



# PSYCHOLOGICAL CHALLENGES IN ASSISTED REPRODUCTIVE TECHNOLOGY: FACTORS AFFECTING WOMEN'S MENTAL HEALTH AND STRATEGIES FOR WELL-BEING

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## ABSTRACT

*Assisted Reproductive Technology (ART) has created new possibilities for women facing infertility and reproductive difficulties. While ART can help fulfill the aspiration of becoming a parent, the process may also introduce distinct mental health challenges for women. This abstract examines the complex interplay between ART and women's mental health, concentrating on the psychological effects experienced during various phases of ART, including diagnosis, treatment, and results. Numerous women undergoing ART report increased levels of stress, anxiety, and depression, often arising from the medical, social, and financial pressures linked to fertility treatments. Emotional reactions such as grief, guilt, and a sense of diminished self-worth may occur, particularly if the treatments do not lead to the desired results. Additionally, societal expectations and stigma surrounding motherhood can exacerbate mental health issues, underscoring the necessity for comprehensive psychological support within fertility care. Research highlights the critical need to incorporate mental health resources into ART programs to enhance outcomes and bolster the emotional resilience of women dealing with infertility and ART processes. This study advocates for a multidisciplinary approach to ART that acknowledges and addresses the mental health requirements of women, thereby supporting their overall well-being throughout this deeply personal and often challenging journey.*

**Keywords:** Assisted reproductive technology, mental health, women.

## Introduction

Reproduction is a mother nature's rule for maintaining life on earth. It enables the continuity of species from one generation to another. In all living beings, it's a natural process and takes place on its own at appropriate age and time. But for some species it becomes a most difficult process and created a feeling of emptiness in them especially in human beings. These Couples planning for a family and trying to conceive have a hard time due to diagnosed or unexplained infertility. The most common reasons for infertility are hormonal issues, blocked fallopian tubes, low quality of eggs and sperms and weak uterus. In such a situation, after trying for long time to conceive naturally, the couples



take the help of medical technology called Assisted Reproductive Technology (ART). Worldwide, 10-15% couples conceive using ART (karimzadeh. Et.al (2017)). Assisted reproductive technology assists the infertile couples to achieve pregnancy and have their own healthy babies. This is used when conventional methods of conceiving constantly go unsuccessful. In majority of this medical technology, embryos are developed outside the human body in medical laboratories using advanced technologies.

### **Types of ART (Assisted Reproductive Technology)**

There are basically six types of Assisted Reproductive Techniques which are commonly used these days (Robertson (1995)). These are:

1) IVF (In-vitro fertilization)

In this method, eggs and sperm of the couple are fertilized in laboratory conditions and then embryo is transferred in to the female's uterus.

2) Intra cytoplasmic sperm injection (ICSI)

This technique is used in the case of male infertility where a single healthy sperm is injected to the egg fertilized and the embryo formed is transferred to the female's uterus.

3) IUI (intra uterine insemination)

In this ART technique, doctor directly injects the sperms into the uterus of female to increase chances of conception.

4) Cryopreservation

In this technique, the couple freezes their eggs and embryos at -196 degree Celsius for future use. This is done when couples are in their late reproductive age and want to have quality embryos in future (Alminana & Cuello (2018)).

5) Gestational pregnancy (Surrogacy)

In this Assisted Reproduction Technology method, a woman uses the uterus of another woman (surrogate) to have her own child. The eggs of woman or of the surrogate and the sperm of the man are fertilized and transferred into the uterus of the surrogate. The surrogate keeps the baby in her womb for nine months and once the baby is delivered hands him/her to the original parents.

6) Pre-implantation genetic testing (PGT)

In this process, before implantation the genetic testing of embryos takes place to detect any abnormality in the embryo. Through this technique, the couple gets a chance to select healthy embryos and can achieve healthy pregnancies.

### **Factors leading to disturbed mental state of women undergoing ART**

The assisted reproductive technology is a boon for infertile and hopeless couples to have their own child. In most cases it leads to successful pregnancies but the major drawback of this medical technology is that it involves long stepwise processes. The stages have an emotional and psychological stress on the health of both men and women. Man may have a less stress but for women it is a very emotional journey. The whole process involving



diagnosis, treatment and waiting period for results has a negative impact on the mental health of the women (Zivaridelavar. et.al (2016)). The women go through a long period of stress, anxiety and depression (Huang. et.al (2019)). The question arises here, why women suffer through a state of disturbed mental health during the process of ART technique. There are certain factors which stress women most during their journey of ART. These are:

1) Societal pressure to conceive

Women is a beautiful creation of God. Motherhood provides a feeling of completeness to woman. In Indian culture, women if find infertile are stigmatized a lot. Marriage in our country is seen as a process of starting a family and raising children and mostly woman is held responsible to start a family (Widge (2002)). If she do not conceive in few years of marriage she is declared as not worthy of anything. The cultural expectations from the immediate family members to have children and the pressure of achieving successful pregnancy through ART leads to emotional and psychological stress among women (Widge (2005)). The fear of failure and repeated unsuccessful attempts take a toll on mental state of women. It becomes a nightmare for them that if the intervention failed, they will not be accepted by the society. They started assuming that it's their fault for not being able to produce a baby.

2) Physical challenges

ART do not include simple medical procedures. It generally revolves around six steps. These are ovarian stimulation to generate eggs, egg retrieval, fertilization, embryo culture, embryo quality and embryo transfer (Robertson (1995)). At each step, variety of hormones are injected into the female body. Medications are given time to time to prepare the body for healthy development of baby. The whole procedure has its side effects too(shelley.et.al (1999)). The major side effect of hormone therapy is the weight gain. The change in body structure lower down the self-esteem of women. Hormonal injections cause acne and facial hair which disturb the females. They have recurring headaches, nausea, vomiting, bloating and hot flashes which disturb them mentally(Rajpal, (2017)).

3) Procedural pain

Human body is sensitive to even a small pain. All the ART techniques require healthy egg retrieval from the female body. In the case of infertile couples, the healthy eggs usually do not form on their own. It requires high doses of hormonal injections which are given daily through hips, thighs and stomach which causes pain and sometimes swelling, tenderness around the injection area. The mental stress is accompanied with physical pain. Regular trans vaginal ultrasounds also cause discomfort to the women. Egg retrieval and embryo transfer are also quiet hectic procedures. Even though, they are done in the presence of anesthesia but still the body shows discomfort and pain after the procedure(frederikson, et. Al (2017)).



#### 4) Mood swings

Mood of a person is very much affected by the mental state of a person. A person with mood swings has always disturbed mental state. The hormonal injections given during the ART techniques, cause frequent mood swings in women. They feel irritated at some time, at other time they feel happy. Their mood changes as a result of ongoing medications. Sometimes they feel so down and irritated they they feel hopeless of the whole procedure (Volgsten. et. Al (2018)),(karimzadeh. et. Al (2017)).

#### 5) Waiting of results

On an average, one menstrual cycle of women takes 28 days to complete. After egg retrieval and embryo transfer it takes at least 20-25 days to have symptoms of pregnancy and positive pregnancy test. Women are supposed to keep themselves calm and happy during the wait period. But the fear of having a negative result increases anxiety with each passing day and disturbs a woman. (Agostini. Et.al(2017)).

#### 6) Financial stress

The so-called ART is not a conventional method of producing a baby. Hence, it is very expensive in comparison to natural conception. One cycle of IVF on an average costs 1-2 lakh. The total cost of egg freezing in India ranges from INR 50,000 to 1,75,000. It is true that usually the cost of the ART is responsibility of the male partner but as a couple it stresses both the partners. Female being more sensitive feel guilty of themselves for not conceiving naturally and feel burdened of the high expenditure of ART(Margan, (2022)). These factors have an overall negative impact on the mental health of the women. In today's world, it's been accepted that women need mental support resources during the ART Procedures. Research has already highlighted the importance of the mental health care of women during this period (Payne& Goedeke (2007)).

### **Interventions to promote mental health of women undergoing ART**

The role and importance of interventions in supporting women's mental health cannot be ruled out. They play an important role in improving the mental condition of women during ART(Payne & Goedeke (2007)).To promote women's mental well-being the society should be sensitized towards the social stigma attached with infertility of women. The sensitization campaigns must reach each and every household so that people can open their mind towards the issue. Women should also be made aware towards the process of IVF and the challenges towards it so that they are mentally prepared towards the process. Counselling plays an important role in providing an overall mental support during ART procedure. Hospitals and few IVF centers in India has joined hands with certified counsellors who are always there to give their services to women undergoing ART techniques. Counselling starts before the treatment to prepare women mentally for the ART. Regular therapy sessions can help women to reduce stress and anxiety during the on-going procedure. The therapy sessions should be post-treatment too, whether ART is successful or not. Specialized counselling can be given in case of failed ART

procedures. To achieve better results, this can be done by involving family members in counselling to enhance mutual understanding between them.

Most of the working women are stressed due to hectic hospital visits. Flexibility and medical leaves for ART procedure like IVF in work place can help workingwomen to reduce their stress. Stress management techniques like yoga and meditation can help a lot during this period. Teaching mindfulness and relaxation techniques can help women to pass the stressful phase calmly and peacefully. Research has already proved the success of these techniques in reducing stress and anxiety in human beings. Expert psychologists should remain in touch with the women to help when required. Through this their mental condition can be easily screened and monitored (Greenfeld (2007)0.

Community groups of women undergoing the ART procedures can be created which can help women to be in touch with women who are undergoing the same phase as they are going. They can share experiences and it can reduce their feeling of isolation with the ART. They will not feel alone and that they are not the only one who are undergoing with this situation. Their feeling of being inferior to other women and alone in this journey can also be reduced. They can join through social media apps as well as in-person through special meetings.

#### **Conclusion:**

Every woman wants to have children and family but it's not an easier process for all. ART has provided the hope to such couples who can't conceive naturally but being a long and hectic process lead to disturb state of mind especially in case of females. Being empathetical towards the situation is not enough and require efforts towards making the process easier and comfortable for women. A collective effort of hospitals and family members can the ART complacent for women.

#### **References:**

- Agostini, F., Monti, F., Andrei, F., Paterlini, M., Palomba, & La Sala, G. B. (2017). Assisted reproductive technology treatments and quality of life: a longitudinal study among subfertile women and men. *Journal of assisted reproduction and genetics*, 34, 1307-1315.
- Alminana, C., & Cuello, C. (2018). What is new in the cryopreservation of embryos?. *Animal Reproduction (AR)*, 12(3), 418-427.
- Cozzolino, M., Troiano, G., & Coccia, M. E. (2021). Spontaneous pregnancy versus assisted reproductive technologies: implications on maternal mental health. *Women & Health*, 61(3), 303-312. <https://doi.org/10.1080/03630242.2021.1881025>
- Frederiksen, Y., Mehlsen, M. Y., Matthiesen, S. M. S., Zachariae, R., & Ingerslev, H. J. (2016). Predictors of pain during oocyte retrieval. *Journal of Psychosomatic Obstetrics & Gynecology*, 38(1), 21-29. <https://doi.org/10.1080/0167482X.2016.1235558>



- Greenfeld, D. A. (1997). Does psychological support and counseling reduce the stress experienced by couples involved in assisted reproductive technology?. *Journal of assisted reproduction and genetics*, 14(4), 186.
- Heredia, M., Tenías, J. M., Rocio, R., Amparo, F., Calleja, M. A., & Valenzuela, J. C. (2013). Quality of life and predictive factors in patients undergoing assisted reproduction techniques. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 167(2), 176-180.
- Huang, M. Z., Kao, C. H., Lin, K. C., Hwang, J. L., Puthussery, S., & Gau, M. L. (2019). Psychological health of women who have conceived using assisted reproductive technology in Taiwan: findings from a longitudinal study. *BMC Women's Health*, 19, 1-11.
- Karimzadeh M, Salsabili N, Akbari Asbagh F, Teymouri R, Pourmand G, Soleimanieh Naeini T. Psychological Disorders among Iranian Infertile Couples Undergoing Assisted Reproductive Technology (ART). *Iran J Public Health*. 2017 Mar;46(3):333-341. PMID: 28435819; PMCID: PMC5395529.
- Margan, R., Margan, M. M., Fira-Mladinescu, C., Putnoky, S., Tuta-Sas, I., Bagiu, R., & Dobrescu, A. (2022). Impact of stress and financials on Romanian infertile women accessing assisted reproductive treatment. *International Journal of Environmental Research and Public Health*, 19(6), 3256.
- L. Repokari, R.-L. Punamäki, P. Poikkeus, S. Vilska, L. Unkila-Kallio, J. Sinkkonen, F. Almqvist, A. Tiitinen, M. Tulppala, The impact of successful assisted reproduction treatment on female and male mental health during transition to parenthood: a prospective controlled study, *Human Reproduction*, Volume 20, Issue 11, 1 November 2005, Pages 3238–3247, <https://doi.org/10.1093/humrep/dei214>
- Payne, D., & Goedeke, S. (2007). Holding together: caring for clients undergoing assisted reproductive technologies. *Journal of Advanced Nursing*, 60(6), 645-653.
- Prasad, S., Kumar, Y., Nayar, P., Prasad, S., & Sharma, G. (2017). A prospective study to assess the mental health and quality of life in women undergoing assisted reproduction. *Fertility Science and Research*, 4(2), 117-125.
- Rajpal, M. K. (2017). physical and psychological turmoil in assisted reproductive technology, *legal research development*,1(4),39-48.
- Robertson, J. A. (1995). Assisted reproductive technology and the family. *Hastings LJ*, 47, 911.
- Shelley J, Venn A, Lumley J. long-term effects on women of assisted reproduction. *International Journal of Technology Assessment in Health Care*. 1999;15(1):36-51. doi:10.1017/S0266462399015159
- Volgsten, H., Schmidt, L., Skoog Svanberg, A., Ekselius, L., & Sundström Poromaa, I. (2018). Psychiatric disorders in women and men up to five years after undergoing assisted reproductive technology treatment – a prospective cohort study. *Human Fertility*, 22(4), 277–282. <https://doi.org/10.1080/14647273.2018.1474279>
- Widge, A. (2002). Sociocultural attitudes towards infertility and assisted reproduction in India. *Current practices and controversies in assisted reproduction*, 60, 74.

- Widge, A. (2005). Seeking conception: Experiences of urban Indian women with in vitro fertilisation. *Patient Education and Counseling*, 59(3), 226-233.
- Zivaridelavar, Maryam; Kazemi, Ashraf1,; Kheirabadi, Gholam Reza2. The effect of assisted reproduction treatment on mental health in fertile women. *Journal of Education and Health Promotion* 5(1):p 9, | DOI: 10.4103/2277-9531.184552

