

The Elusive Connection Between Stress and Infertility: A Research Review With Clinical Implications

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This article reviews research exploring the interface of stress and infertility, attempting to answer the following questions: Does infertility cause stress? Does stress impact fertility? Does infertility treatment cause stress? Does stress impact treatment outcomes? Can stress reduction effect treatment distress and outcomes? Is there residual stress after treatment? Recommendations are made to mental health professionals to help their infertile patients cope more effectively with infertility stress, and suggestions are offered for future research directions.

Keywords: infertility, stress, IVF, depression, couples

Infertility is a reproductive disease defined by the failure to achieve or sustain a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse. For many, the desire to have children is fundamental, and receiving an infertility diagnosis can be an emotional experience. Infertility affects over 12%, or 7.5 million, American women ages 15–44, or one in six couples. Of these cases, 40% are due to female factors, 40% to male factors, and 20% to a combination or unexplained etiology ([Centers for Disease Control & Prevention, 2015](#)).

Infertility presents both a chronic stressor resulting from the threat of loss of plans to have children, and an acute stressor resulting from the infertility treatment itself. Difficulty in conceiving challenges belief systems, trust in one's body, hopes for future parenting, and expectations of one's anticipated adult life. Treatment protocols are invasive, lasting from months to years, and can involve early morning monitoring, appointments at the doctor, daily injections and blood samples, and laparoscopic surgery. The costs are high and failure can occur at any phase. Infertility has been found to create as much emotional distress as having a diagnosis of cancer, heart disease, or HIV ([Domar, Zut-](#)

[termeister, & Friedman, 1993](#)). Certain phases of treatment are found to be more stressful than others, such as waiting to hear about fertilization, results of the embryo transfer, or an unsuccessful outcome ([Demyttenaere, Nijs, Evers-Kiebooms, & Konnickx, 1991](#)). Myriad treatment options make it difficult to know when to stop. Even after a baby is conceived, anxiety often remains ([Hjelmstedt, Widström, Wramsby, Matthiesen, & Collins, 2003](#)), as individuals may be conditioned to expect loss. Although often a long-lasting struggle, infertility is not readily understood by others. The stigma associated with it may result in limited sharing with others and isolation.

Two contrasting theoretical models of infertility have respectively considered psychopathology as cause or consequence. Psychodynamically oriented approaches originally posed psychogenic elements, such as a woman's unconscious conflict regarding adulthood, sex, pregnancy, labor, or motherhood, as the cause of infertility ([Deutsch, 1945](#)). This has been rejected by most authors, as research has confirmed that biomedical causes (e.g., blocked fallopian tubes, sperm abnormalities, anovulation) account for most fertility problems. The more recent psychological consequences hypothesis proposes that psychological distress is secondary to infertility, citing research on the impact of emotional states and the ability to cope with stress on the neuroendocrinological state of infertile women and men ([Demyttenaere, Nijs, Evers-Kieboom, & Konnickx, 1992](#)), and on

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