The Emotional Distress of Infertility
Abstract

Background: A couple is considered medically infertile after 12 months of regular unprotected intercourse. The cause of their infertility can be due to a number of factors, although making the actual determination can be very difficult. Regardless of cause, many of these couples will undergo various treatment regimens in order to conceive and most of those couples will experience some level of emotional distress. Not only realizing, but also addressing the psychological aspects of infertility has much clinical significance. Therapeutic intervention and influence may help prevent the development of emotional disorders associated with an infertility diagnosis and treatment.

Objective: The inability to achieve a pregnancy and a diagnosis of infertility can cause many emotional responses such as guilt, anxiety, depression, frustration, and grief. Recent studies have been performed indicating the significant impact of an infertility diagnosis and treatment on the psychological well being of both women and men. Many of these individuals have shown higher scores on anxiety and depression scales, psychological evaluation tests indicating the need for psychological support, higher levels of grief, and decreased marital and sexual satisfaction levels. Women tend to experience more distress than men. The women reported more concerns than men in the areas of life satisfaction, sexuality, self blame, self-esteem and avoidance of others. How each individual copes with the diagnosis and treatment has shown to have an impact on their stress levels as well. Those that utilized more effective coping behaviors (social networks such as family, friends, other infertile women, and professional support) were found to prevent the prolonged sense of threat and reduced emotional stress. Studies have shown
those infertile individuals receiving psychosocial support tend to have higher levels of coping skills and overall are able to tolerate their situation better.

**Discussion:** Healthcare providers treating infertility need to not only be aware of the distress, but also address the difficulties and provide necessary counseling or referrals. The studies have shown women tend to have a more stressful experience and more problems coping. The medical staff needs to offer assistance in overcoming negative emotions and help patients in achieving better self-control and social support.

**Conclusion:** Medical providers have the responsibility of treating the entire patient and not just the diagnosis. By providing infertile patients the support and tools to undergo the course(s) of treatment, there could be a high possibility of decreasing stress, having a greater success in treatment, and allowing them overall better feelings about themselves and the treatment.

**Introduction**

Having a child and creating a family are largely considered some of the greatest accomplishments and joys in the lives of a couple. This newly created human being resulted from much planning for some couples and much surprise for others. The ability to conceive a child can not readily be predicted for a healthy couple, and will only be known once the couple engages in regular intervals of unprotected intercourse. For some couples, even with careful planning and many attempts of becoming pregnant, they are unable to conceive a child. A couple is medically defined as being infertile when there is a failure to conceive a child after 12 months of regular unprotected intercourse (Anderson et al., 2002). It has been indicated by the World Health Organization that 8% to 12% of couples worldwide experience infertility (Hsu and Kuo, 2002). It is important to note
that infertility is simply a decrease in the ability to conceive, not the inability to conceive, which would indicate sterility. Within the United States, it is estimated that 7.1% of married couples have fertility problems (Mindes et al., 2003). In a recent year, 9.3 million US women or 15% of all females of reproductive age had ever used some type of infertility services (medical advice, tests, medications, surgery, etc.) (Mindes et al., 2003). Whether or not the prevalence of infertility has increased over the past few decades appears to be of conflicting data. The percentages and actual numbers of have risen, but some resources attribute this to utilization and availability of medical services, the media, and public awareness (Mindes et al., 2003). It is extremely difficult to determine if there has been an actual change in infertility prevalence due to lack of data beyond two decades, medical advancements and availability, and individual admission of infertility.

Any number of factors can be the cause of infertility. Some of these can be medically confirmed, and when possible, resolved. Making a definitive diagnosis of the cause can be extremely difficult if the patient presents asymptomatic and medical testing is negative. Therefore, some cases remain unexplained and ultimately unresolved. Some of the known causes of infertility are listed in Table 1, below (DeCherney and Nathan, 2003).

**Table 1. Possible Etiologies of Infertility**

<table>
<thead>
<tr>
<th>Male Factor</th>
<th>Abnormal motility</th>
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<td>Endocrine disorders</td>
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<td>Hypothalamic disorders</td>
<td>Abnormal hyperplasia</td>
<td>Varicocele</td>
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<td>Pituitary failure</td>
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<td>Hyperprolactinemia</td>
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<td>Thyroid disorders</td>
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<td>Anatomic disorders</td>
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<td>Sexual dysfunction</td>
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Congenital absence of vas deferens  
Obstruction of vas deferens  
Congenital abnormalities of ejaculatory system 
Abnormal spermatogenesis  
Chromosomal abnormalities  
Mumps orchitis  
Cryptorchidism  
Chemical or radiation exposure

**Ovulatory Factor**

Central defects  
Chronic hyperandrogenemic anovulation  
Hyper prolactinemia  
Hypothalamic insufficiency  
Pituitary insufficiency

Peripheral defects  
Gonadal dysgenesis  
Premature ovarian failure  
Ovarian tumor  
Ovarian resistance

Metabolic disease  
Thyroid disease  
Liver disease  
Renal disease  
Obesity  
Androgen excess

**Pelvic Factor**

Infection  
Appendicitis  
Pelvic inflammatory disease  
Uterine adhesions

Endometriosis  
Structural abnormalities  
DES exposure  
Failure of fusion of repro tract

**Cervical Factor**

Congenital  
DES exposure  
Mullerian duct abnormality

Acquired  
Surgical Treatment  
Infection


When there is a possibility of conceiving with medical intervention, regardless of a diagnosis or determining the definitive contributing factor, many couples chose to undergo various treatments that have the prospect of resulting in a pregnancy and
ultimately a delivery. Some of the available treatments are: hormone replacement, resolving other endocrine abnormalities, intrauterine insemination, in vitro insemination, intracytoplasmic sperm injection, resolving anatomical disorders, donor insemination, ovulation induction, or tubal surgery. Each of these processes can be very timely, costly, and stressful for the couple involved. Obviously, a couple undergoes these treatments with high hopes and anticipation of achieving success, not only a pregnancy, but also a baby. When there is a failure in the procedure and pregnancy is not achieved, the couple is faced with frustration and despair and must decide on future treatments.

The emotional aspect of an infertility diagnosis and treatment can be very profound. The majority of individuals take for granted the ability to conceive at the point in their lives when they feel prepared. When this event does not occur, many of these couples experience reactions of great intensity and distress. Various research has shown women tend to have higher levels of psychosocial distress than men do when faced with infertility (Lee et al., 2001 and Franco et al., 2002), but it has been shown men do exhibit emotional difficulties as well (Anderson et al., 2002). Marital relationships are also subject to great degrees of strain. Married couples who are infertile face both a familial and developmental crisis. Infertility can be recognized as a life crisis, producing mental instability and emotional distress (Lee, 2003). Some of the couples’ negative psychosocial responses include anxiety, depression, loss of self-esteem, guilt, difficulties in their sexual relationship, dissatisfaction with the marriage, and isolated interpersonal relationships (Lee, 2003).

Not only realizing, but also addressing the psychological aspects of infertility has much clinical significance. Practitioners typically focus on the medical treatment of
infertility, but there is a lack of energy directed toward the emotional component and its
treatment. This paper will direct attention toward the need for psychological counseling
in couples experiencing infertility and undergoing treatments. Therapeutic intervention
and influence may help prevent the development of emotional disorders associated with
an infertility diagnosis and treatment. It may also generate new coping strategies that can
help the female, male and the couple reach greater levels of equilibrium and be able to
psychologically tolerate their stressful situation. It will also explore the possibility of
greater chances of conception if this counseling, which could decrease emotional distress,
is integrated into all fertility treatments.

Clinical Significance

The inability to achieve a pregnancy and a diagnosis of infertility can cause many
emotional responses such as guilt, anxiety, depression, frustration, and grief. Many
couples must quickly transition from their careful planning of avoiding a pregnancy to
trying to become pregnant, then to absolute dismay of unexpected infertility. The
experience moves them from taking fertility for granted to an obsessive and very
aggressive attempt to achieve pregnancy. Many patients become so involved in their
attempts of becoming pregnant, their marital relationships, sexual life, relationships with
other family members, and their social relationships suffer and can even deteriorate
(Seifer and Collins, 2002). Over time, there is often a profound decline in the
individual’s and couple’s sense of integrity, competence and self-worth.

Recent studies have been performed indicating the significant impact of an
infertility diagnosis and treatment on the psychological well being of both women and
men. Many of these individuals have shown higher scores on anxiety and depression
scales, psychological evaluation tests indicating the need for psychological support, higher levels of grief, and decreased marital and sexual satisfaction levels. Other studies have shown those infertile individuals receiving psychosocial support tend to have higher levels of coping skills and overall are able to tolerate their situation better.

By increasing the awareness of the psychological strain infertility patients may be experiencing, more health care professionals can increase their level of care for these patients. Currently, many health care providers focus solely on the reproductive endocrinology of the infertility and little to no emphasis is placed on the mental health of the patient. Patients are typically asked how they are doing/coping but regardless of the answer, seldomly are they given or encouraged to undergo any form of counseling. Encompassing psychosocial support in the treatment plan for infertility could have results of great benefit to these individuals. There might be decreased stress, less depression, improved marital and sexual relationships, and ultimately greater success in achieving a pregnancy.

**Background**

Negative psychosocial responses to an infertility diagnosis and recurrent treatment procedures have been identified to be common (Lee, 2003). In the past, infertility diagnoses were considered and kept very private. Many patients would not have been inclined to discuss this with their providers due to the belief that infertility was “all in the mind” (Seifer and Collins, 2002). Even if they had, their treatment options were very limited. Many of them were forced to deal with this situation on their own. Infertility has since been converted from a social state to a medical condition: a process of ‘medicalization’ of infertility in which there has been a shift in emphasis from a social
means of coping to a dependence on medical intervention (Burns and Covington, 1999). Although now patients have treatment options, they seem to still be facing the emotional aspect on their own.

The emotional impact is very difficult in itself, however, patients must undergo the rigorous, expensive, and sometimes humiliating demands of the treatment. Individuals must be willing and open to discuss what previously had been the most intimate aspect of their lives. The charting of basal body temperatures, the precise timing of sexual intercourse, and the need to perform “sex on demand” to optimize the possibility of conception are just the beginning to what a couple may undergo (Seifer and Collins, 2002). The couple is forced to attempt to have a normal life while trying to accommodate a hectic treatment schedule.

The distress caused by infertility has been shown to increase over the course of treatment. From the experience of trying to conceive naturally, after the infertility diagnosis, prior to, during and after treatments to the realization of not being able to have a child, infertile couples can cycle through many different emotions. One study computed a depression scale comparing levels prior to, during, and after unsuccessful infertility treatment (Lukse et al, 1999). Thirty-six percent (36%) of the patients scored highly depressed prior to treatment and 44% scored highly depressed after the treatment. This study also compared depression levels to two different forms of treatment. An independent t test revealed that the difference in pre (t=0.09) and post (t=1.40) scores for the two groups was not statistically significant.
Comparison of Male and Female Responses

Both men and women are impacted by infertility diagnosis. However, several studies have shown a greater negative response to this from the females (Franco et al., 2002, Lee et al., 2003). Many women are known to worry about and doubt their fertility long before they try to conceive. Franco et al. administered a Psychological Evaluation Test (PET) to 251 infertile couples. The test consisted of fifteen questions selected to detect emotional reactions. Each response was graded with respect to frequency (1-never or rarely, 2-sometimes, 3-many times, 4-always). The sum of these corresponded to a value ranging from 15 to 60 points. The mean score for women (27.8) was significantly higher (p<0.01 Mann-Whitney Test) than that of the men (22.7), indicating higher frequency responses by the women to questions such as: Are you depressed every time you menstruate?, Do you feel a sensation of emptiness due to the fact of not having children?, etc. Lee and Sun, 2000 administered the Infertility Questionnaire (IFQ) to 59 infertile couples. This was used to measure the distress level of infertility on 3 subsections: self-esteem, blame/guilt, and sexuality. A five point rating scale was used (5-agree very much to 1-disagree very much). In the self-esteem section, wives scored significantly higher for impairment than the husbands. For guilt/blame and sexuality, there was no statistical significance between the genders. Anderson et al. 2002 completed a prospective cohort study with a six-month follow up. Measures included a general information questionnaire, the Hospital Anxiety and Depression Scale (HADS) and a structured concerns questionnaire (9 items scored on a 4-point scale, 0-strongly disagree to 3-strongly agree). One set of questionnaires were sent to patients to be answered prior to their first infertility clinic appointment and a second set was sent to
patients six months thereafter. Differences between male and female were tested by paired analyses using Wilcoxon Signed rank test. Women reported more anxiety than men at both time points. The HADS scores within couples revealed a statistically significant correlation between each of them on the depression scale. The women reported more concerns than men in the areas of life satisfaction, sexuality, self blame, self-esteem and avoidance of others. In this study, they did note the levels of anxiety decreased over time. Infertile wives spend more time and energy on infertility treatments. Compared with their husbands, wives have greater emotional disturbances in the form of tension-anxiety, depression-dejection, and confusion-bewilderment; they also have less satisfaction with marriage and intercourse (Hsu and Kuo, 2002).

Although women are effected by infertility to a greater extent than their spouses, men also experience an emotional disturbance. When asked for a reason to see treatment, men stated they were doing this for their partners whereas women stated for both (Schmidt et al., 2003). If the infertility was known to be caused by a male factor, then the levels of distress for men would be similar to those of their wives (Lee et al., 2001). Men also suffer from low self-esteem, anxiety, isolation, blame, and greater sexual inadequacy, some suffering from impotence, when they are struggling with male infertility (Lee et al, 2001). Men tend to accept infertility more as fate and are able to cope better than women. However, men express concerns for their wives’ difficulties and the strains infertility can place on their marriage.

**Coping Mechanisms with Infertility**

Once a couple is diagnosed with infertility and begins to undergo treatment, both individuals must cope with their situation. Not only do men and women differ in regards
to emotional difficulties, as discussed above, there are also variances in the way each
copes with the couple’s infertility. Many researchers consider whether patients coping
strategies – how they cope with life in general – may serve as a predictor for how they
will handle a failed cycle of infertility treatment (Seifer and Collins, 2002). For example,
those individuals experiencing greater emotional distress prior to the diagnosis or the
treatment are more likely to have a poor emotional response. Although the couples face
infertility jointly, the differences of emotional distress among the husbands and wives,
typically leads to differences in the way each person copes. Studies have shown that,
compared with their husbands, wives seek more coping behaviors to deal with infertility
and its treatment (Hsu and Kuo, 2002, Seifer and Collins, 2002, Berghuis and Stanton,
2002).

Hsu and Kuo (2002) explored the differences between husbands and wives in
their coping behaviors by using the Ways of Coping (WOC) questionnaire. This
consisted of eight subscales of coping behaviors: confrontation, distancing, self-control,
seeking social support, accepting responsibility, escape-avoidance, planned problem
solving, and positive reappraisal. Fifty questions were scored using a four-point scale.
The higher a subscale scored, the more coping behaviors the individual used. Wives
scored higher than their husbands in each subscale; with significant statistical differences
in self-control, seeking social support, and escape-avoidance.

Mindes et al (2003) conducted a similar study utilizing the WOC questionnaire,
but only involved the women. The responses indicated how frequently the patients used
specific coping strategies and were scored on a five-point scale (1- never to 5-mostly).
The three subscales used in their study were self-blame and avoidance, informational and
emotional support seeking, and cognitive restructuring. This longitudinal study involved questionnaires for the participants to answer at Time 1 (when they were recruited and agreed) and then again at Time 2 (6-12 months afterwards). The infertile women indicated their fertility problems resulted in “constrained interactions with social network members and that these changes in their social relationships induced a sense of alienation and estrangement”. The women who used more avoidance strategies in coping proved to have a maladaptive, negative emotional response (i.e., greater depression, greater overall distress, and lower self-esteem). The authors have suggested that “while avoidance coping strategies may at times, sever to offset feelings of distress, they may also be maladaptive in that they divert an individual’s attention away from a particular negative life event and inhibited them from processing the meaning of the event”.

If a female does not allow herself to emotionally process her infertility, then her overall emotional outcome could be much worse (Seifer and Collins, 2002). As found in the studies referenced above, as well as others, patients with the most difficulty, and experiencing more psychological distress, were the women that used escape or avoidance as coping strategies. Isolation from talking to their relatives and friends or seeking professional counseling are ineffective coping mechanisms because they decrease the availability of a supportive network that could assist the patients to cope more effectively. Those women that utilized more effective coping behaviors (social networks such as family, friends, other infertile women, and professional support) were found to prevent the prolonged sense of threat and reduced emotional stress (Lukse et al., 1999).

**Impact of Infertility Counseling**
Most healthcare providers involved in patient infertility are well aware of the psychological strain experienced by these individuals. However, seldomly do they incorporate emotional support and counseling into their treatment curriculum. Recent studies (Lee, 2003 and Schmidt et al., 2003) have shown the importance of providing this added care to infertility treatments.

Lee, 2003 distributed a study questionnaire to subjects in a control group and an experimental group at three stages of and in vitro fertilization treatment: (I) the initial stage of treatment, (II) embryo transfer, and (III) the time before taking the pregnancy test. The subjects in the control group did not receive any form of their intervention program, where as the experimental group did.

The intervention included:

1. Explanation of the therapeutic process – All subjects were requested to view a 30-minute long videotape which explained the therapeutic process in detail.
2. Self-hypnosis and muscle relaxation training – The subjects were given self-instructional materials on self-hypnosis and muscle relaxation. Then a 40-minute long videotape on self-hypnosis and muscle relaxation was viewed by all subjects. A practice session was arranged for the subjects to master the procedure and the subjects were encouraged to utilize the procedure whenever they felt nervous.
3. Cognitive-behavioral counseling – Every subject was provided with individualized cognitive-behavioral counseling to let the subject express negative feelings, pressures and psychosocial distress during the therapeutic process during which the counselor provided support.

Ninety-eight percent (98%) of the subjects believed that viewing the in vitro video did contribute to their understanding of the therapeutic process. Ninety-four percent (94%) believed their treatment-related irritation was relieved after viewing the video.
Ninety-seven percent (97%) reported that self-hypnosis and muscle relaxation training were helpful in decreasing psychosocial pressures. The subjects in the experimental group showed a decrease in poor interpersonal relationships over the three stages, and there was a difference in psychosocial responses at different stages of treatment in the two groups.

Schmidt et al., 2003 conducted an epidemiological study based on patients’ reasons for seeking treatment and expectations about medical and psychosocial care and services in the fertility clinics among patients beginning infertility treatment. Both aspects of patient-centered care (supportive attitude by staff members) and professional psychosocial services (social work and counseling) were examined. They also compared sex differences for each of these. Participants (1169 women and 1081 men) completed the Copenhagen Multi-centre Psychosocial Infertility (COMPI) questionnaire which questioned reproductive history, psychosocial aspects of infertility, problem stress, communication, social relations, coping and health and well-being.

More women than men found patient-centered care important, but both considered staff concern about patient emotional welfare to be more important than the provision of written psychosocial information. More women than men found it important to have professional services made available. In general, these patients expected the staff to address both the medical and psychosocial aspects of treatment by them having a supportive attitude and providing information about the psychosocial aspects of infertility.

Clinical data support the belief that patients undergoing infertility treatment can benefit from psychological support and counseling, and that there is an important role for
the mental health professional in this milieu (Seifer and Collins, 2002). As previously stated, the emotional response and ability to positively cope with infertility could be greatly determined by the individual patient’s attitude and psychological well-being prior to the treatment. In order to make an assessment of each patient to determine if they are prepared for the difficulty of the treatment, if they fully understand, and if they are mentally stable, infertility clinics could require a pre-treatment evaluation. Seifer and Collins, 2002 provided a possible checklist of areas of consideration during a pre-treatment evaluation.

1. Patient reliability
2. Ability to provide informed consent
3. Stability of the couple’s relationship
4. Psychological issues for the infertile partner
5. Expectations of infertility treatment
6. Understanding the impact of the technology
7. Current and past sexual functioning
8. Level of social support
9. Religious and cultural considerations
10. Psychiatric status
11. Legal history

If the patient appears to have a troubled history or has already found herself in distress, then psychotherapy may need to be a requirement. If answers do not merit immediate psychological support then the possibilities of needing care in the future could be discussed. Some patients may deny the need for mental support even if it is warranted. This may indicate a responsibility by those professionals in infertility treatment to require at least one psychotherapy session as part of their treatment.

Discussion

It is rather obvious from the above-mentioned studies that an individual’s or couple’s adjustment to infertility is a medical problem worthy of empirical attention.
Healthcare providers treating infertility need to not only be aware of the distress, but also address the difficulties and provide necessary counseling or referrals. The studies have shown women tend to have a more stressful experience and more problems coping. The medical staff should acknowledge the individual differences of a couple in emotional disturbances and coping behaviors. They need to offer assistance in overcoming negative emotions and help patients in achieving better self-control and social support. This could be initiated by routinely screening infertile patients with questionnaires similar to those used in the quoted studies.

Therapeutic sessions may be conducted on an individual or couple basis, or as part of a group therapy. The focus of the sessions may be alleviation of distress and control of psychological symptoms, sex therapy, or grief management. Techniques used in these sessions may include supportive, cognitive, or psychodynamically oriented treatment (Seifer and Collins, 2002). The choice of modality would most likely depend on the nature of the problem, the patient preferences, and the availability of options. The main goal of encouraging patients to participate in therapies is to recognize that infertility is highly stressful for everyone and they are not alone. Also, if they learn to deal effectively with this it can enhance their ability to cope with the psychological and physical stresses of the problem. By properly providing adequate consultation and education, providers could achieve effective treatment interventions and might consequently release the emotional tension of infertile couples, enabling them to attain a better quality of life (Hsu and Kuo, 2002).

Conclusion
It has been shown through past experiences and validated in various studies that individuals diagnosed with infertility and undergoing medical treatment have high levels of emotional distress and difficulty coping. Women tend to exhibit greater levels of stress and are less apt to cope in a positive manner. It has also been shown through some of these studies that emotional support and professional counseling have resulted in overall better outcomes for these individuals.

If patients are offered and encouraged to participate in counseling or infertile peer groups from the initial diagnosis or beginning of treatment, much of their distress could be lessened or possibly eliminated. Regardless of the infertility treatment outcome, paying special attention to the patients’ psychological needs could result in greater satisfaction with the procedure and a more positive outlook on the situation. Many of the individuals seeking infertility treatment are unaware of the implications of future procedures – both medically and psychologically. By providing them the support and tools to undergo the course(s) of treatment, there could be a high possibility of decreasing stress, having a greater success in treatment, and allowing them overall better feelings about themselves and the treatment. From time to time, all clinicians need to be reminded that when treating a patient, the specific medical diagnosis is not necessarily the only item warranting attention. The care of the infertile patient should not be limited to trying to achieve a pregnancy. Underlying issues, (i.e., emotional distress) need to become a routine portion of the provider’s treatment. As in all other medical diagnoses and procedures, the patients with infertility deserve an all-encompassing treatment plan.

Bibliography


