Review Article

Psychosocial Aspects of Therapeutic Donor Insemination

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Abstract

The experience of delays in conception or possibility of remaining childless has the potential to create considerable psychological discomfort. In couples with severe male factor infertility, therapeutic intrauterine insemination using donor sperms (TDI) is offered as a treatment, second to *in vitro* fertilization using donor sperms. TDI is lucrative, less invasive, and a hopeful treatment. However, there are intricacies associated with it. Its immediate outcomes involve limited success rates, nonresponse, and chances of implantation failures, miscarriages, and multifetal pregnancies. Due to this, couples experience distress when they are advised to undergo three to six cycles of TDI in order to meet the expectations of having a baby. TDI has long-term issues on the triad comprising the "recipients," the "donors," and the "the children born out of TDI." Nevertheless, managing psychosocial needs for couples undergoing TDI and other treatments in Indian clinics are grey areas of the conventional treatment pathway. The present review expands on the psychological issues and needs in couples opting for TDI.

Keywords: *Children, counseling, couple, donor insemination, donors, emotional distress, infertility, psychotherapy, recipients*

Therapeutic Intra Uterine Insemination Using Donor Sperms (TDI)

The World Health Organization estimates that infertility affects nearly 50 million couples worldwide.[1] Statistics from India suggests that about 2.4% of middle-aged women are infertile.[2] For couples who undergo a long, arduous wait for their child, infertility is pronounced as a "disconcerting social reality."[3-5] Research from national context suggests that distress is equivalent in both genders[6,7] and couples undergoing intrauterine insemination (IUI) and *in vitro* fertilization (IVF) treatments**.** Literature also suggests that social stigma, interpersonal stressors, marital conflict, family discord, are reported by 40% of childless couples in India.[8,9]

Therapeutic intrauterine insemination using donor sperms (TDI) is a technique employed to achieve conception in couples who have severe sperm or semen abnormalities (such as azoospermia, severe oligospermia, genetic disorder, and oligoasthenospermia) and in whom major female factors contributing to infertility are relatively minor, correctable, and controlled.[10] In cases identified with male factor infertility, TDI is an affordable treatment compared to IVF with intracytoplasmic sperm injection.[6,7] It offers new hopes of conception for couples as it uses the combination of stored sperms from a donor (who is usually anonymous) and along with the woman's own eggs. Nevertheless, the use of donor gametes stirs up complex emotional issues and long-term repercussions for the triad comprising of "recipients," the "donors," and the "children born out of such treatments." Research supports that the profile of men is less investigated within the context of TDI.[6,7,11,12] Sexual problems, anxiety, and coping issues are common features in such patients.[13,14] The psychosocial conundrum associated with TDI has been elaborated below.

Psychosocial Issues in TDI Recipients

The DI recipients may be defined as the TDI users. These can be heterosexual couples, lesbian couples, or

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single women. This article discusses the psychological implications of TDI for heterosexual couples. The very first issue that surfaces before TDI is the diagnosis of male factor infertility. Men report feelings of loss, guilt, unresolved grief, shame, defectiveness, humiliation, low self-esteem, sexual inadequacy, and self and social stigma when a defect is identified in them.[15,16] Men are also known to host feelings of denial over semen defects and guilt regarding not being able to impregnate their partner. Men feel that they have devoided their partners and families of childbirth or child-rearing experiences. Anxiety over the use of another person's sperm for their spouse is also reported by men.[17,18] It is also postulated that male factor infertility threatens the sense of "masculinity" since men are inclined to equate fertility with "sexual potency and vigor."[19] Consequently, men are reported to be unsure about TDI. Often, they report of being afraid of becoming an unloving, unfair, or an insufficient parent to a biological unrelated child.

The experience and concerns of women are different from those of men. Women report hesitancy over procedural strain of TDI. Females often report trepidation over the spouse being envious and resentful of the donor. Women also fear that their spouse or their family members might reject, abuse, neglect them, or the child born out TDI.[20] In addition, in certain cultures, the women report a sense of guilt and contamination related to the use of "unknown sperms" for impregnation.[21,22]

Couples also fear that TDI might lead to alterations in their existing marital relations bonds and sexual intimacy. Furthermore, interpersonal discord between partners has detrimental effects on the development of the TDI child.[23] Couples also feel apprehensive over "disclosure of the origins of birth to the child" and "fear of rejection of parents by the TDI child." All of these factors raise doubts and add to secrecy and concealment with regard to this treatment.[24,25] Overall, the personal embarrassment, social stigma, the medical and genetic background of the donor, and the future of the "family born out of TDI" are among the primary concerns for both men and women.[25,26] Accordingly, the evidence-based literature supports that before contemplating over such treatments, the couple (both the female and the male partner) must conjointly "come into terms" with the diagnosis, role loss, as well as the sorrow of "losing control over having one's own child." In addition, couples must acknowledge that TDI is not a cure to infertility and is rather an alternative to parenthood. A consideration of its outcomes (treatment failures, multiple gestations, and obstetric complications) and its implications ("asymmetry of parenthood" in which there will be a biological motherhood and social fatherhood) psychosocial care is all the more essential.[27,28]

Psychosocial Issues in the Donors

The motivation and anonymity are the two central issues with sperm donors. Cross-cultural differences and diversity in medicolegal regulations across countries contribute to disparities in these two characteristics.[29] Usually, donors are known to either have financial gains or have altruistic motives for engaging in TDI.[30] In India, assisted reproductive technology (ART) banks are common and closely function in synergy with the infertility clinics. The bank and the clinic operate under the contract to facilitate the use of ART by the needy patients under the laid down terms and conditions.[31] There are stringent regulations for the operation of ART banks, donors, infertility clinics, and the recipients. The donors need to maintain anonymity, relinquish all rights and personal claims over the children born out of his gametes.[31]

Psychological Concerns in the TDI Children

Research on TDI children primarily involves the ways in which they are parented and their psychosocial development. Literature reveals that the TDI child is usually "very special." Parents provide them with a dynamic childrearing environment, greater emotional involvement, and higher warmth.[29] Their psychological adjustment is healthy[14,32] and in certain cases even better than children conceived naturally.[33,34] TDI presents the possible desire of the child to learn about his/her biological roots and modes of conception.[35] As per ICMR guidelines, the parents are not obliged to provide the above information on their own. Although the same time these parents should not conceal information about the unique nature of conception, in case, the child wishes to know about it. However, as per ICMR regulations, the child has the right to know only selected information.[31] Research reveals that nondisclosure is maintained as the parents do not want to hurt the child. Parents fear of being "unloved or rejected" by their nonbiological child, in case, the child gets to know about his/her origins.[36,37]

Nevertheless, over the last few decades, most couples choose to openly disclose as maintaining the "DI as a secret" elevates parental burden and the fear that the child may feel devastated to know about his origins from elsewhere.[38] Inappropriate disclosure can lead to breach of trust, bonds, disruption of identity, feelings of frustration, conduct problems, and a compelling desire to seek information about the donor.[39-41] Mental health

professionals (MHPs) from across the globe stand in support of planned and appropriate disclosure for children conceived with donor gametes.[28]

Appropriate Disclosure Strategy for TDI Children

Appropriate disclosure should contain information which is provided to the child in such a manner that it integrates well with his/her age, linguistic ability, intellect, and maturity. It is provided in a step-by-step manner, from very early years of the child (toddler stage) to later years (adolescence).[28,29,42-44] A sudden or an abrupt disclosure in the child's adolescent years can have adverse effects.[39,43-46] Moreover, a small percentage of these children require continued psychological counseling.[39]

Experiences of Couples Undergoing TDI in Indian Setups

In Indian setups, "motherhood and fatherhood" are believed to be esteemed social roles. Infertility represents an intergenerational problem, as it is perceived to be a barrier against preserving one's caste, genetic purity, lineage, and property. A recent study affirms that in India, the acceptance rate of donor gametes by infertile couples is low. It has also been urged that the attitude of women toward the use of donor eggs or donor sperms is alike, but men are more open to the use of donor eggs than donor sperms.[47] Furthermore, "a secret insemination is preferred over an open adoption." TDI can conceal the hidden defects of couples.[48] Clearly, TDI treatments are a preferential choice over adoption, as it retains the couple's partial genetic link with the child. Couples accept TDI since adoption invites stigma, loss of personal, and family reputation and added responsibility of becoming a step-parent to an "alien child." Research reveals that the secrecy and stigma around the use of donor sperms are high since couples abstain from making such matters public.[48] Studies also draw attention to the "highly objectionable and questionable" nature of TDI practices in our country that outrageously neglect the ethical principles, cross-genetic implications, and kinship dilemma around the use of the word illegitimate.[49,50] Practices such as the use of donor sperms without the couple's knowledge, sperm mixing, transportation, and discarding of gametes without consent have also been reported.[48,51] Subsequently, stringent legal guidelines have been laid out at a national level, to monitor the functionality of ART clinics, their services and protect the rights of recipients, donors, and donor offsprings.[31] Research evidences on the ways of coping, treatment-seeking behaviors, and psychological characteristics of couples in Indian fertility setups are limited. Psychological screening and counseling before, during, and after treatments are infrequently practiced.[3,4,6,7,49,52,53] Offering structured psychological interventions for infertile couples undergoing the third-party reproduction programs are rather an uncommon trend in Indian scenarios.

Offering Psychosocial Care in TDI within Indian Infertility Clinics

Evidences reveal that pretreatment screening and counseling are vital component of TDI.[28,45] It allows couples to construe the entire process and prepares them to womb as well as parent a TDI child.[28,45,46,49,53] During pre-TDI stage, the infertility staff needs to be educated on paying attention to the emotional needs, psychological readiness, and well-being of couples. The same necessitates training and sensitization of medical team (doctors and nursing staffs at infertility clinics), on psychological aspects of infertility.[49,53,54] All members of the infertility team should be trained in areas such as communication, disclosure, breaking bad news, and identification of stress, relational problems, and sexual issues. Identifying the emotionally vulnerable patients and making prompt referral arrangements to the MHP, is indispensable, in routine fertility care.

Goals of Psychological Assessment and Interventions in TDI

The goal of psychological assessment in TDI is to conduct a basic psychological screening and intervention. Screening is done by MHP to identify couples with high distress, psychopathology, marital conflict, sexual problems or TDI-related decisional conflict, and ambivalence.[13]

Recent guidelines have proposed that psychological intervention carried out by MHP, in TDI consists of themes such as acknowledging the past efforts of failed conception, supporting each partner in the couple (especially the men), overcoming stress, grief, developing existential connotation around social parenthood, tackling the stigma, social reactions, sharing information on birth of child with others, and finally preparing for parenthood and disclosure with their child.[27]

Research on effectiveness of tailored psychological interventions for couples undergoing assisted conception in Indian fertility setups is scarce.[3,6,7,52] Researchers advocate that cognitive behavior therapy and mindfulness-based interventions (MBIs) are well accepted by patients and have a positive impact at both physical and mental levels.[55-60] MBI in infertility rests on four main pillars, namely fertility education, mindfulness acceptance-compassionate living, cognitive and emotional regulation, and lifestyle

enhancement.[61,62] Recent research has provided limited support for the use of MBIs with Indian population,[52] while RCT on validity of same is ongoing.[63] Furthermore, for those who conceive, continued psychotherapy, in antenatal period is beneficial in coping with the challenging outcomes of treatments.[64,65]

Conclusions

International literature highlights the psychosocial impact of TDI on the triad comprising the recipients, donors, and the child born out of such treatments. The psychological challenges around TDI revolve around multiple issues such as secrecy, privacy, disclosure, emotional adaptation, and interpersonal development. Such implications warrant the role of professional psychological screening and management in TDI. In Indian context, trials are ongoing to evaluate the effects of MBIs in infertility as these can be easily dovetailed to routine, time-bound TDI treatments. In the present database, there seems to be missing link between the needs of couples undergoing TDI in our nation and the effectiveness of tailored psychological interventions for them. It is an avenue which is being explored. It requires considerable attention from researchers and clinicians working in infertility clinics.

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Conflicts of interest

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