

## Psychological Aspects of Care

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### Introduction

Speeding on a technical superhighway has been a fact of life for nearly two decades in the assisted reproductive technologies (ART). Methods to address the problems plaguing the 8% to 15% of couples in the community who meet the criteria for infertility (unprotected intercourse for 12 months without resulting conception) continue to be refined; but what has catapulted this corner of medicine, and particularly oocyte donation (OD) treatment, into the spotlight has been its unconventional applications, challenging previously held social ideas about parenthood and family, previous legal definitions of maternity and paternity, previous ethical interpretations of rights, and the powerfully personal meaning of the capacity to reproduce despite aging, sterilizing treatment following the diagnosis of cancer, possible transmission of serious genetic disease, and the untimely loss of reproductive capacity due to premature ovarian failure.

Although oocyte donation can afford extraordinary opportunities, serious attention is warranted concerning its control. Medical and lay press are brimming with anecdotes and allegations of its misuse. Societal opinion runs strong about the creation of these families, about the potential burden of children saddled with the legacy of their origins, and about challenging the laws of nature. Yet these often impassioned commentaries are based on religious, social, ethical, or political principles that themselves merit careful attention to clarify the value system they represent. Our generation has a duty to define and refine our science by studying the outcomes of what we have done thus far and to summons other disciplines to consider their implications as well. This could include the use of multidisciplinary teams participating in our day-to-day treatment decisions, and the institution of ethics boards to help us examine our policies. Perhaps most important, well-designed research protocols must be established and instituted so we can assess our outcomes on psychological dimensions, including the elaboration of full profiles of the families we are creating. Supporting our

guidelines with fact rather than opinion or instinct would contribute meaningfully to the field and would provide an important clinical service to our patients.

There has been a fair amount of study of various psychological dimensions in ART. In oocyte donation, a number of parties need psychological attention. The challenge to the involved mental health provider includes the fact that these needs are not static and limited to the time before, during, and just after the medical procedure. The essence of human nature is to view the important life events that are full of emotional meaning from different angles at different stages in one's life; donating eggs, and accepting them, certainly qualify as events of this nature. The meaning of these actions are dynamic and unpredictable, and they extend developmentally in the life trajectory of everyone involved—the donor, the donor's partner or future partner, the donor's children or future children, the recipient, the recipient and her partner, his and her family, his and her current children, his and her future children, and the new family created. This should suggest the degree of methodological complexity hounding outcome studies of this type.

Couples present for oocyte donation after years of infertility and numerous cycles of IVF, after a second marriage, after the loss of a child, after the diagnosis and treatment of cancer, after their own children are grown, after the unexpected diagnosis of premature ovarian failure, after one partner is diagnosed with HIV. Women with Turner's syndrome, those who are at risk of transmitting a genetic defect or disease, and those who have had bone marrow transplants or organ transplants and are concerned about the impact of immunosuppressive agents on their own eggs present for oocyte donation. Single heterosexual women and lesbians, too old for or after several negative outcomes in cycles of AID or IVF, request oocyte donation. There is tremendous heterogeneity in the various needs of these women and couples before, during, and after oocyte donation.

Probably the most compelling, yet definitely the least studied and understood set of issues in this technology revolve around the resulting children. There are and will continue to be many questions once a conception occurs and a child is born. Couples want advice about whether to tell their child about his or her origins, and how and when they might deliver this information should they decide to disclose it. They want, and need, guidance about integrating this child into a preexisting cadre of kids. They inquire about whether they should tell friends and family, and they are perplexed about what to do if they have told people prior to conception about the use of donor egg, and then change their minds about disclosure afterward; the literature on donor insemination reveals a staggering percentage of couples (45%-85%) who later regret that they had informed people of the manner of the conception of their child(ren). These couples are uncertain about ongoing relationships with known donors and wonder about what to do with their fantasies about anonymous ones.

Initially smoldering in the background, social, societal, and ethical issues have moved to the foreground in the ongoing debates regarding the applications of oocyte donation. Published commentary exists supporting all the possible perspectives and enlivening the ethical deliberations in the field. One author recently wrote: "Our choices about how we use these technologies will say much about what we value, what our priorities are and what kind of society we want to live in." (p111<sup>1</sup>)

All these issues fall within the domain of the mental health provider who delivers care as part of a team within the context of a medical setting or as a consultant in private practice in the community. It is critical that those working in the field have a thorough knowledge base, including the findings of the studies that have been done, and that they be aware of what we do not yet know. This chapter provides this necessary foundation through a review of the relevant literature.

## A Brief History of Oocyte Donation

While the first IVF birth was celebrated in 1978, the first report of successful oocyte donation in humans occurred in the early 1980s; the pioneering programs were established just before 1985. The indication for its use was premature ovarian failure, and while the technology represented a great leap forward, there was little controversy within the field of medicine about its use per se in this population of patients. Socially, however, a storm of response was brewing; at that time, even IVF was thought of as fooling with Mother Nature. In contrast to the dramatic response accorded to these practices, donor insemination continued to be quietly available, as it had been for nearly a century before.

It wasn't until later, with applications of the treatment that ran further aground, that the debate began in earnest. Oocyte donation was used for the first time in the treatment of postmenopausal "older women" in 1989, thus demonstrating that waning fertility was not due primarily to a less receptive uterus, but to aging eggs, and that any woman with an intact uterus could sustain a pregnancy.

Since then the number of programs has proliferated and technology has accelerated to meet the demand due to delayed childbearing for professional development, the postponement of marriage, educational priorities, the increasing number of aging baby boomers, and the escalating rate of divorce and later remarriage. The pioneering programs initially used directed donors, putting the onus of donor recruitment on the recipients. Many couples found this unsuitable; in recent years, efforts by programs and by entrepreneurial "brokers" to step up recruitment of anonymous donors has expedited access to treatment by removing the rate-limiting step.

## Theoretical Perspectives on Infertility

The psychological literature in the area of infertility reflects the trends in our formulation and understanding of disease states in general. The "psycho-somatic" model, prevalent in the 1950s and 1960s, was applied to a multitude of medical disorders, including gastrointestinal diseases like Crohn's or irritable bowel syndrome, certain types of cardiac disease, and particular dermatologic conditions like psoriasis, all of which were seen as classic psychosomatic illnesses. The trend in thinking about disease functionally in this way was an attempt to reaffiliate psychiatry and psychology with its home base of medicine, and to integrate and synthesize the mind/body dyad, a connection that many felt was lost in psychiatric writing. Interestingly, the fact that Freud was a neurologist was obvious in his early writing, and his initial theory was infused with working formulations of the neurobiological and physiological mechanisms of the brain and unconscious; later writings departed from the classic medical model as the burgeoning field of psychoanalysis carved out a place of its own in understanding mechanisms of the mind.

The psychosomatic model provided a useful synthesis of the emotional phenomena linked with medical disease. Unfortunately, it tended to view "maladaptive" or pathological emotional states as causal in organic disease, even though no hard scientific evidence substantiated this claim. Similarly, infertility was categorized etiologically as either organic or psychogenic; organic referred to that for which a physical or physiological mechanism could be identified, and psychogenic, or "functional," for which no such mechanism could be found. These psychogenic causes of infertility/sterility were felt to reflect deep-rooted flaws in self-concept and feelings about defectiveness, to function as a symptom revealing hostility toward these women's own mothers, to highlight unconscious ambivalence about career ambition, or to defend against a feared pregnancy or postpartum psychosis. Until the technology to diagnose organic causes of infertility became available, most infertility was assumed to be psychosomatic, and "barren" women were uniformly viewed as having fundamental conflicts about motherhood that, until resolved, would inhibit conception.

The modern derivative of the psychosomatic paradigm, the stress and infertility issue, carries with it a similar danger of assuming and assigning causality without proof. There is no debate about the fact that infertility causes stress; on the other hand, no solid data demonstrate a causal relationship between stress and infertility. Nevertheless, bookstore shelves are filled with titles suggesting this link, and a growing literature makes this claim as well.

An example demonstrating the blurred distinctions about etiology can be seen with the diagnosis of idiopathic infertility. According to Speroff et

al.,<sup>2</sup> unexplained infertility accounts for approximately 10% of all causes of infertility; psychological studies have revealed that of all couples involved in infertility treatment, those who are given the diagnosis of idiopathic, or unexplained, infertility often experience the most "stress" and difficulty with the ambiguity of this diagnosis? Yet such unexplained infertility in apparently physically normal couples is frequently assumed to be psycho-genic in nature. We need to beware the carte blanche assignment of psycho-logical causality while the science underlying subtle mechanisms in in-fertility, for instance, immunological ones, is incompletely defined.

Many authors have tried to assess interrelationships between stress and infertility. A sampling of the studies include the impact of stress on the quality of the postcoital test,<sup>4</sup> the presence of psychological distress impairing fertilization,<sup>5-12</sup> suggestions that increasing patients' sense of control and optimism reduces stress,<sup>13</sup> comparisons with animal models of stress-induced endocrinological changes,<sup>14</sup> reports that behavioral treatment approaches with stress reduction may lead to increased conception rates,<sup>15</sup> and attempts to correlate neuroendocrine measures with psychological stress induced by various tests.<sup>9</sup>

These papers tend to lack controls, involve small numbers, suggest "ten-able" physiological explanations for their findings and use study designs flawed by methodological problems. It is also assumed that because "stress," such as crossing time lines, can result in delayed ovulation, that stress would also impair fertilization and implantation; no data substantiate this. Likewise, the myths that pursuing adoption results in spontaneous conception among the infertile, or that conception occurs when a couple finally relaxes and goes on vacation, do not hold up to statistical analyses. Instead, these notions leave infertility patients feeling less lucky and more forlorn. Hopefully, solid scientific research including neuropsychoneuroendocrine probes and brain scans will further our understanding of the impact of stress on the hypothalamic-pituitary-gonadal axis and the implications for impaired fertilization and implantation. In the meantime, a big service can be done by undertaking a rigorous literature review of this data that highlight conclusions that can and cannot be drawn from the information we have collected thus far.

There are some well-documented psychiatric causes for infertility.<sup>31617</sup> These include anorexia nervosa, which, at low body weights, can lead to hypothalamic amenorrhea and anovulation; anovulation in pseudocyesis; and the use of medications, such as major tranquilizers, which can inhibit ovulation. Sexual problems can be at the root of infertility; these include exclusive nonvaginal intercourse, inhibited desire resulting in infrequent vaginal intercourse, vaginismus, and erectile and ejaculatory dysfunction. When these problems are properly diagnosed, appropriate and specific treatment is available.

## Theoretical Perspectives on Women's Psychological Development

The literature that has grown around the experience of infertility has spawned continued and necessary revision of our theories on women's development. Our current theoretical understanding of gender identity and feminine development is incomplete, relatively little has been written about the complex psychological issues of reproductive life, and there is barely a skeletal literature on the perimenopause and menopause that satisfactorily separates, and synthesizes, the psychodynamic, psychosocial, and physiological changes of midlife. Tracing the history of the theories of women's psychological development serves to enrich our understanding of contemporary thought.

Many of the theories of women's development have been organized from the vantage point of the critical transitions occurring at expected developmental milestones, comparable to the "seasons" of a man's life. For instance, Bernstein and Lenhart<sup>18</sup> look at milestones such as menstruation, marriage, childbirth, and parenting, and synthesize these life changes with their view about the primacy of the mother/daughter relationship and its revival in these fixed developmental sequences of a woman's life. Although the real possibility of childbearing arrives at adolescence with the onset of menstruation, fantasies about parenting and childbearing begin early in the life of a child. For purposes of this chapter, I will limit this review of theory to that relevant to the desire for childbearing.

Theories on the psychological development of women first took shape just before the turn of the twentieth century with Freud's introduction of psychoanalytic theory. He admitted that his theories on women and female sexuality, which were constructed almost as an afterthought to theories on male development, were incomplete, and he predicted that the definitive work would be done by women analysts. This became reality starting in the late 1930s with the subsequent work of Deutsch, Horney, Klein, Mahler, Jacobson, and Greenacre. Since that time scores of theorists have contributed their perspectives. But according to Bernstein and Lenhart,<sup>18</sup> the most valid contributions to the psychology of women have been made in recent years. Contemporary analysts have contributed entirely new concepts to our theories, reshaping the foundation of our understanding about female and, for that matter, male development. For instance, Stoller introduced the idea of "core gender identity" to describe the sense of "girlness" or "boyiness" established in the toddler even before there is recognition of anatomical differences between the two, and Gilligan contributed much-needed theory on the moral and social development of girls. Infant research illustrating the more or less subtle interactions between parent and child has advanced our understanding about the complex contributions to one's

sense of identity—take, for instance, the genotypic boy/phenotypic girl raised female. In this author's opinion, the most comprehensive understanding of women's development with regard to childbearing requires an interdisciplinary perspective including psychological, social, anthropological, and historical influences.

The desire for childbearing is a complex amalgam of psychological development, unconscious wishes, cultural expectations, and gut instinct. Despite the trends of the last 20 to 30 years in which women have placed higher priorities on education and occupational goals, the cultural assumption remains that little girls will grow into women who marry and have babies; these life events fulfill what has been thought of as bedrock in the consolidation of female development and gender identification. The onset of menstruation has many meanings—symbolically as admittance into the world of women, and concretely as the capacity to conceive—and is experienced differently in different cultures. The ability to avert conception with reliable birth control has forever changed the face of female sexuality and has allowed real and perceived freedoms for women who can experience healthy sexual relationships, if they choose, without constant fear of pregnancy. In tandem with women's advances into the work world, these freedoms have allowed women to derive gratification from spheres that were previously unavailable to them.

Yet despite the powerful satisfactions of professional life, many of these working women themselves place enormous value on childbearing and increasingly find themselves single in their early 30s when they expected to be married, and then stuck in the quagmire of reduced fertility in their later 30s.

A substantial literature exists on the psychological and sociocultural meaning of and motivation for motherhood, which has been summarized in Bernstein and Lenhart's text.<sup>18</sup> In addition to being a crucial developmental stage, they view motherhood as a time of personal growth, an expression of primary creativity, and as a psychobiological process in which mothers develop and mature concomitant with their child's sequential developmental phases. Identification with one's own parents, including the capacity to have offspring, is a powerful organizing theme as well.

According to the sociology literature, childlessness is considered to be a form of deviant behavior." Individually, it is viewed as a personal failure, and socially it is often viewed with suspicion and interpreted as a reflection of narcissistic self-involvement. What, does it mean to not be able to have children? Historians, sociologists, and anthropologists<sup>20</sup> have contributed to our understanding of the role of family in a social context and describe the changes that have paralleled progress and industrialization. In the premodern family, children represented a contribution to the workforce, the result of a religious duty to be fruitful, a guarantee of maintaining a lineage and providing descendants, an expansion of the clan. Childbearing to fulfill these duties was preeminent over the desire for affective connections in a

marriage; infertility was catastrophic. In a number of economically undeveloped cultures, fertile relatives will offer infertile relatives one of their children to raise, underlining the importance of socially defined childbearing over biological generativity. The family structure in modern industrialized societies, however, has been transformed and focuses on the primacy of affective ties. This literature does not make a distinction between affective ties and ties reflecting biological continuity, which of course becomes a touchstone in oocyte donation.

The desire to be pregnant, and the desire to raise a child, can be two different things. A woman may long to achieve a pregnancy to assure herself that her body is functioning properly and that her reproductive organs are effective<sup>16</sup>; she may perceive her pregnancy as "filling her up" and providing reparations for self-esteem problems; and she may experience the pregnancy as an opportunity for socially sanctioned dependency. The wish for a child may be a response to parental, societal, or cultural pressures; may fulfill the need to carry on one's genetic heritage; or may be a way of achieving immortality. Pregnancy may be experienced as a way of preserving or enriching a relationship, or it may be longed for after a loss, such as the death of a parent, child, or other close person. Controversy exists over whether the wish for a biological child is instinctual or societally conditioned.

Although fertility is highly valued throughout the world, the meaning of fertility and the capacity to conceive is highly emotionally charged. Notman<sup>21</sup> writes that fertility represents the bridge between generations, is rich in symbolism, and is central in human experience. For a woman, the knowledge that she is able to bear children has been critical in the development of her sense of femininity, gender identity, and self-esteem, even if she chooses not to have children as an adult. She feels that a woman's awareness of her reproductive potential is a crucial part of her self-image. Difficulty in or inability to conceive stirs up numerous ideas and fantasies about body betrayal, defectiveness, and diminished self-esteem/self-worth. Notman's review of psychodynamic aspects of reproduction nicely details the history of this thinking, beginning with the early psychoanalytic theory that considered reproduction and pregnancy as symbolic events only; that is, that the little girl's wish for a child was understood as a symbolic substitute for the penis she does not have. Psychoanalytic theory did not consider the experience of parenthood at all until the mid-1940s, with contributions from Deutsch, and then Benedek, Chasseguet-Smirgel, Kestenberg, and Stoller; these authors suggested that the wish for a child is a primary part of feminine orientation, identity, and fulfillment.

Most current authors view pregnancy as a developmental crisis involving a regressive pull toward separation-individuation struggles and a revival of early mother-child identifications and paradigms, eventuating in interpersonal growth, increased maturity, and enhanced self-esteem. It can be accompanied by an array of emotions spanning pure joy to complicated am-

bivalence<sup>22</sup> The capacity to be pregnant characterizes the tumultuous thrust in puberty toward adolescence and adulthood just as the loss of this capacity has previously defined the onset of menopause. Notman<sup>23</sup> wrote that while reproductive potential does not provide the only boundary of a woman's life, it does form a substantial part of the psychological framework, helping to shape her self-concept.

Menopause has been synonymous in our culture with the loss of the ability to reproduce and so represents the termination of what is regarded as essentially feminine. In 1945 Deutsch<sup>24</sup> wrote: "The changes that take place in the body of a climacterical woman have the character not only of the cessation of physiological production but also of general dissolution. Woman's biologic fate manifests itself in the disappearance of her individual feminine qualities at the same time that her service to the species ceases. As we have said, everything she acquired during puberty is now lost piece by piece; with the lapse of the reproductive service, her beauty vanishes, and usually the warm, vital flow of feminine emotional life as well."

Menopause has traditionally been described in two polarized views: as a normal developmental phase, and as an endocrinopathy that necessitates medical attention and intervention. According to Bernstein and Lenhart,<sup>18</sup> a tendency has been to automatically and indiscriminately ascribe any psychosomatic or distressing physical, psychological, and behavioral experience of midlife women to their menopausal status. In their review of the literature on menopause, they outline the early psychoanalytic formulation of the sequelae of menopause as constituting a grief reaction to the loss of menstruation and its ties to reproduction and femininity. There is a conceptual shift in the perspective of time from a sense of limitless future to the sense of time "left to live," a time in which introspection, reflection, and self-evaluation become more prominent, and the themes of mastery, competence, and social responsibility move to the foreground. Sexual fulfillment, sexual competition, and childbearing are reviewed for lost capacities and opportunities. Loss of important others and of bodily capacities begins to set in during this phase as well. Given the increased life expectancy of women, the postmenopausal period will be the predominant phase of a woman's life, requiring increased attention.

Recent writers suggest that although menopause occurs at a time when changing roles, responsibilities, and relationships may create significant stress,<sup>21</sup> it also can provide an opportunity for growth and mastery. Sherwin<sup>26</sup> reviewed sociocultural models of menopause and also found that the major determinants of psychological disturbance at the time of menopause

are role changes and cultural attitudes toward aging, rather than the loss of fertility per se. Her review of cross-cultural studies has shown that meno-

pause is experienced differently in different cultures. She cites work that illustrates that in the cultures where women receive rights at the time of menopause that were denied them during their fertile period, menopausal

symptoms are minimal. For instance, some tribeswomen anxiously await the day of menopause because it frees them from the burdens and confines of bearing and raising children.

The preceding example supports the notion that the experience of menopause itself varies depending on the culture and a woman's psychological state of mind. Since the core emotional experiences in a woman's life occur in the context of relationships, affiliations, and attachments, midlife women may be less affected by menopause than by changes or losses in key relationships with maturing children, aging parents, spouses, late-life babies, or the babies they wish they had had.

Chronologically, menopause coincides with the time when one could become a grandparent. According to some theorists, grandparenthood, a unique developmental stage in life, has received little attention in the literature. It can be a time for reworking unresolved conflicts and having a second chance at parenting; it can also provide an opportunity for being a child again in a way that was impossible previously.

Notman<sup>21</sup> recently pointed out that pregnancy has most often been discussed as an experience for the mother or the family without consideration of their actual life stage or life circumstances. In other words, pregnancy in a teenager has a different impact and meaning than one for a woman in her mid-20s who has already separated from her family, or for a woman in her mid-30s who has established a career, or for a woman who is approaching the end of her reproductive capacity. Clearly this is also true for post-menopausal women with oocyte donation pregnancies. If the escalating incidence of infertility during the reproductive years has catalyzed and redirected our efforts to understand female psychology, then the availability of oocyte donation after the menopause rocks the foundations. What are the psychological repercussions of so profoundly altering developmental landmarks? And why would women desire children at this stage? This phenomenon is only now beginning to be studied, and this author (J. L. Rosenthal with R. C. Zimmermann) is collecting data on women who have undergone this treatment.

The authors who have reviewed the psychological literature on menopause<sup>22,23,7</sup> invariably agree that the failure to design studies that adequately control for life events at a time when there are other issues of midlife, such as aging, declining health and fitness, emancipation of grown children, and marital difficulties, represents a basic methodological flaw in the menopause research. Additionally, women's professional and social advances over the last two to three decades tremendously affect their psychological development and creativity; a sense of identity and feelings of self-worth can be derived from spheres broader than the creation of a family. Taken together with the introduction of donor oocyte treatment and its application in post-menopausal women, further scrutiny and theory revision regarding the psychological vicissitudes in women's development is crucial.

## Psychological Aspects of the Reproductive Technologies

### *Psychological Effects of Infertility*

There is a substantial literature on the psychological effects of infertility,<sup>6a,17,28</sup> so which highlights important aspects of women's and couples' experience, but it is troubled by anecdotal material, lack of proof of causality, lack of control populations, assessment of psychological "states" rather than "traits," retrospective research designs confounded by recall errors, a paucity of prospective, longitudinal data collection, and the absence of an adequate assessment of premonitory psychological functioning. Despite the fact that fertility problems and their psychological repercussions are frequently experienced over a period of years, few studies have evaluated subjects at more than one time.<sup>30,51</sup> Several recent texts have reviewed this literature nicely.<sup>12,13</sup> Since so many of the women presenting for oocyte donation have been involved in infertility treatment for years, these findings are particularly relevant and applicable to them; this chapter includes a brief summary of some of the major themes.

The inability to conceive is experienced as the most basic betrayal of body and soul and profoundly influences a woman's sense of self-esteem, body integrity, and self-worth, regardless of the presence of other deeply satisfying dimensions in her life. Stotland<sup>24</sup> reminds us that infertility has enormously significant meaning in human psychodynamics and development given that reproductive events are the psychosocial milestones around which the course of life is fantasied, planned, and experienced. She writes that women today, especially career women, have, as important components of their character structures and life histories, the conviction that all aims can be achieved and all obstacles overcome by a combination of intelligence, knowledge, innovation, persistence, and financial outlay. It is baffling when pregnancy cannot be achieved through these means, and the inherent and powerful loss of control these women experience may represent the single most difficult aspect of infertility. When a woman does conceive after infertility treatment, the expectable range of emotions during pregnancy can be complicated further with the fear that there could never be a normal outcome.<sup>2</sup>

As Burns<sup>2</sup> reviews, current perspectives in this field focus on individual psychological responses to infertility, marital disruption, and sexual dysfunction. These problems, which take their toll on self-esteem, sexual interest and functioning, and relationships with family and friends, are often accompanied by anger, depression, anxiety, and guilt. Dickstein<sup>41</sup> writes that a prominent source of anger derives from the loss of control these patients experience, first with regard to their own bodies, and then in the context of the strict medical protocol they are instructed to follow. Valentine<sup>2</sup>s adds that in addition to losing control over their own bodies, an infertile couple experiences many other losses of potential children, of ge-

netic continuity, of a life goal, and of the experiences of pregnancy, childbearing, and breastfeeding. Ineffective or absent grieving of these losses constitutes much of the distress experienced by those involved.

Downey et al.<sup>56</sup> provide data to support the notion that infertility treatment can result in the expression of various symptoms, that these symptoms do not meet criteria for a bona fide psychiatric disorder, and that no evidence exists to suggest that couples undergoing these procedures have more psychological disturbances than the population at large. Downey and Mc-Kinney<sup>57</sup> note the importance of distinguishing between distress and dysfunction and point out that preexisting psychopathology may play a part in making a vulnerable person more prone to depression, anxiety, or panic attacks during infertility treatment.

Rosenthal<sup>16</sup> writes that while many individuals cope very well with infertility, others have more difficulty, based on their characteristic style of coping and their defensive structure. She believes that personality styles, not disorders, are the relevant feature in how one may deal with the sense of loss and feelings of being out of control that infertility engenders. As illustration, she uses an example of a person with predominantly obsessive defenses, who values order and control and who may see infertility as a punishment, and another with a more dramatic and outgoing personality style who may see infertility as an attack on his or her masculinity or femininity.

Infertility affects one's self-esteem, self-worth, femininity, and body integrity. Getting pregnant and having a child does not eradicate one's perception of being infertile, although it can diminish some of the intensity of the feelings. Because infertility leans so heavily on self-esteem, some people continue to struggle with an impaired sense of self, or find that these feelings reemerge unpredictably. Mental health intervention can be extremely helpful in these situations.

### *Marital and Gender Issues*

Although much has been written about psychological reactions to infertility, the bulk of this work focuses exclusively on women. Advances in the science of infertility have altered the public's view of infertility solely as a woman's problem. Infertility is now viewed as a couple's problem, and since the most recent innovations in technique have had to do with enhancing male fertility, the male partner is usually involved in the medical procedures more fully than before.

Newton and Houle<sup>57</sup> provide a nice review of what is known about gender differences in response to the experience of infertility and childlessness, and to the experience of infertility treatment. Studies have uniformly found that women are more likely to be affected earlier and to a larger extent, are more likely to take personal responsibility for the failure to conceive, are more likely to experience self-image and esteem problems, and are more likely to express distress. Neither men nor women tended to complain

more about marital dysfunction, but both eventually described diminishment in sexual satisfaction. A notable difference between the genders was how they coped with infertility—women tended to look outside the marriage for support and reading materials to obtain facts, whereas men were more inclined to throw themselves into their work or other time-consuming activities. As infertility treatment extends in time and its impact on their wives and marriage become irrefutable, men typically become more involved in the treatment. Men's distress has been found to be on a par with women's when the etiology of the infertility problem is determined to be male factor alone; this may be understandable in the context of the equation men make between the inability to have biologic children and a loss of potency.<sup>58</sup>

Changes in sexual interest and difficulties with arousal and function are prevalent for both members of the couple; it is incumbent on the treating team to pay serious attention to these issues when they come up, and to inquire about them if they do not.<sup>59</sup>

### *Pregnancy Loss*

According to Black and Greenfeld,<sup>60</sup> "whether conceived in love or indifference, planned or unplanned, wanted or unwanted, pregnancy is always a significant event in the life of a woman. Similarly, pregnancy loss represents a significant emotional disruption in a woman's life. Pregnancy loss is inevitably accompanied by a degree of sorrow and grief, regardless of how much the pregnancy was wanted." Women with infertility often have had a number of real or imagined pregnancy losses; infertile couples are prone to personify their fertilized eggs and cryopreserved embryos, each fertilized egg is equated with a potential child, and each embryo that does not implant represents a death. Stewart and Robinson<sup>36</sup> point out that while 14% to 18% of all pregnancies end in miscarriage, miscarriage itself is unacknowledged by social ritual. Frequently, the woman's family does not know she is pregnant and is unaware of her loss; this compounds the woman's isolation and makes mourning less likely. When pregnancy or pregnancy loss occurs after infertility and its treatment, the emotional impact of these events is even more intense; the grief a woman experiences is related less to the duration of the pregnancy and more to the strength of the bond to the fetus. Many couples are given photographs of their embryos at the time of embryo transfer; coupled with early detection of implantation with beta-human chorionic gonadotropin (hCG), and early visualization of the fetus with ultrasound, the likelihood that these couples will experience intense episodes of grief with the subsequent loss of these pregnancies escalates. Mental health providers associated with oocyte donation programs can aid these couples by helping them to articulate their loss.

### *Single Motherhood*

Rosenthal<sup>16</sup> points out that single women, lesbian and heterosexual, have been requesting donor insemination (DI) and IVF with donor sperm with increasing frequency. She writes that although single women seeking DI may appear to be a different group, they have many of the same conscious and unconscious reasons for wanting a pregnancy and a child as married women. These include wanting a child to combat the fear of loneliness, to confirm one's sexual identity and bodily integrity, and to fulfill the expectations of one's parents, society, and culture. Some women long for a child to have the opportunity to rework the relationship with their own mothers. Some may be reacting to the loss of a relationship or a parent. Some simply want to go through this major life experience."

Although the numbers of single heterosexual and lesbian women seeking treatment are increasing, some programs provide services only to married couples. The oocyte donation treatment team can offer a great service to these single women by referring them to RESOLVE or other such support systems, who can help them to anticipate what their needs will be, as a single person, during their pregnancy, labor and delivery, and the first months of their child's life.

### *Effects on Professional Life and Career*

While many aspects of a woman's or couple's life are indefinitely on hold during the course of infertility treatment, the effect of this is complicated. Some women describe lost opportunities in their career because of choices they made to enhance their chances for becoming pregnant—for instance, staying in a mediocre but less time-intensive post. Others do not look for advancement with the hope that they will become pregnant momentarily and drop out of the workforce, at least temporarily. Yet others paradoxically find themselves being promoted in jobs they never wanted; all they had hoped for was to become pregnant and leave. Finally, there are concerns about reentry into the workforce after pregnancy and maternity leave, as described in the literature on working mothers; it will be interesting to see if women who finally become pregnant after years of struggle alter their original ideas about returning to work.

### *Follow-up Studies of the Families*

There have been a number of follow-up studies of families created through IVF. In a 1986 paper, Mushin et al.<sup>62</sup> raised questions about some of the potentially problematic psychosocial issues inherent in IVF families; specifically, they expressed concern that these offspring might be seen as "special" children, rendering them vulnerable to unrealistic expectations. They also wondered whether parents' unresolved psychological issues concerning

infertility would influence their parenting capacity. Finally, they worried that if there proved to be an increased incidence of congenital abnormalities in these kids, there could be unwanted publicity that would reinforce the first two issues. The results of their study showed these concerns to be unjustified. Golombok et al.<sup>63</sup> reproduced their findings and felt that the quality of parenting in IVF kids was superior to those conceived spontaneously. Recent results from a large-scale Australian study revealed overall normal development and parenting. (This information was presented at the ASRM 1995 meeting.) Unfortunately, these studies do not include follow-up after the child's first years of life.

### *Psychologic Care in Oocyte Donation*

Since the bulk of couples entering oocyte donation programs are channeled from IVF programs, all of the preceding psychological issues are relevant; in addition, there are a number of others, which will be addressed next.

Much of the psychological experience of those requesting donor egg therapy, and the meaning of oocyte donation for them, reflects the reason they present. Candidates include women whose ovaries no longer function adequately because of premature menopause, normal aging, surgical removal, gonadal dysgenesis, or damage from chemotherapy or radiotherapy for cancer.<sup>64</sup> Other candidates include those who genetically are at risk of transmitting a serious defect, or who are sterile based on a genetic defect of their own (i.e., Turner's syndrome). Given the wide range of indications, it is not difficult to see that a woman diagnosed with premature ovarian failure at age 25 would experience her infertility differently than a 49-year-old mother in her second marriage desiring a child with her current spouse. The 25-year-old has to deal with her experience of indignity and shame as a chapter of her life slams shut long before it is psychologically time, and the 49-year-old will grieve, despite the presence of a child from her former marriage, if she and her new husband are unable to experience a pregnancy and raise a child together. A woman who had breast cancer in her middle 30s and was rendered infertile through chemotherapy, and is now given a high statistical likelihood of cure after five recurrence-free years, might experience her situation in yet a third way; she has had her reproductive years whisked away and has been confronted with her mortality. Some couples experience the unanticipated tragedy of losing a grown child through an accident and desperately want to replace that child. Each of these clinical scenarios is compelling, and each needs to be assessed with a different slant. Unfortunately, little more than anecdotal reports are available, despite the fact that we are seeing these patients in our centers daily. We need to write these cases up to gather the data and refine our clinical approaches. \_

Follow-up data will also yield more information about how recipient couples psychologically deal with the presence of a third person, the donor,

over time. This phenomenon is sometimes referred to as the "ghost" of the donor. Of course, differences will exist between couples using anonymous donors and those using known donors who might have contact with these families. Similarly, we need to know more about donors' considerations after the fact of their donation to help them to anticipate what they might feel in years to come.

Although those who seek oocyte donation want children as passionately as those going through IVF, the use of donor eggs represents pushing the envelope. It requires reconciliation with the fact that a resulting child will be 50% genetically related to the father, and 0% genetically related to the gestating mother. Couples navigate this issue, and the affiliated nature/nurture question, in a variety of ways. Most ultimately decide that environment plays the decisive role, and that the parent is the one who raises the child. Anecdotally, it has been this author's experience that women who already have their own genetic children are much less likely to be bothered by the distinction between genes and environment; whether it is because they have already reproduced or because they have already been through the powerful experience of first-time parenting is not clear. It will be interesting to follow these cohorts to assess the extent to which there remains, in their minds, such a crisp division between the influences of nature and nurture.

Another way in which couples seem to psychologically negotiate the fact of genetic "differentness" is by considering the existence of the child as an adoption, with the added "gift" of pregnancy and control over the prenatal environment. Finally, some consider that being bathed in "mother's juices" imbues the baby with a likeness or biological connection to the gestating mother.

It is this author's hunch that parenting is the great equalizer, and that the initial preoccupation with genes and "otherness" will fade in the context of being up all night with a crying baby, watching a toddler's first steps, listening to a preschooler recite the alphabet, and observing the ways in which gestures, facial expressions, and tastes mimic those of the parents. More than one woman has told me that she was initially frightened to look at her baby in the delivery room for fear she would not recognize it; yet, when the newborn cried and mother's voice was met with the calm of recognition, an indelible and irreversible connection occurred. The work of Golombok et al.<sup>53</sup> supports this: "Going through a process in which having children is no longer self evident exerted a positive influence on the parent-child relationship. The presence or absence of a genetic link between parent and child was less important to the family relationship than a strong desire to have children."

### *Comparisons with Donor Insemination*

A number of authors raise the question of why oocyte donation is such a controversial issue while donor insemination, reported since the turn of the

century, hardly provokes response. Some point out the historically secretive nature of male infertility, probably a consequence of the equation between infertility and impotence, as well as the family's attempt to protect the infertile male from social scrutiny and humiliation. Others point to the fact that oocyte retrieval requires surgical intervention after medication stimulation, whereas the provision of a semen sample is quick, easy, and noninvasive by comparison. Additionally, insemination itself can be done quickly in a physician's office or at home with a turkey baster, allowing for more privacy and nondisclosure. What has been learned about the long tradition of donor insemination that may be applicable in oocyte donation?

Klock<sup>55</sup> has studied DI and provides a thorough review of the literature regarding social attitudes toward DI, secrecy, and marital and sexual adjustment. She found that individuals appear to be more accepting of DI for others than for themselves, that demographic variables affect its approval, that any ART using a third party is less acceptable in general, and that a personal experience with infertility, or knowing someone who is infertile, renders someone more likely to be accepting of DI.

As with oocyte donation, the American Society of Reproductive Medicine (ASRM) has not issued guidelines pertaining to the psychological evaluation of couples undergoing DI; this is in contrast to agency requirements for recipient evaluation in adoption. Klock refers to studies that suggest instituting a routine psychological assessment of DI couples in an effort to maximize individual and marital adjustment. She recommends the use of a mental health provider as a regular feature of a team approach in infertility, and she believes that the treatment outcome, a child, is important enough to mandate a screening interview with a mental health professional. Like-wise, she feels that mental health professionals should not shirk their responsibility in formulating an opinion about the appropriateness of treatment. It must be recognized, however, that no standardization of what is meant by "appropriate" between programs exists, and these judgments reflect their individual values.

### *Cancer and Infertility*

With regard to infertility, three groups of women are affected by cancer: those stricken in their youth who were rendered infertile by chemotherapy or radiotherapy, those diagnosed and treated in their reproductive years, and those who are diagnosed with cancer during infertility workup or treatment. Oncologists following these women have become more attentive to the possibilities for pregnancy in reproductive-age women following successful treatment, either through the thawing and transfer of cryopreserved embryos that were created prior to chemotherapy, or with donor oocytes.

Breast cancer in particular, but all cancers in general, are on the rise in women of reproductive age. The rate of increase, related to levels of the hormones associated with ovarian function, starts to rise in a woman's 20s,

and remains very rapid until the age of 50, at which time the rate of increase lessens to 10% to 15% that of previous levels. The fact that delayed child-bearing contributes to the incidence of breast cancer is well established, and recent findings suggest that the early use of oral contraceptives renders one more likely to have an increased risk of breast cancer that occurs before the age of 45. Simultaneously, because of early detection and aggressive treatment, the five-year survival rate has risen. We are now starting to see these women *in* our programs.

In their excellent review of cancer and infertility, Hubner and Glazer<sup>67</sup> describe the "existential intertwining" of two profoundly related themes: the longing for biologic continuity and the longing for survival. They also point out the mortification of having the cancer arise in a reproductive organ, such as the cervix, uterus, ovary, or breast. They strongly recommend raising issues related to fertility, either future or current, in this population, despite the shattering nature of receiving a diagnosis of cancer. They believe that acknowledging a woman's desires for fertility allows the patient to understand the respect their physician has and implies their comprehension of the loss that the diagnosis involves, and they feel that it deters the possibility that women will later experience "an intolerance of regret" for not having confronted their lost fertility. They point out that though anonymous ovum donation does not compensate for the loss of genetic continuity, it does offer women the experience of pregnancy, labor, and delivery. They caution against the use of sister donors for a number of reasons: to avoid the possibility of coercion, to reduce a superimposed urgency to retrieve eggs even if the donor has not yet completed her own family, to circumvent the difficulties that could arise with close proximity between the child and a related donor who sees how the child is being raised, and to minimize unspoken fears about the gestating mother's survival. Although these concerns could theoretically arise in any situation with known donation, the authors point out that they could be quite problematic in a setting where cancer has already drained available resources.

These authors also write about childhood cancer survivors. Studies indicate that many of these patients were never told they had cancer, or that their cancer was cured at the cost of future fertility. For such patients, the infertility experience revives unresolved issues around their cancer and may precipitate a new level of rage at their parents and caregivers for the "irrevocable sequelae that are their adult legacy."

Lee et al.<sup>68</sup> reported a successful oocyte donation pregnancy in a woman after a bone marrow transplant and encouraged the use of donor egg treatment for women in this population.

### *HIV and OD*

There is discussion, mostly in ethical terms, of the use of ART in people affected with HIV. Rojansky and Schenker<sup>69</sup> suggest that in clinical practice,

the reproductive decisions of an HIV-infected woman should remain, both ethically and legally, a choice of the woman and/or couple and her doctor. Advances made in curtailing vertical transmission of the virus through the use of AZT affords more comfort regarding the health of the fetus. Although these authors addressed the rights of infected women, their discussion excluded consideration of the children born to a potentially ill mother, and their "right" to an expectable length of parenting.

### *Genetic Disorders*

The availability of preimplantation diagnostic testing after the fertilization of eggs in IVF, first reported in 1992,<sup>70</sup> allowed couples who carry specific genetic deletions, like those in cystic fibrosis, to have only the genetically unaffected embryos transferred back for possible pregnancy. This affords dramatic possibilities, as does the availability of oocyte donation for women affected with genetic disorders such as Turner's syndrome; without this treatment, it would be impossible for Turner's women to carry a pregnancy and bear a child. Press et al.<sup>71</sup> studied the outcome of oocyte donation *in* Turner's women to ascertain the correctness of the reports that endometrial response to standard hormone replacement therapy (HRT) in this population is suboptimal; they found that with proper hormonal dosing, their pregnancy rates were comparable to patients with other causes of premature ovarian failure.

### *Women of Advanced Reproductive Age*

The early reports in the medical literature on the establishment of pregnancy in a postmenopausal woman using exogenous hormonal support and donor oocytes<sup>72</sup> was followed with a flood of public response clearly reflecting uneasiness with this reproductive feat<sup>71,74,75</sup>. Then, in the first half of the 1990s, news emerged from overseas<sup>76</sup> of successful pregnancies and births in women over 60; the United States remained slightly more conservative, with the most liberal programs using 55 as a cutoff. Societal response reflected delight, dismay, and at times disgust; the debates were shaded with overtones of religious, ethical, feminist, and political correctness, and suggestions were made that being an older mother was against the laws of nature. Communications were published that urged consideration of the children born, advised against "pushing nature's hand," and worried about the population of "orphans" being created. Takahide<sup>77</sup> took the position that this treatment should be limited to women under 60 years of age in view of the welfare and best interest of children and their need for a parent to raise them until they can live independently; Saunders and Bowman<sup>78</sup> suggested that we not rush to legislate against the use of oocyte donation in women over 51 yet; Cohen<sup>79</sup> declared his uncertainty about limits despite

his "shock" at paying donors for their efforts. Moderate medical thinking was infiltrated with strong emotions.

In 1995 Borini et al.<sup>80</sup> published a series of 18 pregnancies in women 50 to 62 years old where they found elevated incidences of morbidity such as gestational diabetes and preeclampsia; later that year, Sauer et al.<sup>81</sup> published a review of 22 pregnancies in women over 50 years of age from conception through delivery, documenting good outcomes despite the higher than expected incidence of gestational hypertension and multiple pregnancies. They were, nevertheless, encouraged by the results and concluded that with thorough medical evaluation, those not excluded by underlying medical problems should not otherwise be excluded from attempting pregnancy by age alone. Late in 1995, an article was published in the *New England Journal of Medicine* indicating that advancing maternal age continues to be a risk factor for fetal death<sup>82</sup>; this prompted an editorial by Cunningham et al.<sup>83</sup> who clarified that older pregnant women without underlying chronic medical disorders did not appear to be at increased risk for adverse outcomes, and who advised that we remain optimistic about outcomes for most older women who desire to become pregnant.

Commentators also speculated about the psychological motivations of these older women, wondering about their desire for immortality, their attempt to "fill up" the empty nest, their exaggerated narcissistic investment in staying forever young, and the selfish imposition of their needs on the children. One such author<sup>84(21)</sup> wrote: "The publicity given to the triumph of famous but old women who exhibit a child who was born from them but who originated from another person's ovum has at least had the advantage of provoking a negative reaction. Many people have understood that these phenomena correspond only to selfish vanity, in contempt of the right of the child to have parents who are suitable both physically and intellectually to look after it effectively until after adolescence."

Others, such as Sauer and Paulson,<sup>85</sup> the first investigators to apply oocyte donation in postmenopausal women, contributed to the debate by more somberly outlining issues, including the imperative to reproduce, the safety of the procedure on mother and fetus, the potential for suffering in children with loss of advanced aged mothers, the capacity for parenting in older

couples, and whether it is "natural" for women over 50 to bear children. They advised against the bias of "ageism" in the absence of medical contraindication, and they expressed the view that personal rights should take precedence over social opinion. Finally, they argued for the establishment of reasonable guidelines rather than absolute rules for governing the application of oocyte donation while the efficacy and clinical utility of the treatment is studied.

Meanwhile, European countries began to charge commissions with the task of making recommendations for legislation of these procedures. The upper age limit for oocyte donation recipients in England, for instance, were based on these commissions' interpretation of what was in the best

interest of the child, and their guidelines reflected their conservative stance by setting the age limit at 40 to 45, based on their view that a child requires parenting until young adulthood. To date, these recommendations, and thus legislation, vary from country to country, making international commerce of the technologies and transcontinental travelers of its clientele.

The debate about the upper age limit in this country flared as well, but without legislation limiting its application. What is "older"? How do we define "advanced reproductive age"? Is it something simply chronological? Reproductive endocrinologists would say it is related to the aging ovary and endocrinological changes and elevated follicle-stimulating hormone (FSH). Or is it something psychological, as suggested by the term "advanced *maternal* age"? Different programs determined their own guidelines and instituted different age limits; most set the limit at 45, while a few allowed women up to 55. Clearly, value-laden issues underlie these differing criteria. To address this, many hospitals and centers have set up ethics committees to grapple with this, and other complex questions, in reproductive technology.

To date, no psychiatric research has been published on this population, although this author is currently collecting data from women over age 47 who conceived using oocyte donation between 1989 and 1996 (J. L. Rosenthal, "The Desire for Childbearing in Women of Advanced Reproductive Age," presented to the North American Society of Psychosocial Obstetrics and Gynecology, Feb. 14, 1997, Chicago, IL).

### *Egg Sharing*

For the average couple, the cost of infertility treatment creates enormous financial hardship. Since oocyte donation requires covering the costs of the donor in addition to those accrued by the recipient couple, the treatment becomes unfeasible for many. The notion that more than one couple could split the eggs of one donor, and thereby distribute the costs, has been one solution to this problem. In addition, it was felt that the fewer donors who were exposed to gonadotropins, the better. Given the high cost of IVF, some have suggested that if a woman going through IVF would donate a portion of her eggs, she could reduce the cost of her own cycle. These were all incentives for the idea of egg sharing. According to Braverman et al.,<sup>86</sup> in 1992, 45% of clinics offered egg sharing. Although some investigators<sup>87</sup> feel that IVF participants are in an ideal position to donate eggs, reduce the cost of their own cycle, and solve the shortage problem, others feel that because these women are themselves subfertile they are not ideal donors. Still others feel that this option introduces numerous ethical issues, including potential patient coercion and exploitation, and numerous emotional concerns, including questions about the distribution of "better eggs" and what to do in the complicated situation in which a recipient becomes preg-

nant and the donor does not. Similar issues arise in the context of embryo adoption, a variant on this theme.

### *Multifetal Pregnancy Reduction*

The favorable conditions in oocyte donation have resulted in elevated rates of multiple pregnancies. In an attempt to optimize the health outcomes of fetuses and mother, the procedure of multifetal pregnancy reduction (MFPR) has been offered in a number of centers.

According to the review by Ormont and Shapiro,<sup>18</sup> the first selective fetal reduction was reported in 1978, when reduction was aimed at terminating one fetus with a birth defect in a twin pregnancy. At this time in the history of reproductive endocrinology, gonadotropins were being used for ovarian stimulation prior to insemination, and the imperfect control in numbers of ovulated eggs often resulted in high order pregnancy. The introduction of IVF around this same time added to its incidence. In this context, the use of MFPR began to rise.

As Greenfeld et al. note in their comprehensive review,<sup>89</sup> a small but growing body of literature on fetal reduction focused primarily on descriptions of the clinical procedure, medical criteria for fetal reduction, and studies on outcomes and risks of the procedure; at the time of their review, however, no studies addressed the psychological impact of decision making concerning pregnancy reduction, and no studies addressed the question of psychological sequelae following fetal reduction. They felt this was contributed to by the reality of the transfer of care from the reproductive endocrinologist to the ultrasonographer who performs the procedure, and then to the obstetrician who manages the pregnancy, all of which result in a loss of continuity and difficulty with postpregnancy follow-up. These authors also outline the ethical issues of MFPR, including commentary about its overlap with the politically and morally sensitive issue of elective abortion. They nicely review the data on elective abortion, abortion for genetic indications following amniocentesis, and MFPR. They conclude that most women who undergo a therapeutic abortion are reasonably certain about their decision to terminate an unwanted pregnancy, and the authors believe that for them, the incidence of psychological sequelae is low. This is in contrast, however, to the experience of infertile women who have desperately tried to become pregnant and who, having finally achieved a pregnancy, find themselves in a dilemma where termination of part of their pregnancy is recommended by their physician. On the other hand, McKinney et al.<sup>90</sup> found that when pregnancy outcome is successful after MFPR, women are not at a significant risk for affective illness or elevated levels of psychiatric symptoms. Not surprisingly, they found that women who had living children at the time of reduction were significantly more likely to report depressive episodes. Finally, they believe that an individual's views about the ethics of voluntary abortion, one's personal susceptibility to guilt

or grief, and fantasies about the terminated fetuses have an impact on whether the woman will experience a depressive episode. In contrast, Schreiner-Engel et al.<sup>91</sup> found that postprocedure, MFPR patients experienced a briefer period of mourning than patients who electively or spontaneously lost their pregnancies. This finding is distinctly different from this author's anecdotal experience, where the "shadow" of the reduced fetus(es) continues to be perceived indefinitely. I have also seen patients who chose not to reduce, and who subsequently experienced guilty feelings and fantasies about the living baby who would have been the one to be reduced, based on its size or location in the uterus, and who the mother perceives as "throwing her over the edge" in the daily care of multiples.

From the small amount of data that is available, it is plain that we need long term follow-up of groups of patients who opted to undergo or who declined MFPR. Methodologically, this will undoubtedly be very difficult, but we owe it to the patients currently making these difficult choices to help guide their decisions.

### *The Donors*

At this stage of our technological abilities, without donors there would be no donor egg treatment. Without anonymous donors our programs could not thrive, and because available eggs are the rate-limiting step in this therapy, the presence or absence of a donor pool can make or break a program.

Who are these donors and why are they donating eggs now? This question is prime in the minds of recipients, as well as the programs who are anxious to recruit them. The demographics of this population has changed since oocyte donation became available, in part because in the beginning the majority of donors were recruited by and known to the recipient, and in part because the recent explosion of programs taps more heterogeneous populations of donors. These include young married women with children of their own, whose known reproductive potential and assumed low risk for claiming maternity makes them appear ideal, as well as single students and young women who are starting in the work world and are looking for additional ways to support themselves. Interestingly, while initially attracted by the financial-remuneration, other motivations, including a feeling of altruism or identification with the infertile, became more primary.

Egg donors have variously described their activity as donating genetic material, donating an egg, donating a baby, and donating a life. Some donors describe their monthly menses as wastefully washing away an egg that could otherwise be put to good use in an infertility patient. Although this description of the "monthly ovulation" sounds disembodied from potential life; one can easily imagine that at various life stages and juncture points in a donor's life (i.e., after an abortion, before her own hoped-for pregnancy, before a significant relationship, during a relationship, during a marriage, when trying unsuccessfully for her own pregnancy, after bearing her own

children) the meaning of the donation can be tremendously variable and more highly personal. The inability to predict the future or to anticipate how a woman might feel about her actions years later complicates matters.

Many of our most prized donors are college or graduate students in their early 20s, whose value as donors is based on their intelligence and the youthful age of their eggs. Yet, from a psychological point of view, these young women may not fully understand the implications of their donation-not because they don't try, and not because we don't attempt to help them imagine the various possible scenarios down the road, but because developmentally they are still in flux, often experimenting with different life-styles, relationships, and occupational possibilities. Follow-up data are difficult to obtain, since students are prone to relocate; nevertheless, such data are crucial.

Most programs have developed a protocol for the evaluation of donors that includes psychological assessment, but there are no standard criteria uniformly agreed upon for the inclusion or exclusion of donors. Some programs use standardized psychological assessment tests, such as the Minnesota Multiphasic Personality Inventory (MMPI), alone or as an adjunct to a clinical interview. Whereas the medical health, history, and age range of the donor are generally standard between programs, factors such as a past substance use history or a family history of alcoholism or psychotic illness and the presence of particular personality disorders are not uniformly accepted or rejected. Some of the inconsistency is related to uncertainty about the genetic heritability of these characteristics, but most is based on the individual program's inclination. For instance, some programs will exclude women who have been sexually abused or assaulted because they do not want to reproduce a situation that they believe could potentially leave the woman feeling victimized once more; others will not exclude these women, because they believe it might help them to feel more worthy. Another example involves the use of known donors-some programs will use known donors only if they are sisters; others will use friends but not family members; others allow trans-generational donation between mother and daughter.

Braverman et al.<sup>86</sup> published a preliminary survey of 51 oocyte donation programs, noting the presence or absence of ethics committees or internal review boards; the use of various personnel; the allowable age range for ovum donors and recipients; the use of anonymous, known, and transgenerational donors; the amount of financial compensation; the manner in which donor and recipient are matched; and the extent of medical and psychological screening of the donor and recipient. According to them, 60.3% of programs indicated that they had developed psychological criteria for the rejection of ovum donors, but they did not clarify what the criteria are. They concluded with the recommendation that mental health professionals be fully involved in these programs given the variability in their screening.

A paper by Schover et al.<sup>92</sup> stands out as one study that explicitly describes the evaluation procedure for donors at their program. They devel-

oped a rating system that ranked potential donors as excellent, acceptable with minor reservations, or unacceptable, and then analyzed compliance with the program in the two "acceptable" categories. Excellent donors were 100% compliant, and 61% of those accepted with reservations completed one donation cycle. Their psychological evaluation assessed for psychological disorders, substance abuse, and the degree of realism regarding the donor's expectations about the procedure. They excluded donors who currently had a high degree of life stress, and they looked for any indication of coercion due to pressing financial need. Donors were rated as excellent if the primary motivation was realistic, did not involve financial gain, and was not aimed at compensating for a past reproductive trauma. These optimal donors had no history of major sexual trauma, chemical dependence, or psychiatric disorder; they had no first-degree relative with chemical dependence or a history of psychiatric hospitalization. Reservations were given to those who had one or more unfavorable ratings on these dimensions, but they were felt to be acceptable if the donor was judged to be emotionally stable enough to comply with medical procedures and to participate without psychological harm. Unacceptable donors had several unfavorable factors, including current or past major psychiatric disorder, current or past substance abuse, a chaotic life situation, or clearly unrealistic motives for participation. Donors who had a first-degree relative with schizophrenia or bipolar disorder were excluded as well.

Several studies<sup>93,94-95</sup> describe various characteristics of anonymous donors; few involve donor follow-up.<sup>93,94</sup> Schover et al.<sup>92,94</sup> found that family turmoil and reproductive traumas were common in donor candidates. In their studies, sexual trauma, including childhood molestation, incest, or rape as an adult, had occurred of least once for 36% of the women. These women often came from disrupted families and had traumas in their reproductive lives. They also saw them as "risk-taking" women who did not conform to societal norms for sexual behavior. These features led the authors to wonder if, in addition to their conscious sense of altruism, these women may have had an unconscious need to expiate guilt over past sexual conduct or elective abortion, or to compensate for the loss of a parent, sibling, or child.

By contrast, Lessor et al.<sup>96</sup> described their donor volunteers as socially conventional, outgoing, free from psychopathology, and without a history of dysfunction in the family of origin. The discrepancies between these two studies raise questions pertaining to the demographics and geographics of the donor pools, the extent to which the interviews were similar in depth, the comparability of the training and orientation of the interviewer, and the degree to which the donors were willing to disclose information they thought might exclude them from the process.

Taken as a whole, these studies indicated that anonymous oocyte donors who had been psychologically screened responded well to the experience, and that the majority would participate again. Despite the difficulty of the

medical treatment, donors felt that interaction with the program staff and the sense of being a medical pioneer were positive aspects of their participation. Schover et al.<sup>9</sup> noted that some donors continued to long to know whether a pregnancy had occurred and expressed interest in having some contact with the recipient couple, even though they were recruited strictly for anonymous donation. These authors strongly support anonymous donation to avoid "family conflict or courtroom tragedies."

Psychiatric issues relevant to nonanonymous situations have been addressed in a number of communications. Bartlett<sup>10</sup> examined donors and recipients with this arrangement, although one could argue that her sample of recipients, exclusively women with premature ovarian failure, and their choice of donor (36% sister, 36% close friend) is not generalizable to the larger population of oocyte donation recipients. She found that the donors' motives were generally altruistic; interestingly, one-third of the donors had had a previous voluntary abortion, and they described their hope that oocyte donation might somehow "make up" for it. Others wanted to test their "genetic pool." Half of the donors expected their relationship with the recipient to become a closer one, while 12.5% expressed concern that the donation might complicate the relationship. The author emphasized the importance of thorough donor screening to clarify and fully discuss these complexities with the donors.

A recent study by Greenfeld et al.<sup>98</sup> assessed similarities and differences between anonymous and nonanonymous donors within one program. They note that although historically there has been a preference for anonymous donors, probably in an effort to protect the donor, recipient, and child from "psychological harm," the majority of programs are using known donors, some instead of, but most in addition to, anonymous donors. They found that anonymous donors were significantly younger and their motivations for involvement included financial remuneration, altruism, influence by the infertility of someone they know, desire to participate in health sciences research, and their own experience with infertility. By contrast, known donors were more often married, were more likely to have been pregnant previously, and were motivated to donate eggs by their relationship with the recipient. In contrast to other studies, they found no differences in social class between known and anonymous donors, or between donors and recipients, although their donor pool was drawn from a university population. Finally, they noticed a trend suggesting differences in the two groups regarding disclosure: Anonymous donors felt the child should be told of the manner of his or her conception while known donors were less likely to support the idea of disclosure to the child. The opposite view for each group would seem more intuitively obvious.

Weil et al.<sup>9</sup> described the conscious attitudes of the different donors they surveyed. They felt that anonymous donors donated as a gesture of "female solidarity," and that sister donors donated to "equitably share" the family heritage. From a psychoanalytic point of view, the authors feel that

donors donate in an attempt to deal with unconscious feelings about the infertile woman's envy.

Lessor et al.<sup>100</sup> conducted a survey of public attitudes toward oocyte donation between sisters, although it should be noted that this was published in 1990, when oocyte donation programs were still young and anonymous donors were relatively scarce. They found that women in the general population showed markedly less support for egg donation by a sister despite the diagnosis of premature ovarian failure in the recipient. They proposed that female respondents are more wary of the symbolic meaning of the reproductive connection between a sister-in-law and a husband, while the recipient's attitude is shaped by her desire for a pregnancy. Sauer et al.<sup>101</sup> similarly assessed attitudes regarding donation between sisters, but found wide support; the discrepancy between studies may be accounted for by the fact that the sample from this second study was drawn solely from the infertile population.

Clinical case material involving the use of a minor who donated oocytes to her mother<sup>102</sup> provoked responses<sup>103,104</sup> urging the restriction of this practice on several counts: Donation of oocytes cannot be equated to donation of organs since oocytes are not essential to save someone's life; minors cannot give informed consent, and the girl's guardians had vested interests; even if the girl is "agreeable," it is difficult to eliminate coercion; underage girls should not be exposed to procedures that potentially risk their future fertility; relationships in transgenerational donation are confusing; there is potential identity confusion for the child given that its genetic "mother" is also its sister; and there is virtually no way for the donor to be anonymous.

There have been no good studies examining why some recipients choose anonymous donors while others select known donors. Anecdotally, those using known donors describe "needing to know" the donor so that more concrete information is available to pass on to the resultant child. Raoul-Duval et al.'s believe that anonymity enables recipients to escape incest fantasies and to avoid the irreparable debt they might feel if a close friend or relative donated eggs. In this author's experience, recipients prefer anonymity so that they do not have the image of a face to contend with in the years to come.

Some authors have asked whether there might be any generalizability about egg donors from the literature on sperm donors. Purdie et al.<sup>105</sup> described the common reasons that young parents might not want to donate sperm, including discomfort at the prospect of having children outside the family, worry about future contact with DI children, and worry about incest between their own children and the offspring of DI. In an interesting study, Schover et al.<sup>106</sup> compared characteristics of semen donors to those of oocyte donors and found the men to be less altruistic, more affluent, and more likely to have abused alcohol, whereas the women had more traumatic family and reproductive histories, including parental divorce, substance abuse in the family, out of wedlock pregnancies and abortions, and sexual trauma.

By contrast, Handelsman et al.<sup>107</sup> found the primary motive for sperm donation to be altruism, with secondary motives that included a desire to evaluate the donor's own fertility.

### Disclosure

In the early years of IVF, couples often expressed confusion and concern regarding what they might tell their child(ren) about the manner of their conception, even though they were using their own gametes. In the early 1980s a number of psychiatrists recommended that no one be told about the use of IVF or DI for the children's sake; they felt that secrecy was in the best interest of the child and that difficulties would inevitably ensue when and if the child learned about the conception. Another group, taking their cues from the adoption movement, vocalized their opinion that children have the "right to know" the "truth," and that knowing the details would serve to emphasize how loved these children are. For instance, Sokoloff<sup>108</sup> believes that the DI child must be told of his or her origins, despite the risk that the child or entire family may become subject to society's failure to accept ART, and in spite of the fact that the child still would not be able to learn about his or her identity because of the manner of current record keeping. These positions encapsulate the polarization that has resulted, and the debate about disclosure in oocyte donation now takes place around dramatic and emotional appeals for "telling the truth" versus secrecy.

As a matter of principle, some find comparisons with adoption faulty. One author writes that "the often used parallel with adopted children ignores the multifactorial components' to identity"<sup>63</sup> Cook et al.<sup>109</sup> believe that the experience of adoption is unlikely to be a useful model for DI because of the important differences between the parental experiences of these two ways of creating a family. Additionally, a key difference for the child is the feeling of abandonment that accompanies adoption. For a donor insemination or oocyte donation child, seeing a photograph of a pregnant mother or of the parents holding their newborn in the delivery room creates a powerful sense of connection and leaves less room for fantasies about desertion. Cook et al. also suggest that it is unjustified to expect openness from parents without providing them with the help and support that they need to achieve this, and they argue that it is insufficient to consider only the welfare of the child in this situation, because a satisfactory outcome for the child depends on its parents.

Haimes<sup>110</sup> wrote that it "seems preferable to favour anonymity in this matter whilst leaving the decision of secrecy to the parents, and continuing to explore the wider cultural uncertainty about the physiological and symbolic importance of genetic relationships in the development of the individual."

Others, including this author, wonder about the extent to which "telling" is colored by the parents' own feelings about their infertility and subsequent need to resort to ART. Unresolved feelings of defectiveness or unnaturalness

on the part of the parents need not become the legacy of the child, and careful consideration should be given to tact and timing of information.

Additionally, the equation of nondisclosure with secrecy, and the assumption that it will inevitably erupt in a poisonous way, is value-laden and represents only one perspective. Adults have always had private matters between them that need not be the seeds for discontent in a family. Parents don't often tell their children the private details of when and how they were conceived, and when they do, one would wonder about boundary issues. Therefore, I believe we need to be careful not to polarize the argument falsely and prematurely.

Finally, we need guidance from our colleagues who specialize in children's development about what, types of information children are able to metabolize when.

Because the technology of oocyte donation is relatively new and it is early for thorough follow-up studies, arguments regarding disclosure are based on the IVF and DI literature. Review of this literature may allow us to usefully extrapolate to oocyte donation.

According to Braverman et al., "a traditional bias has existed within the medical community against disclosure about the child's sperm donor origins, probably to protect the recipient father's relationship with the child, to avoid any potential negative psychological effects on the child, to deter any social stigmatization for any of the family members, and to circumvent any legal issues. Daniels and Taylor<sup>112</sup> believe that the attitude of the professionals involved in DI, especially the physicians, has the most impact on how couples and donors view DI, and whether they will ultimately feel more comfortable being open about it. A survey of physicians' recommendations about disclosure in DI revealed that 56% felt that the child did not need to be told, 22% suggested disclosure to the child, and 21% were neutral."<sup>113</sup>

Leiblum and Hamkins<sup>113</sup> assessed the view of a group of reproductive endocrinologists and also found a lack of consensus concerning disclosure; nearly a quarter of those surveyed favored disclosure, and 20% remained neutral. Additionally, of the physicians assessed, those who favored non-disclosure believed that the parents' right to privacy superseded the child's right to know. On the other hand, these same physicians tended to counsel disclosure when DI is used in single women or lesbian couples.

Cook et al.<sup>109</sup> points out that although there is now a trend toward encouraging DI parents to be more open with their children, and some clinics are reassessing their earlier positions on strict anonymity, the literature suggests that few couples undergoing this treatment actually plan to tell their children of the manner of their conception; after conception and birth, even fewer ultimately disclose this information. Klock<sup>65</sup> reviewed these papers and followed the trends from maintaining strict secrecy to offering full disclosure. Her survey summarized findings from seven studies and indicated that between 55% and 86% of couples planned not to disclose the fact of the insemination. Klock and Maier<sup>114</sup> determined that 40% of the

couples they followed told no one about the DI, while 60% told at least one other person; when asked if they could do it over again, 87% said they would tell no one. The rationale for this included not wanting to complicate a child's life and not wanting to complicate the father/child relationship. Interestingly, in their study, all couples had intercourse the night of the insemination, leading to a persistent fantasy that the child might biologically be the father's after all.

Schover et al.<sup>115</sup> had similar results: Prior to treatment, 80% of men and 74% of women intended to not disclose their use of DI. At follow-up, 88% of the group preferred complete nondisclosure, with the exception being in the event of an unanticipated and urgent medical necessity for disclosing.

In her 1993 review, Klock<sup>65</sup> concluded that most DI couples will maintain confidentiality; whether this trend continues, and clinically what its impact will be, is unclear. She recommends that since there is no right answer, each couple needs to weigh the pros and cons of confidentiality versus disclosure based on their own values. She points out, however, that both members of the couple should agree, in order to develop a game plan; that is, if confidentiality is to be maintained, then no one should know about DI. Obviously, the missing link is longitudinal follow-up on the children to determine the impact of these decisions and to help guide decisions regarding when and how to disclose this information.

In a 1994 prospective study of DI recipients, Klock et al.<sup>116</sup> replicated the findings of the retrospective studies, indicating that most DI recipients do not plan to tell the child of his or her donor origin. The methodology for this study, however, did not allow for a determination of whether attitudes and behavior regarding disclosure change over time.

Brewaeys<sup>117</sup> provides a current literature review of the development of DI children and their families and writes about a number of issues, including denial of the psychological meaning of infertility with the birth of a DI child, the potential danger involved in family secrecy, and a concern about the use of anonymous donors since a DI child might be left wondering about information that is unavailable to him or her. She also summarizes findings from follow-up studies of DI families. In the vast majority of cases, these parents consistently believed that DI was preferable to adoption, and with the exception of a few fathers, most of the men felt themselves to be the "real" father. With regard to the psychological development of DI children, studies have been scarce and of variable quality. Available data summarizes psycho-motor, behavioral, and emotional development and suggests that the finding of precocious psychomotor development could be linked to a closer involvement between DI parents and kids. This finding is corroborated by the excellent study by Golombok et al.<sup>63</sup> who found that the quality of the parent-child relationship in DI families, IVF families, and adoptive families was better than in the control group of "naturally conceived" families. Other

studies indicated that DI parents were "anxiously overinvested" in their kids, potentially leading to early emotional vulnerability, but inadequate controls

make it impossible to determine whether this attitude is a reflection of the experience of infertility rather than the lack of a genetic link.

Because the children in their study were still so young, Cook et al.<sup>109</sup> were unable to comment on issues regarding disclosure, though they noted that difficulties may become more apparent as the children mature; they remind us that children's understanding of their origins is limited in the early years, and that secrets are easier to keep from young children. They point out that the greater challenges lie ahead in meeting the child's increased need for understanding and knowledge, a developmental advance that characterizes middle childhood and adolescence.

One of the issues distinguishing donor insemination from oocyte donation has been the practically uniform use of anonymous donors in DI. In addition, while a very small number (not more than 0.5%-1%) of women over the age of 45 can spontaneously conceive, it should be obvious that older women who become pregnant likely had medical assistance. There is a small literature on issues of disclosure in oocyte donation. Kirkland et al.<sup>118</sup> report an interesting finding in their survey of oocyte donors and recipients: Although the numbers are small, when asked if they would like to be told if they had been conceived using a donated egg, 56% of donors and 86% of recipients said no. This is a fascinating statistic. Other authors<sup>119</sup> surveyed characteristics of the recipients, and found that 70% would disclose the nature of their child's conception. It is possible that these differences reflect the social and cultural climate in which the studies were done.

### *Follow-up of Families and Children*

What is known about these children? A small number of studies of IVF populations exist that generally focus on obstetrical outcome and development into early toddlerhood; these reveal that on most measures, IVF children are developing normally and seem no different from those conceived "naturally," with the exception of some prematurity and low birth weight that normalized over time. Greenfeld et al.<sup>120</sup> nicely summarized the data relevant to measures of early development and emotional growth in this population and then conducted a study of their own to look at parents' attitudes toward the IVF experience and pregnancy and issues in raising IVF children up to the age of 10. Their findings essentially confirmed previous ones, but they also raised a number of issues, including the need for the treating team to make contact with IVF couples after they leave the program, and the IVF couple's wish for help in determining if, how, and when to disclose how the children were conceived. They also reported that IVF created special feelings of attachment to the child such that the mothers reported some difficulty with their initial separation experiences, and they suggested that women undergoing IVF might profit from greater contact with staff after pregnancy to address these issues. Golombok et al.<sup>63</sup> reported social and emotional development at least as good in children born

through ART as compared with their spontaneously conceived controls, but one must ask whether their findings could reflect the fact that some of the pregnancies in these controls were actually unexpected or unwanted at the time they arose, contributing to the mother's ambivalence.

The increasing availability of oocyte donation has yet to give rise to the necessary follow-up of the families and children. What is available is sparse and anecdotal. Applegarth et al.<sup>53,121</sup> wrote a review of the studies looking at families created through oocyte donation and indicated that couples generally have positive attitudes about parenting after infertility and that their families are doing well. Pettee and Weckstein<sup>119</sup> found a preference for nonanonymous arrangements, despite unknown long-term impact, among the couples they surveyed; they also reported that no evidence of confusion existed in respondents about their role as parents of children conceived through oocyte donation.

There has been an even smaller amount of follow-up of the child(ren) resulting from oocyte donation. While some IVF parents raised concern about the detrimental effect of bringing "special" attention to their IVF child,<sup>120</sup> this concern could certainly be present in the case of oocyte donation. Applegarth et al.<sup>121</sup> have recently provided data on obstetrical outcomes and psychosocial adjustment within a cohort seen at their center. Although the numbers were small, some interesting trends emerged from their findings: 90% used anonymous donors; a greater number of women than men expressed a wish to have seen a picture of their donor; and there was an inconsistency between partners as to whether family members knew about their use of oocyte donation, suggesting that they hadn't necessarily informed their spouse about informing their family. Despite anecdotal reports of problems experienced at birth, probably attributable to multiple gestation, the oocyte donation offspring were generally born healthy. All of the children were reported to be in good health presently and developing at a normal rate, with the exception of one child born with cleft palate who experienced some language delay. Ongoing questions and concerns about issues of disclosure arose frequently.

This author's experience corroborates that described by Applegarth et al. with regard to ongoing concerns regarding disclosure. I suspect that, similar to the data in DI, couples may alter their opinions about disclosure once there is a pregnancy, after a child is born, and when they learn more about the temperament and capacity of their child to comprehend different types of information at different times. We need to counsel patients about this possibility, so they can remain open to a changing context. Additionally, child psychiatrists and other specialists in child development must be invited to apply their knowledge of the maturation of a child's changing capacities, cognitively and psychologically, to understand and metabolize different pieces of information about their origin and identity at different times.

Pruett<sup>122(,314)</sup> is one author who has attempted to blend his expertise in child development with the challenge of developmentally appropriate dis-

closure in ART. He states: "Although children are shaped much more profoundly by the nurturing domain than by the conceptual circumstances of their existence, beginnings are enormously important, psychologically and physiologically." He believes that erring on the side of disclosure is less damaging to a child's inner emotional world than the gap in the narrative of the self but that the decision to tell a child this information must be informed primarily by the psychological readiness of the child with regard to the content and timing of the disclosure.

## Issues of Ethical and Legal Concern

Given the relative technical ease of oocyte donation, important questions now lie in its application. Feelings run strong about whether sisters should donate eggs to sister, daughters should donate eggs to their mothers, or embryos should be created from donor eggs and donor sperm. Should young college age women who have not had children of their own yet be donors; what methods do we use to recruit them; can we obtain adequate informed consent; how do we counsel about a situation in the abstract—for instance, what it might feel like to donate eggs and then have infertility problems 10 years later, or what it would be like as a sister to watch your sister raise your genetic child. How long is long enough after breast cancer treatment to try to conceive, and what is the likelihood of recurrence or cure; should or can an HIV-negative woman safely carry an embryo created using the washed sperm of her HIV-positive husband; should the technology be applied to single women or lesbian couples; what about the use of posthumous procedures; how old is too old to be a mother, or a father? The relatively recent upsurge in interest in general medical ethical issues has created a flood of literature pertaining to ART reflecting questions concerning consent, disclosure, maternity, paternity, and rights. Chapter 15 describes this fascinating territory.

When it comes to opinion about the welfare of the child, the literature is notable for sober reflection as well as nonneutral and personally/ culturally/religiously biased argument. Vercellone<sup>84</sup> uses language such as "artificial procreation," strongly suggesting a religious bias against the use of medical assistance in reproduction, and he believes that since there are too many births already, humankind would benefit from our not facilitating births that "would otherwise not take place in nature." He further supports his position with cases in which the child is born without a father (i.e., with posthumous fertilization, or when the father dies during pregnancy) and the case in which a child is brought up by a lesbian couple. His opinions, reflecting his own values about parenting, do not include consideration of the expansion of the idea of family and contemporary social arrangements that might actually enrich the life of a child by providing a number of different options for affective ties with significant people in his or her development.

There has been opinion in the literature regarding ethical and legal considerations of children's rights and regarding maternity/paternity.<sup>113,124</sup> An interesting article by Shenfield<sup>121</sup> discusses the complexities of filiation, which he defines as a person's parentage; he compares and contrasts legal statute and known cases in DI, oocyte donation, embryo donation, and posthumous procedures from Britain and France. In addition, he mentions complicating statutes in other European countries that serve to add further dimension to the debate; these include the provision in Sweden of compulsory information about their genetic origin to children born of sperm donation when reaching adulthood, and the restrictive German law forbidding oocyte and embryo donation. Rather than being arbitrary, these laws reflect the impact of cultural differences in the interpretation of the welfare or best interests of the child. Chapters 14 and 16 expand on these fascinating issues in more depth and breadth.

## The Treatment Team

It is crucial that couples who enter fertility programs understand something about the depth of their desire for a pregnancy in the context not only of their dreams but also with regard to the depth of their pocketbooks and the limits of their capacity to undergo invasive procedures that control their lives for many months and years. Oocyte donation provides couples with another opportunity for childbearing and further extends the time and options after which they might have considered adopting or living child-free. It is the responsibility of the program to discuss these issues with the couples in an ongoing way. The answer is not to discourage prospective parents from pursuing all available science, nor is it to tempt their wishes and allow them to continue indefinitely. When "enough is enough" is private, individual, and not easily determined. Optimally, discussions about it should occur in the context of a trusting relationship between patient and caregiver, to create a place where painful reflection about feelings of defectiveness and loss can safely occur. Although there is no simple formula for moving on, most individuals ultimately find a way to adapt by adjusting other aspects of their life and generativity. These issues should be addressed in consultation with a mental health provider experienced in working in ART. Concurrently, the reproductive medicine team is often called upon to consider the most unusual of cases or to work closely with a wide range of personalities, and a mental health professional can help the team deal with these challenges in a liaison capacity. Covington<sup>126</sup> addresses this in a recent editorial, noting that infertility patients, who are "educated consumers," will search for the most effective and comprehensive care, often choosing a practice on the basis of whether psychological support services are integrated into the treatment.

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