

4-2015

## Fertility Counseling for Couples

Brennan Peterson

*Chapman University*, [bpeterson@chapman.edu](mailto:bpeterson@chapman.edu)

Follow this and additional works at: [https://digitalcommons.chapman.edu/mft\\_books](https://digitalcommons.chapman.edu/mft_books)



Part of the [Marriage and Family Therapy and Counseling Commons](#)

---

### Recommended Citation

Peterson, B. (2015). Fertility counseling for couples. In S.N. Covington (Ed.), *Fertility Counseling: Clinical Guide and Case Studies* (pp. 60-73). Cambridge, UK: Cambridge University Press.

This Book is brought to you for free and open access by the Marriage and Family Therapy at Chapman University Digital Commons. It has been accepted for inclusion in Marriage and Family Therapy Faculty Books and Book Chapters by an authorized administrator of Chapman University Digital Commons. For more information, please contact [laughtin@chapman.edu](mailto:laughtin@chapman.edu).

# Fertility counseling for couples

Brennan D. Peterson

Natalie (35) and Lee (37) have been married for six years and have tried unsuccessfully to start a family for the past two. After receiving a combined factor diagnosis, they attempted three cycles of intrauterine insemination (IUI) and two cycles of in vitro fertilization (IVF) – none of which resulted in pregnancy. While their marital relationship was strong at the beginning of treatment, the cumulative stresses of the infertility experience have begun to take a toll on their marital satisfaction. Their differing emotional reactions, communication styles and coping strategies have left each of them feeling alone in the struggle, and the stresses resulting from multiple treatment failures have put a strain on their personal and emotional well-being. Both feel a sense of profound loss and report decreased satisfaction in their sexual relationship. They also feel a sense of isolation from others and cannot agree upon how much information they will share with others regarding their fertility treatments. Natalie reports depressive symptoms and Lee reports a sense of personal failure in dealing with the fertility challenges. Prior to starting a third IVF cycle, they decide to talk with a counselor who specializes in working with couples experiencing the stresses of infertility.

The case presented above is typical of a couple fertility counselors are likely to see, and they present with many of the issues that will be addressed in this chapter. Couples experiencing infertility are faced with a multitude of stressors and unexpected difficulties. While some couples grow closer because of the infertility experience [1], the stress of infertility can erode

the strength and stability of even the most satisfied relationship. Fortunately, there have been significant advances in the practice of fertility counseling for couples over the past decade, and counselors are more prepared than ever to deal with the specific challenges couples face when experiencing infertility [2,3].

The purpose of this chapter is to provide fertility counselors with the tools necessary to effectively assess and treat couples experiencing fertility problems so that these couples can improve their relationships, reduce psychological and infertility related distress, and regain control and direction in their lives. The chapter will outline the challenges unique to couples experiencing infertility, and will integrate several case vignettes which portray common profiles of couples who fertility counselors may encounter. Gender differences in how couples communicate and cope with infertility distress will be presented. The chapter will also examine the impact of infertility on a couple's sexual relationship, strategies to help couples best share infertility related treatment information with others and the importance of working through grief and loss. The challenges unique to couples experiencing age-related fertility decline will also be presented, as will the usefulness of mindful meditation as a method for approaching fertility related thoughts and feelings.

## General assessment and treatment considerations

Over the past two decades, infertility has increasingly been conceptualized as a stressor that impacts both members of a couple. This is a critical shift in perspective as it challenges the myth that infertility is primarily a woman's issue. It is also consistent with

The addenda referred to in this chapter are available for download at [www.cambridge.org/9781107643116](http://www.cambridge.org/9781107643116)

*Fertility Counseling: Clinical Guide and Case Studies*, ed. Sharon N. Covington. Published by Cambridge University Press.  
© Cambridge University Press 2015.

the prevalence rates of infertility diagnoses which consistently indicate that one-third of the causes of infertility are attributed to female factors, one-third are attributable to male factors and one-third to a combination of male and female factors.

The emotional, physical and financial burdens of infertility and its treatment are high. It has been estimated that 15–20% of couples seeking medical treatments experience emotional distress that warrants psychological counseling [4]. Experts recommend that couple counseling be made available to all patients, at a low threshold, to encourage use and provide reassurance – even if such services are never used [4,5]. Specifically, it has been recommended that these services be available at the beginning and at the end of treatments, times that are especially important as couples are considering varying options as well as potentially coping with significant loss.

The field of fertility counseling encompasses a wide variety of services including the provision of therapeutic counseling, aimed at helping couples cope with the psychosocial challenges of infertility, as well as implications counseling that assists couples in decision-making and clarification regarding third party reproduction [6]. Regardless of the form of counseling used, a comprehensive and accurate assessment is the foundation for effective intervention. Couple counselors can use a combination of assessment measures and interview questions to determine the level of distress the couple is experiencing and inform the type of counseling they will provide.

The form of counseling provided, whether it be therapeutic counseling or implications counseling, will be determined by the needs of the couple, the timing of treatment and the couple's level of distress. Less distressed couples may require brief counseling models that emphasize education, while supportive counseling can be used when couples are more moderately distressed. Longer-term therapeutic counseling can be used when psychological stressors and symptoms are more severe, or after a failed fertility treatment cycle when stress is greatest. Implications counseling, addressing decision-making, treatment options, and third party arrangements (donor insemination, egg donation, or surrogacy), most commonly occurs before treatment begins and is especially relevant for same-sex couples as this is a mandatory element of the fertility treatment. Because the scope of the issues related to implications counseling exceeds

this chapter, please refer to Chapters 7–10 and 13 of this book for a more in-depth exploration of these topics.

## Assessment measures and interviews

There are several standardized measures that can be used to inform a counselor's assessment. Five that are particularly useful for fertility couple counselors are the Fertility Problem Inventory (FPI) (see Addendum 4.1), the Beck Depression Inventory II (BDI-II), The Beck Anxiety Inventory (BAI), The Fertility Quality of Life (FertilQoL) tool and the Dyadic Adjustment Scale (DAS).

Counselors can use the 46-item FPI to assess the level of infertility related stress experienced by both members of the couple [7]. The FPI provides a global infertility stress score in addition to five sub-scale scores including social infertility stress, sexual infertility stress, relationship infertility stress, need for parenthood, and beliefs about living a child-free lifestyle. Counselors can use percentile ranks based on standardized norms to determine the levels of infertility stress in each domain for each member of the couple (see Addendum 4.2). The FPI is particularly useful in noting which areas should be a focus of treatment by informing the counselor of the domains that are causing the most significant stress for each member of the couple, as well as if the couple is congruent on their perceived levels of infertility related stress – a potential key indicator of the couple's depression and marital adjustment rates [8].

The BDI-II and the BAI can be used to provide a snapshot of each member of the couple's depressive and anxiety symptoms [9,10]. Both measures are brief (21 items) and can be completed by each member of the couple. The BDI-II measures depressive symptoms such as sadness, indecisiveness, self-criticism and loss of interest in pleasurable activities. The BAI measures neurophysiological anxiety (e.g., dizziness, shakiness), autonomic anxiety (e.g., sweating), subjective anxiety (e.g., inability to relax, fearing the worst, nervousness) and panic symptoms (e.g., heart racing, difficulty breathing). Both depression and anxiety play an important role in a couple's medical treatments and fertility counseling. Higher rates of patient anxiety have been linked with increased sexual stress [11], and men and women who experience severe depressive symptoms prior to undergoing fertility treatments are at risk of experiencing higher fertility stress levels

when compared to those who don't [12]. Furthermore, women with severe depressive symptoms are likely to participate in fewer overall treatment cycles when compared to women who do not report severe depressive symptoms [13].

Fertility counselors can also use FertiQoL to assess for the impact of fertility problems and their treatment on quality of life, and the DAS to assess the strength of the couple's relationship. FertiQoL is currently available in 31 different languages, with others in progress, and uses six sub-scales (emotional, mind/body, relational, social, treatment environment and treatment tolerability) to measure the impact of infertility on quality of life [14]. FertiQoL can be accessed and scored on the Internet by patients or healthcare providers (<http://www.fertistat.com/fertiql>). The DAS measures the global perception of a couple's relationship as well as their levels of satisfaction, cohesion, consensus and their demonstrations of affection [15]. Fertility couple counselors can use the scores from the DAS to determine if the couple's relationship is a resource or a stressor.

In addition to standardized measures, fertility counselors should obtain a detailed psychosocial history from each member of the couple. It is important to ask direct, yet sensitive questions to both members of the couple to obtain a comprehensive picture of the relationship and fertility history. Questions can target information including, but not limited to: the couple's relationship history; fertility treatment history; individual reactions to the fertility problem; gender differences in communication and coping patterns; physical and emotional impact of treatment; impact of infertility on the sexual relationship; current levels of familial and social support; cultural/ethnic background; religious or spiritual factors that influence support or distress; and impact of infertility on employment. Gathering such detailed information from both partners of the couple will assist the counselor in gaining a more complete understanding of the systemic and interactional nature of the couple's response to infertility. An example of a psychosocial intake, specifically designed for fertility counseling with couples, is provided in Table 4.1.

## General treatment considerations

Historically, the main role of counselors in fertility clinics was to provide general support for patients in crisis and/or carry out screening before treatment.

**Table 4.1** Components of couples psychosocial fertility assessment.

<b>Purpose of Visit</b>
<b>Relationship History</b> <ul style="list-style-type: none"> <li>Length of relationship</li> <li>Children from current or past relationships <ul style="list-style-type: none"> <li>If yes, conceived naturally or from fertility treatment</li> </ul> </li> <li>Length of time trying to start a family</li> </ul>
<b>Fertility History</b> <ul style="list-style-type: none"> <li>Length of infertility diagnosis</li> <li>Type of infertility (male factor/female factor/combined/unexplained)</li> <li>Fertility treatments <ul style="list-style-type: none"> <li>Medications/surgeries</li> <li>IUI cycles (if yes, how many)</li> <li>IVF treatments (if yes, how many)</li> </ul> </li> <li>Treatment results <ul style="list-style-type: none"> <li>Failed treatment, miscarriage, stillbirth, live birth</li> </ul> </li> <li>Consideration of third party reproduction and other family building options <ul style="list-style-type: none"> <li>Egg donation, sperm donation, surrogacy, adoption</li> </ul> </li> </ul>
<b>Impact of Infertility and Treatment</b> <ul style="list-style-type: none"> <li>Individual and relational impact of fertility problem</li> <li>Individual and relational impact of treatment stress (managing medications, doctor visits, egg retrieval, 2-week waiting period)</li> <li>Communication about infertility (talked about too little, too much, agreement among couple)</li> <li>Coping patterns in dealing with infertility stress (gender differences)</li> <li>Impact of infertility on the sexual relationship</li> <li>Marital benefit (ways the relationship has been strengthened by the infertility experience)</li> <li>Ways of handling the stresses of treatment failure (if applicable)</li> <li>Potential concerns about future treatments impacting relationship</li> </ul>
<b>Family History</b> <ul style="list-style-type: none"> <li>History of infertility in family</li> <li>Quality of relationships with parents and siblings</li> <li>Family reaction to infertility – pressure to have children</li> </ul>
<b>Employment Factors</b> <ul style="list-style-type: none"> <li>Employer stressor or support – employer flexibility to accommodate fertility treatments</li> <li>Concerns about work disruption and loss of income</li> </ul>
<b>Social Support/Social Networks</b> <ul style="list-style-type: none"> <li>Friendship networks providing support or stress</li> <li>Close friends or family having children – couple reactions</li> <li>Impact of sharing infertility related information with family and friends</li> </ul>
<b>Cultural/Religious Factors</b> <ul style="list-style-type: none"> <li>Cultural or religious factors that provide support</li> <li>Cultural or religious factors that add stress or strain</li> </ul>
<b>Type of Counseling Needed</b> <ul style="list-style-type: none"> <li>Therapeutic counseling</li> <li>Implications/decision-making counseling</li> </ul>
<b>Goals for Counseling</b> <ul style="list-style-type: none"> <li>Relational and individual</li> </ul>

Counselors have also been called upon to develop and evaluate interventions tailored to specific challenges, such as coping with the two-week waiting period before the pregnancy test and preparing couples for treatment [16]. While these roles continue to be important, fertility counselors are also expected to provide therapeutic counseling aimed at decreasing fertility and psychological distress and improving relationship satisfaction; as well as implications counseling to guide couples through the complexities of decision-making regarding third party reproduction.

There are a variety of areas fertility counselors can target for treatment including: (1) helping the couple to more effectively manage the stresses and demands of fertility treatment; (2) improving couple communication patterns; (3) altering problematic coping patterns which cause negative relational outcomes; (4) preparing for the possibility of failed treatment cycles; (5) assisting couples to reduce sexual distress; (6) understanding social, cultural and religious factors that contextualize the infertility experience; (7) helping couples set appropriate boundaries related to sharing infertility related information with others and (8) facilitating decision-making regarding ending treatment, and considering other family building options such as adoption, third party reproduction, or child-free living.

While this chapter addresses some of these treatment issues in greater detail, it leaves other areas of treatment less defined. Fertility counselors can apply empirically supported models and therapies to these situations, such as cognitive-behavioral couple therapy interventions (e.g., cognitive restructuring) [2] and narrative approaches to working with couples (e.g., externalization) [17] in order to address issues that are only briefly mentioned in the chapter.

## Gender differences and fertility counseling

It is essential that fertility counselors be aware that men and women often experience infertility differently. Nearly all studies confirm that women experience greater amounts of fertility related stress than men, and women are more likely than men to report depression and anxiety symptoms [18]. Women are also more likely to take an active role in medical treatment, to respond more poorly following treatment failure and to be more willing to seek counseling. Men, on the other hand, experience fertility stress, but appear

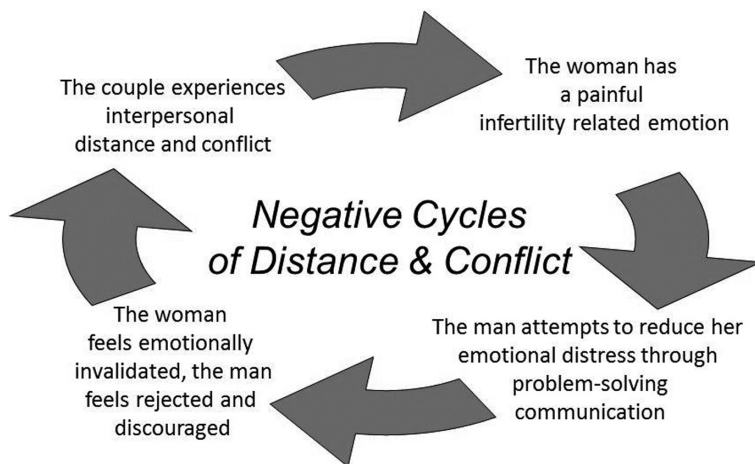
less emotionally affected than women and are more willing to consider treatment termination. Women and men are also likely to communicate differently regarding infertility, both within the relationship and to others outside of the relationship.

Gender differences in how men and women experience impaired fertility need to be routinely attended to during the counseling process. Fertility counselors should assess if gender is playing a key role in how each member perceives treatment and how they communicate about fertility related challenges. It is common for infertile couples to become stuck in a circular pattern where partners seek connection and emotional support, yet communicate in ways that lead to emotional invalidation and interpersonal distance. The following case vignette provides a common illustration of how gender differences impact couple communication patterns.

Ian (36) and Karen (35) have been undergoing fertility treatments for one year. After two failed IUI cycles and one failed IVF attempt, the couple sought counseling because of increasing marital conflict. Karen reports high levels of sadness and discouragement regarding the treatment failures. She also reports feeling stifled from expressing these emotions, as Ian avoids infertility related conversations and won't tell her how he feels. She feels that Ian is not taking the infertility as seriously as she is and she privately wishes that it was as hard for him as it was for her. Ian feels that he is trying to make the best out of a very difficult situation. He hates seeing Karen in emotional pain and only wants to help her. He is trying to be helpful in offering solutions when Karen wants to talk about the sadness she feels – he even agrees to do more fertility treatments as soon as possible. However, Karen frequently does not appreciate his problem-solving efforts and communication, telling him he isn't helpful. He reports feeling a sense of helplessness, and he copes by withdrawing from future conversations. Both Ian and Karen report feeling emotionally unsupported and rejected by the other.

## Gender-based communication

In this case, Ian and Karen provide an example of a typical couple who are doing their best to support each other, but who are inadvertently stuck in negative communication cycles. Karen is experiencing



**Figure 4.1** Negative gender-based communication in infertile couples.

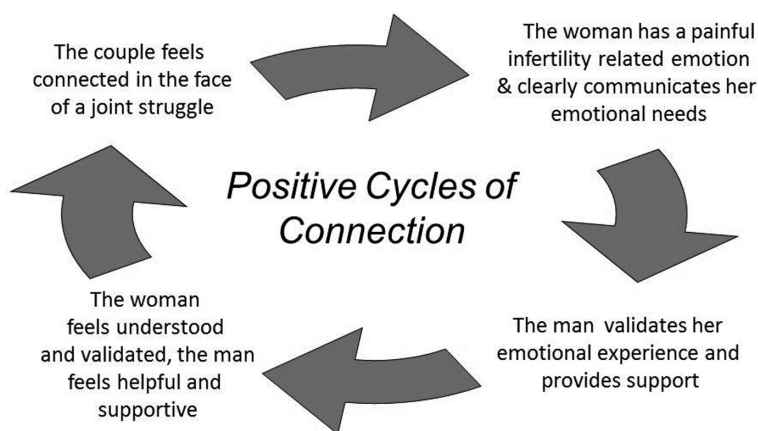
repeated sadness and discouragement because of treatment failure and Ian is seeking to help her, using a problem-solving strategy. While Karen is seeking a place to share her sadness and receive emotional validation and support, Ian's well-meant problem-solving efforts backfire as Karen feels she has not been heard or supported. This is a challenge for men as they often try to solve the problem of infertility and the sadness it causes their partners, but they ultimately cannot fix it, nor can they fix their partner's sadness and discouragement. Because of this, Ian leaves the interactions feeling frustrated and ineffective while Karen leaves these interactions feeling emotionally invalidated and alone. Instead of experiencing connection and emotional support, the couple now likely experiences interpersonal distance and conflict. Figure 4.1 below shows this common gender-based communication pattern in couples experiencing infertility.

When confronted with this negative communication cycle, the fertility counselor can assist the couple by interrupting the cycle and seeking to create a positive interaction cycle using an intervention called "*the emotional paradox*." This intervention is aimed at helping both members of the couple change their contribution to the cycle, thus creating space for a new, more positive interaction cycle to emerge.

In this instance, the counselor helps Ian to see the limited success of his problem-solving attempts while at the same time asking about the motivations behind his problem-solving behavior. For many men, the core of their problem-solving efforts is a mixture between male-patterned problem-solving socialization, and

a desire to protect their partner from experiencing emotional pain. For Ian, the counselor reframes his attempts to fix Karen's pain as protecting behavior and validates his concern for his partner. While validating his protecting behavior, the counselor then asks Ian to let go of these problem-solving communications when Karen is seeking emotional validation. In other words, rather than fix her emotional response to fertility distress, Ian is asked to be emotionally present with Karen while she is experiencing her sadness and simply give her the emotional space she needs to express the depth of her pain and stress. Thus, he paradoxically meets her needs by doing less and ultimately providing emotional support instead of solutions. For many men, implementing this idea requires a tremendous amount of trust in the counselor as it often goes against their natural instincts.

Since couple communication is always systemic, the counselor helps Karen to see her contribution to the problematic communications as well. In this case, the counselor helps Karen identify what she wants and needs from Ian during the times she communicates with him about her infertility related pain. If she is seeking emotional validation rather than a problem-solving discussion, the counselor helps her learn to clearly communicate this to Ian, prior to the discussion, thus improving the chances that both partners' needs will be met. If this intervention is done properly, Ian and Karen can create a positive, interaction cycle where Karen feels emotionally validated, understood and supported, and Ian feels connected and helpful (see Figure 4.2).



**Figure 4.2** Positive gender-based communication in infertile couples.

## Gender and coping with infertility

Gender differences also play a large role in the different ways men and women cope with infertility stress [19]. The most common coping strategies used when experiencing infertility stress are social support-seeking, behavioral avoidance, minimization and distancing, heightened emotional self-control, problem-solving and creating a new meaning of infertility through positive reappraisal. Women seek more social support by consulting with medical professionals and by speaking with those who have had, or are experiencing, fertility problems. However, they also use more avoidance strategies to prevent being reminded of the problem, such as avoiding pregnant women or those with young children, a coping strategy that has been consistently linked to increased psychological distress. Men, on the other hand, are more likely to distance themselves from the pain of infertility by minimizing its importance, and are more likely to use problem-solving strategies.

Over the past decade, studies on coping have begun to widen the lens for examining the impact of one partner's coping strategies on the other partner [20]. These studies have consistently found that coping is not only an individual process (i.e., how one partner copes with infertility affects how he or she feels) it is also a relational process (i.e., how one partner copes with infertility affects how his or her partner feels). While this may seem obvious at first glance, men and women often feel that they cope with fertility problems in isolation and their behaviors do not impact their partner.

When working with couples, fertility counselors must be aware that individual coping strategies have a dyadic impact. Counselors can begin to address the

relational effects of coping by encouraging both partners to share their reasons behind their preferred individual coping style, and then assessing the relational implications of this coping by asking their partner how they react to that strategy. The goal for fertility counselors, as with negative fertility related communication cycles, is to identify and change coping behaviors that have a negative dyadic impact, by increasing the couple's awareness of problematic coping patterns and by interrupting these patterns and replacing them with coping strategies that have a positive individual and relational impact.

Kyle (35) and Lindsey (33) have come to counseling to address the marital distress they have been experiencing over the past six months. They have been pursuing fertility treatments for the past three years and have experienced several IUI failures and two IVF treatment failures. The couple has found the entire treatment unexpectedly stressful. At first, it was manageable because their strong relationship shielded them from the stresses they encountered. Six months ago, however, the couple began to notice that the different ways in which they coped with treatment failure were beginning to have a negative impact on their relationship. Kyle tended to distance himself from the treatment process, often refusing to talk about it or downplaying the significance of not having a family. Lindsey was hurt by Kyle's reaction; she felt alone in her strong desire for parenthood and developed depressive symptoms. Faced with unhelpful comments and suggestions by family and friends, Lindsey stopped talking to others about her emotional reactions to infertility and felt as if she had no one to turn to. When she turned to Kyle only, it led



to increased conflict driven by problematic coping patterns. The couple has always viewed the infertility journey as a joint struggle they could overcome together. Now they worry they might not overcome infertility at all, and the strong, connected relationship they enjoyed before treatments may not return. The couple sought counseling to help them cope with the stresses of infertility, reduce their marital conflict and regain the strength in their relationship they once enjoyed.

This case illustrates the systemic patterns that can result when each partner engages in coping strategies that are individually adaptive, but relationally problematic. Kyle's use of distancing – which involves trying to minimize the significance or the impact of infertility – is related to Lindsey's reports of depression. This dynamic has been supported by research, which found increased female depression and decreased marital satisfaction in couples where men engage in frequent distancing and women do not [21]. While Kyle's use of distancing is helping him manage his reaction to the potential losses they may encounter, it is negatively impacting Lindsey's view of the relationship and the definition of their joint struggle. She now feels that he does not share her strong desire for parenthood and that he is not equally committed to having children, thus increasing her sense of isolation and depression, and decreasing the resourcefulness of the marital relationship. Fertility counselors can seek to improve the couple's relationship satisfaction by addressing the dyadic nature of the couple's coping patterns. By framing the coping process as one that is personally useful for Kyle, but relationally harmful, counselors can help him to use more productive and healthy coping strategies that confront the pain he feels related to treatment failure, while also promoting new, more positive systemic interactions that will allow for growth and adjustment in his partner.

Women can also use coping strategies that have a positive impact on themselves, but have a negative impact on their partner. In this case, Lindsey has begun to cope through heightened emotional self-control by keeping her feelings to herself, and attempting to keep her feelings from interfering with other things in her life. In couples where women report a high need for emotional self-control and privacy and men describe low needs for control and privacy, male partners report increased marital distress [21]. This extreme difference

in approach to managing infertility stress may lead to pressure, from the woman, not to disclose infertility information to others – precluding the man from obtaining external support, while the woman simultaneously fails to receive any of the benefits associated with sharing her emotional experience. As a result of such pressure and emotional restriction, couples may encounter increased marital disagreements and conflict. Once this systemic pattern occurs, the relationship ceases to be a safe harbor against outside stressors, and each member of the couple may be less likely to communicate with their partner about their infertility stress and thus fail to receive the benefits of partner support.

Fertility counselors can help couples, such as Lindsey and Kyle, who are stuck in such patterns to see that excluding their partner from hearing about their significant emotional distress can create a potential barrier to developing emotional closeness and intimacy, which are keys to decreasing marital conflict and stress. To change the problematic coping pattern, each partner must feel heard and understood regarding their motivations behind the use of individual coping strategies, and receive validation and understanding from their partner. Once this happens, the counselor can work with the couple to stop engaging in old coping strategies and develop more productive and relationally beneficial coping patterns.

## Infertility and the sexual relationship

The stresses of the infertility experience can have a powerful impact on a couple's sexual relationship, and sexual difficulties reported by couples are much more likely to be the consequence, rather than the cause, of an infertility diagnosis. Women commonly report decreased sexual desire, sexual satisfaction and sexual desirability, while men commonly report decreased sexual desire, erectile dysfunction and feelings of marginalization when the sole purpose of sex is for conception [22]. As with coping strategies, sexual stress in one partner can impact sexual stress in the other, supporting an emerging view that sexual dysfunction is a disorder of the couple as opposed to a disorder of the individual [23]. Ironically for couples, increased sexual strain in the relationship can result in reduced frequency of sexual relations which lowers the chance of achieving a pregnancy.

The specific elements of the couple's sexual relationship should be carefully examined during the



counselor's assessment procedure and through an evaluation of the couples scores on the FPI's sexual-stress sub-scale, which measures the degree to which a couple's sexual relationship has changed and acts as a stressor. If one or both members of the couple is experiencing heightened levels of sexual stress, counselors should develop plans to address this issue in more detail. The counselor can assess if both members of the couples are equally or unequally distressed, and also assess if the couple recognizes the potential difference between "procreational" and "recreational" sex (e.g., sex for the sole purposes of pregnancy, compared to sex for pleasure, intimacy and connection).

One of the most basic interventions counselors can use is to normalize sexual stress by providing the couple with educational information that addresses the impact of infertility on the sexual relationship. This can normalize and reduce the impact of current sexual stress and prevent future stresses from getting worse [24]. Counselors can also inform clients that sexual stress is impacted not only by infertility, but by other health and lifestyle factors including general stress, anxiety, poor nutrition and lack of exercise [22]. Counselors can provide specific suggestions, such as paradoxically taking a break from sexual relations when they are not required to do so for medical treatments [11]. Such breaks can provide couples with time to examine why the sexual relationship has become strained, and make plans to improve it once the stresses of fertility treatment are past.

Unfortunately, for many couples, there does not seem to be an optimal time to focus on improving the sexual relationship once the infertility journey has begun. During fertility treatments, couples are commonly too focused on achieving a pregnancy to work on this issue and have little interest in recreational sex. If the couple achieves pregnancy, they are often nervous that sex may cause pregnancy complications or miscarriage. And following the birth of a child, couples are often too overwhelmed to renew their sexual relationship because they are dealing with the stresses and demands of parenting. However, if the sexual relationship is not given priority and attention by couples, there is no guarantee it will improve or return to pre-infertility levels of satisfaction. In fact, it is not uncommon for the stress on the sexual relationship to continue long after treatments end [22]. Thus, an important part of working with couples undergoing sexual stress is to help them reclaim the intimacy and

closeness they once achieved through sex, prior to the infertility diagnosis.

## Sharing infertility related information with family and friends

A frequent component of couple counseling involves discussing to what degree and with whom the couple shares information about their infertility related struggles. While some couples may agree on how best to do this, others may disagree, which can lead to relational strain. Counselors can help couples openly discuss these issues, promote acceptance of differences in partner disclosure patterns, and help couples find mutually agreeable strategies to disclose their infertility related struggles to family and friends.

When a couple is first diagnosed with infertility, they may find that their level of sharing with family and friends is highly open because they are seeking support and they are optimistic about their chances of success. However, if multiple treatments fail, well-intending family and friends may try to provide unrealistically positive reassurance that is not useful for the couple and inevitably promotes a more closed position in the future. Disclosing treatment failure over and over again to inquiring friends and family can be overwhelmingly painful for couples. Thus, communicating in advance about how couples might handle sharing or not sharing information in the event of a treatment failure can be an important counseling goal.

Christopher and Sara were having difficulty agreeing on the best way to share infertility related information with family and friends. Following a third failed IVF treatment, the couple realized the old strategy of telling each inquiring person was too overwhelmingly painful and emotionally exhausting. After a thoughtful discussion with their fertility counselor, they talked about how best to inform family and friends while considering the needs and disclosure preferences of each other. The couples discussed many alternatives – each posing their preferred method and why they felt most comfortable with it. They finally agreed to create a joint email to be sent to all of their friends and family that informed them of the IVF treatment failure, while also setting a boundary that they didn't want to share any more information about the fertility process unless they, themselves, brought it up.

Here, the solution of writing a joint email illustrates the mutuality of the couple's efforts to work together to support each other and communicate effectively with family and friends. In addition, the boundary setting of managing future infertility related communications can be an empowering task for the couple who feels powerless in the wake of treatment failure. An actual example of a letter written by a couple who received counseling from the author has been included in Addendum 4.3.

## Loss and therapeutic rituals

The number of losses a couple can experience during the infertility journey can be overwhelming, and helping couples share and grieve these losses can be a vital component of couple counseling. In the early stages of the infertility journey, losses can range from changes in family and social support networks, to a loss of spontaneity and passion in their sexual relationship. As couples move through fertility treatments, the loss of control over their daily lives become more paramount. Losses become most profound if couples experience failed fertility treatments, or if couples experience a miscarriage or stillbirth following a successful pregnancy.

From one perspective, repeated treatment failure and miscarriage might be conceptualized as a series of losses, and couples who fail to grieve these losses are at risk for increased psychological distress. Fertility counselors can help couples verbally express the pain of their losses by asking questions that help couples make contact with previously avoided thoughts and emotions, and allow them to explore these during the counseling sessions. Experiential exercises such as letter writing, expressive art therapy and the empty chair technique can be used to encourage emotional expression and grief resolution. Counselors can caringly ask questions like, "How did you feel when you learned about the latest treatment failure?" or "Can you describe what it was like for you when you decided to stop treatments without having a child?" These questions are highly sensitive and will likely evoke powerful emotional reactions in the couple. Fertility counselors must provide adequate time for couples to emotionally process the implications of such questions. Counselors should validate the couple's emotional reactions while helping them understand that experiencing strong emotions of sadness and grief is a necessary part of the healing process.

Therapeutic rituals can also facilitate grieving for infertility related losses, such as miscarriage, stillbirth or the inability to conceive. Elements of therapeutic rituals build on existing cultural ceremonies and traditions that recognize expected and predictable life-cycle transitions such as anniversaries, graduations and funerals [25]. However, rituals for infertility are unique in that they bring to light previously invisible and stigmatized losses by providing a tangible context for mourning and grief. For example, a ritual acknowledging the anniversary of their final failed IVF attempt or decision to stop treatment can provide a context for mourning where new meaning of the infertility experience can emerge.

## Counseling couples with age-related infertility

Lucas (42) and Maria (39) are experiencing infertility after trying to have children for the past two years. The doctors attributed their inability to get pregnant to age-related fertility decline. Maria has a master's degree in business (MBA) and works as a Chief Financial Officer (CFO) for a small software company. Lucas has a degree in graphic design and works as a web designer. They are in excellent health, exercise regularly, eat a balanced diet and have normal BMI ratings. Neither partner uses cigarettes or has a history of sexually transmitted diseases. They have been married for 10 years and planned to have two children. After Maria received a highly sought after promotion two years ago, they felt ready to begin trying to have a child. Maria was pregnant within the first six months, but had a miscarriage during the first trimester. After being unable to get pregnant again, they bypassed IUI treatments and underwent three unsuccessful IVF treatments. The couple was shocked to learn they might have difficulty having a child due to advanced female age. Maria has experienced regret and sadness. Lucas is struggling to keep his wife's spirits high, but he also has struggled with his own feelings of despondency as he realizes there may be no solution to the infertility and he may not become a biological father. Both Lucas and Maria are angry that they didn't realize the impact of age on her fertility, and have begun to feel guilty for not knowing this. They have also begun to fight about their previous career choices and argue over why they did not try to conceive sooner.

This case study illustrates a typical couple experiencing age-related fertility decline. This couple is usually in their late 30s or early 40s, is educated and achievement-oriented, and often has intentionally delayed childbearing to pursue other life-goals and pursuits. These couples are more likely to be found in developed countries where delayed childbearing reflects changing social norms of postponing marriage and securing education and economic stability before attempting conception. In the United States, for example, the proportion of first births to women aged 35–39 has increased 50% over the past two decades [26]. Furthermore, studies throughout the world have consistently found that educated and career-oriented men and women lack an awareness of the impact age has on fertility [27,28]. In the United States, for example, 67% of undergraduate university women and 81% of undergraduate university men inaccurately believed female fertility markedly declines after the age of 40, with one-third of women and nearly half of men believing this decline takes place after the age of 44 – an age at which a woman's fertility window is likely at an end, and she has only a 3–5% chance of delivering a live birth using the most advanced reproductive treatments [28,29].

Fertility counselors should be aware that because of decreased egg quality and quantity, female fertility begins to decline as early as 28 years of age and markedly declines at approximately age 37 [28]. In addition, advanced maternal age at first birth is also associated with increased rates of miscarriage, stillbirth and health risks for the mother and child [30]. Advanced paternal age is also a significant issue and has been associated with decreased fertility and increased incidence of miscarriage, as well as birth defects, schizophrenia and autism in a couple's offspring [31,32]. While couples dealing with age-related fertility decline will face the same challenges as other couples detailed throughout this chapter, they may also experience some unique challenges including self-blame, guilt and marital conflict revolving around how the postponement decisions were made. (See Chapter 11 on older patients seeking treatment for further information.) In the example above, a discussion with Lucas and Maria about when they planned to have children, and how their education and career circumstances played a role in their decisions, will be a vital part of the counseling process.

Lucas and Maria's goal-oriented and high-achieving personalities – which have been strengths

throughout their lives – may, instead, be a liability to them during the infertility experience. Because infertility is a long-term, largely uncontrollable stressor, Lucas and Maria may struggle with the lack of control they face when dealing with it. In fact, this may be the first problem they have faced that cannot be solved by working harder. While they can work diligently in researching infertility, setting up doctor's appointments, committing to the medication regimen, and keeping medical appointments faithfully, a successful outcome is still largely out of their control. Because of this, couples such as Lucas and Maria commonly feel anger, frustration, guilt, helplessness, and ultimately question the fairness of life and the meaning and value of their past decisions.

Fertility counselors can assist couples in this situation by delicately asking questions about the process and context of prior decision-making. Both men and women need to feel heard and understood by their partner – particularly as it relates to their motivations for delaying childbearing. Were Lucas and Maria in agreement regarding how they perceived the timing of having a child, or were there times when there was disagreement when one partner wanted to delay because of a work opportunity or life situation? Helping couples share their history in this context is important. If Lucas and Maria demonstrated congruence (e.g., agreement) related to how they perceived the timing of the future childbearing decisions, they may have an easier time managing the stressful outcomes they encounter. However, if one partner encouraged a delay while the other felt strongly they should begin sooner, the couple may find themselves experiencing increased tension or conflict in the relationship until this issue is discussed and resolved.

A second, more subtle therapeutic issue that may arise is secondary infertility (when a couple with one biological child is unable to have a second). Because secondary infertility can be just as disruptive as primary infertility [33], counselors can help the couple examine their infertility distress in the context of being unable to have a second child and what this may mean for their future family. Even if Lucas and Maria have one child, they may still not be able to achieve their desired family size. In a recent study of undergraduate students in the United States, only 1% of participants wanted one child, while the strong majority of participants wanted two to three children [28]. Counselors can ask couples about their motivations to have a second child, about how they view the

role and importance of a sibling in the life and development of their child, and about what their lives might look like if their future family size consists of only one child.

Secondary infertility may also occur with remarried couples who are experiencing infertility in their newly formed marital system [34]. For these couples, the secondary infertility often is the result of one's spouse's decision to have a vasectomy or a tubal ligation after having children in a prior relationship. For remarried couples, they often begin trying to have a child within the first two years of the union, while the stabilization of the blended family unit takes approximately five to seven years [34]. Thus, the overlap of this timing can take a toll on the couple's relationship, stressing a family system that is not yet cohesive and is vulnerable to disruption. In addition to helping these couples with the stresses of infertility, fertility counselors should also be aware of the challenges that arise in a newly formed blended family. Even if the couple has been together several years, counselors must help both members of the couple explore the implications of past marital relationships, prior reproductive decisions and the status of their current family unit as they relate to the stress of infertility.

Lastly, it is important for couple counselors to help men and women such as Lucas and Maria to understand the limitations of fertility treatments for those in their late 30s and early 40s (or older), as well as the possibility of family building through egg donation or third party reproduction. Fertility counselors should educate couples that even the most advanced medical treatments often cannot overcome age-related decline in fertility. For instance, when a couple delays childbearing between ages 30 and 35, reproductive technologies can compensate for only half of the births lost due to natural decreases in fertility during this time period [35,36]. Helping couples make informed decisions based on their age and treatment success rates is an important clinical responsibility for the fertility counselor. It is very likely that Lucas and Maria have unrealistic expectations about the success rates of treatments. Recent data from 54 countries around the world estimate a 22% live delivery birth rate for patients using IVF [37]. In the United States, the average live birth rate per cycle of IVF, using fresh non-donor eggs, is 30%, with a success rate of 12% for women ages 41–42, and only 5% for women ages 43–44 [29].

## Mindfulness

When a couple experiences infertility stress, their minds can become dominated by negative and aversive infertility related thoughts and emotions. These are painful reminders of their losses and, as such, men and women will avoid and suppress them, which paradoxically can make them more powerful and aversive. Because of this, couples may actively avoid situations that trigger infertility related thoughts and emotions, and thus experience significant disruption to their lives in an effort to prevent increased psychological distress.

Mindfulness (i.e., mindful meditation) is a clinical intervention fertility counselors can use to help couples who feel overwhelmed by the pain of their infertility related thoughts. Mindfulness balances awareness of the present moment with nonjudgmental and compassionate acceptance of one's experience. This allows one to respond more flexibly and less literally to thoughts and emotions by creating a healthy distance between oneself and one's internal experiences. For couples experiencing infertility, this struggle is especially salient [38]. For example, instead of trying to dispute or otherwise change thoughts such as "It's unfair that we can't have a baby," or "I can't stand this infertility stress any longer," couples learn to acknowledge these thoughts as mere thoughts that can simply be observed, but that don't need to be believed or acted upon.

Emery (35) and Matthew (36) have been married for seven years and have been trying to start a family for the past four. The couple has attempted multiple cycles of clomiphene medication treatment, one IUI treatment and two IVF treatments. The couple was referred to counseling after the latest failed IVF attempt when Emery reported heightened infertility related stress levels and depressive symptoms. The last year has been particularly difficult for both members of the couple as Matthew's sister had a child and Emery found she could neither hold her niece nor spend time with her sister-in-law. Additionally, this has put a strain on Emery and Matthew's relationship as Matthew feels torn between his wife and his sister. Emery also finds it impossible to be in the presence of friends and their children, and her stress and anger about her infertility has begun to escalate. Emery and Matthew report that they cannot control nor handle the

powerful negative infertility related thoughts they have both recently had.

When presented with the idea of observing painful fertility related thoughts and emotions, rather than actively avoiding them, couples such as Emery and Matthew are often skeptical. To help couples initially consider this idea, fertility counselors can have the couple participate in an experiential exercise using a Chinese finger trap. In the case of Emery and Matthew, the counselor asks the couple to put one finger in each end of the trap, and then attempt to remove their fingers. The couple inevitably finds their fingers trapped, and the more they struggle to get their fingers out, the tighter and more restrictive the finger trap becomes. To get out of the trap, the couple must do something counterintuitive – they must push their fingers towards each other, rather than pulling away. Thus, this paradoxical movement helps free them from the constraints they were experiencing. This metaphor provides a basis for approaching painful infertility related thoughts and emotions in a different manner than in the past, by helping couples see the possible effects of “moving into” the stress, rather than pulling away from it.

The concepts of mindfulness and compassionate acceptance should be introduced to Emery and Matthew early in the counseling. Basic five-minute centering exercises can be conducted at the beginning of each counseling session, and counselors can incorporate more advanced exercises during the middle and end of treatment (see Addendum 4.4 for scripted mindfulness exercises specifically adapted for infertility related stress). The counselor can also assign daily mindfulness exercises, for practice at home during the week, using a variety of easy-to-use online resources (i.e., UCLA Mindfulness Awareness Research Center <http://marc.ucla.edu>; fertility apps available for purchase on iTunes). The use of mindfulness as an effective component of fertility counseling has been supported by research which found that an integrative body–mind–spirit (I-BMS) intervention, which included mindfulness-based training and practice, reduced anxiety in women undergoing their first IVF treatment, and also increased patient tranquility and marital satisfaction [39].

By practicing daily mindfulness exercises that emphasize compassionate acceptance of their fertility related stress, couples such as Emery and Matthew can

begin to reduce the negative influence of their thoughts and increase their flexibility in responding to these thoughts – even in the presence of powerful infertility related emotions. The use of mindfulness can also help Emery and Matthew increase the amount of self-compassion they feel about their infertility struggle, which can reduce self-blame and unneeded psychological suffering. By reducing the power of negative infertility related thoughts and emotions, they become more tolerable and manageable. When the couple realizes this, and has increased their capacity to move toward the fertility stress instead of away from it, psychological flexibility is increased. Thus, they are freed to act in different, more positive ways, which can ultimately lead to healthier cycles of interaction and communication.

## Conclusion and personal reflections

The purpose of this chapter is to provide a framework for understanding the unique challenges faced by couples experiencing infertility [40]. Fertility counselors can help couples understand the impact of gender on infertility related communication patterns and coping strategies. They can also increase couples' awareness of the impact of infertility stress on their sexual relationship, help them find ways to plan for how to share infertility related treatment information with others and assist them in grieving the many losses associated with the infertility experience. Being aware of the impact of age on fertility is also of vital importance in working with couples experiencing the challenges of age-related fertility decline. Finally, fertility counselors can use mindful meditation to help couples approach stressful fertility related thoughts and feelings, thus breaking negative cycles of avoidance and emotional distress.

On a personal level, I consider it a privilege to work with couples as a fertility counselor. I have great compassion for these couples as their lives have been so unexpectedly disrupted by the multitude of stresses that accompany an infertility diagnosis. I have been privileged to witness, first-hand, the courage it takes to face the emotional suffering and psychological distress that is so common for couples during this experience. I have also learned about the power of resilience as couples work through tremendous difficulty only to discover newfound strength, fortitude and determination. It is my hope that fertility counselors will be able

to use the ideas presented in this chapter to help couples regain the emotional closeness and intimacy they once enjoyed, and to help them create new meaning and connections in their lives as a result of the infertility experience.

## References

- Peterson BD, Pirritano M, Block JM, Schmidt L. Marital benefit and coping strategies in men and women undergoing unsuccessful fertility treatments over a 5-year period. *Fertil and Steril*. 2011 Apr; 95(5): 1759–63.
- Newton CR. Counseling the infertile couple. In: Covington SN, Burns LH, editors. *Infertility Counseling: A Comprehensive Handbook for Clinicians*. 2nd edn. New York: Cambridge University Press; 2006. pp. 143–55.
- Peterson BD, Boivin J, Norré J, Smith C, Thorn P, Wischmann T. An introduction to infertility counseling: a guide for mental health and medical professionals. *J Assist Reprod Genet*. 2012 Jan; 29(3): 243–48.
- Boivin J, Scanlan L, Walker SM. Why are infertile couples not using psychosocial counseling? *Hum Reprod*. 1999 May; 14(5): 1384–91.
- Wischmann T, Scherg H, Strowitzki T, Verres R. Psychosocial characteristics of women and men attending infertility counseling. *Hum Reprod*. 2009; 24(2): 378–85.
- Canadian Fertility and Andrology Society Counselling Special Interest Group. Assisted human reproduction counselling practice guidelines. 2009.
- Newton CR, Sherrard MA, Glavac I. The fertility problem inventory: measuring perceived infertility-related stress. *Fertil and Steril*. 1999 Jul; 72(1): 54–62.
- Peterson BD, Newton CR, Rosen KH. Examining congruence between partners perceived infertility-related stress and its relationship to marital adjustment and depression in infertile couples. *Fam Process*. 2003 Mar; 42(1): 59–70.
- Beck AT, Steer RA, Brown GK. *Beck Depression Inventory: Manual*. 2nd edn. San Antonio: Harcourt Brace, 1996.
- Beck AT, Brown G, Epstein N, Steer RA. An inventory for measuring clinical anxiety: psychometric properties. *J Consult Clin Psychol*. 1988; 6: 893–7.
- Peterson BD, Newton C, Feingold T. Anxiety and sexual stress in men and women undergoing infertility treatment. *Fertil and Steril*. 2007 Oct; 88(4): 911–14.
- Peterson BD, Sejbæk CS, Pirritano M, Schmidt L. Are severe depressive symptoms associated with infertility-related distress in individuals and their partners? *Hum Reprod*. 2014 Jan; 29(1): 76–82.
- Sejbæk C, Hageman I, Pinborg A, Hougaard C, Schmidt L. Incidence of depression and influence of depression on the number of treatment cycles and births in a national cohort of 42 880 women treated with ART. *Hum Reprod*. 2013 Apr; 28(4): 1100–09.
- Boivin J, Takefman J, Braverman A. The fertility quality of life (FertiQoL) tool: development and general psychometric properties. *Fertil and Steril*. 2011 Aug; 96(2): 409–15.
- Spanier GB. Measuring dyadic adjustment: new scales for assessing the quality of marriage and similar dyads. *J Marriage Fam*. 1976 Feb; 38(1): 15–28.
- Lancaster D; Boivin J. A feasibility study of a brief coping intervention (PRICI) for the waiting period before a pregnancy test during fertility treatment. *Hum Reprod*. 2008; 23(10): 2299–2307.
- Diamond R, Kezur D, Meyers M, Scharf CN, Weinshel M. *Couple Therapy for Infertility*. New York: The Guilford Press; 1999.
- Griel AL, Slausen-Belvins K, McQuillan J. The experience of infertility: a review of recent literature. *Social Health Illn*. 2010 Jan; 32(1): 140–62.
- Peterson BD, Newton CR, Rosen KH, and Skaggs GE. Gender differences in how men and women who are referred for IVF cope with infertility stress. *Hum Reprod*. 2006 Sep; 21(9): 2443–49.
- Peterson BD, Pirritano M, Christensen U, Boivin J, Block J, Schmidt L. The longitudinal impact of partner coping in couples following 5 years of unsuccessful fertility treatments. *Hum Reprod*. 2009 Mar; 24(7): 1656–64.
- Peterson BD, Newton CR, Rosen KH, Schulman RS. Coping process of couples experiencing infertility. *Fam Relat*. 2006 Apr; 55(2): 227–39.
- Daniluk JC, Frances-Fischer JE. A sensitive way to address your infertile patients' concerns. *Sex Reprod Menopause*. 2009; 7(1): 3–7.
- Nelson CJ, Shindel A, Naughton C, Ohebshalom M, Mulhall J. Prevalence and predictors of sexual problems, relationship stress, and depression in female partners of infertile couples. *J Sex Med*. 2008; 5: 1907–14.
- Burns LH. Sexual counseling and infertility. In: Covington SN, Burns LH, editors. *Infertility Counseling: A Comprehensive Handbook for Clinicians*. 2nd edn. New York: Cambridge University Press; 2006. pp. 212–35.
- Imber-Black E. Creating meaningful rituals for new life cycle transitions. In: McGoldrick M, Carter B, Garcia-Preto N, editors. *The Expanded Family Life*



- Cycle: Individual, Family, and Social Perspectives*. 4th edn. Boston: Allyn & Bacon; 2011, pp. 429–39.
26. United States. Martin J, Hamilton B, Sutton P, Ventura S, Menacker F, Kermeyer S, Matthews TJ. Births: final data for 2006. *National Vital Statistics Reports*. Hyattsville, MD: National Center for Health Statistics; 2009.
  27. Lampic C, Skoog Svanberg A, Karlstrom P, Tyden T. Fertility awareness, intentions concerning childbearing, and attitudes towards parenting among female and male academics. *Hum Reprod*. 2006 Feb; 21(2): 558–64.
  28. Peterson BD, Pirritano M, Tucker L, Lampic C. Fertility awareness and parenting attitudes among American male and female undergraduate university students. *Hum Reprod*. 2012 Mar; 27(5): 1375–82.
  29. United States. Centers for Disease Control and Prevention. Assisted Reproductive Technologies Report: National ART Success Rates. 2011 *National Summary*. Atlanta, GA: Centers for Disease Control and Prevention; 2011.
  30. Tough S, Tofflemire K, Benzies K, Fraser-Lee N, Newburn-Cook C. Factors influencing childbearing and knowledge of prenatal risks among Canadian women and men. *Matern Child and Health J*. 2007 Mar; 11(2): 189–98.
  31. Bray I, Gunnell D, Smith, GD. Advanced paternal age: how old is too old? *J Epidemiol Community Health*. 2006; 60: 851–53.
  32. Hultman CM, Sandin S, Levine SZ, Lichtenstein P, Reichenberg A. Advancing paternal age and risk of autism: new evidence from a population-based study and a meta-analysis of epidemiological studies. *Mol Psychiatry*. 2011; 16: 1203–12.
  33. Simons, HF. Secondary infertility. In: Burns LH, Covington SN, editors. *Infertility Counseling: A Comprehensive Handbook for Clinicians*. New York: The Parthenon Publishing Group; 2000, p. 313–22.
  34. Hafkin N, Covington S. The remarried family and infertility. In: Burns LH, Covington SN, editors. *Infertility Counseling: A Comprehensive Handbook for Clinicians*. New York: The Parthenon Publishing Group; 2000, p. 297–312.
  35. Leridon H. Can assisted reproduction technology compensate for the natural decline in fertility with age? A model assessment. *Hum Reprod*. 2004 Jul; 19(7): 1548–53.
  36. Schmidt L, Sobotka T, Bentzen JG, Andersen AN. Demographic and medical consequences of the postponement of parenthood. *Hum Reprod Update*. 2012 Feb; 18(1): 29–43.
  37. Nygren, K, Sullivan E, Zegers-Horrschild F, Mansour R, Ishihara O, Adamson D, et al. International Committee for Monitoring Assisted Reproductive Technology (ICMART) world report: assisted reproductive technology 2003. *Fertil and Steril*. 2011 Jun; 95(7): 2209–22.
  38. Peterson BD, Eifert GH. Using acceptance and commitment therapy to treat infertility stress. *Cogn Behav Pract*. 2011 Nov; 18(4): 577–87.
  39. Chan CH, Chan CL, Ng EH, Ho PC, Chan TH, Lee GL, et al. Incorporating spirituality in psychosocial group intervention for women undergoing in vitro fertilization: a prospective randomized controlled study. *Psychol Psychother*. 2012 Dec; 85(4): 356–73.
  40. Peterson BP, Gold L, Feingold, T. The experience and influence of infertility: considerations for couple counselors. *Fam J Alex Va*. 2007 Jul; 15(3):251–57.