Comparison of Stress Levels in Women with Spontaneous Pregnancies and Women with Pregnancies Using Assisted Reproductive Technologies

Eylül Aydın¹, Halime Çalı Öztürk²

¹Bezmialem Vakif University School of Medicine, İstanbul, Türkiye ²Department of Obstetrics and Gynecology, Bezmialem Vakif University School of Medicine, İstanbul, Türkiye



Pregnant Before

INTRODUCTION

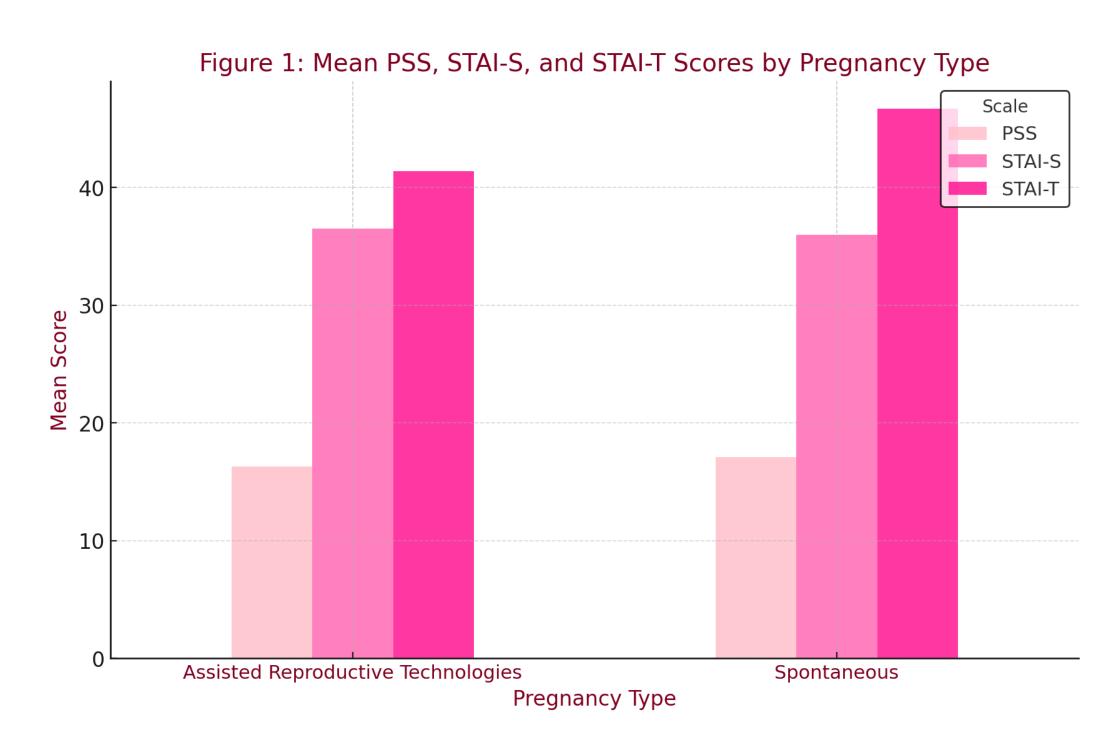
Assisted Reproductive Technologies are widely used to help infertile couples to conceive but can be very stressful which can have negative effects on both the mother and the fetus. Our goal is to understand if there is a difference between the stress levels of spontaneous and assisted pregnancies. If there is a meaningful difference, healthcare workers can be informed and patients can be guided accordingly.

METHODS

Three inventories will be used on patients who visit Obstetrics and Gynecology Department of Bezmialem Vakif University. A demographic survey, Perceived Stress Scale and State-Trait Anxiety Inventory. The demographic survey has 9 questions. Perceived Stress Scale is scored out of 40 points. Higher scores mean higher levels of stress. State-Trait Anxiety Inventory Consists of 2 parts of 20 questions each. State Anxiety Inventory focuses on the anxiety levels in a particular environment while Trait Anxiety Inventory focuses on the anxiety apart from the environment. It is scored between 20-80. Higher scores mean higher levels of stress. The minimum sample size is 19. Mann-Whitney U test and SPSS 28V will be used.

RESULTS

There isn't a significant difference between the scores of spontaneous and assisted pregnancies in any of the inventories (p>0.05). Women who are younger than 30 scored significantly higher in State Anxiety Inventory (p<0.05) meaning they experience more stress. Women whose never been pregnant before scored higher in Trait Anxiety Inventory (p<0.05).



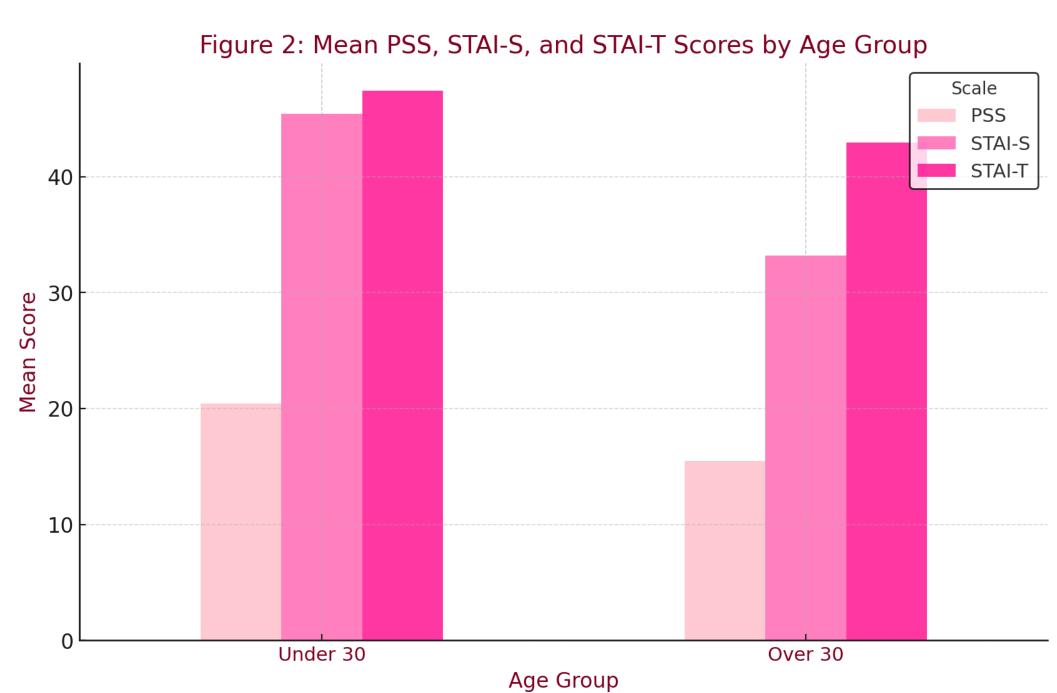


Figure 3: Mean PSS, STAI-S, and STAI-T Scores by Pregnancy Status

Scale
PSS
STAI-S
STAI-T

40

20

10

DISCUSSION

Pregnancy Status

First Pregnancy

Stress levels did not significantly differ between assisted and spontaneous pregnancies. However, women under 30 and first time pregnancies were significantly more stressed. This can be because of inexperience and uncertainty. Future research is needed due to the limited sample size.

CONCLUSION

Although there isn't a significant correlation between stress levels and assisted pregnancies, young and first time mothers experience more stress. They should be guided by healthcare workers and provided psychological support to have smoother pregnancies.

REFERENCES

- 1. Akın Ö, Şahin E. Yardımcı üreme teknikleri ve hemşirelik yaklaşımı. SAUHSD (2020) 3(1):55-75. Available from: https://dergipark.org.tr/tr/download/article-file/1204540#:~:text=Yardımcı%20Üreme%20Teknikleri&text=inseminasyon%2C%2 Ogamet%20intrafallopian%20transfer%2C%20zigot,intrasitoplazmik%20sperm%2 Oenjeksiyonudur%20 (2).
- 2. Kaba İ. Stres, ruh sağlığı ve stres yönetimi: Güncel bir gözden geçirme. Akademik Bakış Dergisi (2019) 73:63-81. Available from: https://dergipark.org.tr/tr/download /article-file1179625#:~:text=Stres%20tepkisi%2C%20organizmanın%20psikolojik %20ve,çıkmaktadır% 20(Gibbons%2C%202012).
- 3. Sharma RS, Saxena R, Singh R. Infertility & assisted reproduction: A historical & modern scientific perspective. Indian J Med Res. (2018) 148(Suppl 1): S10–S14. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6469376/
- 4. García-Blanco A, Diago V, Hervás D, Ghosn F, Vento M, Cháfer-Pericás C. Anxiety and depressive symptoms, and stress biomarkers in pregnant women after in vitro fertilization: a prospective cohort study. Human Reproduction (2018) Vol.33, No.7:1237–1246. Available from: https://watermark.silverchair.com/dey10
- 5. Reis S, Xavier MR, Coelho R, Montenegro N. Psychological impact of single and multiple courses of assisted reproductive treatments in couples: a comparative study. European Journal of Obstetrics & Gynecology and Reproductive Biology 171 (2013) 61–66. Available from: https://pdf.sciencedirectassets.com/271236/1-s2.0-S0301211513X00119/1-s2.0-S0301211513003412/main.pdf
- 6. Tuncay G, Yıldız S, Karaer A, Reyhani I, Özgöcer T, Ucar C, et al. Stress in couples undergoing assisted reproductive technology. Archives of Gynecology and Obstetrics (2020) 301:1561-1567. Available from: https://link.springer.com/content/pdf/10.1007/s00404-020-05549-8.pdf