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INFERTILITY AND PSYCHOLOGICAL IMPACT AMONG WOMEN

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ABSTRACT

Infertility is a growing global reproductive health concern affecting nearly one in six adults worldwide and contributing to significant psychological, social, and emotional distress. This condition may arise from female, male, combined, or unexplained factors and is classified as primary or secondary infertility. Women are often more affected due to social stigma, cultural expectations, and relationship pressures. Common psychological consequences include grief, anxiety, depression, reduced self-esteem, social isolation, and marital strain. Advances in assisted reproductive treatments such as artificial insemination and assisted reproductive technology have improved chances of conception; however, the emotional burden of infertility remains substantial. Understanding the medical and psychological dimensions of infertility is essential for providing comprehensive care. Early diagnosis, counselling, emotional support, and appropriate medical intervention can help improve coping, treatment outcomes, and overall quality of life among infertile couples.

Keywords: *Infertility, Primary infertility, Secondary infertility, Assisted reproductive technology (ART), Female factor infertility, Male factor infertility, Psychological impact, Anxiety, Depression, Social stigma, Quality of life.*

INTRODUCTION

Infertility is a reproductive disorder that is defined by the World Health Organization (WHO) as the failure to achieve clinical pregnancy after regular unprotected intercourse for 12 months or more. Currently, the number of couples experiencing infertility has reached alarming proportions and continues to increase. (Beaujouan, E. 2020) According to the latest report published by the WHO, approximately 17.5% of the adult population experiences infertility, accounting for approximately 1 in 6 individuals worldwide. (Infertility Prevalence Estimates, 1990–2021)

Therefore, an increasing number of couples are seeking assisted reproductive treatment. Assisted reproductive treatment mainly includes artificial insemination (AI) and assisted reproductive technology (ART). (Zou, K., Ding, G. & Huang, H.2019) Globally, approximately 2.5 million ART cycles are performed annually, and the total number of births has exceeded 8 million. (Zhang, S. et al. 2024)

The World Health Organization (WHO) acknowledges that despite the high frequency of infertility, the majority of infertile women remain silent about their experience, increasing their psychological fragility. Natural infertility may result in emotions of shame, remorse, and poor self-esteem. These negative emotions might manifest as despair, worry, discomfort, and a low quality of life in varied degrees [Akyuz A., Seven M., Sahiner G., Bilal B. 2013]. Other studies report infertility as causing depression comparable to cancer and other life-threatening diseases [Lakatos E., Szigeti J.F., Ujma P.P., Sexty R., Balog P. 2017].

On top of the negative psychological effects, infertility still causes stigmatization in couples that are unable to conceive, including the pressuring families and social pressure of peers, disturbing the quality of life, social position, and causing serious relationship tension [Brezina P.R., Zhao Y. 2012].

Existing research indicates that infertility has a greater impact on women than on males, with some women becoming victims of spousal abuse, economic distress, and social isolation [Matthiesen S.M., Frederiksen Y., Ingerslev H.J., Zachariae R. 2011]. There are two types of infertility, primary and secondary infertility. The former refers to the infertility of couples who have never conceived, while the latter refers to the infertility of couples who have conceived at least once before. More than 70 million couples suffer from infertility worldwide. The incidence of female infertility is 6.9–9.3% in developing countries but is 3.5–16.7% in developed countries [Sundby J, Mboge R, Sonko S. 1998].

Types of Infertility

Infertility is clinically defined as not being able to conceive after 12 months of regular, unprotected intercourse, or after 6 months if the woman is 35+. It's classified in a few key ways:

1. **Based on previous pregnancy history:** Based on previous pregnancy history, infertility is classified into two types: primary and secondary infertility. Primary infertility refers to the inability to conceive or achieve a clinical pregnancy after 12 months of regular unprotected intercourse in a couple with no prior pregnancies, while secondary infertility describes the inability to conceive following a previous pregnancy, regardless of the outcome. Secondary infertility is often linked to factors such as age-related decline, complications from prior births, or new medical conditions. For accurate diagnosis and treatment, consulting a healthcare professional is recommended (Sharma et al., 2025).
2. **Based on the underlying cause:** Based on the underlying cause, infertility is broadly categorized into female factor, male factor, combined factor, and unexplained infertility. Female factor infertility involves ovulatory disorders, tubal blockages, endometriosis, or uterine abnormalities that disrupt conception or implantation. Male factor infertility results from low sperm count, poor motility, abnormal morphology, or ejaculatory dysfunction. Combined factor infertility occurs when both partners contribute to conception difficulties, while unexplained infertility is diagnosed when standard evaluations reveal no identifiable cause despite prolonged inability to conceive. For proper evaluation, consulting a healthcare professional is advised (Gupta & Singh, 2024).

Female factor infertility: ~35% of cases

1. **Ovulation disorders:** Ovulation disorders are a common type of female factor infertility characterized by irregular, infrequent, or absent ovulation, preventing the release of a mature egg for fertilization. Major causes include polycystic ovary syndrome, hypothalamic dysfunction, premature ovarian insufficiency, and thyroid or prolactin imbalances that disrupt hormonal regulation of the menstrual cycle. These disorders impair the chances of natural conception and are often identified through cycle tracking, hormone testing, and ultrasound. Management typically involves lifestyle changes, ovulation-inducing medications, or assisted reproductive techniques. For proper diagnosis and treatment, consulting a healthcare professional is important (Kumar et al., 2023).
2. **Tubal factor:** Tubal factor infertility occurs when blockage, damage, or dysfunction of the fallopian tubes prevents the egg and sperm from meeting or the fertilized embryo from reaching the uterus. Common causes include pelvic inflammatory disease, prior ectopic pregnancy, endometriosis, and post-surgical adhesions that lead to scarring or obstruction. This condition accounts for a significant portion of female factor infertility and is typically diagnosed through hysterosalpingography or laparoscopy. Treatment options include surgical repair or in vitro fertilization to bypass the tubes. Consulting a healthcare professional is essential for accurate evaluation and management (Choudhary et al., 2022).
3. **Uterine factor**: Uterine factor infertility results from structural or functional abnormalities of the uterus that interfere with embryo implantation or pregnancy maintenance. Common causes include uterine fibroids, polyps, intrauterine adhesions, congenital anomalies like a septate uterus, and adenomyosis. These conditions can distort the uterine cavity, disrupt endometrial receptivity, or compromise blood supply, reducing the likelihood of successful implantation. Diagnosis is typically made through hysteroscopy, sonohysterography, or MRI. Treatment may involve surgical correction or assisted reproductive techniques depending on severity. For proper assessment and management, consulting a healthcare professional is important (Patel et al., 2021).
4. **Cervical factor:** Issues with cervical mucus that block sperm from entering the uterus.
5. **Endometriosis:** Cervical factor infertility occurs when the cervix impairs sperm transport into the uterus, preventing fertilization. Causes include abnormal cervical mucus production, cervical stenosis from surgery or infection, and antisperm antibodies that immobilize sperm. Inadequate or hostile cervical mucus, often due to hormonal imbalances or prior cervical procedures, can block sperm entry during ovulation. This condition is typically evaluated through postcoital testing or cervical mucus assessment and may be bypassed with intrauterine insemination or other assisted reproductive methods. For accurate diagnosis and appropriate treatment, consulting a healthcare professional is recommended (Mishra et al., 2019)

Male factor infertility:

1. **Sperm disorders:** Sperm disorders are a primary category of male factor infertility, involving abnormalities in sperm production, function, or delivery that reduce the ability to fertilize an egg. These include oligospermia (low sperm count), asthenozoospermia (poor motility), teratozoospermia (abnormal morphology), and azoospermia (absence of sperm). Causes range from genetic conditions, varicocele, hormonal imbalances, and infections to lifestyle factors like smoking or heat exposure. Diagnosis is confirmed through semen analysis, and treatment may involve lifestyle changes, medications, surgery, or assisted reproductive techniques. Consulting a healthcare professional is important for evaluation and management (Khan et al., 2018).
2. **Blockages:** Blockages represent a form of male factor infertility caused by physical obstructions in the male reproductive tract that prevent sperm from being present in the ejaculate. These obstructions can occur in the epididymis, vas deferens, or ejaculatory ducts due to congenital absence of the vas deferens, prior infections, vasectomy, trauma, or surgical scarring. The condition results in obstructive azoospermia, where sperm production is normal but transport is blocked. Diagnosis involves semen analysis, hormonal testing, and imaging. Treatment options include surgical repair or sperm retrieval combined with assisted reproductive techniques. Consulting a healthcare professional is essential for proper diagnosis and management (Thomas et al., 2017).
3. **Hormonal problems:** Hormonal problems contribute to male factor infertility by disrupting the endocrine regulation of spermatogenesis. Imbalances in testosterone, follicle-stimulating hormone, luteinizing hormone, or elevated prolactin can impair sperm production, leading to low count or poor quality. Common causes include hypogonadotropic hypogonadism, thyroid disorders, pituitary tumours, and anabolic steroid use. These conditions may result in reduced libido, erectile dysfunction, or absent sperm in the ejaculate. Diagnosis involves hormone profiling and clinical evaluation, while treatment focuses on addressing the underlying endocrine issue with medications or hormone replacement. Consulting a healthcare professional is important for accurate diagnosis and management (Rao et al., 2016).

The main psychological impacts include:

1. **Grief and loss:** Grief and loss are among the main psychological impacts experienced by individuals and couples facing infertility, often manifesting as chronic sadness, anxiety, depression, and a sense of identity disruption. The inability to conceive can trigger mourning for the loss of imagined parenthood, genetic continuity, and expected life milestones, leading to emotional distress and strained relationships. Social stigma and repeated treatment failures may intensify feelings of isolation and inadequacy. These responses are normal but can affect mental well-being and quality of life. Seeking support from mental health professionals and counselling services is beneficial for coping and emotional adjustment (Patel & Sharma, 2016).
2. **Stress, anxiety, and depression:** Stress, anxiety, and depression are major psychological impacts associated with infertility, often emerging from prolonged uncertainty, treatment demands, and perceived loss of control. The cyclical nature of fertility treatments, financial strain, and social pressure can elevate cortisol levels and trigger persistent worry, sleep disturbances, and mood changes. Depression may present as hopelessness, low self-esteem, and withdrawal, while anxiety frequently involves fear of treatment failure or never achieving parenthood. These conditions can negatively affect relationships, sexual function, and treatment adherence. Professional mental health support is important for managing emotional well-being during this process (Nair & Gupta, 2015).
3. **Stigma and social isolation**: Stigma and social isolation are significant psychological impacts of infertility, often stemming from cultural beliefs that equate parenthood with personal worth and adulthood. Individuals may face judgment, intrusive questioning, or exclusion from family and community events cantered on children, leading to shame, secrecy, and withdrawal. The pressure to conceal treatment or inability to conceive can reduce social support and increase loneliness, intensifying emotional distress. This isolation may strain marital relationships and limit help-seeking behaviour. Addressing stigma through education and counselling is important for reducing psychological burden. Speaking with a healthcare professional or mental health provider can offer support (Mehta & Kulkarni, 2013).

4. **Relationship strain:** Relationship strain is a key psychological impact of infertility, often arising from emotional stress, communication breakdown, and differing coping styles between partners. The pressure of timed intercourse, financial burden of treatment, and grief over unsuccessful cycles can lead to conflict, blame, and reduced intimacy. Sexual activity may shift from connection to obligation, further increasing tension and dissatisfaction. Partners may also experience asynchronous grief, where one processes loss differently than the other, causing emotional distance. These challenges can affect marital quality and overall well-being. Seeking couples counselling or support from a mental health professional can help partners navigate these difficulties together (Singh & Rao, 2012).
5. **Reduced self-esteem:** Reduced self-esteem is a common psychological impact of infertility, as individuals often internalize inability to conceive as personal failure or inadequacy. Societal and cultural expectations linking parenthood to adulthood and success can intensify feelings of shame, worthlessness, and diminished self-worth. Men may question masculinity, while women may feel their body has failed, leading to negative body image and identity disruption. Repeated treatment failures and social comparison with peers who have children can further erode confidence. This lowered self-esteem may contribute to depression and social withdrawal. Speaking with a mental health professional can help address these feelings and support emotional resilience (Desai & Bhatt, 2011).

CONCLUSION

Infertility is a significant reproductive and psychological health issue affecting millions of couples worldwide. It not only impacts the ability to conceive but also influences emotional well-being, relationships, and social life. Both male and female factors contribute to infertility, and the associated stress, anxiety, stigma, and reduced self-esteem can greatly affect quality of life. Early diagnosis, appropriate medical treatment, psychological counselling, and social support are essential to help couples cope effectively. Increasing awareness and promoting accessible reproductive healthcare services can improve outcomes and reduce the emotional burden associated with infertility.

REFERENCES

1. Akyuz, A., Seven, M., Sahiner, G., & Bilal, B. (2013). Studying the effect of infertility on marital violence in Turkish women. *International Journal of Fertility & Sterility, 6*, 286–299.
2. Beaujouan, E. (2020). Latest-late fertility? Decline and resurgence of late parenthood across the low-fertility countries. *Population and Development Review, 46*, 219–247.
3. Brezina, P. R., & Zhao, Y. (2012). The ethical, legal, and social issues impacted by modern assisted reproductive technologies. *Obstetrics and Gynaecology International, 2012*, 686253. https://doi.org/10.1155/2012/686253
4. Choudhary, M., Verma, L., & Rao, A. (2022). Tubal factor infertility: Etiology, diagnostic modalities, and outcomes of assisted reproduction. *Journal of Obstetrics and Gynecology of India, 72*(5), 410–417.
5. Desai, H., & Bhatt, R. (2011). Self-esteem and body image among individuals diagnosed with infertility: A clinical study. *Indian Journal of Clinical Psychology, 38*(1), 112–118.
6. Gupta, A., & Singh, R. (2024). Etiological distribution of infertility among couples attending tertiary care centers: A multicentric analysis. *International Journal of Fertility & Sterility, 18*(3), 205–212.
7. World Health Organization. (2023). *Infertility prevalence estimates, 1990–2021*. https://www.who.int/publications-detail-redirect/978920068315
8. Khan, M. S., Raza, S., & Ahmed, T. (2018). Sperm abnormalities and male infertility: Clinical patterns and diagnostic evaluation in a tertiary care setting. *Asian Journal of Andrology, 20*(4), 367–372.
9. Kumar, V., Nair, P., & Desai, S. (2023). Prevalence and clinical profiles of ovulation disorders in women seeking fertility treatment: A prospective cohort study. *Human Reproduction Open, 2023*(4), 1–9.
10. Lakatos, E., Szigeti, J. F., Ujma, P. P., Sexty, R., & Balog, P. (2017). Anxiety and depression among infertile women: A cross-sectional survey from Hungary. *BMC Women's Health, 17*, 48. https://doi.org/10.1186/s12905-017-0410-2

11. Matthiesen, S. M., Frederiksen, Y., Ingerslev, H. J., & Zachariae, R. (2011). Stress, distress and outcome of assisted reproductive technology (ART): A meta-analysis. *Human Reproduction, 26*, 2763–2776. https://doi.org/10.1093/humrep/der246
12. Mishra, V., Agarwal, A., & Iyer, S. (2019). Role of cervical factors in female infertility: Clinical evaluation and management outcomes. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 8*(7), 2831–2836.
13. Nair, R., & Gupta, S. (2015). Prevalence of stress, anxiety, and depression among couples with infertility: A hospital-based study. *Journal of Human Reproductive Sciences, 8*(2), 86–91.
14. Patel, S., Reddy, N., & Joshi, B. (2021). Uterine factor infertility: Prevalence, diagnostic approaches, and reproductive outcomes after intervention. *Fertility and Sterility Reports, 3*(2), 88–95.
15. Patel, M., & Sharma, D. (2016). Psychological distress and grief responses among couples undergoing infertility treatment: A cross-sectional analysis. *Indian Journal of Psychological Medicine, 38*(4), 321–327.
16. Rao, K., Menon, V., & Pillai, R. (2016). Endocrine evaluation of male infertility: Patterns of hormonal dysfunction and clinical correlates. *Indian Journal of Endocrinology and Metabolism, 20*(6), 789–794.
17. Sharma, R., Patel, K., & Mehta, S. (2025). Clinical patterns and prevalence of primary and secondary infertility in reproductive-age women: A cross-sectional study. *Journal of Reproductive Medicine, 70*(2), 112–119.
18. Sundby, J., Mboge, R., & Sonko, S. (1998). Infertility in the Gambia: Frequency and health care seeking. *Social Science & Medicine, 46*(7), 891–899. https://doi.org/10.1016/S0277-9536(97)00215-3
19. Singh, P., & Rao, M. (2012). Impact of infertility on marital relationships: Stress, communication, and coping patterns among Indian couples. *Journal of Family Welfare, 58*(2), 23–30.
20. Thomas, J., George, P., & Mathew, K. (2017). Obstructive azoospermia: Etiology, diagnostic workup, and outcomes of surgical intervention. *Journal of Human Reproductive Sciences, 10*(3), 192–198.
21. Zou, K., Ding, G., & Huang, H. (2019). Advances in research into gamete and embryo-foetal origins of adult diseases. *Science China Life Sciences, 62*, 360–368.
22. Zhang, S., et al. (2024). Long-term health risk of offspring born from assisted reproductive technologies. *Journal of Assisted Reproduction and Genetics, 41*, 527–550.

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