

Association between Infertile Women's Anxiety with ART Success Rates

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Abstract

Introduction: Anxiety increases blood cortisol and prolactin concentrations which may lead to infertility, but in contrast lower anxiety levels may help natural fertility. However, there is not much evidence that lower anxiety levels may lead to higher success rates in Assisted Reproductive Techniques (ART) among infertile women. This study aimed to determine the association between infertile women's anxiety and ART success rates.

Materials & Methods: This cohort study was done on 180 infertile women who enrolled as candidates for ART. The cases were recruited in their last visit before starting the treatment cycle by quota sampling in two select infertility treatment centers in Tehran, Iran. The individuals' anxiety was assessed by using State and Trait Anxiety Inventories. They were allocated to high and low anxiety groups according to the achieved scores of 20-49 and 50-80, respectively. A positive pregnancy test was considered the criterion for treatment success.

Results: The individuals' state and trait anxiety scores were 47.33 ± 10.6 and 43.89 ± 9.8 , respectively. Nineteen (10.6%) out of 180 women became pregnant. Pregnancy rates in the group with high and low levels of state anxiety were 11.1% and 10.1% and in groups with high and low levels of trait anxiety they were 14.5% and 9%, respectively. Pregnancy rates between high and low state or trait anxieties were not significantly different ($p > 0.05$).

Conclusion: There were no relationship between infertile women's state and trait anxiety status with assisted reproductive technology outcomes. The results of this study can ensure infertile women that their anxiety would not affect their treatment success rates, although counseling and reducing infertile women's anxiety are necessary to improve their quality of life.

Keywords: Assisted reproductive techniques, In vitro fertilization, Infertility, Intracytoplasmic sperm injections, State anxiety, Trait anxiety, Zygote intrafallopian transfer.

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