertility, nurses should foster goal setting among couples and encourage them to engage in activities that are less likely to trigger grief. For example, nurses may encourage couples to travel, engage in leisure activities, or pursue educational and professional goals.

The participants in this study looked to healthcare providers for information; however, the internet was a widely used tool for patient education. Some participants shared that when they had questions, they would use the internet rather than asking healthcare providers. Therefore, nurses and other healthcare providers should strive to provide clients with reputable resources to assure that they are accessing information that is valid and reliable. One way that nurses might address this need is by creating electronic learning modules which patients can access from home.

Recommendations for Future Research

The current study addressed the gap in nursing research concerning how couples with infertility experience involuntary childlessness. Specifically, the dyadic nature of the process was explained. As a result of this study, areas for future research emerged.

This researcher makes the following recommendations for future research:

1. develop an instrument to quantitatively measure chronic sorrow in couples with infertility and involuntary childlessness
2. study the effectiveness of support groups for involuntarily childless men and women
3. examine communication techniques that establish trust and facilitate patient satisfaction as patients navigate involuntary childlessness
4. study the effectiveness of infertility-specific education modules for nursing students and nurses
5. study the effectiveness of an educational intervention on healthcare providers' knowledge and perceptions of infertility patient needs
6. explore the effectiveness of nursing interventions to optimize coping in involuntarily childless couples and
7. identify strategies that enhance coping among involuntarily childless couples.

Chapter Summary

In this chapter, the BSP of *Enduring Involuntary Childlessness* was discussed with regard to how the specific stages and contexts related to findings from the literature. The

researcher discussed methodological considerations for interviewing couples, specifically from the perspective of using Zoom® technology. The findings of the current study contributed to the science of nursing and theoretical connections between the current study. Furthermore, the BSP's alignment with the Theory of Chronic Sorrow was presented. Implications for nursing science and research, education, and practice were presented with suggestions for future research opportunities.

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APPENDIX A

Recruitment Letter



Hello!

I am a doctoral candidate at Widener University School of Nursing. I am conducting a research study to learn more about childlessness in couples with infertility. It is my hope that this research provides nurses with knowledge to care and support couples during their infertility journey. The purpose of this study is to explain how couples with infertility experience childlessness. You may be able to be in this study if you and your partner:

- Are currently childless due to infertility OR were childless due to infertility in the past.
- Together, experienced difficulty having a baby for at least 1 year, despite actively trying to become pregnant.
- Are in a mutually exclusive, heterosexual, relationship.
- Are willing to be interviewed together using online video or telephone conferencing.
- Speak and read English.
- Are 18 years of age or older.

The interview will take about 60 to 90 minutes. It will be recorded. Your real names will not be used. Couples who are part of this study will receive a \$50 Amazon gift card. If you are interested in sharing your experience or have questions about this study, please contact me.

Thank you,

Taylor L. Grube, PhD candidate, MSN, RN

Doctoral Candidate

Widener University School of Nursing

Widener University Institutional Review Board has approved recruitment of participants

IRB Protocol # 26-18

APPENDIX B

Informed Consent Form

Widener University IRB Protocol Number: 28-18

INVESTIGATOR(S) NAME: Taylor L. Grube, PhD (candidate), MSN, RN; Widener University School of Nursing

STUDY TITLE: A Grounded Theory Approach to Explore the Experience of Involuntary Childlessness in Couples with Infertility

PURPOSE OF THE STUDY

The purpose of this research study is to explain how couples with infertility experience childlessness. I am being asked to be in this study because my current partner and I are/have been childless as a result of infertility. My partner and I are in an exclusive heterosexual relationship. I am over the age of 18 and speak and read English.

DESCRIPTION OF THE STUDY

To be in the study, my partner and I will be interviewed together. The interview will be held using an online video or phone meeting. The meeting will be at a time agreed upon by the researcher and I. It will be audio recorded. If both my partner and I agree to be in the study, I understand that we will be interviewed together about our experience with childlessness. The interview will take about 60 to 90 minutes. A follow-up phone call or email may be requested to clarify content from the online interview.

RISKS AND DISCOMFORTS

Being in this study, I may experience feelings of grief, sadness, or anger. Taking breaks, if needed, may minimize these feelings. I may also ask to skip questions if I feel uncomfortable. I understand that I can stop being in this study at any time. I may withdraw from the study at any time. If my partner or I withdraw from the study, my data will be destroyed and not used.

If I experience any of these risks, I should tell the researcher. Together, we may decide to take breaks, skip questions, or stop the interview. The researcher will provide me with contact information for support services.

BENEFITS

There may be no direct benefits of participating in this study. However, the knowledge received may be of value to nurses who work with couples that experience childlessness due to infertility.

ALTERNATIVE PROCEDURES

The alternative to participating in this study is to not participate. There is no penalty for not participating in the study.

CONFIDENTIALITY

All documents and information pertaining to this research study will be kept confidential in accordance with all applicable federal, state, and local laws and regulations. I understand that data generated by the study may be reviewed by Widener University's Institutional Review Board, which is the committee responsible for ensuring my welfare and rights as a research participant, to assure proper conduct of the study and compliance with university regulations. If any presentations or publication result from this research, I will not be identified by name.

My privacy and confidentiality will be protected during the study. My real name will not be used. Instead, pseudonyms will be used for my partner and I.

Data will be stored on a password-protected flash drive. Data will be uploaded to an online service site for transcription. The service encrypts data to assure confidentiality. Audio files will be deleted at the end of the study. Transcribed files will be kept by the researcher in perpetuity.

TERMINATION OF PARTICIPATION

I may choose to withdraw from this study at any time and for any reason without penalty. If I choose to drop out of the study, I will contact the researcher and my records will be destroyed.

The researcher may end my participation in the study if my partner withdraws from the study. My records would be destroyed and not used in the study.

COMPENSATION

I will not receive payment for being in this study. Participation in this study is strictly voluntary. There will be no cost to me for participating in this research. A \$50 electronic Amazon gift card will be emailed to my partner or I after the interview. The researcher will send one gift card per couple.

INJURY COMPENSATION

Neither Widener University nor any government or other agency funding this research project will provide special services, free care, or compensation for any injuries resulting from this research. I understand that treatment for such injuries will be at my expense and/or paid through my medical plan.

QUESTIONS

All of my questions have been answered to my satisfaction and if I have further questions about this study, I may contact Taylor Grube. If I have any questions about the rights of

research participants, I may call the Chairperson of the Widener University's Institutional Review Board at [REDACTED].

VOLUNTARY PARTICIPATION

I understand that my participation in this study is entirely voluntary, and that refusal to participate will involve no penalty or loss of benefits to me. I am free to withdraw or refuse consent, or to discontinue my participation in this study at any time without penalty or consequence.

I voluntarily give my consent to participate in this research study. I understand that I will be given a copy of this consent form.

Signatures:

Participant's Name (Print)

Participant's Name (Print)

Participant's Signature Date

Participant's Signature Date

I, the undersigned, certify that to the best of my knowledge, the subject signing this consent form has had the study fully and carefully explained by me and have been given an opportunity to ask any questions regarding the nature, risks, and benefits of participation in this research study.

Investigator's Name (Print)

Investigator's Signature

Date

Widener University's IRB has approved the solicitation of participants for the study until October 24, 2018.

APPENDIX C

Demographic Data Questionnaire

Couple #: _____

Pseudonym:	Participant #1: _____	Participant #2: _____
Age in years:		
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> Male <input type="checkbox"/> Female
Race/Ethnicity (select all that apply):	<input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Native Hawaiian/Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Native Hawaiian/Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Other (specify) _____
Spirituality/ Religion	(write in)	(write in)
Length of time in current relationship:	_____ year(s).	
Married:	<input type="checkbox"/> Yes	<input type="checkbox"/> No:
How long did you try/have you been trying to have a baby?	_____ months/year(s).	
Have you been diagnosed with infertility from a medical professional?	<input type="checkbox"/> Yes <input type="checkbox"/> No • If yes, what treatments have you used? _____	<input type="checkbox"/> No
Children:	<input type="checkbox"/> Yes <input type="checkbox"/> No • If yes, how many? _____ • Are any of these children from a previous relationship? • Did you have children with: <input type="checkbox"/> Infertility treatment <input type="checkbox"/> No treatment, conceived on our own. <input type="checkbox"/> Adoption	<input type="checkbox"/> No

APPENDIX D

Semi-Structured Interview Guide

Introduction: I am interested in gaining a better understanding of your experience with childlessness, particularly the relationship dynamics- that is, the meanings, interactions and changes that you experience(d) together, as a couple. I'm interested in as much detail as possible, so stories and examples are encouraged. It is my hope that your experiences will help nurses and other healthcare professionals better understand the resources and support that couples need as they navigate involuntary childlessness.

1. Tell me about your experience as a couple who is childless.
2. Describe how you manage(d) being childless, together as a couple.
 - a. Describe decisions that you made together, regarding infertility and/or childlessness. For example, how did you decide to pursue or not pursue medical advice/treatment, adoption, or living childfree?
 - b. What conflicts, if any, did/have you faced? Describe how these conflicts affected you and your relationship.
 - c. What or who has been helpful to you during your time of childlessness? How has it been helpful?
 - d. What or who isn't helpful? Why not?
3. How has your relationship been affected or changed by infertility and childlessness during this journey?
4. How have healthcare providers affected your experience?

APPENDIX E

Email Text

Hi _____,

Thank you for your interest in my research study! I am looking forward to hearing about your experience, but first please confirm that you and your partner meet the following inclusion criteria of the study:

- Both of you are 18 years of age or older and can speak and read English?
- Both of you agree that you are in a mutually exclusive, heterosexual, relationship?
- Together, you experienced difficulty having a baby for at least 1 year, despite actively trying to become pregnant?
- Both of you agree to be interviewed together?

If you answer yes to all of the questions above, please provide me with 3 potential dates and times that are convenient for you both to have an online Zoom[®] interview with me. The interview will last about 60 to 90 minutes. Once we have a date, I will email you an invitation to our Zoom[®] meeting . All you have to do is click on the link and you will enter our meeting.

Lastly, please review the attached informed consents. Both of you should electronically sign and send back to me.

Thank you and I look forward to hearing from you!

Taylor

Taylor Grube, Ph. D. Candidate
Widener University School of Nursing

Appendix F

Screening Tool for Use by Researcher

Couple #: _____

Pseudonyms: Partner #1: _____ Partner

#2: _____

Are you and your partner both 18 years of age or older and speak English?	Yes No → ineligible
Are you and your partner in a mutually exclusive, heterosexual, relationship?	Yes No → ineligible
Have you and your partner experienced difficulty having a baby for at least 1 year, despite actively trying to become pregnant?	Yes No → ineligible
Do you both agree to be interviewed together?	Yes No → ineligible

Appendix H

Sample Memos

11/20/17: Men and women do go through infertility and childlessness individually AND as a couple. I'm picturing a Venn diagram or a double helix with each partner as a strand. Men and women have their own unique experiences and concerns and then they have the couple experience and concerns which are all interconnected. Unique struggles affect and interact with couple experience. In the BSP, these individual perspectives act as intervening variables. For women, it seems like her identity and role is challenged. The women in this study seem to view motherhood as an important role, one that they have always envisioned. Men are not as affected with roles concerning fatherhood; rather men seem to be more concerned with not being able to provide for women. They are also concerned with their inability to protect her from stigma, pressure, pain.

11/22/17: Most of the couples in this study discuss how they worked together as team to solve a problem, which is infertility and childlessness. Initially, I believed that this was the key to moving through the process. However, as I talk to couples who have reached "the other side," I'm beginning to see that working through a problem is still resisting infertility/childlessness because these couples continue to view infertility as a problem to tackle. Eventually, couples perceive infertility as part of them, which changes them. It allows them to accept (?) that their life is not how they once envisioned it. I have a sense that infertility is no longer a "problem to solve," but instead it has become them and one can no longer separate the two. It is at this point that couples are changed. They believe they are stronger as a result of their struggles.

Some couples report still feeling the pain of infertility, but I need to revisit the topic of resolution with the next few couples to determine what is resolution? Is resolution a static state? Dynamic? Is it even possible to achieve?

Appendix I

Sample Audit Trail

Basic Social Process

<i>Category</i>	<i>Participant Data</i>
Perceiving Loss	<p>“It’s no different than talking about a death in the family.”</p> <p>“It’s a weird thing to feel a loss for something that doesn’t exist.”</p> <p>“There is a part of me that’s dead.”</p>
Managing- Navigating Alternatives	<p>“It’s like we can’t move forward with life because we don’t know if we’re going to end up having a child or if all our money is going to go towards IVF. What if IVF doesn’t work? We haven’t addressed those big questions yet like will we live childless? Will we try to adopt? What are our limits?”</p> <p>“We approach it as a problem that we need to solve and whatever way we work it out we’re going to find a solution that works for us.”</p> <p>“When we were trying, the doctors didn’t really explain much. They’re really cut and dry. They are trained to be doctors not therapists and we needed both. It also didn’t help at all that none of this was covered by our insurance. So financially, it was burdening us to try and find a solution.”</p> <p>“I think you almost go on autopilot. I just did it. I mean for me at the time, I have a good job so I was able to leave work early, go to the doctor to do bloodwork and the exams and the medications and all that stuff. It really just becomes like a job. I don’t know. It’s hard to manage. It’s very hard.”</p>
Managing- Recurrent Grieving	<p>“Day by day was hard. We had to wait a month to see if she got pregnant. That was the downfall. She was depressed that we’re going to have to do it again. It was just the same thing over and over”</p> <p>“There's still that one time every month where you're like really down.”</p>
Managing- Coping	<p>“We didn’t have to tell people it wasn’t working because we hadn’t told people that we were trying. So, I guess we kind of protected that way.”</p> <p>“I think it’s big if there are groups within communities that can meet together and talk. I do think it’s important for people that are going through infertility talk- whether it’s just another guy to sit there and be pissed with. I think it’s good for women if they need to talk to be able to talk to somebody other than their spouse.”</p> <p>“I pretty much avoided anybody that was pregnant or had young children”</p>

Taking on a New Normal “I think we both felt at peace about this being done. That chapter’s closed. We’ve learned a lot, we’ve grown a lot, we’ve grieved a lot. That loss, I think is always going to be there. I don’t think you ever just get over infertility, but I don’t think we are defined by it.”

“It’s a different journey and it’s not the journey we expected it to be but it’s our journey. I think that the other healing part is when you embrace it as, ‘this is our journey’. This is what it’s going to look like and it’s not going to look like everybody else’s. I think that we’ve kind of embraced that it’s just going to be different, but it’s going to be a good different.”

“[Infertility] became less about it being a problem that needed to be solved but something that psychologically was happening to me that I was grappling with. It just feels like a big part of – our existence”

Intervening Variables

<i>Category</i>	<i>Participant Data</i>
Individual Perspectives	<p>“I think we were experiencing two different things you know she was experiencing one thing and I was experiencing something totally different as a man. I think it was different because after she was diagnosed, she said it almost seemed like she took is personal. And I didn't know how to be there for her in that sense.”</p> <p>“There was definitely a stage where we weren't happy about it and were upset about own selves and we had to deal with that personally before we could communicate”</p>
Triggers	<p>“And then of course there are triggers out in public too that you just want to avoid. I mean Target is like the worst place to ever go because it's just like everyone and their baby is there.”</p> <p>“Commercials. I equate it to when you buy a new car that's when you start seeing the cars everywhere. When you're wanting to have a child or when you lose a child that's when you notice all the baby commercials and like it's the small, stupid stuff.”</p>

Context

<i>Category</i>	<i>Participant Data</i>
Sadness and Hope	<p>“I was still very functional and could be happy... but it's just like this running-in-the-background sadness.”</p> <p>“No matter how hard I try to tell myself that I don't have hope for this month, I do. And every time my period came I would be crushed you know, even though I said I wouldn't be. But there's always that hope no matter what. It's definitely less but it's still always there because I think if it wasn't we wouldn't keep trying, honestly, because it wouldn't be worth it. What is there without hope?”.</p> <p>“Every new cycle, we had hope, and then you try to convince yourself not to be so hopeful and so optimistic, because then, you're really let down every time it didn't work. You were hopeful and then it was negative, and then you're back into that cycle. It's almost like a sense of grief, like you've lost something that you never had.”</p>