Keynote Address for the First Convocation of Mental Health Counselors in

Assisted Reproductive Technologies

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MALE FACTOR INFERTILITY: CASE STUDY OF THE PERSONAL/ETHICAL/SOCIAL DILEMMAS THAT PRESENT TO THE MENTAL HEALTH PROFESSIONAL IN THE WORLD OF ASSISTED REPRODUCTIVE TECHNOLOGIES

ABSTRACT

Male factor accounts for 45% of the identifiable causes (and certainly some of the 10% of unknown causes) of infertility in couples who struggle with involuntary childlessness and seek to conceive a child . Although male factor is different from female, and probably much more amenable to mental health interventions, this half of the infertility equation is relatively ignored, unstudied, and untreated. Male infertility also represents one of the many ways in which the mental health professional is presented with dilemmas when working within the 21st century world of assisted reproductive technologies. How can a man's anxiety about sexual adequacy, potency, and manliness and the revival of developmental trauma, feelings of competition and castration anxiety be treated by an impersonal technological procedure that might even worsen his emotional state? Is it ethical to collude with denial of the man's causal factor, let the woman in a couple take the blame and mourn the infertility diagnosis? What does it take for a man seeking to parent to consider other (less personally invasive, and perhaps more socially beneficial) ways to deal with the wish for a child in his life? How do we work with a heterosexual couple to meet the time table of the woman, the man and the technical therapies?

Strengths of the mental health professional are more than relevant here; they are valuable and necessary to deal with the many personal, ethical and social questions posed by male infertility. These skill strengths include: taking time to listen to the patient, a developmental history and perspective, attunement to affect, nonjudgmental acceptance, clarifying and working through of problems in a therapeutic relationship. Such skills are often at odds with the setting and culture of assisted reproductive technology centers that are more focused on the latest and most expeditious technique, commercial success and competitive advantage of their ventures, and providing fast solutions to current and potential future problems. The mental health counselor must have a strong counterbalancing voice in the team of professionals treating men and women with infertility. Psychological treatments can be especially useful for individual men, and for couples who need to clarify and synchronize their goals.

INTRODUCTION

Happy Yom Ha'ahava!

On Valentine's Day, I am reminded of a love poem by Yehuda Amichai,

Love of Jerusalem:

"But he who loves Jerusalem

By the tourist book or the prayer book

Is like one who loves a woman

By a manual of sex positions".

Less loving and less personal than such a manual are the assisted reproductive technologies, the outside the body, IVF with which many of us here today work as mental health counselors. We are the people who might bring back to our clients/patients some of the love, the intimacy, the personhood that is closer to the natural experience of reproduction at its best; we are the team members who can bring the perspective of social and personal ethics and individual meaning back to our colleagues. It is my honor to address you today in the IVF capital of the world, and to encourage the use of the skills we mental health professionals bring to this venture, skills that are relevant and essential to the humanity, value, and success of the procedures.

I will try to address the larger questions around our work with reproductive technology through the lens of male factor infertility and the glaring fact that while infertility problems are 50% contributed by men, it is women who are usually responsible for 100% of the conceiving, carrying, bearing, and raising of the next generation. Historically, this has always been so, and perhaps is biologically and

psychologically determined, but women in the 21st century collude with this notion even while men are more willing and able to step up their involvement, and now worse than ever, medicine, technology and pharmacology all collaborate to make this divide even more dramatic. The distinctions between male and female factor infertility demonstrate that the half of the problem that is attributable to men is, paradoxically, much easier to treat with low-technology human interaction, e.g. mental health counseling/ intervention, than is the female half.

As all of you already know, but I am just learning here (and from the US Press e.g. NYT, July 2011), Israel has the most liberal and extensive subsidized fertility program in the world: as divided and polemical as other discussions in Israel are, everyone seems united to support the (costly) policy of providing state subsidy for whatever technologies are available and necessary to create two 'take-home babies' for each Israeli woman under age 45 . This service is one of the country's highest public health expenditures, roughly $3500/ treatment, and is provided for Israeli women who are Jew or Arab, lesbian or straight, secular or religious, a surrogate womb for a gay couple------all united by the single hope of having a baby. Furthermore, Israel and the IFA was a leader in launching the International Federation of Fertility Societies back in 1968, and is one of 54 national fertility societies, cooperating in this sphere with many countries where there is tension on political fronts, e.g. Tunisia, Turkey, Egypt, Saudi Arabia, Jordan, Morocco, Bangladesh, Iraq and Iran!

Israelis are the highest per capita users of IVF in the world, and Israel has become a popular destination for medical tourism for IVF by couples seeking help for infertility from all over the globe. (Costs are comparable to the US averages of $13,000/IVF cycle.) Some of the busiest public and private fertility clinics in the world (e.g. Assuta alone performing over 7000 procedures/year) are giving Israel the highest fertility rate of any developed country in the world now, 2.9 children/family. Children and families are prized in Israel in a traditional way but so is high technology, so IVF and other reproductive technologies find the perfect audience here.

WHAT IS THE INVOLVEMENT OF THE MENTAL HEALTH COUNSELOR?

The mental health counselor in the fertility clinic has typically been the member of the team who is included to "manage" the potentially difficult patients or their emotions. Usually (though not all of us) women, we represent an ethical and human voice, common sense, and provide a quieter and more thoughtful space for both the patient and our surgical colleagues. We are asked to see and counsel, but the role is usually narrowly defined as the gatekeeper who screens out those who are not psychologically appropriate for the services. This gatekeeper role may become even more the focus in Israel for the mental health professional, with the report of the IFA/Neri Laufer's Ethics Council recommendation for an ethics panel that will insure that each child created by assisted reproductive technologies have at least one parent competent to raise the child. (See Dan Even, Haaretz, Friday February 1, 2013, p. 1, "Ethics Panel to decide which women get fertility

treatment".) Optimally, we are able to get to know the people who are coming for screening or treatment, even to develop a relationship over time, to earn their trust and help keep couples in synchrony with one another. When third parties are involved, surrogates or egg/sperm donors, we may be asked to screen these people to be sure they are emotionally stable and understand the implications of what they are undertaking. Ideally, we have enough time to learn of the development of the individuals we see, the inter-relationships between/among them, and even of their fears and fantasies that can influence the outcome of the procedures. Ideally, but rarely in reality are time and resources available for such a thorough exploration.

I wish I had had the services of a mental health counselor working with my gynecologist when I was a medical student, married and 21 years old, had surgery for the removal of an ovarian tumor and was told that I might have trouble conceiving a baby. I was devastated, and learned something of the intense yearning and obsession to become pregnant that dominates so many of our female patients lives. My husband at the time, by virtue of gender and personality, seemed not at all concerned. Fortunately, about fifty years ago, I was able to have two babies without intervention and then a third with the questionable assistance of DES, the so-called wonder drug, a synthetic estrogen that claimed to "make normal pregnancy more normal", and the first of many reproductive technologies. In 1971, I learned of the effects of DES on the fetus who was exposed to this drug----the first trans-placental carcinogen identified that----besides epidemic infertility in male and female offspring, caused (previously rare) vaginal cancers in the female offspring, testicular cancers and genital malformations in male offspring, and a huge rate of

gender dysphoria, homosexuality, transgender problems after estrogenizing in utero for the men born after DES exposure. I coped by getting needed help for myself and my daughter, and also by researching and writing about DES.

I learned what a cautionary tale/ model the DES example is for all of the technologies we now pursue----something that seems wondrous and life saving/life-giving at the time, becomes wildly popular by the conspiring of women who want to have babies, doctors who want to give them this milestone experience, and drug/device corporations that want to make a fortune on a new and better pill/technique. While it seems evident that something new is promising and apparently useful, it is impossible to know how effective such new technologies actually are until adequate randomized controlled studies are done, and not ever possible to completely predict what harm these technologies will do until many years later……to the people exposed (mothers, their daughters and sons), and to the environment . The leeching of estrogenic compounds into the environment has caused further changes in the reproduction of bird and fish, changes in the ecosystem, and potential for more hazards to human reproduction down the food chain; DES and other hormones (and pesticides and other chemicals in common use, e.g. plastics) are among many compound now called EDC's or "endocrine disruptor compounds" that mess up the reproductive expectations of individual animals (including humans) in their environment. [see Apfel and Susan M. Fisher, **To Do No Harm: DES and the Dilemmas of Modern Medicine**, Yale University Press,1984; Scott P. Kerlin, "The presence of gender dysphoria, transsexualism, and disorders of sexual differentiation in males prenatally to diethylstilbesterol: initial

evidence from a 5-year study", Oct. 2004 presented at E -Hormone Conference, New Orleans; link is **www.antijen.org/transadvocate/id33.html**)

For the most part, my encounters with physicians who were trying to help me…removing my tumor, delivering my baby, etc… while caring and competent, lacked a truly personal dimension. No one stopped to ask me how I felt or what I feared. Indeed, when I started to cry about my fear I might not conceive, I made my gynecologist so uncomfortable that he handed me a sample packet of an antidepressant medication and promptly ushered me out of his office. Having been a patient profoundly influenced me and helped me to identify with my patients.

Years later in my training as a psychiatrist when I worked as liaison to the ob-gyn services, I got an emergency page to an operating room where a patient had died during surgery; the page came from the attending surgeon who, when I responded to the call, was throwing his instruments around the operating room, in a rage that his procedure had failed; however, he had paged me, the psychiatrist on call, to see his woman trainee who was crying over the death of her patient. I learned that physicians who choose obstetrics and gynecology as a specialty are temperamentally doctors who want to be in the "happy business" of heroically giving babies to women; they tend to suppress human emotion that might stand in the way of achieving the goal of their action.

Collaborating with the surgeon (or reproductive endocrinologist gynecologist or andrologist) as a mental health counselor necessarily includes sharing an interest in the main agenda of helping to create babies. The role also often involves being the team member who holds the emotion and meaning of the

entire endeavor while she contains/appeases the grandiosity of the interventionist colleague. Ideally, the mental health professional can see things from all sides and viewpoints, and be open ended in listening to the wishes of all the players (including herself): to work with the gynecologist to express compassion (other than by agreeing to yet one more cycle), to allow each couple and individual patient to clarify goals and resources for dealing with their childlessness, and to think of consequences of present behaviors for the next generation.

Paradoxically, and parenthetically, I recently learned that tears too can be turned into a commodity: there was a contest by one of the large IVF programs in the US for the best tear-jerker story about infertility, the winner to be awarded a free IVF cycle. In the US, infertility treatments are expensive, rarely and incompletely covered by insurance and clinics compete for paying patients. There are other models, the Israeli one, exemplified by Hadassah where I first met Zvia in 1990, and e.g. one in Berlin I visited that same year where I was told, "Because of our Nazi past, we are the last ones who should experiment with reproduction (and eugenics)" This Berlin clinic offers IVF as one of many services for those women and men who come for help for "involuntary childlessness", a broader definition of the problem and the alternative solutions to technological intervention, that have to include: making peace with being childless, choosing other ways to have children in ones life, and creating a family through adoption or fostering children. By contrast, in the US and Israel, women are the focus of the treatments and male infertility is diagnosed as part of the workup and some cases of male factor are treated or referred to surgical urology or the relatively young specialty of andrology. The

focus of the treatment is typically surgical intervention rather than emotional understanding of the source and meaning of the problem for the man and his partner. This is despite the well-established fact that male infertility may be much more responsive to psychotherapeutic interventions than is female infertility, as I shall elaborate shortly.

Fantasies about procreation are very powerful and we hardly begin to understand these e.g. in the UK , clinics using Danish sperm donors, have become very successful by attracting women who want to believe the advertisement that they will have "Viking" babies! In the US, it is possible in some places to get a "designer baby" by choosing the donor egg and the donor sperm from catalogues, then create embryos in vitro for intrauterine introduction to ones self or a chosen surrogate.

Even sperm donation, long thought to be just something medical students did for extra cash, is done by a person ….for whom there are meanings that may be worth knowing out of respect/regard for the individual person involved. I analyzed one such medical student who was donating sperm in order to pay for his analysis with me and had the fantasy that he was together with me thus creating millions of babies all over the world; however, the flip side was that with such a creation, he realized he would become less unique and special, and that made him despair and feel vulnerable as he had as the eldest child when his mother had several more children.

On the fantasy level everything is limitless; at our time in history with so much possible technologically, there can be realities that achieve what were

previously wild fantasies, e.g. with the freezing of eggs now as well as freezing sperm and embryos, women and men of any age might potentially achieve a pregnancy. It may become possible for a man to carry a pregnancy himself as it is already for a post-menopausal woman. Definitions of family and generation and family boundaries are in flux. It is usually the mental health person who elicits these fantasies, explores them with patients, and translates/transmits them to the surgeon. For instance, for different patients we see, a baby may symbolically, at the fantasy level, represent proof of affection, mother's milk, or other bodily productions, e.g. urine or feces, or a penis. We may have to translate such fantasies in terms more understandable for our surgical colleagues, e.g., "For this man, a baby is particularly important because his infertility represents not being able to provide for his family" or "Fertility was the one normal, ordinary, and expectable event for this guy, and not being able to have a baby with his wife makes him feel like a freak".

The infertility, the interventions, and their effects, and the implications all have great meaning for the individuals who are involved, and it may be at our peril if these meanings are ignored. In one couple I saw, an extreme example to be sure….the husband became paranoid, psychotic, after ICSI [intra-cytoplasmic sperm injection] failed with his few sperm and, as a backup plan, his wife used donor sperm for IUI [intra-uterine insemination] to get pregnant; this husband fled from his family and wanted nothing to do with the baby for whom he was the social father. He claimed that his wife and her father (or doctor or donor) should take responsibility for raising the child. While this is an extreme case, it is not unusual for

men to experience more anxiety than is recognized, or for women who are desperate to conceive to become obsessive in a monomaniacal focus on that task, and neglectful of the feelings of a spouse who is not feeling the same way while both are susceptible to offers of "yet another procedure to try to try again".

MALE FACTOR AND DIFFERENCES FROM FEMALE

Let's turn now to what the male factors in infertility are, how they are expressed, and see how they differ from the better-recognized female factors. [Here, I asked for a raise of hands to check the number of men in the audience (2/70), and poll who sees male patients coming on their own…..as donors or for treatment of infertility, as couples, or as single individuals, gay or straight men, etc.(1. Judith Kadouch-Kowalsky, representing the Soroska Male Fertility Clinic)]

Men are often left out of the fertility picture, giving a skewed view of what the entire psychic and social scene is for both the woman treated and the man, made-invisible. The website for IVF in Israeli medical tourism states: "A spouse may donate sperm within the first three days while the woman patient stays for three weeks in order to harvest eggs and implant embryos." We see marginalization of male fertility patients daily in our places of work on reproductive technologies. It was also demonstrated beautifully in a 2003John Sayles movie "Casa De Los Babys" a poignant story of six North American women who come to an impoverished Latin American country that is rich in babies to seek adoptive children; this is an all female world----the women seeking babies and the teenage pregnant girl with her mother and the nun arranging to give up the teenager's baby, and the women

caretakers of the orphans---- an artistic rendition of the skewed way in which men are so much left out of the fertility scene, even though they account for half of reproduction. (See Rosemary Balsam's 2011 paper, The quest for motherhood: when fertility fails, Psychoanalytic Inquiry: a topical Journal for Mental Health Professionals, 31:4, 392-403.). If acknowledged publicly at all, male fertility is dealt with humorously, e.g. Woody Allen's 1973 movie **Sleeper,** scene of spermatozoa on a march.

Psychoanalysis has certainly colluded with this viewpoint. In the now-classic 1953 paper by Terese Benedek (with GC Ham, FP Robbins, & BB Rubenstein, Some emotional factors in infertility, Psychosomatic Medicine 15: 485-498.) six women whose husbands had low sperm counts were referred for psychoanalyses that generated too-long held hypotheses about "psychogenic infertility in women". It was postulated that women who chose to marry these men with low sperm counts did so because of their deep ambivalence in relationships with their mothers or siblings. No one asked how these women could have known their future husband's sperm counts, or talked with the men themselves, or compared these couples to others who had no trouble conceiving. Psychoanalysis got a very bad reputation for wild and inaccurate "science" and for generating hypotheses unscientifically, attributing causality imprecisely, and being unreliable. The theory of psychogenic infertility is a questionable truth for women and has not been helpful to either the women with infertility or to psychoanalysis (Roberta Apfel & Rheta Keylor, 2002, Psychoanalysis and infertility: myths and realities, International Journal of Psycho-Analysis, 83:85-104.)

The fact is that men's feelings much more closely parallel the biology of their less complex reproductive systems. "Psychogenic infertility" is a term I hesitate to use because it has been so misused and tends to imply that the infertility is not biologically determined and is all in the man's head as if he had some conscious control over it. However, at any given time, a man's moods especially anxiety and depression, ups and downs in his important relationships, situational/career or familial stress, his diet and medications can all contribute to changes in the two things a man needs for fertilization in vivo: 1)potency (ability to achieve erection) for vaginal intercourse, experienced by every man at some time or another and 2)orgasm (ability to produce sufficient sperm of good motility and quality that they are able to swim and penetrate an ovum.) For in-vitro fertilization, the erectile function is less crucial if the man is able to produce an adequate sperm sample by masturbation, on command at the fertility clinic. (Rheta Keylor and Apfel, 2010, Male infertility: integrating an old psychoanalytic story with the research literature, Studies in Gender and Sexuality 11:60-77.)

When a couple is questioned directly about sexual practices, a surprisingly large percentage of infertile couples have simply been unable to have intercourse, or report neglecting or unconsciously avoiding coitus during fertile times in the woman's menstrual cycle. Basic sexual education can contribute substantially to success with these cases. If a man becomes conscious of avoidance or inability to achieve erection during ovulation, he needs help to understand his ambivalence about impregnating his partner. In some cases, there is a practice of non-vaginal

intercourse that has become a habit for years of trying to avoid pregnancy; for some men, there may be other places they are potent where they spend their time---at work or with other relationships with men or other women. Men who are anxious or depressed may be self-medicating with alcohol or marijuana or other drugs, including prescription antidepressants that notoriously decrease desire and sometimes function, or taking common medications such as some anti-hypertensive drugs. Erectile dysfunction can be an early sign of diabetes or depression. A recent study showed that men who eat more than three fatty dairy products per day have lower sperm quality. A thorough history, curiosity and asking all relevant questions is essential to determine what the sources are for the male factor in infertility.

We know that the wish to be a father can become as powerful as the wish to mother, but it is not as primal. This paternal wish is often combined with expectations of being grownup, e.g. work and supporting a family, demands that can feel like pressure /demands and create fear. Fantasies of fathering are inevitably tied to the experience any man had being parented by his father as well as his mother in childhood. Yet the experience can seem remote and abstract prior to actually doing to job of fathering. True tenderness may emerge only around a particular child and role in direct care of that child. [See "Infant daughters and fathers as primary caretakers" in R.M.Balsam, chap 10, pp 160-174, in **Women's Bodies in Psychoanalysis**, Routledge, NY & London,2012; Kyle D.Pruett in Psychoanalytic Study of the Child 38 (1983), Infants of primary nurturing fathers.]

It is also essential to explore motivation in the man who is diagnosed with male factor infertility. Where is this person in his education and career and does he feel ready emotionally and financially to start a family? Why now? What was the man's history of relationship to his genitalia, something that can take time to learn, may be quite relevant if he has had e.g. prior surgery for un-descended testes, mumps, DES or other exposures, sexual abuse. Is this timing mutually agreed upon to have a baby or is the woman promoting the idea and the man ambivalently and resentfully going along for the ride? Once the male factor is diagnosed, has it become a metaphor for his whole self? For example, one man whose sperm was described as "sluggish and defective" immediately started functioning sluggishly and defectively at work as well as sexually with his wife. The diagnosis and the way it was presented to him, the words used, had a devastating effect on his virility, his sense of manhood and potential. Creative as well as procreative urges may be affected by the diagnosis and treatment of male factor. Once treatments start, the nature and meaning of the treatments themselves can further undermine a man's sense of himself, e.g. having to use an anonymous donor to inseminate his wife, or undergoing direct invasive/painful procedures on his testicles.

Readiness to perpetuate a family name is another motivation/expectation for men. If so, what is his relationship with his family of origin and his family name? Whose expectation is it, and why is it important? To whom? Is the man already anxious about having one baby, and fearing fertility drugs knowing that they might produce multiple offspring? Is this an older man who wants to have another family

with a younger wife? Whose responsibility is it to inform older men about the association of mental illness in offspring with older sperm?

Most men will transcend a male-factor infertility diagnosis and its effects, but, for some, persistent conflict from the past or trauma re-emerges and can overwhelm their functioning. While the technologies are available to solve the problem of infertility, they can also make matters much worse,…if an underlying emotional problem is not addressed. And, if a take-home baby results from such an intervention with a father who had profound misgivings, we may be contributing to perpetuating or even creating problems for a next generation.

What is our position and responsibility if we ascertain that a potential father is emotionally incapable about this endeavor? As long as there is another treatment option, do we pursue that and deal with the consequences or might we have a more proactive role with the patient and the doctor to slow things down until some psychotherapeutic work can be done on matters amenable to counseling?

When and how do we express our concerns: prior to treatment? after pre-implantation genetic testing shows something that may be beyond the coping capacity of the future father? once we anticipate or see negative results from treatments? Might we insist upon a period of proven effective and inexpensive psychotherapy for men diagnosed as infertile? It has been shown since the 1960's that psychodynamic psychotherapy can improve fertility (J. Kestenberg, 1968, , Outside and inside: Male and female, Journal of the American Psychoanalytic Association, 16:457-520.) More recently, (S. Holmes, 2000, Treatment of male sexual dysfunction, British Medical Bulletin,56: 798-808.) showed that impotence

secondary to anxiety, guilt or depression that is experienced as a stumbling block to intercourse and conception can be successfully treated with psychotherapy 70% of the time. Freud and his followers, after all, initially saw male patients who often came to treatment with a chief complaint of impotence, and psychoanalysis was the Viagra of the early 20th century.

There are reproductive interventions for male factor infertility that have been done for many decades, but they have not been adequately studied. Donor or "artificial" insemination, done from the 19th century has been clouded in secrecy. In contrast to adoption where the prospective parents are well screened and secrecy has been recognized as toxic for the developing adopted child and adoptive parental relationship so that disclosure has been advised starting early in life, there is no recommendation on donor insemination (or on egg donation or surrogacy or any third party technology). We know from working with men who are the social fathers for children born through donor insemination (DI) that the fathers live with the knowledge that they are not biologically related to their child; this knowledge may have attached feelings of shame and usually becomes a secret from the child. Such secrets can cause guilt and distance in the parent-child relationship. Whereas women are being studied to determine how they relate to their children born of egg donation, I know of no comparable studies with men. (Women state that they bond with the fetus in utero as their baby, even if the gamete was not formed by their own egg or a sperm from someone they know and love; women report that they may attribute surprisingly good qualities the child shows to the donor's genes, and blame themselves for any negative characteristic attributing it to "poor parenting").

Men may be so haunted by the donor/"other" man's biology in the child that they are jealous and compete inappropriately with the child, they are unable to take pride in the child's accomplishments or to develop a close fatherly supportive relationship. Women and men often say they will tell the child later in life about his/her conception history, but almost never do so. This secret, in the least means that the child will never have an adequate biological family history for purposes of physical health, and, at worst, leaves open the remote possibility a child who is conceived by a donor may marry later in life to his/her own half sibling. It also completely excludes the men who are donors and may want to know a child born to them. Some European countries have now made the option of open donation available to donors whereby the men agree when they donate sperm that they would be willing to be contacted by the child at a particular age, e.g. 18. In Australia, there is open knowledge of donations and a self-help organization of families conceived via donor insemination, and that seems to be working out.

Perhaps someone here can tell me about any consequences of a study reported last year in the Israel Times (June, 2012) with the headline: "Foreign Sperm more Potent than Local Seed" ! I imagine that some men struggling with problems with spermatogenesis and male factor infertility might have responded to this news. It was a newspaper report of an eleven year study from Tel Aviv's Asaf Harofeh Medical Center that concluded for both Artificial Insemination (9.1% vs 6.4%) and IVF (7.9% vs 4.1%), insemination of imported, previously frozen sperm from the US achieved better rates of pregnancy than local Israeli sperm. Professor

Arieh Raziel was interviewed and explained the unexpected finding was possibly an artifact, and that there was an intervening variable of the age of the mother who was inseminated. Although frozen gametes do not typically succeed as often as fresh ones, an even stronger correlation of fertilization success is the age of the mother receiving the sperm. In this case sample, more of the ultraorthodox younger women requested the foreign sperm because of concern about future half siblings marrying inadvertently. Thus, the higher success rate was probably due to younger maternal age and not to an inferior quality of local sperm. Yet, how did the headline affect local men?

About thirteen percent of male infertility is attributable to a genetic sperm defect that is passed on to offspring should conception ever occur. Most male factor spermatogenesis inadequacy is from environmental stressors and toxins (recognized since 19th century from testicular cancers and infertility in young chimney sweeps). Spermatogenesis is extremely vulnerable to temperature, stress and moods. Sperm that are kept close to the body and its internal temperature in tight underwear are poorer than sperm from men who wear looser underwear allowing the scrotum and testicles to be at cooler temperatures outside the human body. Production of sperm has been shown to cease in men who are on death row in prison and those on trial for rape. Military combat or training and some business activity can depress plasma testosterone which in turn affects spermatogenesis. In primate studies, a feeling of induced helplessness stopped sperm production.

IVF can induce both stress and a sense of helplessness in male partners. Consider the man whose partner is eager to get pregnant, the man being compared

to the Danish Viking or the American jock or the excellent semen sample from an international Nobel Prize sperm bank; this man has to believe that he and his sperm are what is important and necessary in order to: masturbate in a sterile environment, ejaculate into a test-tube, have his sperm put into a petri dish where it may fertilize his partner's egg. For a man already feeling impotent and diagnosed with inadequate sperm counts or quality, this clinical situation creates a vicious circle whereby the man's stress and feelings of helplessness may further diminish his spermatogenesis and/or his sexual dysfunction. Infertile men have been showed to have lower self-esteem, higher anxiety and more somatic symptoms. Seventy percent of men who are diagnosed with azospermia (no sperm at all) report transient impotence over the following three months; oligospermia (low sperm count) diagnoses are typically followed by sexual difficulty, marital instability, and flights into work. Furthermore, men are less likely to overtly show depression and to verbally or affectively express their distress, and so they are more isolated and alone with their negative feelings.

Surgical interventions (repair of varicoceles, ICSI or intracytoplasmic sperm injection and TESA or testicular sperm extraction) create the best hope for men with inadequate sperm, but also they cause the most anxiety. However expensive and invasive ICSI is, men prefer it over the cheaper technique, the more proven and less invasive donor insemination. Men who in their childhoods had un-descended testicles with surgical repair, or other sperm-diminishing illness such as mumps , are at particular risk for male factor infertility and for needing further interventions that might inevitably revive their original traumatic childhood state. These effects

can be mitigated and even averted to the extent that men can be fully informed about what will be happen, and assured that while it may feel the same as it did as a child, they are now adults and better able to cope, and this is a voluntary non-coercive procedure, in the interest of an adult goal shared with a loving partner.

Rarely, there are conditions that make men ineligible for ICSI at all. One is called anejaculation, inability to ejaculate with intercourse in men who are able to have nocturnal emissions; but do not; the sperm that are produced are very poor quality and may form anti-sperm antibodies. Another condition is retrograde ejaculation, back into the bladder at orgasm rather than out into the vagina or test-tube, and can be the result of some psychotropic medications.

On standardized questionnaires which men tend to complete only half as often as women, the profile of infertile men corresponded to men with psychosomatic illness, an active coping style and a focus on external reality. They demonstrate a deficit in affect regulation which is probably secondary to a reaction to their infertility, a defense against shame, and the result of continual suppression of negative feelings and avoidance of sharing concerns in a relationship.

While the typical female reaction to a diagnosis of infertility is loss, depression and grief, the typical male reaction is initially one of anxiety and injury than may evolve in ensuing months to loss of self-esteem and depression in those men who still want to father children. Men will downplay the effect of infertility on themselves, though they may look quite visibly dejected and ashamed in body language to an outside observer. By contrast, men in couples where female factor infertility was found did not lose either self-esteem or sexual potency, 'merely' their

concern about not being able to fulfill a social role expectation as husbands and fathers and a threat to the marital relationship.

Interviews are the most powerful way to elicit genuine affective responses to infertility; on-line and paper and pencil questionnaires are incompletely filled out, if at all. Women routinely cover for their men and express shame, guilt, and self-blame for infertility, even when there is an all male factor diagnosis. Men do not have same sense of urgency re: infertility as women and therefore do not unilaterally turn to mental health professionals or get referrals to see counselors from the andrologist. Not surprisingly, marital strife is increased significantly by male infertility. Women may continue to use reproductive technologies as long as they are able, until their bodies are screaming from reactions to hormones, or the negative effects on their marriages are such that they worry about pursuing further treatments. Couples coming to the infertility program are often well functioning and not interested in mental health treatment, but if, on the site, this is recommended, they may be more apt to take advantage of therapy than if referred to an outside counselor. There is a clear argument to be made for mental health services as an integral part of the infertility clinic, rather than separate, free-standing services.

SUMMARY

Psychoanalysis or psychodynamic psychotherapy are potentially useful for immediate stress, aloneness, psychosomatic symptoms, and maladaptive behavioral defense strategies, and have long been known to ameliorate infertility in men.

Whereas ICSI or TESA can bypass some concerns, these are not panaceas and may worsen fragile egos. Disincentives to seek psychological help are the (castration) anxiety elicited by the diagnosis, the fear of exposure and social stigma. If and when referrals are made, women will follow-through more often than men. Though men account for half the problem, women collude with allowing men to be pushed to the periphery, denied the development of relationships with the nursing staff and doctors, participation in decisions; men are marginalized and diminished, disenfranchised as agentic and emotional participants in infertility treatments. The emotional implosion that often accompanies infertility is worsened for men when it is unspoken and invisible. By contrast, men who are able acknowledge their infertility and articulate the sources of their anxiety, express loss of confidence in sexual adequacy, deal openly with wife's disappointment and anger, and consciously redefine their male and marital roles show improved sperm counts and may be more successful at impregnating their wives.

For everyone dealing with infertility, resurrected childhood neurotic conflicts, exposure to powerful feelings of envy, resentment, inadequacy, persecution and guilt, castration-----all of which folks are unprepared for. Even after infertility treatments cease and successful take home babies arrive, persistent feelings of being less than a man can continue; children rather than being reparation as they are for the wife can represent rivals for her attention and affection. [We all praise creativity in English with word "seminal" and men whose semen has not worked have failed in this central concept. Such men will wonder if they have been "shooting blanks" all those years?]

Counseling for men with infertility is not the same as the bereavement model of counseling useful for women. The therapeutic work consists of listening, observing, giving permission to feel and to remember past traumatic events, examining the past in the present, offering options and hope for new solutions. Psythotherapy offers time, space, and relational grounding that is required to repair psyches fragmented by the diagnosis and the treatments of infertility. [Without resorting to early psychoanalytic formulations such as the equivalence of proof of affection, feeding, milk, sperm, baby, feces, we can appreciate how castration anxiety may develop when crucial parts of mature psychic life are threatened, including the capacity to inseminate a woman of your choice voluntarily. Men are always, at some unconscious level, humiliated that they will never attain the capacity of mother/women to give birth, and are further humiliated that they cannot even do their fair share. Impotence implies dysfunction in a man's primary important paternal identification.

If we have a treatment that is relatively inexpensive, takes fewer resources, and has more success, why not publicize and use this counseling method? While is is not easy to engage male patients, especially those suffering from infertility, you never will if you do not try. The mental health counselor is the first and maybe the only person to meet with the man, other than the initial consultation for a couple with the doctor and lab technician. Herein is the best chance to form a trusting relationship, to attune to his needs, to feel included in treatment decisions and cared for as interventions go forward. It is the counselor who can pay attention to the whole person and do what feels right for that person as a patient.

What we find is best for any one man, any individual, may not be best for society, and then we have to be able to ask the larger questions within the practice---e.g. why so many IVF cycles for this woman when no attention to her partner? When do other options such as adoption or remaining childless become realistic? When should treatment to get pregnant stop in order to take fantasies and fears seriously?---to clarify, listen, explore, what comes up that is related to earlier development? We do not ever want to blame the patient, as w earlier labels of "psychogenic infertility", but we do need to understand the individual and what is getting in the way, and to pave the way for better /less neurotic parenting of whatever offspring will enter this new family by whatever means.

In conclusion, we mental health counselors have techniques that are useful, especially for male factor infertility. We need to honestly assess our own motives, biases, and goals. Are we wanting to achieve pregnancies like the surgeon or are we working to increase options for dealing with involuntary childlessness ?---in which case introduce adoption earlier. Are we counseling to help patients clarify what they truly want? Taking time to explore their fantasies? Or trying to offer comfort for the surgeons and/or the patients going through stressful procedures?

Always, we need to be clear about what we can do which maybe more than we have been doing, but also what we cannot do (bear all the feeling, and ethical dilemmas for our practice). We cannot bear all the emotional impact of our patients ourselves, we must include other resources, e.g. CHEN, the Patient Fertility Association in Israel; Frank Talk.org, website for peer support for men with erectile

dysfunction, Popluck club.org for LGBT prospective fathers. We must raise our voices in the interest of patient care and what we fear about the future of the next generation., while providing hope for our present patients.