Crisis, Grief and Coping with Infertility

By

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the non-thesis literature review of KAREN S. PARR find it satisfactory and recommend that it be accepted.

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Abstract

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Infertility and its psychological consequences affect not only women, but their partners as well. There exists a gap in the treatment of infertility when meeting the emotional needs of patients. As a result, patients frequently receive little or no emotional support to facilitate coping with a diagnosis that has the potential to be devastating. Infertility and its subsequent treatment occur on a continuum and as such warrants psychological support throughout the entire process. Interestingly, women who have been successful in their fertility treatment have had a higher prevalence of postpartum depression. Obtaining a viable pregnancy does not necessarily resolve the emotional issues associated with infertility. It was found that the grief associated with infertility has for some been more painful than the death of a loved one as family and friends are often unable to provide the level of support that is needed. As the advances in infertility treatment continue to focus on the medical treatment and instrumentation, there is a lack of evidence-based practice on what measures best help the individual best deal with the psychological ramifications of what will be a life-changing diagnosis.
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**Introduction**

In an international study, it was found by Rustein and Shah (2004) that primary and secondary infertility can create a personal tragedy for individuals. Infertility carries with it a variety of consequences, from the psychological and physical to the financial. Infertility can often tear a family apart (Rustein & Shah). In the United States alone, in a 1995 national survey, 9.2 million women indicated they utilized infertility services at some time during their lives. Of these, 6.1 million women of childbearing age were still unable to conceive children. There were 2.1 million couples in America that were considered infertile in 1995. This equates to approximately a national infertility rate of 15% (U.S. Department of Health and Human Services [DHHS], 1997).

Sherrod (2004) found that infertility carries with it a vast range of emotional and psychological issues that may emerge during treatment, ranging from anger, guilt, grief, and depression to isolation from friends and family. The financial and social issues are related to the approach many infertile individuals take, going to great lengths and spending many thousands of dollars in an effort to obtain the one thing that is out of their reach, a viable pregnancy resulting in a healthy infant (Sherrod, 2004). The cost of infertility treatment in the United States varies greatly, based upon location and the type of treatment required. It was found that costs of infertility treatment did not necessarily correlate to the cost of living in any one location. Higher costs of treatment were found in areas where there were fewer infertility treatment centers. Table 1 illustrates the range of costs of different infertility treatments. Collura (2006) surveyed clinics across the U.S. to derive the figures.
Table 1

*Average and Median Costs of Fertility Treatments*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Average Cost</th>
<th>Median Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IUC Cycle</td>
<td>$865</td>
<td>$350</td>
</tr>
<tr>
<td>Fresh IVF Cycle (not including medications)</td>
<td>$8,158</td>
<td>$7,500</td>
</tr>
<tr>
<td>ICSI Procedure (in addition to IVF)</td>
<td>$1,544</td>
<td>$1,500</td>
</tr>
<tr>
<td>PGD Procedure (in addition to IVF)</td>
<td>$3,550</td>
<td>$3,200</td>
</tr>
<tr>
<td>IVF Medications</td>
<td>$3,000</td>
<td>$5,000</td>
</tr>
</tbody>
</table>

Table derived from Collura, 2006.

Table 2 shows the 2005 national summary of assisted reproductive technology report, which indicates the following procedures were performed as means of infertility treatment (DHHS, 2007):

Table 2

*Assisted Reproductive Procedures Performed in the U.S. in 2005*

| Fresh Embryos from Nondonor Eggs                  | 92,405       |
| Fresh Embryos from Donor Eggs                    | 9,649        |
| Frozen Embryos from Nondonor Eggs                | 18,244       |
| Frozen Embryos from Donor Eggs                   | 4,997        |

Table derived from U.S. Department of Health and Human Services, 2007.

On average, it will require 3-5 IVF cycles to achieve a live birth (D. Lee, personal communication, December 12, 2007). While there are not any specific data that indicate
the exact amount of health care dollars that are spent on infertility treatment per year, one can speculate that based upon the reported number of embryo transfers (Table 2) and the average cost of one in vitro fertilization (IVF) transfer with medications (Table 1), Americans spent an average of $1.03 billion dollars in 2005. This does not take into account infertility treatments that are not reported to the CDC, such as ovulatory stimulation with medications such as clomiphene or surgical procedures to improve fertility.

Causes of Infertility

Infertility is defined as the inability to conceive after a minimum of 12 months of unprotected intercourse (Eskandari & Cadieux, 2003). Infertility is subdivided into 2 separate categories of primary and secondary infertility. Primary infertility designates those individuals or couples that have never been able to achieve a pregnancy, while secondary infertility refers to individuals or couples that have been able to achieve a pregnancy once, but have been unable to achieve a subsequent pregnancy (Eskandari & Cadieux; Medline Plus, 2008). 90% of women of childbearing age will achieve a pregnancy after one year of unprotected intercourse in 1 year, while 7-28% of women, unable to achieve a pregnancy in 1 year, will experience infertility. 30% of men will carry the primary factor for infertility, with another 20-30% being a contributing factor. For the remaining 40-50%, the cause of infertility is related to the female (Eskandari & Cadieux).

Causes of male factor infertility include endocrine disorders, anatomical disorders, impaired spermatogenesis, impaired spermatic motility, and impaired sexual function or a combination of factors (Eskandari & Cadieux, 2003). Causes of female
factors of infertility are divided into 3 categories: Ovulatory, pelvic and cervical factors. Ovulatory factors include endocrine disorders that prevent or hinder ovulation, ovarian tumors and metabolic diseases. Pelvic factors include infections of the appendix, endometriosis, pelvic inflammatory disease, Asherman's syndrome, and structural abnormalities. Cervical factors of infertility are primarily congenital and acquired in origin, such as with DES exposure, Müllerian duct abnormalities and infections (Eskandari & Cadieux).

*Treatments for Infertility*

As is the case with most illnesses, medical treatment focuses on correcting the initial presenting problem or defect. This is also true for the treatment of infertility. The initial infertility work-up involves semen samples, for men, and blood testing, for men and women, to evaluate the function of the endocrine system. Additionally, a hysterosalpingogram or laparoscopy may be warranted if the cause of infertility appears to be related to a pelvic factor (Murray, 2002).

Treatment of male factor infertility is often coordinated with urology (American Urological Association, 2008). Therapy can include thyroxine replacement, human chorionic gonadotropin and human menopausal gonadotropin therapy when endocrine disorders are causing the infertility. For low sperm counts or impaired motility, sperm washing followed up with intrauterine insemination, often results in a successful pregnancy. Surgery may sometimes be required for the infertile male with a varicocele. Finally, if all else fails, IVF is a viable option, including intracytoplasmic sperm injection (ICSI) for sperm that are unable to penetrate the zona (American Urological Association; Eskandari & Cadieux, 2003).
Treatment of female infertility may also include medication to correct an endocrine disorder. Treatment not targeted at the endocrine system may include laparoscopic surgery to repair structural defects or to remove adhesions, medications to stimulate ovulation or IVF. Medications be as simple as the use of clomiphene for 5 consecutive days to stimulate ovulation, or can be the extensive use of follicle-stimulating hormones and gonadotropins with the intention of stimulating the ovaries to produce multiple follicles for the sole purpose of IVF (Lee, personal communication, September, 15, 2006; Mayo Clinic, 2007).

With the different treatment modalities comes a variation in success rates of treatment. Table 3 shows successful pregnancy rates per cycle (American Society for Reproductive Medicine, 2008; Murray, 2002).

Table 3

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Pregnancy Rate</th>
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<tbody>
<tr>
<td>IUI</td>
<td>5%</td>
</tr>
<tr>
<td>Clomiphene</td>
<td>7%</td>
</tr>
<tr>
<td>IUI + Clomiphene</td>
<td>9%</td>
</tr>
<tr>
<td>Superovulation + IUI</td>
<td>18%</td>
</tr>
<tr>
<td>IVF</td>
<td>31%</td>
</tr>
</tbody>
</table>

Table derived from American Society for Reproductive Medicine, 2008; Murray, 2002.

Problem Statement

1978 saw the birth of the first baby born utilizing advanced reproductive technology (ART) in the form of in vitro fertilization (IVF) (BBC, n.d.). Since then the
medical community has continued to advance the technology in ART. However, despite the technological advances, the success rate continues to be quite low with a success rate of 10-37% of women successfully achieving a viable pregnancy (DHHS, 2007). Despite the low success rates of ART, individuals will still spend thousands of dollars in the hope of a live birth. The purpose of this article is to examine the correlation between infertility and the potential for crisis and grief that may be experienced. The focus of the article will be on individuals whose infertility has necessitated multiple infertility treatments and includes the use of IVF. The article also provides strategies for the nurse practitioner to assist individuals as they attempt to cope with infertility, especially those individuals who are exposed to the grief and sadness of multiple failed attempts for a successful pregnancy. Unfortunately, as the technological advances have been made in infertility treatment, there have been very few scientific studies that specifically address the grief and subsequent coping of individuals during treatment. Individuals that have suffered through multiple attempts of unsuccessful infertility treatments may experience a grief that transforms into a chronic sorrow.

Theory of Chronic Sorrows

Conceptually, chronic sorrow provides an excellent framework from which to view the emotional upheaval experienced by the infertile individual. The concept of chronic sorrow originated in the 1960’s as a means to describe the emotional grief that parents of mentally retarded children experienced (Olshansky, 1962). It was observed that the responses of parents did not follow the normal grief response to the loss of a child, as the child still continues to live, but there is a chronic sorrow with having a child that is severely impaired. Later studies continued to look at the concept of chronic sorrow
and applied its fundamental premises to conditions other than parents with a severely impaired child in which grief does not have an easily defined end-point. In the late 1990's, the Theory of Chronic Sorrow was formalized with research that evaluated various situations in which loss occurred and provided a framework to evaluate loss and the subsequent grief and bereavement that follows (Eakes, Burke & Hainsworth, 1998; McEwen, 2002; Roos, 2002).

There are four major characteristics that must occur for chronic sorrow to take place (Eakes, Burke & Hainsworth, 1998). First and foremost, there must be a loss that triggers sorrow or sadness in which there is no predictable end. Second, the sadness or sorrow is not continuous, but is cyclic or recurrent. Third, sadness or sorrow can be triggered at any time by external or internal factors that will bring to the forefront the loss. Fourth, the sadness or sorrow is progressive and intensifies over time. As long as the loss continues to occur, the sadness or sorrow will not be able to be resolved (Eakes, Burke & Hainsworth; McEwen, 2002; Roos, 2002; Teel, 1991).

For some individuals with infertility, the grief and chronic sorrow associated with infertility can be compounded by depression. It is not surprising that the continual reminders associated with infertility would predispose one to depression. The normal emotions of grief and sorrow will, at times, precede depression (Roos, 2002). It is important however, to differentiate chronic sorrow from depression. Even though the two can co-exist at the same time, they are two separately different conditions. Chronic sorrow is a natural reaction, while depression occurs as a pathological reaction (Scornaienchi, 2003). Functioning as a natural reaction to a persistent loss, chronic sorrow displays more periodic or cyclic manifestations, whereas depression is linear and
Infertility is a chronic condition, and as such, application of the Theory of Chronic Sorrow provides a framework for understanding and appreciating the grief that individuals with infertility face (Lechner, Bolman & Berg, 2007). Infertility fulfills all four of the major characteristics of chronic sorrow. There is a finite loss of what might have been when first advised of their infertility. For some, there is not a predictable end to the infertility, as it will last a lifetime. While it is true that some women go on to become pregnant after stopping infertility treatment, this is not a guarantee that they will not continue to experience some level of emotional distress. It was found that despite having achieved a pregnancy after infertility, women with prior infertility continued to have elevated scores on the Symptom Check List 90 (SCL-90), supporting the hypothesis that resolution of infertility with a pregnancy does not necessarily resolve the emotional distress associated with infertility (Bernstein, Mattox & Kellner, 1988).

For the individual who is not able to achieve a pregnancy with infertility treatment, the grief and sorrow may become recurrent as specific triggers occur that bring to mind the loss of a child that never was born. Throughout the lifespan, there will be multiple reminders of what might have been. Traditional milestones such as taking the first steps, the first birthday, the first day of school will all be missed by the ‘would-be’ parent. Later milestones such as graduation from high school, getting a driver’s license, going to college and getting married are also not experienced. The individual with infertility is reminded of his or her loss each time one of these milestones is
accomplished by the child of family member or friend, but never their own child. The sadness that is felt by the individual with infertility may progress over time and can potentially intensify as life experiences continue to remind them of their loss. For some individuals this can transform their infertility into a life crisis.

Crisis of Infertility

Crisis is defined as an event that is emotionally significant or an event that causes a radical change in one’s life (Merriam-Webster, 2008). For many persons, infertility presents as a life crisis. The infertile individual planned on having children and then is suddenly faced with the realization that this may no longer be a possibility.

The crisis of infertility has situational and developmental characteristics. Situational crisis results from the exposure to complex, unknown and expensive high-technology treatments associated with infertility. There are 3 stages of crisis for women especially who choose to undergo treatment for their infertility. First, at the initial diagnosis, then at the time of an embryo transfer and finally during the 12-14 days of waiting prior to the pregnancy test (Lee, 2003).

Developmental crisis is experienced as a result of a failure to maintain a pregnancy to term. Individuals desiring children may view infertility as distressing with the infertility becoming a lifelong developmental problem. As the number of women seeking infertility treatment has increased with the advancement of ART, this premise of infertility presenting as a developmental crisis, is also applied to the western culture (Lee, 2003; Menning, 1980).

Throughout the years, the cultural composition of the family has changed. The family definition of a husband and wife has changed to also include same-sex couples
that have chosen to create a family as well as the single individual that has chosen not to be in a relationship with another person. Despite the actual make-up of any one specific family, there still exist core developmental tasks that each family must accomplish (Murray & Zentner, 2001).

One of the core developmental tasks of all families is to make a choice regarding children (Duvall, 1977). According to Murray and Zentner (2001), one of the purposes and developmental tasks of the family is to reproduce and socialize children, while teaching appropriate values and morals. The inability to accomplish this task can cause a great deal of distress for the childless individual or couple. Some individuals have experienced criticism from others who have assumed that the individual or couple does not have children due to a conscious choice for reasons of selfishness (Calhoun & Selby, 1980). For some individuals or couples, envisioning a future without children is distressing and can lead to mourning. Some will find it very difficult to make plans for a life without children, after infertility (Stammer, Wischmann & Verres, 2002).

Grief with Infertility

Grief presents as the emotional reaction to a loss (Thomas, 1989). Grief, in the initial stages, may present as shock, denial and disbelief. As the individual begins to grieve not only the child that never was, but also the life long ramifications of the infertility, their grief can turn to denial, anger, isolation and depression. The desire to conceive is seen as a socio-cultural norm and the inability to do so can be distressing to the infertile person (Casarett, Kutner, & Abraham, 2001; Dhaliwal, Gupta, Goplan & Kulhara, 2004).
Following the disappointment of a failed IVF cycle, irritation, feelings of frustration and powerlessness are common companions with grief, and over time can potentially cause a considerable degree of distress, which can lead to further expression of anger, sadness and guilt (Zerbe & Steinberg, 2000). Feelings of loss and a decreased ability to perform tasks often present with the grief. Young adults and women, individuals seeking out infertility treatment, have been found to find grief more pronounced and distressing than adults greater than 35 years of age (Casarett, Kutner, & Abrahm, 2001). This grief can transform into a grief that is felt throughout the life span.

The term 'life-grief' describes a common component that is felt by some childless individuals over being unable to conceive and carry forward a family, with a feeling of emptiness that accompanies them throughout their lives. Fertility becomes a central issue and takes up a great deal of energy in their quest to become pregnant. Each embryo transfer is perceived as a child, then each menstruation after a failed IVF cycle feels like a miscarriage (Johannson & Berg, 2003). Each time this process is repeated the sense of loss becomes greater and feeds the chronicity of sorrow that is felt by many individuals with infertility.

Grief with infertility can be further explained by examining the differences in the grief between men and women. Several studies have evaluated the differences in experienced grief between the genders (Cudmore, 2005; Mandell, McAnulty & Reece, 1980; O’Leary & Thorwick, 2006; Samuelsson, Radestad & Segesten, 2001; Serrano & Lima, 2006; Walton, Coyle & Lyons, 2004). The majority of these studies have evaluated the grief experienced in the context of loss, most often a perinatal loss. While the grief evaluated was not related to infertility, one can apply the same knowledge and findings to
the loss and grief with infertility. Both men and women experience grief with loss, however it has been found that women have exhibited a greater degree of acute grief and despair than men with a greater difficulty in coping with their loss. Women also displayed a higher level of suffering than men and were frequently tearful (Mandel, McAulty & Reece; Serrano & Lima). In contrast to men, women would find themselves reviewing their lives and felt they had been cursed by their infertility and were deprived of a pregnancy and motherhood. Women also felt a decrease in their confidence and felt their partners would abandon them due to their inability to bear children or would remain with them, resentfully (Cudmore).

In a study that evaluated the psychological consequences of recurrent miscarriages, Serrano and Lima (2006) found that while men did experience grief with loss, they were usually more reluctant than women to display their feelings of grief openly. They often instead played the role of the supporter for the suffering mother. This finding can be applied to the individual or couple that experiences repeat infertility treatments, without success. Even though the grief of men was not visibly seen, it was found that men also experienced a deep sense of loss (Serrano & Lima). O’Leary and Thornwick (2006) also found that the expression of grief in men varied from that of women, in that men cried less, but expressed more anger and were less willing to talk about their loss. Men tended to have a stoic personality in an attempt to appear strong for their partner, however they admitted to feeling exhausted, physically and emotionally.

Samuelson, Radestad and Segesten (2001) found men to be the “forgotten mourners”. Most of the attention was centered on the female and her grief and the male partner was the one that held everything together. Men reported feeling frustrated,
helpless and alienated. The men in this study did not feel as great a need to talk to others about their loss, but still wanted to be recognized as mourning a loss.

Coping after Infertility

Coping is defined as the ability of the individual to deal with the grief and losses associated with their infertility. It essentially provides a measure of their resourcefulness in dealing with their unexpected onset of infertility and its psychological, spiritual physical and financial ramification (Thomas, 1989). The goal of all infertility treatment is to correct the factor(s) that prevent an individual from conceiving on their own. Infertility treatment, in the form of IVF, can take multiple cycle attempts to achieve a live birth. Each month, the individual will proceed with treatment with the high levels of hope and expectation and will then restart the grieving process when the treatment fails and a pregnancy is not achieved.

Unfortunately, even after a full term pregnancy is achieved, the psychological baggage of infertility does not necessarily resolve. Approximately 39% of men and women still consider themselves to be infertile, even after a normal pregnancy and delivery (Braverman, Boxer, Corson, Coutifaris & Hendrix, 1998). The infertile individual is more likely to feel defective or damaged, which in turn will affect their sense of self-esteem (Hirsch & Hirsch, 1989). Olshansky (2003) reviewed numerous studies and found a greater prevalence of postpartum depression in previously infertile women. Even after obtaining a viable pregnancy, the emotional distress associated with infertility was not necessarily resolved.
Approximately one-third of in-vitro fertilization parents still considered themselves to be infertile, despite having carried a pregnancy to term (Braverman, Boxer, Corson, Coutifaris & Hendrix, 1998). The persistence of the perception of being infertile simply perpetuates the grief and sorrow of the infertility and results in chronic sorrow. One would assume that once a child has been conceived and delivered, the grief and sorrow associated with infertility would resolve. Burns (1987) found that parents of a child conceived through infertility treatment often struggled with an image of a fantasy child that contrasted with the reality of their own biological child. Often times, the biological child was not able to live up to the expectations that were expected of the fantasy child. It is in this scenario that the chronic sorrow persists. The individual that still sees himself or herself as infertile is still wishing and grieving for that perfect fantasy child.

The coping abilities and needs of infertile individual appear to vary depending on what stage of their infertility journey they are currently experiencing. A study found that during treatment, participants felt the need for continued support to continue treatment. Whereas, once treatment had ceased, the participants needed support in accepting the infinite loss of being childless and finding alternatives to having children. An important premise was the finding that the levels of distress experienced by the infertile individual were related to coping styles and social support (Lechner, Bolman & Dalen, 2007).

Interestingly, one study of 55 IVF mothers and 53 IVF fathers found that there was actually a greater degree of marital satisfaction after IVF. It was hypothesized that this may have been linked to couples being inadvertently forced to work through their differences as they had to come to terms with their infertility. The participants in the
study were found to have a lower incidence of depression following pregnancy as a result of a stable marital relationship, when compared to their counterparts who conceived naturally (Hjemstedt, Widstrom, Wramsby & Collins, 2004).

In contrast to the studies that indicate infertility carries with it long-term coping impairments, there have been studies that have found contradictory results (Hirsch & Hirsch, 1995; Verhaak, Smeenk, Nahuis, Kremer & Braat, 2007). Hirsch and Hirsch found that couples that accepted their status as being childless had a higher level of general contentment and marital satisfaction when compared to their counterparts of infertile couples that went on to adopt or became pregnant. The authors felt this may have been attributed to the sample’s associated with Resolve Inc., a national infertility association. It was found that time and increased pressures to conceive did not necessarily lead to an altered self-concept, leading one to assume that these individuals have discovered a way to effectively cope with their infertility. Social support, outside of the immediate family, seemed to be a critical factor in increasing the psychological coping of individuals with infertility. This was supported by observations of support meetings through Resolve. These findings seem to be supported by Verhaak and colleagues. Individuals who formed new life goals, excluding pregnancy, were found to have a more positive long-term emotional outlook. It was also found that psychological counseling at times of increased distress was vital to the individual’s treatment and psychological well-being.

Peterson, Newton, Rosen and Skaggs (2006) studied the gender differences specifically related coping with infertility. They found that both men and women sought social support as a means of coping more often than any other coping mechanisms.
Accepting responsibility for the cause of the infertility was utilized least by both genders. Distancing one’s self from the infertility was the second most common means of coping for men, but was ranked sixth for women. Both genders also utilized planful problem-solving. For women this coping mechanism ranked second, while it ranked third for men. It should be noted however, that while problem-solving ranked third for men, the second and third rankings of coping methods, were only separated by a standard deviation of 0.03 with both having a mean of 0.17. It is therefore likely to assume that while men and women may exhibit grief and stress differently, they may both cope with the infertility in a similar pattern (Peterson et al.).

Implications for Nurse Practitioners

The implications of chronic sorrow for nurse practitioners (NPs) center on the responsibility of the NP to provide for the psychological welfare of individuals with infertility. Grief continues to be an aspect of medicine that is under treated, possibly in part because of the uncertainty about whether grief is a response to illness and actually requires treatment (Casarett, Kutner, and Abraham, 2001). The grief associated with infertility may, for some individuals, exist on a continuum from the initial moment of crisis when the infertility is discovered, and continue throughout the lifespan as the individual will face triggers that will re-open the wounds of infertility with the potential for chronic sadness and grief.

Several studies evaluating the grief of infertility have found it to be more difficult to bear than the grief associated with the death of a loved one. The same shock, denial, anger and guilt experienced with the death of a loved one is present, but it also presents a complicated mourning process. Part of the normal grieving process is to relive memories
of the past. With infertility, there are no memories or recollections. All that is present is the loss of what the future might have held (Cudmore, 2005). A second cause for the intense grief centers on the lack of support that the infertile individual may receive. Friends and family may not always provide the level of support needed for the infertile individual, in comparison to the level of support that is provided when a loved one passes away (Hirsch & Hirsch, 1989; Schoener & Krysa, 1996; Sherrod, 2004). To add insult to injury, there may be select friends and family that may view infertility as an insignificant issue and urge the infertile friend or family member to simply move on with their lives, not comprehending the full ramifications that infertility has played in the individual’s life thus far. The loss of motherhood creates a sadness that cannot be overlooked (Rothman, 1989).

As previously discussed, infertility occurs on a continuum. As such, every infertile individual will be discharged back to their nurse practitioners (NPs) at some point in time, either upon a successful conception or upon final termination of treatment. When this time comes, the nurse practitioner (NP) needs to be ready to step in and not only manage their patient’s medical needs. The nurse practitioner must also be ready to address the inevitable psychological needs as well. In light of the differences in which the grief of infertility is experienced by men and women, the NP will need to know what symptoms of grief may be exhibited by each gender.

O’Leary and Thornwick (2006) found that one consequence of the difference in grief between men and women left the grieving male at greater risk for not receiving psychological support outside of the marriage. This is most likely related to a societal expectation that the men do not express emotions and are expected to function as support
persons to their female partners (O’Leary & Thornwick). Cudmore’s (2005) evaluation of couples adopting after the loss of infertility found that couples are in desperate need of support, but do not feel that others can understand the extent of their pain. Infertile individuals feel compelled to hold onto the rollercoaster-like cycle of hope, failure and then disappointment in the hopes that their dream of children will come true (Cudmore). Hirsch and Hirsch (1995) found couples who became pregnant or pursued adoption after infertility experienced greater stress and anxiety when compared to those individuals that accepted their childlessness. This finding only validates the necessity for the NP to ensure that the psychological needs of the individual are met. If the grief and sorrow of the individual fail to be addressed, the individual is then at a greater risk for chronic sorrow.

Chronic sorrow needs to be addressed by the infertility team when counseling and treating infertile patients. The NP is in a prime position to be able to provide for the individual’s emotional needs. She/he can assess and intervene when it is clear that the individual needs additional support in dealing with their infertility. The NP is also able to provide the individual with additional resources that can continue to meet their psychological and spiritual needs. A study that evaluates the feelings of parents with children with lissencephaly can be applied to the emotional feelings associated with infertility (Scornaienchi, 2003). Both address a significant loss. The former has the loss of the normal, healthy child. The second addresses the loss of an anticipated child. Understanding the parent’s feelings and coping mechanisms allows the nurse to provide support. Likewise, understanding the individual’s feelings and coping mechanisms can assist in providing individualized support to help the individual with infertility.

Recommendations
There exists a great wealth of research that deals with the mechanics of infertility diagnosis and treatment. However, there is a lack of research that addresses the psychological needs of the infertile couple. There needs to be more research that concentrates on the emotional needs of the infertile patient. There continues to be a gap in the literature that directly addresses the life crisis, grief, and depression with which infertile individuals must cope. Significant advances have been made in treating infertility with the use of advanced reproductive therapies (ART). In western societies, the use of ART has become a well-established method of treatment for infertility. Unfortunately, in spite of the advances of infertility treatment, there continues to be an emphasis or focus on the medical or physical aspects, with a lack of evidence-based practice addressing the emotional and psychological needs of infertility treatment patients (Hjemstedt, Widstrom, Wramsby and Collins, 2004; Sherrod, 2004). As infertility treatment also involves a multi-disciplinary approach, many healthcare providers are involved in the care of the infertile patient. Additional knowledge regarding the emotional ramifications of the infertility experiences of the individual is necessary to enable the healthcare team to provide the best possible care to a vulnerable group (Johansson & Berg, 2005). A need for additional research that will provide healthcare professionals with evidence-based interventions that will, when utilized, enable the infertile individual to effectively grieve and cope with their infertility.

**Conclusion**

Several studies in the 1990’s have looked at the psychological effects of infertility on the individual and the couple. Individuals desiring a pregnancy continue to spend thousands of dollars on treatment that carries with it only a fair chance of success.
(Collura, 2006). Individuals or couples struggling with infertility can experience a multitude of grief reactions ranging from sadness and sorrow to grief, anger and depression (Sherrod, 2004). The theory of chronic sorrow provides a framework for the nurse practitioner to comprehend the grief and sorrow that the infertile individual or couple is experiencing (Lechner, Bolman & Berg, 2007; Roos, 2002). Both men and women experience the sadness with infertility, however the ability to manage the grief and crisis associated with infertility varies between men and women (Peterson, Newton, Rosen, & Skaggs, 2006).

There continues to exist a gap in recent literature that specifically addresses interventions to assist the nurse practitioner in meeting the psychological needs of his or her patient with infertility (Johansson & Berg, 2005). As more and more individuals turn to ART procedures as a means to obtain a viable pregnancy with their diagnosis of infertility, the burden falls onto the nurse practitioner to be waiting in the side wings, ready and willing, to not only acknowledge a potential for chronic sadness but to provide interventions to help the individual or couple as they cope with their loss (Hjemstedt, Widstrom, Wramsby and Collins, 2004; Sherrod, 2004).
References


