Commentary

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# Psychic consequences of infertility on couples: A short commentary

https://doi.org/10.1515/openhe-2022-0022
received March 21, 2022; accepted August 08, 2022

**Abstract:** Infertility is a reproductive system condition defined by the failure to carry a clinical pregnancy following a period of 12 months or more of unprotected regular intercourse. Despite the fact that infertility is not a life-threatening condition, it is still a stressful life event for couples or people owing to the high value placed on having a child by individuals or society in general. Infertile couples are dealing with a variety of emotional issues in addition to a medical ailment. Infertile couples' emotions, feelings, and beliefs frequently alter as a result of their infertility diagnosis. Due to the extreme seclusion of the subject, infertile couples may resort to hiding the problem if they are under a lot of societal pressure. The inability to conceive has been regarded as a stressful situation for both the person and the couple. The news of infertility elicits the same emotional responses as a death or catastrophic sickness. The medical treatment of infertility causes anxiety and pain, and this suffering and anxiety can have an impact on the treatment's outcomes. Failed attempts result in major narcissistic injuries, which are frequently compounded by sexuality issues and relationship difficulties.

**Keywords:** fertility, infertility, stress, treatment, psychology

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## 1 Introduction

Infertility is seen as a problem in almost every culture and society, and it affects between 10% and 15% of couples of reproductive age. In recent years, the number of couples seeking treatment for infertility has risen dramatically. This is due to things like women waiting longer to have children, newer and more effective ways to treat infertility, and more people knowing about the services that are available. The fact that more and more people are getting fertility treatments has made people more aware of infertility and led to research into its psychological effects. The link between mental illness and not being able to have children has been thought about. Researchers have also looked at how infertility and long-term exposure to invasive infertility treatments affect a person's mood and health. Less is known about how well psychiatric treatments work for this group, but there is some evidence that psychotherapeutic interventions can help. Women who can get pregnant but keep losing the babies are also considered infertile. It made a difference how infertility was defined. It is recommended that the World Health Organization's definition, which is based on trying to get pregnant for 24 months, be used in clinical practice and research across different fields.

Infertility is defined as the inability to conceive following a year of regular sexual activity without the use of contraception. It is estimated that 72.4 million couples globally are affected. According to several surveys, couples consider infertility to be the most unpleasant and stressful event of their lives. Infertility can have a negative impact on a couple's physical, emotional, and social well-being. People start looking for treatment alternatives to escape this stress and life crises, and most of the time, assisted reproductive technology (ART) is regarded a solution. Nonetheless, this option is a major cause of anxiety. People seeking infertility therapy have consistently identified his daily injection, semen analysis, several sonography occasions, long waiting lists, and financial charges as sources of psychological stress [1–7]. As a result, the diagnosis and treatment techniques make it more difficult for infertile couples to cope, particularly for women who

require more professional assistance and support both throughout treatment and after treatment failure. When we think about aided reproductive technology (PAM) failures, we automatically think of the injury they cause; nevertheless, behind this injury is infertility, and behind that, other injuries, which may or may not have contributed to infertility. Failure management must therefore focus on untangling these several strands, so that the trauma does not become stuck in an impossible sorrow that covers the preceding non-developed mourning. Infertility has a negative impact on both men and women's sexuality and sexual pleasure in infertile couples, even if the consequences differ by sex and have linked dynamic effects within the marriage [8,9].

## 2 Methodology

A thorough search of the literature was done by using multiple search terms related to "infertility and psychological importance" to look through PubMed, MEDLINE, Google Scholar, and Cochrane Library databases. We looked at systematic reviews, meta-analyses, and studies based on populations. All the research articles and reviews that used the word "infertility" were included. During screening, abstracts that were written in English and were about the topic were chosen. Full-text articles were looked at critically and in depth. During the course of review literature all the articles mentioning psychic consequences of infertility on couples were screened and shortlisted. The articles were read thoroughly and accordingly the short commentary was prepared.

## 3 Repercussions of infertility on sexual life

### 3.1 Infertility and male sexuality

The challenge to male sexual identity, especially when it comes to one's self-worth connected to the medical evaluations of physical exams; when a man cannot have children, it reduces his manhood and self-esteem. The man has attempted to alter his sexuality so as to return to a state of male identity, his virility. Anxiety and sense of loss are also greatly influenced by the exams and words during the consultation, because it makes them doubt their sexual identity and devalue themselves in men who are infertile or whose marriage is infertile. Most commonly, infertility has a negative effect on a man's sex drive. In men, the response is primarily negative sentiments of guilt, humiliation, and inadequacy, which lead to impotence, poorly enjoyable sex, and troubles that disappear as quickly as they arrive [9,10]. In Berger's study, azoospermia was observed in 10 of the 16 males, and erectile dysfunction occurred in all of them. The medical care of people might have a special impact on them. This can free up most of the time for the husband, enabling him to slowly cut back on his involvement in the MPA protocol. According to medical professionals, including doctors and gynaecologists, women and their expectations can increase the risk of sexual breakdowns and thus reduce treatment effectiveness. However, on the other hand, women might become even more interested in sexual activity in order to thwart the threat of infertility. According to the Hünher test, if "normal" sperm is present, along with healthy mucus, dysejaculation (semen exiting the penis on its own) or anejaculation (semen exiting the penis with the help of medications or treatments) causes normal sperm to be negative or questionable [9–11].

Infertility affects up to 12% of all males, and sexual dysfunction is common in men of reproductive age, leading to infertility in some cases. The most common types of sexual dysfunction in infertile males are hypoactive sexual desire and lack of sexual satisfaction, which range from 8.9% to 68.7%. Erectile dysfunction and/or premature ejaculation affect one out of every six infertile men, according to validated tools, while orgasmic dysfunction affects one out of every ten infertile men. Furthermore, infertile males may face a significant psychological strain. Sexual dysfunction can be caused by infertility and the psychological issues that accompany it. In addition, general health issues might result in male infertility and/or sexual dysfunction. Male infertility and erectile dysfunction are considered proxies for overall health, with the former underlying cardiovascular diseases and the latter malignant and noncancerous illnesses. The idea that erectile dysfunction in infertile men could be an early indicator of poor overall health is gaining traction. Finally, drugs intended to treat general health issues have been linked to sperm abnormalities and sexual dysfunction. Some reasons of male infertility may be treated to increase sperm quality and reverse infertility-related sexual dysfunction. To address reproductive issues and general health in infertile males, an assessment of sexual, general, and psychological health status is recommended.

### 3.2 Infertility and female sexuality

The disorganization, the deterioration of the sexual life of women in situations of infertility; the woman would gradually tend to subordinate her sexuality to her desire for pregnancy and to her procreation project. Sexual intercourse, less frequent, must aim at procreation, taking place during the ovulatory period. Even if her sexual functioning is deteriorated by the Hünher test, or by the surgical intervention, or even by the incapacity to conceive, the woman nevertheless continues to favor sexual intercourse during the ovulatory period. Female sexuality is subordinated to procreation, it becomes a means and not an end in itself [9,12]. Progressively and paradoxically, women are increasingly seeking intercourse when they are less and less inclined to do so. The differential sensitivity of women compared to that of men; some authors suggest that women are more sensitive to marital conflict, lower self-esteem in sexual functioning and sexual satisfaction, more concerned with sexuality and guilt than their partners are. Her sexual intercourse is more degraded by (generic) infertility than her husband's. The side effects of treatments are on body image, female sexuality and the impact of infertility on female identity. The probable participation of weight gain due to hormone treatment in the reduction of female sexual desire: the disturbance of the body image can cause the woman to feel less attractive, "to decrease her sexual desire" [9,13].

### 3.3 Infertility and sexuality of the couple

There is widespread agreement among researchers that prior to the first diagnosis of infertility, infertile couples had a tough phase of investigation and doubt with a loss of sexual quality, as well as dullness, diminished pleasure, and decreased desire. In addition to the cumulative impact of infertility and its medical care on the couple's sexual functioning, there are many factors that affect sexual functioning. Half of hypofertile couples treated medically claim that the frequency of their reports had dropped, which is significant as half of those individuals believe they are infertile [9,14,15].

## 4 Experience of medical treatment

A recent study discovered that a high number of psychological illnesses are seen in the infertile women seeking medical treatment. In a study conducted, it was found that generalised anxiety disorder was the most frequent diagnosis, followed by generalised depression and dysthymic disorder (9.8%). Cousineau and Domar argue that infertility and its treatment are stressful, and hence support the idea that stress may affect the outcomes of medical treatment. Couples may choose to pursue medical therapy after noting this (for example, difficulties in tolerating physical and psychological pain can lead to discontinuation of medical treatment). While the ramifications of medical therapy advocate for psychological monitoring during the intervention process, more may be done to ensure that people are being monitored [9,16,17].

## 5 Psychological impact of infertility

The difficulty to conceive has been regarded as a stressful situation for both the husband and wife. One of the most painful emotional effects of infertility, according to some authors, is the loss of control over one's own life, with infertility being the dominant concern and other vital areas of life being ignored. It is worth noting that infertile women's anxiety and despair levels are comparable to those of women with heart disease, cancer, or HIV. Infertility is unquestionably a catastrophe and a stressful situation. Its effects can be visible on several levels, the most notable of which are personal suffering and social ramifications. Infertility diagnoses are strongly linked to depression symptoms. External and psychological humiliation was strongest among infertile patients [16,18,19].

The psychology of infertility started to take shape in 1930, when Berg and Wilson came up with the psychogenic model of infertility. In this model, they said that psychopathology is a major cause of infertility that cannot be explained by medicine. More specifically, the cause of infertility that cannot be explained would be a psychological conflict of some kind, such as a conflicting sexual identity or a conflicting relationship between mother and child. Over time and as research and technology in gynaecology has improved, the psychogenic model has lost its usefulness [20,21]. This has shown that it is very unlikely that unexplained infertility is caused only by psychological problems and that, in most cases, it is a biomedical problem (e.g. pelvic pathology). But the psychogenic model has made a big difference in the field of obstetrics and gynaecology by being the starting point for psychological research in these areas. The development of multifactoral models, like the biopsychosocial model, was a big step forward in the study of infertility from a psychological point of view. It shows that biological, psychologi-

cal, social, and environmental factors all play a role in the cause of somatic diseases. So, diseases may be caused by a number of different things and have different effects on different people, depending on their personal histories, differences, developmental environments, etc. [22–25].

Parenthood is one of the most important changes that both men and women go through as adults. Stress from not getting a child has been linked to negative emotions like anger, depression, anxiety, marital problems, and a sense of not being worth much. Partners may worry more about getting pregnant, which, ironically, can make sexual problems and social isolation worse. Couples who cannot have children often fight, especially when they feel pressured to make medical decisions. When a couple cannot have children, they feel shame, a sense of loss, and a drop in self-esteem [26,27]. In general, women in infertile couples are more upset than their male partners. However, men's reactions to infertility are similar to how upset women are when the problem is caused by the man. Both men and women feel like they have lost their identity and have strong feelings of being flawed and not good enough. Women who are trying to get pregnant have about the same rate of clinical depression as women who have heart disease or cancer. Even couples going through IVF have a lot of stress. When the man is the cause of infertility, there is more emotional stress and trouble in the marriage [28,29]. So, the emotional effects of infertility can be devastating for both the person who cannot have children and their partner.

Stress, depression, and anxiety are often the results of not being able to have children. Several studies have found that the number of depressed infertile couples seeking treatment for infertility is much higher than the number of depressed fertile couples. Estimates of the number of people with major depression range from 15% to 54%. It has also been shown that infertile couples have a lot more anxiety than the rest of the population. Between 8 and 28% of infertile couples have clinically significant anxiety [30,31].

Still up for discussion is whether or not psychological problems can cause infertility. In a study of 58 women, Lapane and her colleagues found that women with a history of depressive symptoms had a 2-fold higher risk of infertility. However, they were unable to control for other factors that may also affect fertility, such as smoking, drinking, a low libido, and a high body mass index. Even though infertility affects the mental health of a couple, different psychological factors have been shown to affect both partners' ability to have children. Some people think that depression could directly cause infertility by changing the way the body works, such as by increasing prolactin levels, messing up the hypothalamic-pituitary-adrenal axis, or making the thyroid less effective [32,33]. One study of 10 depressed women and 13 healthy women shows that depression is linked to problems with how luteinizing hormone, which controls ovulation, is controlled. Changes in the immune system caused by stress and depression may also hurt the ability to have children. More research is needed to tell the difference between the direct effects of depression or anxiety and the effects of related behaviours, like low libido, smoking, or drinking too much that can make it hard to get pregnant. Stress is also linked to similar changes in the body, which makes it more likely that a history of high levels of cumulative stress linked to depression or anxiety may also be a cause [20,34,35].

## 6 Psychological support

In light of data suggesting that psychological symptoms may interfere with fertility, success of infertility treatment and the ability to tolerate ongoing treatment, interest in addressing these issues during infertility treatment has grown. Some interventions designed to alleviate the symptoms of stress, depression and anxiety in infertile women and men have been researched. In general, the aim of the management is to educate infertile couples about the treatment selected, provide emotional support, and allow them to overcome the stress of infertility with as little pain as possible. Concerned with infertility and infertility trauma, services are provided so that the trauma does not remain frozen into an impossible mourning, taking past mournings for granted. Desiring to be a parent can drive someone to seek alternative methods of parenting, such as adoption. An application for treatment for psychological distress will only be considered if the person has accepted the fact that his infertility was caused by a psychic attack. If this is the case, then in at least some cases, taking responsibility of the partnership can alleviate some of the narcissistic pain associated with infertility. Grief after the loss of a loved one has been linked to a higher risk of developing postpartum depression [16,36,37]. Through the use of newly designed self-administered screening instruments that can provide relevant interpretations for patient care, medical and mental health practitioners can provide appropriate interventions to alleviate stress and improve patient care. Furthermore, recognizing which type of counseling is ideal for individuals/couples and their situation is critical in assisting them in receiving the finest type of infertility counseling possible [38,39].

## 7 Limitations

This is a short commentary and more of a generalized description of the topic. Papers mentioning psychic consequences of infertility on couples were screened. However, more detailed literature review of the topic is required for the better understanding of the topic. Newer studies are not included in this paper and this paper focuses on only few aspects and clearly more studies are needed to strengthen the further knowledge about the topic.

## 8 Conclusion

People who are infertile may feel more pressure as a result of this diagnosis. They have to deal with the disappointment and regret of not being able to provide a child with the future they had hoped for, as well as medical care that may be both painful and intrusive. This can lead to feelings of shame, despair, ineffective coping techniques, and an inability to take care of oneself. Once diagnosed with infertility, it impacts not just the woman and her partner but also the family's and ancestors' relationships, causing anguish and disturbing memories to resurface. In order to overcome the damage and make the final decision to continue therapy, it is advised that the patient is treated psychologically.

**Acknowledgments:** Authors would like to thank all the authors whose work has been reviewed while preparing this manuscript.

**Funding information:** The authors state no funding involved.

**Conflict of interest:** The authors state no conflict of interest.

**Data availability statement:** Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

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