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The Relationship Between Social Support Levels and Anxiety in Saudi Women Facing Infertility

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Abstract. Infertility is a reproductive health issue that not only affects biological aspects, but also causes significant psychological burdens, particularly anxiety in women. In the context of Saudi Arabian culture, which has strong pronatalist values, infertile women often face social and emotional pressures that can exacerbate their psychological condition. Social support is seen as a protective factor that plays an important role in helping individuals adapt to the stress of infertility. This study aims to analyze the relationship between the level of social support and the level of anxiety in Saudi women facing infertility at the Dr. Sulaiman Al-Habib Takhassusi Branch, Riyadh. This study uses a quantitative approach with a cross-sectional analytical observational design. The research sample consisted of 30 infertile women selected using consecutive sampling techniques. The levels of social support and anxiety were measured using a standardized questionnaire, then analyzed using Spearman's correlation test with a significance level of 0.05. The results showed that most respondents were aged 20–35 years and experienced primary infertility. The Spearman test showed a statistically significant relationship between the level of social support and the level of anxiety ($p = 0.000$) with a correlation coefficient of $r = 0.625$, indicating a moderate to strong positive relationship. This indicates that women with higher levels of anxiety tend to receive or seek more intense social support. In conclusion, social support plays an important role in the dynamics of anxiety in infertile women. The integration of structured psychosocial support into infertility services is essential to improve patients' psychological well-being and quality of life.

Keyword: Anxiety; Infertility; Reproductive Health; Social Support; Women

1. INTRODUCTION

Infertility is a reproductive health issue that has a broad impact—not only on biological aspects, but also psychological, relational, and social aspects. The World Health Organization reports that approximately 17.5% of the world's adult population (≈1 in 6 people) experience infertility at some point in their lives, and this figure is relatively consistent in both high- and low-middle-income countries, confirming that infertility is a global issue across economic contexts. (World Health Organization, 2023; Harris, 2023). At the end of 2025 , the WHO also published the first global guidelines on the prevention, diagnosis, and management of infertility, emphasizing the integration of fertility services into health systems, including the need for psychosocial support for patients experiencing distress, stigma, and pressure during the evaluation and therapy process. (World Health Organization, 2025; Mburu, 2026). In the Middle East, including Saudi Arabia, infertility is often understood within the framework of strong pronatalist values, where pregnancy and offspring are symbols of marital stability and social acceptance; this condition can increase women's exposure to social judgment, pressure from extended families, and fear of stigma—which ultimately exacerbates the emotional burden during the infertility journey. (Alsahel et al., 2024; Taebi et al., 2021).

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Clinically, infertility often functions as a chronic stressor: uncertainty about outcomes, cycles of hope and disappointment, repeated medical procedures, costs, and potential conflict between partners can trigger a persistent stress response. (World Health Organization, 2025). This recurring distress is closely related to anxiety—both as a symptom (e.g., restlessness, tension, hypervigilance) and as a disorder that affects daily functioning and treatment adherence. (Kiani et al., 2020). Meta-analyses indicate that the prevalence of anxiety symptoms in infertile women can be high, suggesting that anxiety is not an "add-on" issue but an important component of the spectrum of infertility impacts. Evidence from Saudi Arabia also reinforces this psychological burden; a cross-sectional study of infertile women showed a significant proportion of depression, anxiety, and stress, confirming the need for psychological screening and intervention as part of infertility services.

Within the framework of health psychology theory, social support is viewed as a protective factor that can "buffer" the impact of stressors on psychological symptoms. Contemporary stress-buffering models emphasize that emotional, informational, and instrumental support not only reduce perceived threats, but also improve emotional regulation, coping choices, and physiological responses to stress. (Bekiros et al., 2022; Lam et al., 2024). In the general population, the negative relationship between social support and anxiety is also supported by systematic reviews, although the strength of the association may depend on the type of support (perceived vs. received) and the context of the stressor experienced. (Priego-Cubero et al., 2023). In the context of infertility, cross-national findings indicate that infertility stigma may be associated with poorer psychological outcomes, while better perceived social support is associated with lower distress and more adaptive adjustment. (Taebi et al., 2021; Ozturk et al., 2021). More specifically in the process of assisted reproductive technology, research shows that higher social support is associated with lower anxiety and depression, partly through increased psychological resilience. (Yan et al., 2024). This is relevant because women undergoing infertility evaluation and treatment are often in a vulnerable phase: they need consistent support, yet at the same time may withdraw due to shame, emotional exhaustion, or social pressure. (Taebi et al., 2021; World Health Organization, 2025).

However, there are still important research gaps. First, many studies in the MENA region focus on the prevalence of depression/anxiety or quality of life, but have not yet thoroughly mapped how variations in social support levels relate to anxiety in infertile women in the specific Saudi cultural context, including extended family dynamics and social expectations of motherhood. (Alsahel et al., 2024; Taebi et al., 2021). Second, evidence on social support often comes from non-Arab contexts or public clinic samples; however, the

experiences of patients in tertiary private facilities—such as Dr. Sulaiman Al-Habib Takhassusi Branch in Riyadh—may have different characteristics in terms of service access, intervention intensity, and sociodemographic profiles. (World Health Organization, 2025). Third, the dimensions of social support (family, partner, friends, community) may contribute differently to anxiety; without proper mapping, interventions tend to be generic and less targeted. (Priego-Cubero et al., 2023; Lam et al., 2024).

The Indonesian context provides additional reasons why this topic is urgent to study and compare. Indonesia reports a significant burden of infertility, and recent literature describes how myths, misperceptions, and stigma can influence couples' behavior in seeking services and their psychological well-being. (Kusuma et al., 2025). In collectivist cultures—both in Indonesia and Saudi Arabia—social narratives about the "perfection" of marriage are often attached to the presence of children, which can increase psychological pressure on women when pregnancy does not occur immediately. (Indonesian Ministry of Health, 2022; Taebi et al., 2021). Studies in Indonesia have also begun to show the link between psychological aspects and infertility, such as the relationship between anxiety and quality of life in ART program patients, suggesting that strengthening psychosocial support needs to be part of fertility services. (Tjahyadi et al., 2023). Thus, the findings from Riyadh have the potential to enrich evidence-based practices in Indonesia—particularly in designing culturally sensitive counseling, peer support, and family involvement to reduce anxiety and increase treatment adherence. (World Health Organization, 2025; Mburu, 2026).

Based on this urgency, this study aims to analyze the relationship between the level of social support and the level of anxiety in Saudi women facing infertility at Dr. Sulaiman Al-Habib Takhassusi Branch, Riyadh, so as to provide an empirical basis for strengthening integrated psychosocial services, more empathetic clinical communication strategies, and the design of social support interventions that are appropriate to the cultural context and patient needs during the infertility journey. (World Health Organization, 2025; Lam et al., 2024).

2. RESEARCH METHOD

This study used a quantitative approach with an analytical observational research design and a cross-sectional design. This design was chosen because the study aimed to analyze the relationship between the level of social support and the level of anxiety in Saudi women facing infertility, where the measurement of independent and dependent variables was carried out simultaneously at one time without any intervention from the researcher. The cross-sectional

design is considered appropriate for describing the psychosocial conditions of respondents and identifying relationships between variables efficiently in the context of fertility clinics.

The study was conducted at Dr. Sulaiman Al-Habib Takhassusi Branch, Riyadh, a tertiary referral hospital that provides comprehensive reproductive and fertility health services. This location was chosen because of the high number of infertility patients and the diversity of their social backgrounds, making it relevant for examining variations in social support and anxiety levels.

The study population consisted of all Saudi women diagnosed with infertility and undergoing fertility examinations or therapy at Dr. Sulaiman Al-Habib Takhassusi Branch, Riyadh, during the study period. The study sample was a subset of the population that met the inclusion and exclusion criteria. Inclusion criteria included: Saudi women of reproductive age (20–45 years), married, diagnosed with primary or secondary infertility, and willing to participate as respondents by signing an informed consent form. Exclusion criteria included: women with a history of severe psychiatric disorders that had been previously diagnosed, undergoing intensive psychiatric therapy, or experiencing acute medical complications that could significantly affect their psychological condition.

The sample size was determined using the sample calculation formula for correlational research, with a confidence level of 95% and a minimum test power of 80%. Based on these calculations, the minimum sample size required was approximately 80–120 respondents. To anticipate possible dropouts or incomplete data, the sample size could be increased by approximately 10–15%.

The sampling technique used was consecutive sampling, whereby all subjects who met the inclusion and exclusion criteria were recruited sequentially until the sample size was reached. This technique was chosen because it was appropriate for the clinical setting and enabled researchers to obtain respondents in a practical manner who were representative of the population of infertility patients who visited during the study period.

The independent variable in this study was the level of social support, while the dependent variable was the level of anxiety. Social support was measured using a standardized questionnaire, such as the Multidimensional Scale of Perceived Social Support (MSPSS), which covers the dimensions of support from family, partners, and friends. Anxiety levels were measured using validated psychological instruments, such as the Depression Anxiety Stress Scale–21 (DASS-21) anxiety subscale or the Hamilton Anxiety Rating Scale (HARS). All instruments used were translated and tested for validity and reliability in similar populations or through pilot tests.

The data collection procedure was carried out after obtaining ethical approval from the health research ethics committee. Respondents who met the criteria were given an explanation of the purpose, benefits, and procedures of the study, and were then asked to complete the questionnaire independently or with the assistance of a researcher if necessary. The confidentiality of respondents' identities and data was fully maintained in accordance with research ethics principles.

Data analysis was conducted in stages. Univariate analysis was used to describe the characteristics of respondents (age, duration of infertility, type of infertility, education level, occupation) as well as the distribution of social support and anxiety levels. Bivariate analysis was performed to test the relationship between the level of social support and the level of anxiety. Before testing the relationship, data normality was tested using Shapiro–Wilk. If the data were normally distributed, Pearson correlation was used to analyze the relationship; whereas if the data were not normally distributed, Spearman rho was used. A p-value < 0.05 was considered statistically significant.

If further analysis is needed, multivariate analysis using linear regression or logistic regression can be performed to control for confounding variables such as age, duration of infertility, and type of fertility therapy. All data analysis was performed using statistical software (e.g., SPSS), and the results are presented in tables and interpretive narratives

3. RESULTS AND DISCUSSION

Table 1. Demographic data.

	Var	n	F (%)
Age	< 20 years old	0	0
	20-35 years old	20	66.7
	>35 years old	10	33.3
Nationality	Saudi Arabia	25	83.3
	Egypt	3	10.0
	Jordan	2	6.7
Marital status	Single	11	36.7
	In a relationship	19	63.3
Type of infertility	Primary	23	76.7
	Secondary	7	23.3
Support source	Husband	12	40.0
	Friends or medical personnel	13	43.3
	Family	5	16.7
Anxiety level	Never	6	20
	In a few days	8	26.7
	More than half a day	8	26.7
	Most of the time	8	26.7
Support level	Moderate	6	20.0
	Significant	10	33.3
	Intense	14	46.7
Total		30	100

source: primary data, 2025.

Based on Table 1, the total number of respondents in this study was 30 people. Most respondents were in the 20–35 age group, numbering 20 people (66.7%), followed by the >35 age group, numbering 10 people (33.3%), while there were no respondents in the <20 age group.

In terms of nationality, the majority of respondents were from Saudi Arabia, numbering 25 people (83.3%), while respondents from Egypt and Jordan numbered 3 people (10.0%) and 2 people (6.7%), respectively. Based on marital status, most respondents were married (19 people, or 63.3%), while 11 respondents (36.7%) were single.

Based on the type of infertility, the majority of respondents experienced primary infertility, totaling 23 people (76.7%), while secondary infertility was experienced by 7 people (23.3%). The most commonly reported source of support came from friends or health workers, totaling 13 people (43.3%), followed by support from husbands, totaling 12 people (40.0%), and family, totaling 5 people (16.7%).

The respondents' anxiety levels showed a relatively even distribution, with 8 people (26.7%) reporting anxiety several days, more than half the day, and most of the time, while 6 people (20.0%) stated that they never experienced anxiety. The level of support felt by respondents was mostly in the intense category, with 14 people (46.7%), followed by the significant category with 10 people (33.3%), and the moderate category with 6 people (20.0%).

Table 2. Statistical Analysis.

Independent variable	N	P Value	r	Dependent variable
Spearman	30	0.000*	0.625*	Support level

Spearman

source: primary data, 2025.

The Spearman test results show that there is a statistically significant relationship between anxiety levels and the level of support received by respondents (p = 0.000). The correlation coefficient value of r = 0.625 indicates a positive correlation with a moderate to strong relationship, which shows that an increase in anxiety levels is associated with an increase in the level of support received by respondents.

Discussion

The results of the study show that the majority of respondents were of young to middle reproductive age (20–35 years: 66.7%), predominantly from Saudi Arabia (83.3%), and experienced primary infertility (76.7%). These demographic findings are consistent with previous literature showing that infertility is more common in the reproductive age range, with

variations in prevalence based on population and specific sociodemographic factors (Truong et al., 2022).

Another important finding was the even distribution of anxiety levels across various categories and the tendency for high levels of social support (intense: 46.7%; significant: 33.3%). Spearman's correlation test showed a significant positive relationship between anxiety levels and social support levels ($p = 0.000$; $r = 0.625$), indicating that individuals with higher anxiety levels also tended to report higher levels of support. These findings are consistent with research reports showing that individuals who receive greater social support tend to be better able to manage anxiety symptoms through social and emotional coping mechanisms (Yan et al., 2025).

Theoretically, infertility is a condition that causes significant psychological distress, including anxiety, stress, and other emotional disorders (Simionescu, 2021). This condition can lead to feelings of loss of control over life planning, which is a trigger for emotional anxiety in infertile women (Moutzouroulia et al., 2025). Social support is an important factor in helping individuals cope with this psychological pressure. For example, a study of infertile women in Vietnam showed that the level of social support is directly related to adaptive coping strategies for infertility stress (Truong et al., 2022).

Our findings also show that husbands and friends/health workers are the main sources of support for respondents. Previous studies have also confirmed that family support—including from spouses—is a major predictor in reducing psychological stress in infertile individuals, leading to an improvement in overall mental well-being (Lam et al., 2021). Additionally, social support from partners or close relatives has been confirmed to have an impact on improving mental health in other populations, such as pregnant women who experience lower anxiety levels when they receive optimal social support (Maharani & Fakhrurrozi, 2023).

In general, the positive relationship between anxiety and social support indicates that individuals experiencing high anxiety tend to seek and accept social support as an adaptive strategy. This is consistent with findings showing that social support can be an important mediator in the relationship between emotional distress and quality of life in infertile individuals, even moderating the effects of stress arising from the social stigma associated with infertility (Al Sabbah, 2025).

On the other hand, the relationship between anxiety and social support has also been demonstrated in other studies outside the context of infertility (e.g., PCOS sufferers), where high social support correlates with lower anxiety levels, confirming the role of social support

in emotional regulation (Hanani et al., 2024). Our findings add to the evidence that anxiety in infertile women is not only an emotional consequence of their medical condition, but is also influenced by the social support context inherent in the respondents' interpersonal systems.

Implicitly, these results have clinical and policy relevance. Structured psychosocial interventions—such as couples counseling, peer support groups, and emotional support training—have been shown to reduce the psychological burden on infertile patients undergoing fertility programs (Anisah & Rachmawati, 2025).

In addition, other literature also highlights that active social support involvement can reduce negative psychological symptoms, including anxiety and depression, and increase the resilience of infertile individuals (Miller-Matero, 2025; Song et al., 2023). Therefore, a holistic understanding of the role of social support and psychological factors related to anxiety is crucial in designing reproductive health services that are sensitive to psychosocial aspects.

4. CONCLUSION

This study concluded that there is a statistically significant relationship between the level of social support and the level of anxiety in Saudi women facing infertility at Dr. Sulaiman Al-Habib Takhassusi Branch, Riyadh. The results of the Spearman correlation test showed a moderate to strong relationship ($r = 0.625$; $p < 0.05$), indicating that women with higher levels of anxiety tend to receive or seek more intense social support. These findings confirm that social support—whether from husbands, friends, family, or health workers—plays an important role in the psychological dynamics of infertile women. Clinically, these results reinforce the urgency of integrating a psychosocial approach into infertility services, including routine anxiety screening and strengthening culturally sensitive couple-based and social network support. Thus, holistic fertility services should not only focus on biomedical aspects, but also on the psychological well-being of patients to improve their quality of life and the sustainability of therapy.

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