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Research Paper

Stress Level and Emotional Relationship during the IVF Procedure

Rivika Chauhan[1]*, Dr. Neelam Pandey[2]

ABSTRACT

This research investigates the stress level and emotional relationship between the couple during the IVF procedure. The study aims to examine the stress level during the IVF cycles and the emotional relationship between the couple while they are undergoing IVF treatment. A sample of 80 individuals, 40 men, and 40 female aged 27-40 were taken for the study. Perceived Stress Scale and Relationship Assessment Scale were used to collect the data. Correlation analysis, regression analysis, and t-tests were used to analyze the data. Results revealed higher levels of stress in men as compared to women and no significant difference was found in the emotional relationship. The findings underscore the importance of self-care, communication, and mental well-being of men during the IVF procedure.

Keywords: *In-vitro fertilization (IVF), Couple, Stress, Emotional Relationship, Infertility*

In an individual's life, family is extremely vital, everyone dreams of having a happy and healthy family. While there are some couples who long to have kids and build a happy family, but are unable to do so due to problems like infertility, failed pregnancies, or miscarriages. Some 9-15% of potential parents worldwide experience infertility (Boivin J et al., 2011), a condition that may induce adverse psychological effects on multiple levels (Boivin J et al., 2005). When the couple isn't able to conceive naturally it causes them a great source of stress and psychological pain. Both the condition of infertility and its treatment cause stress, and it is well-known that infertility can induce psychological disturbances (Möller and Fällström, 1991; Lalos, 1999). Infertility has been ranked as one of the greatest sources of stress in a person's life, comparable to a somatic disease such as cancer (Domar et al., 1993). The stress of infertility treatment was ranked second to that involving the death of a family member or divorce by couples undergoing this treatment (Freeman et al., 1985; Baram et al., 1988). In-vitro fertilization (IVF) is a modern-day treatment that is used in cases of infertility. In-vitro fertilization (IVF) and embryo transfer treatment are considered to be one of the most demanding options available to infertile couples (Koptizke et al., 1991). The use of assisted reproductive technology (ART) treatment, especially in vitro fertilization (IVF), has grown rapidly in the past two decades. Women undergoing ART treatment, are often anxious and depressed because of their infertility and the uncertainties of the treatment with which they have to deal (Mahlstedt PP, 1985).

[1]Student
[2]Assistant Professor
*Corresponding Author

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IVF treatment takes around six to eight weeks and includes frequent visits to the hospital, regular injections, egg retrieval, ovarian stimulation, oocyte retrieval, embryo transfer, high doses of medications, etc. IVF treatment is mentally, physically, psychologically, and financially taxing. Both partners need to have a strong emotional relationship to tackle the stress caused during the procedure. Stress-inducing aspects of the procedure include the possibility of life-threatening excessive hyperstimulation and invasive egg harvesting. Furthermore, a patient's hopes for a good outcome can exacerbate feelings of anxiety, thereby potentially resulting in depression if such an outcome is not achieved. Any of these stressors can, therefore, significantly impact the psychological well-being of otherwise normal patients, possibly overwhelming those already burdened by preexisting psychological difficulties associated with their infertility (T. Harata et al, 2012)

REVIEW OF LITERATURE

L. Anderheim, H. Holter, C. Bergh, et al. (2005) conducted a research on, does psychological stress affect the outcome of in vitro fertilization? The study's objective was to examine while accounting for established physiological indicators, the impact of psychological stress both before and during IVF therapy on the treatment's result. This is a longitudinal, prospective research. 166 women in all were examined throughout their initial IVF cycle. They responded to two sets of questionnaires about social and psychological aspects. The Psychological General Well Being (PGWB) index was used to measure psychological well-being, and 14 items were used to evaluate the psychological impacts of infertility. Between pregnant and non-pregnant women, there were no differences identified in the psychological factors analyzed. The pregnant group had considerably more good quality embryos overall, transferred good quality embryos more frequently, and transferred embryos total than the non-pregnant group. The only variable that was found to be independently correlated with pregnancy in a multivariate study was the quantity of high-quality embryos transplanted. There was no evidence that psychological stress affected the way IVF treatments turned out. By letting infertile couples know about these findings, counselors may be able to lessen the stress they feel throughout the treatment.

T Harata, M Goto, A Iwase, et al. (2012) conducted a research on psychological stress during in vitro fertilization and embryo transfer is influenced by the patient's background and gender. The psychological stress changes that occur during in vitro fertilization and embryo transfer (IVF-ET) were assessed in this study, along with how these changes relate to the patient's gender and background. The State-Trait Anxiety Inventory-JYZ (STAI) test was given to sixty IVF-ET couples at six distinct stages of the process. Anxiety scores were noted at each time point and were assessed based on factors like gender, fertility status, and length of the treatment. After induction until oocyte harvest, the median state anxiety score for women increased. It then briefly decreased before increasing once more until the pregnancy test. In men, no such changes were observed. Men's state and trait anxiety rose with a longer treatment term, although women with shorter IVF treatment histories scored higher. Women's anxiety levels and traits increased in response to unsuccessful treatment. Anxiety levels were impacted by the patient's reproductive status and the length of their treatment, which caused periodic changes in psychological stress. These results will be useful in directing psychological counselling and therapy for in vitro fertilization couples seeking to conceive.

Turner K, Margaret F, May R, et al (2013) conducted a study on stress and anxiety scores in first and repeat IVF Cycles: A Pilot Study. There has been a lot of interest in the role that stress plays in reproduction, especially when it comes to infertility treatment. Nevertheless,

few studies have compared the experiences of first-time and repeat patients or objectively quantified stress and anxiety during the IVF cycle. 44 women undergoing IVF at a university-based clinic were recruited for this prospective cohort pilot study. They were asked to complete the State-Trait Anxiety Inventory (STAI), Perceived Stress Scale (PSS), and Infertility Self-Efficacy Scale (ISES) three times before ovarian stimulation (T1), one day before oocyte retrieval (T2), and 5-7 days after embryo transfer (T3). At each of the three time points, the mean STAI State scores were significantly higher (p, 0.01). The mean values of PSS and STAI State did not vary over time or between first-time and repeat patients. Over time, self-efficacy (ISES) levels decreased, with repeat patients seeing a larger decline. Fifteen out of the thirty-six women who finished a cycle achieved clinical pregnancy. All scores at T2 were correlated with the outcome of the pregnancy using logistic regression modelling; greater scores on the ISES and lower scores on the STAI State and PSS were linked to increased pregnancy frequencies. All of the cycles showed persistently high levels of stress and anxiety. Pregnant women who were less stressed and anxious the day before oocyte retrieval were more likely to get pregnant. The necessity to look into stress-reduction techniques during the IVF cycle is highlighted by these results.

A Yakupova V, I. Zakharova E, N. Abubakirov A. (2015) conducted a research on the mental state of women with an IVF pregnancy. The aim of the research was to investigate the mental state of women participating in an IVF program. 224 women in their second and third trimesters of pregnancy participated in the study: 162 of them conceived naturally and 62 through IVF. The study was conducted in Moscow, Russia, at the Kulakov Scientific Center for Obstetrics, Gynecology, and Perinatology. Every research participant experienced health issues during their pregnancies. Since there were not any significant differences between the two groups mental health, it is possible that physical pregnancy difficulties, regardless of the cause, are a common cause of worry. Pregnancy-related experiences of reproductive loss and the existence of medical issues are linked to elevated anxiety levels during the second and third trimesters. A woman's flexible behavior and professional occupation are the major aspects of her personality that support her mental stability and self-confidence.

Wiweko B, Anggraheni U, Elvira S, et al. (2017) conducted a research on distribution of stress level among infertility patients. The research exhibits how infertile couples often suffer from monthly chronic stress when fertilization does not occur. A self-reporting questionnaire (SRQ 20) was provided to 63 infertile patients visiting the Yasmin IVF Clinic, Dr Cipto Mangunkusumo General Hospital in order to determine whether or not they were experiencing stress. Out of the 63 infertile patients in this study, 49 (77.7%) did not exhibit any signs of stress, while 14 (22.3%) did. The questionnaire indicated 20 symptoms, with fatigue ranking as the most common complaint (38.1%). There was a noteworthy statistical relationship ($p < 0.05$) between the patient's stress levels and the length of their infertility. At the Yasmin IVF Clinic, stress was reported by 22% of infertile patients, primarily due to the length of their infertility. Physical manifestations of the ailments interfered with their day-to-day activities. Psychosocial techniques are a crucial component of holistic therapy for infertility management.

METHODOLOGY

Aim

The research aims to study the stress level and emotional relationship of the couple while they are undergoing the IVF procedure.

Rationale of the study

The study looks into how the life of a couple is disrupted during the IVF procedure, IVF procedure is emotionally, mentally, physically, and financially taxing. It takes a toll on the mental health of both partners and demands high levels of resilience. Examining the stress levels and emotional dynamics of couples going through in vitro fertilization (IVF) is important because of the psychological and physical effects of the procedure. IVF is a difficult process that involves medical procedures, financial strain, and uncertainty. These factors can have a big effect on people's lives and relationships. This study attempts to shed light on the particular difficulties faced by couples undergoing IVF, providing insights into their coping methods and the strength of their relationships during this difficult period. It does this by looking at stress levels and emotional dynamics. By having a better understanding of these variables, medical personnel may better support and intervene with customized treatment to reduce stress and fortify emotional bonds, which will eventually enhance the general well-being and success rates of IVF patients.

Objective

- To explore the role of stress and emotional relationship between the couple
- To investigate the dynamics of the emotional relationship between the couple during the IVF procedure.
- To examine the impact of IVF-related stressors on the emotional bond and stress level of the couple.
- To investigate the correlation between IVF and stress; IVF and emotional relationship.

Hypothesis

- The stress level of women will be significantly higher as compared to the stress level of men.
- The stress level of men will be significantly higher as compared to the stress level of women.
- Stress will be significantly correlated to the process of IVF
- Men and women both will report significantly higher emotional relationships during the process.

Variables

Independent Variable

1. IVF (in vitro fertilization)

Dependent Variable

1. Stress
2. Emotional relationship

Research Design

This study will employ a correlational design, meaning that the researcher will not be directly controlling or manipulating any variables. A correlation shows the strength and/or direction of the relationship between two or more variables. Both positive and negative correlations are possible.

Description of samples

A sample size of N=80 individuals, 40 females and 40 males, aged between 27-40 years were taken for the study.

Inclusion Criteria

1. Ages between 27-40
2. Couples going through IVF procedure.
3. Willingness to participate and provide informed consent.

Exclusion Criteria

1. Couples outside the specified age range
2. Couples that are not going through IVF procedure.
3. Couples with a history of failed IVF pregnancy.

Description of Tools

- **Perceived Stress Scale:** The most used psychological tool for measuring stress is the Perceived Stress Scale (PSS). It is a measure of how stressed one feels about certain circumstances in their life. The purpose of the item was to assess how erratic, unmanageable, and hectic the lives of the respondents were. A series of straightforward questions concerning the current levels of stress experienced are also included in the scale. The PSS asks about thoughts and feelings through the previous month.
- **The Relationship Assessment Scale:** One tool used for measuring overall relationship satisfaction is the Relationship Assessment Scale (RAS). Two individuals who are in a close relationship, whether they are married, cohabiting, engaged, or just dating, can use the RAS. Research has demonstrated that the scale is connected with measures of love, marital happiness, sexual attitudes, self-disclosure, commitment, and involvement in a relationship.

Procedure

For data gathering, the following steps were taken:

1. The respondents were introduced to the topic of the study and any queries that had been clarified.
2. Both genders of the male and female sexes will be asked to engage in the study.
3. The respondents were informed of the study, ethical codes, and considerations, along with the confidentiality after which their informed consent was taken.
4. To gather data, couples going through IVF procedures were recruited as participants and their responses were collected.
5. Few respondents were sent questionnaires via Google Forms.
6. Recipients will not be forced to finish the online questionnaire. The nature and procedures of the research will be made clear to the participants in advance.

Statistical Analysis

Statistical analysis for the Social Sciences (SPSS) will be used to evaluate the given data. In the present research study descriptive statistics, correlation, regression, and t-test will be used for analysis.

RESULT AND DISCUSSION

Table 1: Descriptive Statistics for Perceived Stress Scale and Relationship Assessment Scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Perceived Stress Scale	80	13	28	20.98	3.162
Relationship Assessment Scale	80	13	29	20.24	3.766
Valid N (listwise)	80				

The table presents the descriptive statistics for two variables: Perceived Stress Scale and Relationship Assessment Scale, based on a sample size of 80 respondents. The Perceived Stress Scale has a mean score of 20.98 and a standard deviation of 3.162. Scores vary from a minimum of 13 to a maximum of 28. This indicates that, on average, with some variation in their responses around this mean. On the other hand, the Relationship Assessment Scale has a mean score of 20.24 and a somewhat greater standard deviation of 3.766, with scores ranging from 13 to 29. This suggests that, on the whole, participants' ratings of relationship satisfaction were somewhat more widely distributed than their ratings of perceived stress levels.

Table 2: Correlation among Perceived Stress Scale and Relationship Assessment Scale

Correlations

		Perceived Stress Scale	Relationship Assessment Scale
Perceived Stress Scale	Pearson Correlation	1	-.095
	Sig. (2-tailed)		.401
	N	80	80
Relationship Assessment Scale	Pearson Correlation	-.095	1
	Sig. (2-tailed)	.401	
	N	80	80

The table displays the correlation coefficients between the Relationship Assessment Scale (RAS) and Perceived Stress Scale (PSS) cores, as well as the sample size (N=80 for both) and two-tailed significance levels that correspond to each score. There is a weak negative correlation between emotional relationship and perceived stress, as indicated by the Pearson correlation value of -0.095 between the PSS and RAS scores. At the 0.05 level, however, this correlation is not statistically significant (p=0.401). Similarly, the correlation coefficient between RAS and PSS scores is also -0.095, indicating the same weak negative correlation from the perspective of emotional relationships' influence on perceived stress. Again, at the 0.05 level, the correlation is not statistically significant (p = 0.401).

Table 3: Regression analysis between in vitro fertilization (IVF) and perceived stress levels

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.061[a]	.004	-.009	3.177

a. Predictors: (Constant), Current week of IVF process

b. Dependent Variable: Perceived Stress Scale

The table shows the findings of a regression analysis that looked at the relationship between the current week of in vitro fertilization (IVF) and perceived stress levels as determined by the Perceived Stress Scale (PSS). With an R-squared value of 0.004, the model summary shows that the regression model only explains a very small percentage of the variance in perceived stress, meaning that the current week of the IVF process can only account for 0.4% of the variability in perceived stress. The results suggest that the current week of the IVF process does not significantly predict perceived stress levels.

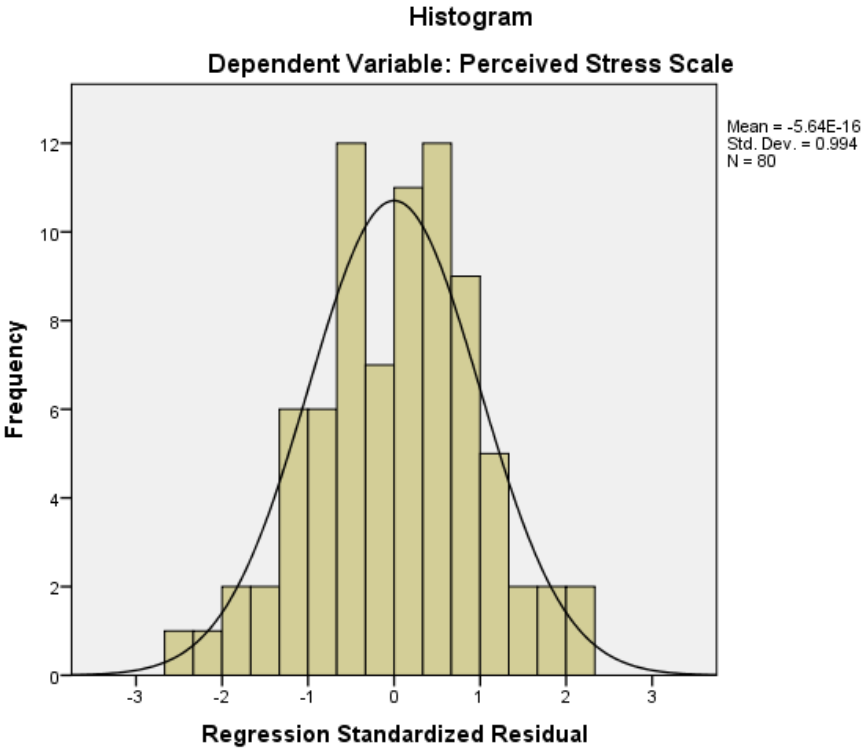

Figure 1: Shows the Perceived Stress Scale

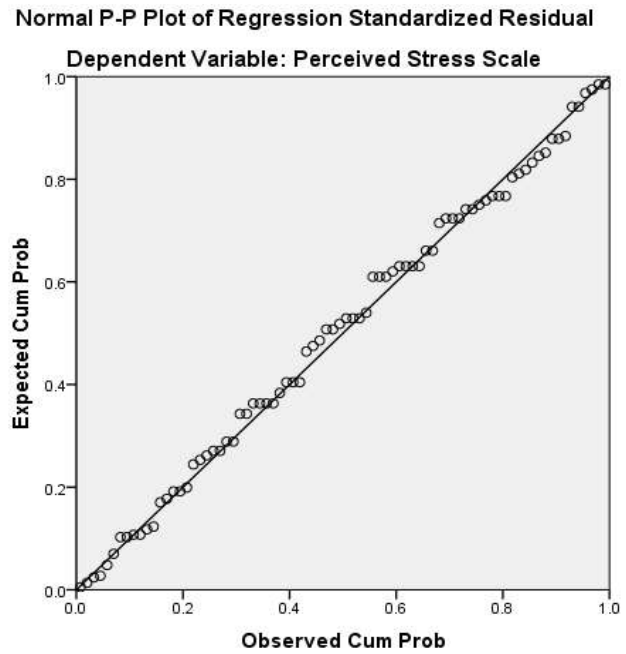

Figure 2: Normal Probability Plot showing Perceived Stress Scale

Table 4: Regression analysis between in vitro fertilization (IVF) and emotional relationship

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.078[a]	.006	-.007	3.779

a. Predictors: (Constant), Current week of IVF process
b. Dependent Variable: Relationship Assessment Scale

The table displays the findings of a regression analysis that looked at the relationship between the independent variable- the current week of the IVF process-and the dependent variable, the Relationship Assessment Scale, according to the model summary, the current week of the IVF process only accounts for around 0.6% of the variance in the Relationship Assessment Scale, indicating that the model's R-square value is extremely low (0.006). The results suggest that the current week of the IVF process does not have a significant impact on the Relationship Assessment Scale, and other factors may better explain variations in relationship satisfaction.

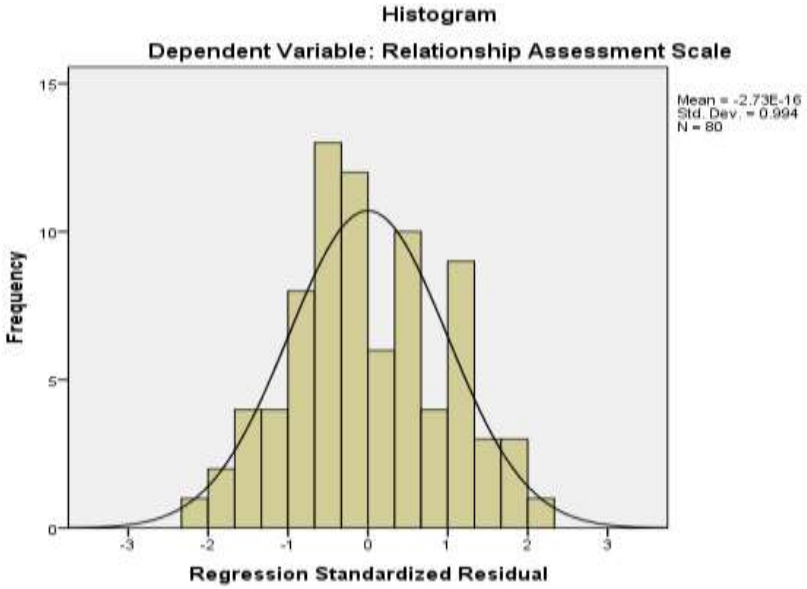

Figure 3: Shows Relationship Assessment Scale

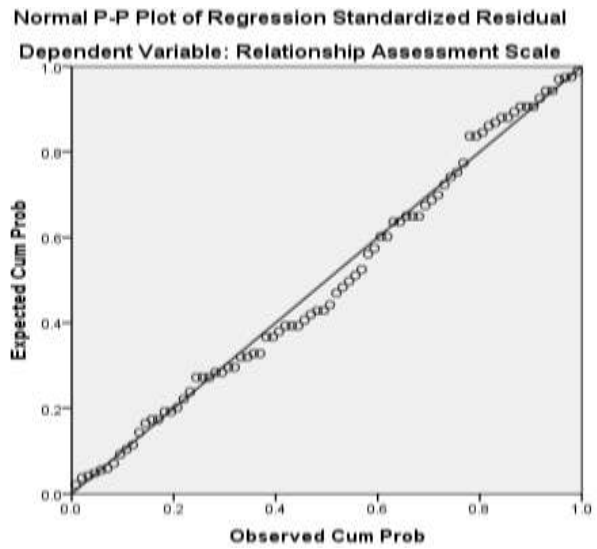

Figure 4: Normal Probability Plot showing Relationship Assessment Scale

Table 5: Comparison between two groups (female and male) on two different measures: the Perceived Stress Scale and the Relationship Assessment Scale

Group Statistics					
	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Perceived Stress Scale	female	40	20.20	3.674	.581
	male	40	21.75	2.351	.372
Relationship Assessment Scale	female	40	20.55	4.344	.687
	male	40	19.93	3.108	.491

Independent Samples Test										
		Levene's Test for Equality of Variances		**t-test for Equality of Means**						
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**95% Confidence Interval of the Difference**	
									Lower	**Upper**
Perceived Stress Scale	Equal variances assumed	5.319	.024	-2.248	78	.027	-1.550	.690	-2.923	-.177
	Equal variances not assumed			-2.248	66.349	.028	-1.550	.690	-2.927	-.173
Relationship Assessment Scale	Equal variances assumed	5.023	.028	.740	78	.461	.625	.845	-1.056	2.306
	Equal variances not assumed			.740	70.641	.462	.625	.845	-1.059	2.309

Levene's test for equality of variances and the t-test for equality of means were both performed for the Perceived Stress Scale. Males reported higher levels of stress (mean difference = -1.550), according to the t-test, which found a significant difference in perceived stress between genders ($t(78) = -2.248$, $p = 0.027$ and $t(66.349) = -2.248$, $p = 0.028$ for equal and unequal variances, respectively). On the other hand, equal variances in assumed and not assumed tests ($t(78) = 0.740$, $p = 0.461$ and $t(70.641) = 0.740$, $p = 0.462$, respectively) for the Relationship Assessment Scale showed no significant gender difference in scores. These findings suggest that while there is a gender difference in perceived stress, there is no such difference in relationship assessment scores.

CONCLUSION

The result of the study demonstrates that the perceived stress levels between the two genders differ significantly. The mean stress level indicated by women was 20.20, whereas the mean stress level recorded by men was 21.75. According to the t-tests, this difference was statistically significant, indicating that during the study, men felt more stressed than women did. Very low R-squared values were found in the regression analyses while looking at the relationship between the current week of the IVF process and both perceived stress levels and emotional relationships. This suggests that neither perceived stress levels nor emotional relationships are significantly predicted by the current week of the IVF process. A weak negative correlation, however statistically insignificant, was found in the correlation analysis between emotional relationships and perceived stress levels. This suggests that there might be

a tendency for higher stress levels to be associated with slightly lower emotional relationships, but the relationship is not strong enough to be considered significant in the sample. The analysis comparing relationship assessment scores between genders did not show a significant difference, indicating that men and women reported similar levels of emotional relationship.

Given that men in this study reported higher levels of perceived stress, the hypothesis that stress levels would be much higher in women compared to men is rejected. The hypothesis that men would report significantly higher levels of stress during the IVF process is retained, as men reported higher levels of perceived stress.

Overall, the findings suggest that gender differences exist in perceived stress levels, with men experiencing higher levels of stress, but the IVF process itself may not be a significant predictor of stress levels or emotional relationships in this sample.

REFERENCES

Aimagambetova, G., Issanov, A., Terzić, S., Bapayeva, G., Ukybassova, T., Baikoshkarova, S., Aldiyarova, A., Shauyen, F., & Terzić, M. (2020). The effect of psychological distress on IVF outcomes: Reality or speculations? *PloS One*, *15*(12), e0242024. https://doi.org/10.1371/journal.pone.0242024

Anderheim, L., Holter, H., Bergh, C., & Möller, A. (2005). Does psychological stress affect the outcome of in vitro fertilization? *Human Reproduction*, *20*(10), 2969–2975. https://doi.org/10.1093/humrep/dei219

Baram, D. A., Tourtelot, E., Muechler, E. K., & Huang, K. (1988). Psychosocial adjustment following unsuccessful in vitro fertilization. *Journal of Psychosomatic Obstetrics and Gynecology/Journal of Psychosomatic Obstetrics and Gynaecology*, *9*(3), 181–190. https://doi.org/10.3109/01674828809016800

Boivin, J., & Schmidt, L. (2005). Infertility-related stress in men and women predicts treatment outcome 1 year later. *Fertility and Sterility*, *83*(6), 1745–1752. https://doi.org/10.1016/j.fertnstert.2004.12.039

Boivin, J., & Takefman, J. (1996a). Impact of the in-vitro fertilization process on emotional, physical and relational variables. *Human Reproduction*, *11*(4), 903–907. https://doi.org/10.1093/oxfordjournals.humrep.a019276

Boivin, J., & Takefman, J. (1996b). Impact of the in-vitro fertilization process on emotional, physical and relational variables. *Human Reproduction*, *11*(4), 903–907. https://doi.org/10.1093/oxfordjournals.humrep.a019276

Boivin, J., Griffiths, E. A., & Venetis, C. A. (2011). Emotional distress in infertile women and failure of assisted reproductive technologies: meta-analysis of prospective psychosocial studies. *BMJ. British Medical Journal*, *342*(feb23 1), d223. https://doi.org/10.1136/bmj.d223

Cesta, C. E., Johansson, A. L., Hreinsson, J., Rodriguez-Wallberg, K. A., Olofsson, J. I., Holte, J., Wramsby, H., Wramsby, M., Cnattingius, S., Skalkidou, A., & Iliadou, A. (2018). A prospective investigation of perceived stress, infertility-related stress, and cortisol levels in women undergoing in vitro fertilization: influence on embryo quality and clinical pregnancy rate. *Acta Obstetricia Et Gynecologica Scandinavica*, *97*(3), 258–268. https://doi.org/10.1111/aogs.13280

Domar, A. D., Zuttermeister, P. C., & Friedman, R. B. (1993). The psychological impact of infertility: a comparison with patients with other medical conditions. *PubMed*, *14 Suppl*, 45–52. https://pubmed.ncbi.nlm.nih.gov/8142988

Fernandez-Ferrera, C., Llaneza-Suárez, D., Fernández-García, D., Castañón, V., Llaneza-Suarez, C., & Llaneza, P. (2021). Resilience, perceived stress, and depressed mood in women under in vitro fertilization treatment. *Reproductive Sciences*, *29*(3), 816–822. https://doi.org/10.1007/s43032-021-00685-1

Freeman, E. W., Boxer, A. S., Rickels, K., Tureck, R. W., & Mastroianni, L. (1985). Psychological evaluation and support in a program of in vitro fertilization and embryo transfer. *Fertility and Sterility*, *43*(1), 48–53. https://doi.org/10.1016/s0015-0282(16)48316-0

Harata, T., Goto, M., Iwase, A., Kurotsuchi, S., Ando, H., Osawa, M., Sugita, A., Kondo, M., Nakamura, T., Nakahara, T., Takikawa, S., Manabe, S., & Kikkawa, F. (2012). Psychological stress during in vitro fertilization and embryo transfer is influenced by the patients' background and gender. *Reproductive Medicine and Biology*, *11*(3), 143–148. https://doi.org/10.1007/s12522-012-0124-y

Harlow, C. R., Fahy, U., Talbot, W. M., Wardle, P. G., & Hull, M. G. R. (1996b). Stress and stress-related hormones during in-vitro fertilization treatment. *Human Reproduction*, *11*(2), 274–279. https://doi.org/10.1093/humrep/11.2.274

Harlow, C. R., Fahy, U., Talbot, W. M., Wardle, P. G., & Hull, M. G. R. (1996). Stress and stress-related hormones during in-vitro fertilization treatment. *Human Reproduction*, *11*(2), 274–279. https://doi.org/10.1093/humrep/11.2.274

Kopitzke, E. J., Van Den Berg, B. J., Wilson, J. F., & Owens, D. (1991). Physical and emotional stress associated with components of the infertility investigation: perspectives of professionals and patients. *Fertility and Sterility*, *55*(6), 1137–1143. https://doi.org/10.1016/s0015-0282(16)54365-9

Lalos, A. (1999). Breaking bad news concerning fertility. *Human Reproduction*, *14*(3), 581–585. https://doi.org/10.1093/humrep/14.3.581

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

Madhusudhana, D. (2020). Multidimensional Management of Stress-Induced Infertile Women By IVF. *EPRA International Journal of Multidisciplinary Research*, 153–158. https://doi.org/10.36713/epra4311

Maroufizadeh, S., Navid, B., Omani-Samani, R., & Amini, P. (2019). The effects of depression, anxiety and stress symptoms on the clinical pregnancy rate in women undergoing IVF treatment. *BMC Research Notes*, *12*(1). https://doi.org/10.1186/s13104-019-4294-0

Møller, A. H., & Fällström, K. (1991). Psychological factors in the etiology of infertility: A longitudinal study. *Journal of Psychosomatic Obstetrics and Gynecology/Journal of Psychosomatic Obstetrics and Gynaecology*, *12*(1), 13–26. https://doi.org/10.3109/01674829109077987

Pp, M. (1985). The psychological component of infertility. *Fertility and Sterility*, *43*(3), 335–346. https://doi.org/10.1016/s0015-0282(16)48428-1

Selye, H. (1976). *The stress of life* (Rev. ed.). McGraw-Hill.

Turner, K., Reynolds-May, M. F., Zitek, E. M., Tisdale, R., Carlisle, A. B., & Westphal, L. M. (2013). Stress and anxiety scores in first and repeat IVF cycles: a pilot study. *PloS One*, *8*(5), e63743. https://doi.org/10.1371/journal.pone.0063743

Wiweko, B., Anggraheni, U., Elvira, S. D., & Lubis, H. P. (2017). Distribution of stress level among infertility patients. *Middle East Fertility Society Journal/Middle East Fertility Society Journal*, *22*(2), 145–148. https://doi.org/10.1016/j.mefs.2017.01.005

Yakupova, V., Захарова, Е., & Abubakirov, A. (2015). The mental state of women with an IVF pregnancy. *Psychology in Russia: State of the Art/Psychology in Russia. State of the Art*, *8*(1), 14. https://doi.org/10.11621/pir.2015.0102

Zanettoullis, A. T., Mastorakos, G., Vakas, P., Vlahos, N., & Valsamakis, G. (2024). Effect of stress on each of the stages of the IVF procedure: a systematic review. *International Journal of Molecular Sciences*, *25*(2), 726. https://doi.org/10.3390/ijms25020726

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Conflict of Interest
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