

Review: Fertility Stress, Hospital Depression and Anxiety, Resilience, and Hope among Infertile Women Patients

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Abstract: Infertility, be named the third major disease endangering human health, has become a global concern in the 21st century point problem. The incidence of depressive and anxious symptoms in infertile women was 23.94% to 35.73%, and that of severe depression was 11.6%. They are under a lot of fertility pressure. This paper reviewed the relevant literature since 2015 to review the fertility stress, hospital depression and anxiety, social support, mental resilience and hope level status of infertile women, and discussed their relationships to provide evidence for intervention strategies.

Keywords: Infertile Women; Fertility Stress; Social Support; Mental Resilience; Hope Level; Hospital Depression and Anxiety.

1. Introduction

Under the influence of the traditional Chinese idea of "bearing children and carrying on the family name", infertile couples suffer from great psychological pressure and pain, manifested as low self-esteem, guilt, social isolation and paranoia, and interpersonal sensitivity (Li Dong, 2020). Infertility carries a significant psychological burden for the couple and the longer its duration, the higher the distress level. Women seem to be more vulnerable to its psychological consequences (Iordachescu DA, 2021). These emotions may cause serious depressive and anxious symptoms, resulting in decreased marital quality of life and changes in sexual life, which further reduce pregnancy and childbirth rates.

Some studies (Kan Lijun et al., 2021) showed that about 82.7% to 86.5% of infertility patients have psychological problems, such as anxiety, depression, irritability and other negative emotions, and the bad mental state directly affects the pregnancy outcome of patients. The negative psychological state of infertile women was affected by fertility pressure, social support, hope level and other factors, which had a negative impact on mental health, while social support and hope level had a positive impact on mental health (Ye S D., 2021). The following is an overview of the psychological state of infertile women.

2. Fertility Stress

Fertility stress refers to the stress caused by the patient from social, marital and physical as well as psychological problems due to infertility, including social pressure, sexual pressure, marital relationship, rejection of the childless lifestyle and the need for parental role (Groene E.A, et al, 2021).

Some studies results showed that the bearing pressure score to infertility patients in China were in the average level (Qian Kun, et al., 2018; Liu Huihui, et al., 2022). Moreover, the place of residence, time of seeing a doctor, family income and education level of infertility patients are related to fertility pressure (Zhao J, et al., 2020).

In addition, education level and fertility stress also have a

certain relationship. The higher the education level, the less fertility stress. Because women with higher education level have strong self-care awareness, strong psychological adjustment ability, and they are more likely to recognize and understand diseases, and can actively seek the help of professional doctors to treat diseases (Wang, X., et al., 2022; Wang, L.,2023).

In other way, infertility treatment is a process of hope and disappointment, which involves the most private parts and behaviors of patients, and most of the treatment time is long, the cost is high, the need for multiple visits to the hospital, repeated monitoring and examination, and due to the complexity and invasion of treatment and the uncertainty of treatment outcome, these factors will cause patients varying degrees of pain and fertility stress (Meng-yao Wang,2021).

3. Hospital Anxiety and Depression

Hospital Anxiety and Depression Scale (HADS) is one of the most common scales for anxious and depressive symptoms infertile patients.

The survey found that the incidence of depressive symptoms in infertile women was 23.94% to 35.73% (Shafierizi S, et al, 2022), and that of severe depression was 11.6%. The presence of depressive symptoms may reduce a patient's willingness to seek treatment for infertility. Thus, infertility and depressive symptoms are a vicious cycle.

The high cost of diagnosis and treatment and the long treatment process put a great test on their financial and time, and also bring great mental pressure to infertile patients.

In the other way, the marital satisfaction and happiness of infertile couples were lower than that of the general population. Infertile women tend to avoid meeting with friends and family, making themselves in a state of isolation and social isolation. This closed state will aggravate the bad mood of psychology (Wan Ling, et al., 2021). In addition, women's sense of shame and guilt is higher than men's, so women are more likely to produce depressive symptoms and poor psychological status, which is not conducive to the treatment of infertility (Lei A, et al, 2021).

The study found that age factors, education level, economic status and other demographic factors are related to the occurrence of adverse psychological infertility patients (Zhao Yune, 2021). The results showed that depression and anxiety increased with age in infertile women. Studies (Ni Y, et al, 2021) show that education level is negatively correlated with depression. Family income is negatively correlated with the depression level of women with infertility (Kong L, et al, 2018).

4. Perceived Social Support

Researcher has found that clinical patients can use the social support they learn to be a positive resource for overcoming their disease (Brailovskaia J, 2018). Domestic scholar Jiang J Y (2022) pointed out that social support is negatively correlated with depressive and anxious symptoms in pregnant women, and a high level of social support is conducive to relieving depressive and anxious symptoms. It can be seen from the above that social support is a positive factor to avoid negative emotions in female infertility patients.

One study (Jiang J Y, et al., 2022) found that 15 percent of women experienced severe symptoms of depression after infertility treatments failed. For women, low partner support and excessive need are important factors in the development of severe depressive symptoms. For both men and women, low family support, family conflict, and pressure from family and friends were significant risk factors for severe depressive symptoms. Many studies have shown that the support of friends and family serves as a buffer against negative psychological adjustment in women (Kong, L., 2018; Iordachescu, D. A., 2021). Therefore, family and friends, as well as clinical staff, provide more social support to patients in order to improve the mental health of women with infertility and increase clinical pregnancy and delivery rates.

5. Mental Resilience

Mental resilience refers to an individual's ability to deal with problems and cope with adversity. Or resilience is the ability to cope with negative life events such as stress, frustration and trauma.

Psychological resilience can help individuals adjust their mentality, actively cope with the difficulties they face, and help individuals adapt to life in a more positive attitude and way. A series of studies (Pu Li, et al, 2016; Cai Yan-na, et al, 2016) have shown that mental resilience is closely related to mental health. People with high mental resilience are less likely to perceive pain, sadness and pressure, and less likely to produce stress reactions and symptoms. They are more likely to accept the status quo and deal with difficulties more positively. Therefore, infertile patients with a high level of mental resilience are better able to cope with fertility stress, develop the confidence to actively cope with difficulties and adhere to treatment, and thus improve the pregnancy and delivery rate (Bhamani S S, 2020).

There are few domestic and foreign studies (Shafierizi S, 2022) on the relationship between mental resilience and depressive symptoms in women with infertility, and many studies in other fields or groups have mentioned that mental resilience, as a partial mediating variable, indirectly affects the relationship between occupational stress and depression, which can reduce the adverse effects of occupational stress and reduce the development of depression or anxiety.

Women's mental state has a complex relationship with

infertility, disease-related factors, social environment, psychological factors, biological factors, etc., can cause patients to produce psychological stress, psychological problems, depressive and anxious symptoms are the most common, serious depressive symptoms will increase the risk of infertility (Abu-Sharkia S, 2023).

6. Hope Level

Hope is a sum of motivational energy (internal force) and specific routes (strategies, visions, plans to realize goals) leading to the desired goal (destination). As far as patients are concerned, the level of hope has a certain impact on their psychological well-being and treatment effects (Corn, B. W., et al., 2020).

Hope is believed to be a psychological force guiding patients to manage diseases more actively. Currently, psychological research on infertile women mainly focuses on anxiety, depression and stress. However, to the best of our knowledge, there has been little research focused on their hope levels (Cai Yan-na, 2016). The study has shown that infertile women are currently at a moderate level of hope. The hope level of infertile women is related to their age, education level, family income, residence and infertile years (Qin Huilin, 2022).

Hope is defined as a resilience moderator through its process of making sense of a difficult situation (Paun O, 2022). Since attempts to boost hope will increase the chance of success in treatment, it is thought that factors affecting the level of hope should be determined and addressed. Therefore, efforts to improve hope will increase the chance of successful treatment. Clinical staff should pay more attention to the hope level of infertility patients and improve the hope level of patients through effective intervention measures.

7. Conclusion

To sum up, the mental health of infertile patients has attracted more and more attention from relevant researchers. Moreover, some scholars have also conducted research on the relationship between the above variables, and mentioned that psychological resilience, as a partial intermediary variable, indirectly affects the depressive symptoms of infertile women (Shafierizi S, 2022).

Some scholars (Bhamani S S, 2020) believe that there is a strong correlation between psychological resilience and mental health problems, and the improvement of psychological resilience depends on the improvement of social support and hope levels. Resilience was also found to be inversely associated with depression, anxiety, and PTSD. One predictor is that increasing the level of psychological resilience can effectively reduce negative emotions and improve the quality of life of infertility patients.

Therefore, in order to better help infertile patients achieve the goal of pregnancy, medical workers should not only carry out medical symptomatic treatment, but also understand their mental health status. The proposed hospital-based intervention program was developed to enhance the mental resilience of infertility patients, reduce fertility stress improve their levels of resilience and hope so as to relieve their depressive and anxious symptoms and other negative emotions, and promote clinical pregnancy.

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