

## Letter to Editor

# Relationship of Infertility and Psychological Distress

Somayeh Niknazar<sup>1\*</sup>, Sara Rahmati Roodsari<sup>1</sup>, Alireza Zali<sup>1</sup>

<sup>1</sup>Functional Neurosurgery Research Center, Shohada Tajrish Comprehensive Neurosurgical Center of Excellence, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Received: 28 October, 2023; Accepted: 9 December, 2023

**\*Corresponding Author:** Somayeh Niknazar, Ph.D., Assistant professor of medical physiology. Functional Neurosurgery Research Center, Shohada Tajrish Comprehensive Neurosurgical Center of Excellence, Shahid Beheshti University of Medical Sciences, Tehran, Iran. Email: [niknazar.somayeh@gmail.com](mailto:niknazar.somayeh@gmail.com), [niknazar@sbm.ac.ir](mailto:niknazar@sbm.ac.ir)

**Please cite this article as:** Niknazar S, Rahmati Roodsari S, Zali A. Relationship of Infertility and Psychological Distress. *Novel Biomed.* 2024;12(1):46-7.

## Dear Editor-in-chief

Nowadays, a growing number of couples are having trouble conceiving. Infertility is not only a reproductive health problem but also a social problem that affects family and other interpersonal relationships. Infertility involves psychological problems for both partners<sup>1</sup>. It is important to consider the relationship between stress and infertility.

Infertility occurs when a couple is unable to conceive even after trying for a year. Reasons for infertility can be categorized into four main groups: (1) male factor, (2) female factor, (3) both partners' factors, and (4) unknown etiologies<sup>2</sup>.

Infertility not only brings great financial costs and physical stress to couples but also many psychological problems. Infertility affects many aspects of life, including social, mental, and physical. It can also cause anxiety, depression, guilt, and low self-esteem<sup>3, 4</sup>.

Three kinds of relationships between psychological factors and infertility have been defined. These include: (1) Psychological factors cause the risk of subsequent infertility (2). Psychological problems are triggered by infertility diagnosis and treatment (3). There is a correlation between psychological factors and infertility<sup>5</sup>.

Three main treatment strategies are currently available for the treatment of infertility: surgery,

pharmacotherapy, and assisted reproductive technology (ART)<sup>6</sup>.

One of the options for infertility treatment is in vitro fertilization (IVF). The use of this method has a significant effect on the psychology of patients and their families<sup>7</sup>.

Depression is more common in people receiving infertility treatment. According to previous studies, 41% of women receiving infertility treatment experience depression<sup>8</sup>.

Another study showed that almost 50% of men seeking IVF treatment suffered from depression<sup>9</sup>.

It seems that the leading cause of infertility can be psychological rather than biological factors<sup>10</sup>.

Anxiety, depression, the stress associated with infertility, and antidepressants used in this patient can impact the treatment of infertility and their outcomes<sup>11, 12</sup>. Psychological factors such as depression, anxiety, and stress-related changes in heart rate and cortisol levels have been shown to reduce the chances of pregnancy in various types of infertility and infertility treatments<sup>13</sup>. The effect of these factors on the woman's hormonal balance, ovulation, and miscarriage, as well as the man's sperm quality and ejaculation disorders, must be considered.

It should be noted that, in many cases, infertility can lead to stress, anxiety, and depression. Also, in such situations, infertility treatment may have a beneficial effect on mental health<sup>14</sup>.

Persistent fertility problems will have several negative influences on a couple's life and may cause a relationship breakdown. Therefore, more research should be conducted on the reasons for infertility as a way to find the factors related to infertility and reduce its impact.

**Keywords:** Infertility, Stress, Anxiety, Depression, Treatment

## References

1. Schmidt L. Social and psychological consequences of infertility and assisted reproduction—what are the research priorities? *Human fertility*. 2009;12(1):14-20.
2. Deshpande PS, Gupta AS. Causes and prevalence of factors causing infertility in a public health facility. *J Hum Reprod Sci*. 2019;12(4):287.
3. Hocaoglu C. The psychosocial aspect of infertility. *Infertility, assisted reproductive technologies and hormone assays*. 2019;65:75-8.
4. Yildirim SEPG. Psychological, social and ethical dimensions of infertility: a review. *International journal of Nursing Didactics*. 2016;6(11):13-7.
5. Simionescu G, Doroftei B, Maftai R, Obreja B-E, Anton E, Grab D, et al. The complex relationship between infertility and psychological distress. *Exp Ther Med*. 2021;21(4):1-.
6. Carson SA, Kallen AN. Diagnosis and management of infertility: a review. *JAMA*. 2021;326(1):65-76.
7. Ying L, Wu LH, Loke AY. The effects of psychosocial interventions on the mental health, pregnancy rates, and marital function of infertile couples undergoing in vitro fertilization: a systematic review. *J Assist Reprod Genet*. 2016;33:689-701.
8. Crawford NM, Hoff HS, Mersereau JE. Infertile women who screen positive for depression are less likely to initiate fertility treatments. *Hum Reprod*. 2017;32(3):582-7.
9. Evans-Hoeker EA, Eisenberg E, Diamond MP, Legro RS, Alvero R, Coutifaris C, et al. Major depression, antidepressant use, and male and female fertility. *Fertil Steril*. 2018;109(5):879-87.
10. Podolska M, Bidzan M. Infertility as a psychological problem. *Ginekol Pol*. 2011;82(1).
11. Cesta CE, Viktorin A, Olsson H, Johansson V, Sjölander A, Bergh C, et al. Depression, anxiety, and antidepressant treatment in women: association with in vitro fertilization outcome. *Fertil Steril*. 2016;105(6):1594-602. e3.
12. Akioyamen LE, Minhas H, Holloway AC, Taylor VH, Akioyamen NO, Sherifali D. Effects of depression pharmacotherapy in fertility treatment on conception, birth, and neonatal health: a systematic review. *J Psychosom Res*. 2016;84:69-80.
13. Cwikel J, Gidron Y, Sheiner E. Psychological interactions with infertility among women. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2004;117(2):126-31
14. Repokari L, Punamaki R-L, Poikkeus P, Vilska S, Unkila-Kallio L, Sinkkonen J, et al. The impact of successful assisted reproduction treatment on female and male mental health during transition to parenthood: a prospective controlled study. *Hum Reprod*. 2005;20(11):3238-47.