



# Psychological Effects of Infertility in Males and Females

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

Infertility is the inability to conceive a child after trying for more than one year. However the time period varies with age. It causes distress in people individually and as a couple. Infertile couples go through many psychological problems during this journey and while some couples seek help from professionals, others do not. It is very common to go through psychological issues like anxiety, depression and insomnia in such people because every person dreams of becoming a parent one day and if that dream is not fulfilled, it is natural to be stressed. It has several consequences on the mental health of both males and females. In this article the main aspects of psychological health after getting diagnosed with infertility are discussed.

**Keywords:** *Infertility; psychological effects; infertile; fertility treatment.*

## **1. INTRODUCTION**

The inability to conceive, bear, or give birth to a healthy child naturally is known as infertility. After trying for 12-18 months a couple is termed as

infertile [1]. Women who are able to conceive yet frequently miscarry are likewise considered infertile. Male or female, a variety of circumstances might contribute to infertility [2].

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The typical definition of infertility is the failure to conceive following a year of unprotected sexual activity. If a couple has been trying to conceive for a year or more, they might consider undergoing an infertility evaluation. To avoid delaying possibly necessary therapy, you should start the infertility evaluation after around six months of unprotected sexual activity rather than a year if the couples are 35 or older.

There are 2 types of infertility that are mentioned below:

### 1.1 Primary Infertility

Couples who have not gotten pregnant after a year of trying to conceive naturally are said to be experiencing primary infertility.

### 1.2 Secondary Infertility

The inability to conceive or bring a pregnancy to term after giving birth is referred to as secondary infertility [2].

48 million couples and 180 million people worldwide, according to an estimate, struggle with infertility. Primary infertility accounts for 45 of the total instances of infertility in Pakistan, where its prevalence is reported to be 22%.

The causes of infertility include:

- The Tubal Factor
- The Male Factor
- The Age Factor
- The Cervical/Uterine Factor
- The Peritoneal Factor
- Unexplained Infertility
- Genetic Abnormalities [3]

## 2. EFFECTS OF INFERTILITY

Numerous factors, such as age, marital status, culture, and religious convictions, have an impact on a person's desire to become a parent. Compared to men, women are more likely to experience loneliness. A relatively high degree of frustration and anger in an infertile woman may have an impact on her interactions with her family, friends, and even her spouse. The social effects of infertility are extremely detrimental, especially for women. Due to the inability to conceive, infertile women frequently deal with divorce, violence, societal stigma, emotional stress, melancholy, anxiety, and low self-esteem.

In addition, infertile women are more likely to face mental health issues, oppression, marital discontent, and a lower quality of life than those of the fertile group [4].

## 3. SOCIETAL BURDEN

The community in eastern countries mostly expects women to assume the role of mother. If pregnancy doesn't somehow happen for any reason, this will result in numerous psychosocial issues. Many issues for example anxiety, depression and other mental illnesses arise when a male is diagnosed with infertility. Infertile men who are socially isolated have an avoidant coping style and appraise stressful events as overwhelming are more vulnerable to severe anxiety than men without these characteristics. Men prefer oral to written treatment information and prefer to receive emotional support of friends [5].

## 4. NEED FOR SUPPORT

Many studies have shown that men diagnosed with infertility need emotional support though they seem to confide in the doctors at the hospital instead of consulting a professional counseling. Feelings of guilt, trauma, frustration, anxiety and depression are seen in such men. As the open disclosure of feelings is uncommon among men but they feel sad, worried, embarrassed and lonely after diagnosis. Although some men share their feelings with a trusted partner or a doctor, most seem to try and hide all these feelings. For such men a developmental approach is developed where the doctor asks the patient about how they are feeling after the diagnosis. Among men who continue with the therapy, several seem to discontinue it after some time due to several reasons like family pressure. Some studies have been conducted which showed that an adult male desires to experience fatherhood much alike to their female partner. The use of assistive reproductive technologies (ART) has been opted by many couples but it has shown to increase infertility specific anxiety and a constant state of sadness if the treatment goes unsuccessful after a longer period of time than expected. Infertile men whose behavior is isolating and egoist face severe anxiety than the men who seek help and confide in partners. Men frequently find it difficult to communicate their despair and unhappiness, therefore their external reactions may instead take the form of verbal rage, which is a more socially appropriate manner of expression. Men

may withdraw even farther and repress their feelings as anger transforms into other, less pleasant emotions like grief. However, it affects their masculinity, and they interpret it as a sign of their own weakness because it seems to be traumatising and embarrassing to their masculinity [6].

Many men deal with inferiority complexes. They frequently believe that being able to get the women pregnant makes them more manly, despite the fact that these beliefs are unfounded. When a man must endure an uncomfortable examination to identify the underlying problem, feelings of inadequacy are made worse. Marriages might also be in trouble. Men frequently feel that they have betrayed their wives. The marriage may suffer as a result of the stress. The effects of male factor infertility can be felt in other relationships. Men could steer clear of family members and friends who are parents themselves. When young children are present, holidays become harsh reminders of infertility.

## 5. COPING MECHANISMS

The main coping mechanisms used by the couples to deal with their problems are relying on family members for emotional support and avoiding awkward confrontations. Infertility affects both individuals and couples in psychological, emotional, and social ways. Infertile couples should receive all the help they can from their families in order to prevent isolation. According to research, a couple's marital quality significantly predicts their general happiness and well-being, whereas a bad marriage is linked to a lot of family and societal issues. Infertility has been linked to marital issues and conflicts and has major effects on the participants' mental and social well-being. This is a challenge because, in the context of infertility therapy, the marital bond is seen as the most crucial source of support.

Every person has the right to a life of high quality. He or She has the right to choose the fundamental human right, which is to pick how many children they want to have, as well as his physical and mental well. The realisation of these fundamental human rights may be undermined by infertility. Therefore, addressing infertility is crucial to ensuring that people and couples who want a family can do so. Every sort of partnership might need to take extra precautions to ensure their fertility [7].

Despite not being a life-threatening problem, infertility is nonetheless seen as a stressful life event for couples. The fact that having children is valued in society as a whole may be the cause of the high stress associated with infertility.

Additionally, because infertility is still regarded as a private matter, infertile couples frequently conceal their feelings, thoughts, and views. As a result, infertile couples could experience social pressure. Additionally, the relationship with the spouse as well as the relationships with friends and family may deteriorate. These friends or family members could provide valuable information and advice that could make the situation worse. As a result, infertile couples may limit their social interactions, particularly with expectant women and their friends' families.

Additionally, infertility can harm a person's sense of self-worth. For instance, a research in a Jordanian population [8] looked into how rural women's experiences with infertility affected it. The study mentioned above sought to investigate how people react to infertility and its effects in rural Jordan's socio-cultural milieu. According to the findings, women's reactions to infertility comprised compliance and obedience, self-isolation, internalization of rage and despair, and externalization of anger and sadness. It has also been demonstrated that infertile women have a poor view of their sexuality and themselves [5].

## 6. PSYCHOLOGICAL EFFECTS OF INFERTILITY

Many studies were conducted to determine the psychological effect of male infertility on their female partners which came up with the following results:

**Denial and Skepticism:** When given the disturbing news of infertility, some women experience shock or denial. We give the participant's statements on the time they discovered their husband's infertility.

**Confusion and Frustration:** Some ladies stated that they did not fully comprehend the situation when the doctor first identified male infertility. When presented with the initial diagnosis, uncertainty may emerge from not anticipating this outcome or the significance of this diagnosis.

**Anxiety and Worry:** Following the diagnosis of male infertility, some of the things highlighted by the women during the examinations were signs

of worry. Fear of separation, upsetting their personal tranquilly, and how the family and husband would respond to the diagnosis of male infertility were among these.

**Disappointment:** A diagnosis of infertility, particularly untreatable infertility, was frequently cited by women as having a significant negative impact on their mental health. When infertility or irreversible infertility was diagnosed, disappointment frequently struck quickly [9].

**Joy:** When they learned that they had male infertility, several ladies rejoiced since they were relieved of the burden from their relatives.

## 7. COGNITIVE RESPONSE TO INFERTILITY IN COUPLES

**This Theme Includes two Subcategories:** Mental engagement and Psychological restlessness. According to the studies, subjects including the prospect of a husband or wife remarriage, family members' interest in the participant's infertility, and the husband's feelings of sorrow when seeing fruitful couples were the causes of the participants' mental engagement. Additionally, some expectant mothers who kept their pregnancies a secret from the participants led to their mental illness. Additionally, those who hid their infertility constantly kept in mind what would happen if the issue was revealed.

## 8. EMOTIONAL-AFFECTIVE REACTIONS OF INFERTILITY IN COUPLES

After undergoing fertility treatments, couples who are unable to conceive are three times more inclined to divorce or split up than those who are successful [10]. A marriage can suffer from the loneliness, financial strain, and stress that can be associated with infertility. According to research, women who are infertile experience the same levels of anxiety and sadness as those who have HIV, cancer, or heart disease. However, infertility is a couple's problem that affects more couples than you might realize [11]. Men are responsible for 50% of infertility cases, which affect about 1 in 8 couples. Relationships might frequently end because of the emotional hardship that fertility issues bring.

When suffering with infertility, couples frequently feel alone, and according to some surveys [12], 60% of couples don't discuss their situation with others. Finding a support group can not only help you get through the process, but it will also help keep your relationship strong during difficult times. There are many other couples going

through similar problems. Even though infertility is already a difficult problem, making it harder still by adding relationship stress.

People often blame the woman when a couple has trouble getting pregnant. However, 30% of infertility cases are entirely the fault of men. Despite such figures, 80% of men will not get a fertility assessment, allowing the woman to bear the burden [13].

## 9. EMOTIONAL-AFFECTIVE RESPONSE TO THE THERAPY PROCESS

Fear, anxiety, and worry, exhaustion and helplessness, sadness and melancholy, and hopelessness are the four subcategories under this subject. Some of the issues the participants are dealing with are fear of the pregnancy test result and worry of informing the husband a negative result for some individuals, concern about how the treatment process is going, and fear of the treatment's outcome.

Some of the patients found the frequent use of hormone therapies, non-medical methods including IUI and IVF, and recurrent failures to be discouraging. Some of the participants were fatigued and despairing due to their frequent and lengthy commutes from their homes to the reproductive treatment facility and the unexpectedly extended treatment cycles.

## 10. PSYCHOLOGICAL FACTORS AS A CAUSE OF INFERTILITY

Around 15% of heterosexual couples in high-income nations struggle to conceive when they want to, and up to 50% of these couples suffer male-related infertility. Couples' infertility is assumed to be more common in low- and lower-middle-income nations with limited resources because to undiagnosed and untreated disorders of the reproductive tract. Infertility can have an impact on men in a number of different ways, including through self-diagnosis, as the partner of an infertile woman, or as a member of a couple experiencing unexplained infertility. The psychosocial effects of infertility on men are less well recognised, despite the fact that childlessness brought on by infertility has been the subject of substantial research in women [14].

## 11. WOMEN

It has previously been proven that both men and women might experience infertility for a variety of reasons. Infertility has several causes, including

psychological aspects in addition to physiological ones. Tubal spasms, anovulation, and vaginismus are signs of emotional stress in women. In addition, women may unknowingly forgo sexual activity during ovulation. There are a number of psychological similarities among infertile women. Even though most women seem to be excited about being pregnant and verbally express their desire, they could actually be afraid about getting pregnant. These worries may arise during or after pregnancy, childbirth, or parenthood. Some of the possible underlying causes of stress include changes in body shape during pregnancy, worry of losing one's life or a child during childbirth, or dread of the mother failing. According to a prior study, encouraging women to express their emotions could foster a closer, more loving relationship between them, increasing the likelihood of conception [4].

## 12. MEN

In contrast, the key factor contributing to men's psychological issues that can result in infertility is impotence with regard to erection and ejaculation. These issues may develop later in life or be present at birth. Additionally, the majority of men can go through brief impotence at any time during their life. Impotence is most frequently brought on by psychological triggers, and in particular, eating disorders, earlier psychological trauma, and overly protective and devoted moms are among the key psychological factors that might cause impotence.

Additionally thought to be a clinical risk factor that may lower male fertility is psychological stress. Studies looking at the connection between psychological stress and male infertility have produced inconsistent findings. Some authors were able to show that there is an inverse link between sperm parameters and psychological stress. Results from a prior study, however, did not support this association.

In more detail, studies have shown that under various, stressful conditions—such as during test times, during times of war, or during times of elevated stress in their professional lives—a number of important sperm parameters change. A study, however, suggested that everyday psychological stress has no impact on sperm quality, in contrast to the findings above.

Additionally, men's stress levels may rise as a result of fertility treatments alone. According to a prior study, men of couples who are treated but still are unable to conceive would likely feel

frustrated and disappointed because of the prolonged efforts, including the usage of pricey medications and costly treatment expenditures. Additionally, stress-related diseases including erectile dysfunction and premature and retrograde ejaculation can result from fertility issues like changes in sperm parameters, which can further harm fertility status [2].

## 13. THERAPIES FOR COUPLES

### 13.1 Psychotherapy

Couples experiencing any type of infertility should be advised to seek out psychotherapy as a crucial intervention. Consequently, counselling should preferably start before patients start receiving any medical treatment to treat infertility. According to several research, treating psychological problems including depression, tension, and stress can improve your chances of getting pregnant. Additionally, studies have demonstrated that cognitive behavioural therapy and interpersonal therapies that emphasise enhancing relationships or resolving disagreements with others can benefit infertile patients who experience melancholy and anxiety. According to studies, couples or the general public can benefit greatly from psychotherapy that is provided on an individual basis [5].

Psychotherapy also aids in the development of coping mechanisms or decision-making during therapy. In addition, the therapy can help patients with various mood or sleep disorders [6].

### 13.2 Relaxation Techniques

Other supplementary interventions should be encouraged in addition to the psychological assistance that couples who have been unable to conceive should get. Experts advise using a variety of relaxation techniques, including yoga, guided visualisation, deep breathing, and meditation, because infertility and its treatment frequently result in high levels of stress.

Previous research has emphasised how yoga might help people undergoing infertility treatment reduce their psychological stress. A study specifically demonstrated that a yoga intervention improved life quality and decreased unfavourable emotions and thoughts related to infertility. According to the aforementioned study, taking yoga sessions helped women undergoing IVF feel less anxious and depressed. In addition, results from previous studies have shown that six

weeks of structured yoga sessions reduced anxiety by 20% and anxiety scores by 12% [15].

## 14. CONCLUSION

For couples, receiving an infertility diagnosis can be extremely traumatic. Serious psychological illnesses like sadness, anxiety, and low self-esteem might develop as a result of this diagnosis. Therefore, when undergoing fertility treatment, couples should receive counselling and assistance. It is well known that psychological treatments for infertile couples can greatly boost pregnancy rates while reducing symptoms of anxiety and sadness [3]. Therefore, despite the fact that infertility can have substantial psychological impacts, the majority of patients can gain from the correct assistance to find some sort of resolution, whether they decide to become biological parents, adopt children, or forego having children [16].

## CONSENT

It is not applicable.

## ETHICAL APPROVAL

It is not applicable.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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