

# Anxiety and Stress at Different Stages of Treatment in Women Undergoing *In vitro* Fertilization–Intracytoplasmic Sperm Injection

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## ABSTRACT

**Aim:** The aim of the present study is to evaluate the state anxiety (the present state of mind), trait anxiety (general anxiety), as well as perceived stress in women undergoing *in vitro* fertilization (IVF) treatment at three stages: T1 (on the day of start of stimulation), T2 (on the day of embryo transfer), and T3 (10 days after embryo transfer). The data at T3 level were collected telephonically.

**Methodology:** The present study was carried out on 137 women undergoing IVF intracytoplasmic sperm injection cycle at four different clinics of four cities from October to April 2016. State-trait anxiety inventory (Spielberger) and perceived stress scale (Okun, *et al.*) were used as the tools. **Statistical Analysis:** The analysis was done at two levels; descriptive and inferential (analysis of variance [ANOVA], Student's *t*-test, Levene's test) using SPSS v16. **Results:** The state anxiety was higher at all the three levels than trait anxiety. The overt anxiety was highest at T3 level (mean = 45.77) followed by T1 level (mean = 44.23) and T2 level (mean = 43.04). Perceived stress was elevated at T1 level (mean = 17.93) followed by T3 level (mean = 17.28) and T2 level (mean = 16.72). The results of ANOVA showed a significant difference in anxiety among all the three levels ( $P = 0.036$ ), but no significant difference was found for perceived stress ( $P = 0.169$ ). *t*-test revealed that there was a significant difference between state and trait anxiety at T1, T2, and T3 levels ( $P = 0.01$ ,  $P = 0.21$ ,  $P = 0.00$ , respectively). A significant difference was only seen between the T1 and T2 levels in perceived stress ( $P = 0.052$ ). In state anxiety, a significant difference was observed only between T2 and T3 levels ( $P = 0.23$ ). **Conclusion:** It was observed that anxiety and stress are present in women throughout the treatment. The waiting period (T3) is the most anxious for them and their level of state anxiety is higher compared to their trait anxiety. Perceived stress is observed to be more on the day of start of stimulation followed by the waiting period.

**KEYWORDS:** Infertility, *in vitro* fertilization, levels of treatment, perceived stress, state anxiety, trait anxiety