Measurement of Anxiety, Depression and Insomnia Levels of Women Admitted to a Training and Research Hospital and Receiving Infertility Treatment and Medical Social Work Intervention

Özgür SAĞLAM*

Abstract

Aim: The aim of this study is to determine the levels of insomnia, anxiety, and depression in women diagnosed with infertility undergoing in vitro fertilization (IVF) treatment and to examine the relationship between these psychological conditions and the socio-demographic characteristics of the women. Additionally, the study seeks to investigate how receiving psychosocial support from social service specialists after being referred to medical social service units can affect the anxiety, depression, and insomnia levels of these women.

Method: The study was conducted with 156 female patients diagnosed with infertility who applied to the IVF Unit of an Education and Research Hospital in Istanbul between October and December 2022. Data were collected using the Insomnia Severity Index (ISI), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Socio-Demographic Information Form through face-to-face interviews. The data were analyzed using the SPSS 25.00 program, employing frequency, percentage distributions, means, standard deviations, and Spearman's Correlation tests for independent groups. The Kolmogorov-Smirnov test was used for the normality test.

Results: The study found that women with higher education levels, those who were not employed in any income-generating work, and those who had prolonged unprotected sexual intercourse without achieving pregnancy had higher ISI, BAI, and BDI scores. Additionally, women who were referred to medical social service units received psychosocial and economic support, and this support was found to have a positive impact on their lives and treatment outcomes.

Conclusion: The study determined that the levels of insomnia, anxiety, and depression were high in women undergoing infertility treatment and that socio-demographic factors were associated with these psychological conditions. It was also found that women who were referred to medical social service units and received psychosocial support had improved treatment outcomes. These findings highlight the importance of addressing not only the physical aspects of infertility treatment but also the psychological and social aspects. The psychosocial support provided by social service specialists can improve the effectiveness of the treatment process and alleviate the emotional burden of the women.

Keywords: Infertility, psychosocial support systems, social work, psychiatric social work.

Özgün Araştırma Makalesi (Original Research Article)
Geliş / Received: 03.03.2025 **Kabul / Accepted:** 18.11.2025
DOI: https://doi.org/10.38079/igusabder.1650350
* Corresponding Author: Dr. Social Worker, Istanbul University Cerrahpaşa, Institute of Forensic Medicine and Forensic Sciences, Department of Social Sciences, Istanbul, Türkiye. E-mail: saglamozgurr@gmail.com
ORCID https://orcid.org/0000-0003-1307-9267

ETHICAL STATEMENT: Ethical approval was obtained from the Clinical Research Ethics Committee of Istanbul Training and Research Hospital (Decision No: 2710, Date: 05.02.2021).

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

Bir Eğitim ve Araştırma Hastanesine Başvuran ve İnfertilite Tedavisi Gören Kadınların Anksiyete, Depresyon Ve Uykusuzluk Düzeylerinin Ölçülmesi ve Tıbbi Sosyal Hizmet Müdahalesi

Öz

Amaç: Bu çalışmanın amacı, tüp bebek tedavisi gören infertilite tanısı almış kadınların uykusuzluk, anksiyete ve depresyon düzeylerini belirlemek ve bu psikolojik durumların, kadınların sosyo-demografik özellikleri ile ilişkisini incelemektir. Ayrıca, infertilite tedavisi gören kadınların tıbbi sosyal hizmet birimlerine yönlendirilmesi durumunda, sosyal hizmet uzmanlarından alacakları psiko-sosyal desteğin anksiyete, depresyon ve uykusuzluk düzeylerini nasıl etkileyebileceğini araştırmak hedeflenmiştir.

Yöntem: Çalışma, İstanbul'da bir Eğitim ve Araştırma Hastanesi'nin Tüp Bebek Ünitesi'ne Ekim, Kasım ve Aralık 2022 tarihlerinde başvuran ve infertilite tanısı almış 156 kadın hasta ile gerçekleştirilmiştir. Veriler, Uykusuzluk Şiddeti İndeksi (UŞİ), Beck Anksiyete Ölçeği (BAÖ), Beck Depresyon Ölçeği (BDÖ) ve Sosyo-Demografik Bilgi Formu kullanılarak yüz yüze görüşme tekniğiyle toplanmıştır. Verilerin analizi için SPSS 25.00 programı kullanılarak sayı, yüzde dağılımları, ortalama, standart sapma ve Bağımsız Gruplarda Spearman Korelasyon testleri uygulanmıştır. Normallik testi için Kolmogorov-Smirnov testi kullanılmıştır.

Bulgular: Çalışma bulgularına göre, eğitim düzeyi yüksek, herhangi bir gelir getirici işte çalışmayan ve korunmasız cinsel ilişki süresi uzun olup gebelik elde edemeyen kadınların uykusuzluk (UŞİ), anksiyete (BAÖ) ve depresyon (BDÖ) puanlarının yüksek olduğu görülmüştür. Ayrıca, tıbbi sosyal hizmet birimlerine yönlendirilen kadınların psiko-sosyal ve ekonomik destek aldıkları, bu durumun yaşamları ve tedavi süreçleri üzerinde olumlu etkiler yarattığı tespit edilmiştir.

Sonuç: İnfertilite tedavisi gören kadınların uykusuzluk, anksiyete ve depresyon düzeylerinin yüksek olduğu, sosyo-demografik faktörlerin bu psikolojik durumlarla ilişki taşıdığı belirlenmiştir. Tıbbi sosyal hizmet birimlerine yönlendirilen kadınların aldıkları psiko-sosyal destek, tedavi süreçlerini iyileştirmiştir. Bu bulgular, infertilite tedavisinin yalnızca fiziksel yönlerle değil, aynı zamanda psikolojik ve sosyal yönlerle de ele alınması gerektiğini göstermektedir. Sosyal hizmet uzmanlarının kadınlara sağladığı psiko-sosyal destek, tedavi süreçlerinin etkinliğini artırabilir ve kadınların duygusal yüklerini hafifletebilir.

Anahtar Sözcükler: İnfertilite, psikososyal destek sistemleri, sosyal hizmet, psikiyatrik sosyal hizmet.

Introduction

Infertility, also referred to as sterility, is defined as the inability of couples of reproductive age to conceive or maintain a pregnancy despite regular unprotected sexual intercourse for a year[1,2]. It affects approximately 10–15% of couples worldwide, with some reports indicating rates approaching 30%[3]. Infertility represents a significant life crisis that negatively impacts both biological and psychosocial health[4,5]. Psychological consequences such as anxiety, depression, and emotional distress are common, affecting not only women but also men[6]. According to 2001 WHO data, there were approximately 80–85 million infertile couples globally[7]. Women are primarily affected due to societal gender roles that valorize motherhood over individual identity and attributes, reinforced by biological reproductive characteristics. Infertility is thus often framed not merely as a medical issue but as a social deficiency in women[8].

In Turkish society, having children has historically conferred social prestige, and childless parents were often viewed as incomplete. Historical narratives, such as the Dede Korkut story "Dirse Han Oğlu Boğaç Han" and the Manas Epic, attribute social

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

decline or marital blame to childlessness, illustrating the long-standing burden placed on women[9,10]. Even in contemporary families, male offspring are generally preferred due to concerns about lineage, creating continued gendered pressures[11,14]. Such societal expectations contribute to psychological distress for infertile women, manifesting as anxiety, depression, and insomnia[15].

These challenges highlight the importance of social work interventions. In Turkey, pioneering medical social work initiatives at educational and research hospitals have implemented assessments of psychological distress among women undergoing infertility treatment. Women scoring above thresholds on the Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Insomnia Severity Index (ISI) receive psychosocial and economic support. These interventions aim to address both the emotional and social pressures experienced by infertile women, ensuring holistic care and mitigating the societal burden imposed by infertility.

Infertility and Medical Social Work

The historical development of social work highlights its focus on human well-being, societal change, and development[16]. Social workers aim to empower individuals, enhance their problem-solving capacities, and improve quality of life, intervening both proactively and during crises. Over time, social work evolved from charitable practices to a professional, evidence-based discipline integrating theory, research, and practice. The profession continuously adapts to emerging needs, including those of vulnerable populations such as infertile women. Infertility affects millions globally, with WHO estimates of approximately 80–90 million infertile couples[7], demonstrating its significance as both a personal and societal issue.

Medical advancements, including IVF, have improved treatment outcomes but introduced psychosocial challenges. The first successful IVF occurred in 1978 in the UK, with Turkey adopting IVF procedures in 1988[17-26]. Women undergoing IVF often experience elevated stress, anxiety, depression, insomnia, and social stigma, especially in cultures emphasizing motherhood.

Medical social work has emerged to address these needs by combining social work principles with healthcare practice. In infertility clinics, social workers provide psychosocial support, guide patients through economic challenges, and facilitate access to public and community resources. Collaboration with medical professionals ensures holistic care, addressing emotional, social, and economic dimensions alongside medical treatment, thereby supporting patient well-being and resilience throughout infertility treatment.

Practical Implementation of Medical Social Work in Infertility Clinics

The practical role of medical social work in IVF clinics can be divided into several key stages, reflecting a systematic approach to patient care:

Initial Assessment and Informed Consent: The first step involves informing patients about the purpose of psychosocial assessment and the scope of social work

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

interventions. Written informed consent is obtained to ensure voluntary participation and adherence to ethical standards. Social workers collect sociodemographic data, medical histories, and psychosocial information through structured questionnaires and interviews. This stage establishes a baseline understanding of the patient's individual, familial, and social context, which is essential for designing tailored interventions[27].

Comprehensive Psychosocial Evaluation: Standardized assessment tools are employed to measure psychological distress and sleep disturbances. Instruments such as the Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Insomnia Severity Index (ISI) are administered through face-to-face interviews in private settings to maintain confidentiality and promote honest disclosure. Each interview typically lasts between 25 and 35 minutes, during which the social worker clarifies ambiguous questions, observes participants' non-verbal cues, and evaluates coping strategies. The results of these assessments allow social workers to identify patients at high risk of anxiety, depression, or insomnia and to prioritize interventions accordingly[28].

Individual Counseling and Emotional Support: Based on assessment outcomes, social workers provide targeted individual counseling to help patients manage emotional distress, develop coping strategies, and maintain psychological resilience throughout the treatment process. Counseling sessions may address anxiety related to treatment outcomes, feelings of guilt or inadequacy, and interpersonal conflicts arising from infertility. Additionally, patients are guided in adopting healthy lifestyle behaviors, stress-reduction techniques, and supportive communication within families. These interventions aim to reduce psychological burden, enhance emotional well-being, and improve adherence to treatment protocols[29].

Economic and Resource Guidance: Infertility treatment can pose significant financial challenges for patients. Medical social workers provide guidance on accessing economic support programs, health insurance benefits, and community resources. They assist patients in navigating bureaucratic processes, applying for financial aid, and understanding available public services. By alleviating economic stress, social workers help reduce an important source of anxiety that may otherwise interfere with treatment outcomes[30].

Coordination with Multidisciplinary Teams: Effective medical social work involves collaboration with healthcare providers, including gynecologists, psychologists, nurses, and nutritionists. Social workers participate in multidisciplinary meetings to share psychosocial assessment findings, recommend interventions, and coordinate comprehensive care plans. This collaboration ensures that patients receive consistent and integrated support addressing both medical and psychosocial dimensions of infertility[31].

Follow-up and Longitudinal Support: Social work interventions in infertility care do not end after initial consultation. Continuous follow-up allows monitoring of patients' psychological states, adjustment of interventions, and provision of support throughout multiple IVF cycles[21,32-37]. Reassessments using standardized tools such as the Beck Anxiety Inventory, Beck Depression Inventory, and Insomnia Severity Index ensure

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

responsiveness to evolving needs[21]. Integration of medical social work within infertility clinics addresses emotional challenges, provides economic and social support, and fosters collaboration with medical professionals[38]. By offering individualized counseling, resource guidance, and coordinated care, social work interventions enhance psychosocial well-being and improve clinical outcomes, highlighting the critical role of holistic, multidisciplinary approaches in reproductive health[21,38].

Material and Methods

Population and Sampling

The study population consisted of women diagnosed with infertility who applied to the IVF unit of a public training and research hospital located on the European side of Istanbul between October 1 and December 31, 2022. Women were included in the study if they met the following criteria: (1) aged 18 years or older, (2) diagnosed with infertility, (3) literate and able to complete self-report questionnaires, and (4) willing to provide informed consent.

A total of 156 women who met these inclusion criteria were recruited consecutively during the data collection period. Exclusion criteria included a previous psychiatric diagnosis, use of psychotropic medication, or any serious medical condition that could affect psychological well-being. The sample was selected using non-probability purposive sampling, ensuring that all participants met the study criteria.

Procedure

Data were collected through face-to-face structured interviews conducted by the researcher in a quiet, private consultation room within the IVF clinic to ensure comfort and confidentiality. Each interview session lasted approximately 25 to 35 minutes, depending on the participant's pace of response and need for clarification.

At the beginning of each interview, participants were first asked to complete the Socio-Demographic Information Form, followed by the Insomnia Severity Index (ISI), the Beck Anxiety Inventory (BAI), and the Beck Depression Inventory (BDI), respectively. The researcher provided standardized explanations for any unclear items to maintain consistency across interviews.

Upon completion, women whose scores exceeded the clinical cutoff points for insomnia, depression, or anxiety were referred to the hospital's social services unit for psychosocial support and further evaluation. All assessments were administered by the same researcher to ensure methodological consistency and minimize interviewer bias.

Hypotheses of the Study

H_1. There is a significant positive relationship between the severity of insomnia, Beck Anxiety Inventory, Beck Depression Inventory scores, and whether the women are employed in income-generating work.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

H_1. There is a significant positive relationship between the severity of insomnia, Beck Anxiety Inventory, Beck Depression Inventory scores, and the women's educational status.

H_1. There is a significant positive relationship between the severity of insomnia, Beck Anxiety Inventory, Beck Depression Inventory scores, and the duration of unprotected sexual intercourse in women.

H_1. There is a significant relationship between the severity of insomnia, Beck Anxiety Inventory, Beck Depression Inventory scores, and the family structure of the women (nuclear or extended family).

H_1. There is a significant positive relationship between the severity of insomnia, Beck Anxiety Inventory, Beck Depression Inventory scores, and the women's history of previous pregnancies.

H_1. There is a significant positive relationship between the severity of insomnia, Beck Anxiety Inventory, Beck Depression Inventory scores, and the women's economic perception levels.

Limitations: The study's limitations include the short duration of the research and the participants' unfamiliarity with the social services unit.

Materials

The study data were collected via face-to-face interviews using the Insomnia Severity Index (ISI), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and a Socio-Demographic Information Form. The BAI, developed by Beck[17] and adapted into Turkish by Sahin[18] with validity and reliability confirmed by Ulusoy[19], consists of 21 items scored 0–63, indicating minimal to severe anxiety. The BDI, a 21-item measure developed by Beck et al. and adapted into Turkish by Nesrin Sahin Hisli[20], has a maximum score of 63, with scores above 17 suggesting clinical depression[21]. The ISI, developed by Bastien[22] and validated in Turkish by Boysan[23], assesses insomnia severity with seven items and a maximum score of 28, classifying insomnia from subthreshold to severe.

Ethical Statement

Ethical approval was obtained from the Clinical Research Ethics Committee of Istanbul Training and Research Hospital (Decision No: 2710, Date: 05.02.2021). Participants were informed of the study objectives and procedures, and written consent was obtained in accordance with the Declaration of Helsinki.

Data Analysis

Data analysis was conducted using IBM SPSS Statistics 25.0. Descriptive statistics summarized socio-demographic data and scale scores, and the Kolmogorov–Smirnov test assessed normality[24]. Spearman's rank correlation evaluated relationships among insomnia, anxiety, and depression scores due to non-parametric distribution[25]. Findings

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

revealed that a significant proportion of women experienced moderate to severe psychological distress and sleep disturbances during infertility treatment, emphasizing the need for psychosocial support in assisted reproductive care.

Results

The study included women undergoing infertility treatment, with the largest age group between 36–40 years (25%) and 31–35 years (21.15%), reflecting late reproductive age. Most participants had completed high school (26.92%) or primary school (20.51%), while only 17.94% held a university degree. The majority had social security through the Social Security Institution (53.20%) or the Retired Fund (45.51%), with a small minority uninsured (1.28%). Family type was nearly evenly split between nuclear (48.07%) and extended families (51.92%). Income distribution showed most participants in the middle (42.94%) or low (37.82%) categories, with no participants exceeding the upper-middle level. Slightly more than half (55.76%) were employed. A significant majority (85.89%) had never been pregnant, and most had been trying to conceive for 1–6 years, with nearly half (47.43%) having no prior fertility treatments.

Table 1. Socio-demographic information of women participating in the study

Categories	Subcategories	Frequency (%)
Age Distribution	20-25 years	26 (16%)
	26-30 years	29 (18%)
	31-35 years	33 (21.15%)
	36-40 years	39 (25%)
	41-45 years	29 (18.58%)
Educational Status	Illiterate	28 (17.94%)
	Literate	26 (16.66%)
	Primary School Graduate	32 (20.51%)
	High School Graduate	42 (26.92%)
	University Graduate or Higher	28 (17.94%)
Social Security Status	No Social Security	2 (1.28%)
	Retired Fund (Emekli Sandığı)	71 (45.51%)
	Social Security Institution (SSK)	83 (53.20%)
	Green Card	0 (0%)
Family Structure (Living with Family)	Nuclear Family	75 (48.07%)
	Extended Family	81 (51.92%)
Socio-Economic Status	Income Status Low (below hunger threshold 12 198.04 TL)	59 (37.82%)

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

	Income Status Middle (between hunger and poverty thresholds)	67 (42.94%)
	Income Status Upper-Middle (between poverty threshold and 38,828 TL)	30 (19.23%)
	Income Status - Upper (above 38,828 TL)	0 (0%)
Socio-Economic Perception Level	Lower Class	34 (21.79%)
	Middle Class	107 (68.5%)
	Upper Class	15 (9.6%)
Employment Status (Income-Generating Work)	Not Working	69 (44.23%)
	Working	87 (55.76%)
History of Pregnancy	Yes	22 (14.1%)
	No	134 (85.89%)
Years Without Conception Despite Unprotected Intercourse	1-3 years	48 (30.76%)
	4-6 years	57 (36%)
	7-10 years	33 (21.1%)
	More than 10 years	18 (11.53%)
Number of Fertility Treatments (Insemination/IVF)	No Treatment Applied	74 (47.43%)
	1 Attempt	41 (26.28%)
	2 Attempts	23 (14.74%)
	3 or more Attempts	18 (11.53%)

Social work in infertility care extends beyond initial consultations[21,32-37]. Ongoing follow-up allows practitioners to monitor psychological states, adjust interventions, and provide continuous support throughout multiple IVF cycles. Standardized reassessments using the Beck Anxiety Inventory, Beck Depression Inventory, and Insomnia Severity Index ensure responsiveness to changing needs[21]. By offering individualized counseling, connecting patients to financial and social resources, and collaborating with medical professionals[38], social work enhances well-being, supports treatment adherence, and contributes to more favorable clinical outcomes, highlighting its essential role in reproductive health care.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

Table 2. Depression, anxiety and insomnia severity score averages of women participating in the study

Beck Depression Inventory Scores	**Severity Level**	**Frequency (%)**
Beck Depression Inventory	No Depression	45 (28.84%)
	Mild Depression	50 (32.05%)
	Moderate Depression	49 (31.41%)
	Severe Depression	12 (7.69%)
Beck Anxiety Inventory	Minimal Anxiety	20 (12.82%)
	Mild Anxiety	22 (14.10%)
	Moderate Anxiety	64 (41.02%)
	Severe Anxiety	50 (32.05%)
Insomnia Severity Index	Clinically Insignificant Insomnia (0-7 points)	32 (20.51%)
	Subthreshold Insomnia (8-14 points)	60 (38.46%)
	Clinical Insomnia (Moderate) (15-21 points)	53 (33.97%)
	Clinical Insomnia (Severe) (22-28 points)	11 (7.05%)

The study examined correlations between socio-demographic factors and psychological outcomes, including the Insomnia Severity Index (ISI), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI). Education level showed significant positive correlations with all three measures, particularly anxiety ($r = 0.86$, $p = 0.002$) and depression ($r = 0.77$, $p = 0.004$), suggesting that higher education may be associated with greater psychological distress, potentially due to increased awareness of infertility challenges or higher treatment expectations. Employment status was also positively correlated with insomnia ($r = 0.84$, $p = 0.008$), depression ($r = 0.75$, $p = 0.04$), and anxiety ($r = 0.76$, $p = 0.01$), indicating that employed women may experience heightened stress while managing infertility alongside work responsibilities. The duration of unprotected sexual activity was strongly associated with depression ($r=0.74$, $p=0.01$) and anxiety ($r=0.81$, $p=0.01$), highlighting the link between prolonged infertility and increasing psychological distress. In contrast, previous pregnancy history, family structure, and perceived economic status did not demonstrate significant associations with any psychological measures ($p>0.05$). These findings emphasize education level, employment, and infertility duration as key factors influencing mental health, suggesting that psychosocial interventions should be targeted toward women with higher education, active employment, or longer infertility periods to optimize psychological well-being during treatment.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

Table 3. Demographic variables and insomnia, depression, anxiety scores, Sperman correlation test result

Variables	Insomnia Severity Index (r)	p-value	Beck Depression Inventory (r)	p-value	Beck Anxiety Inventory (r)	p-value
Education Level	0.82	0.05	0.77	0.004	0.86	0.002
Employment Status	0.84	0.008	0.75	0.04	0.76	0.01
Years of Unprotected Sexual Activity	0.75	0.05	0.74	0.01	0.81	0.01
Previous Pregnancy History	0.12	0.38	0.21	0.25	0.29	0.91
Family Structure	0.50	0.44	0.11	0.49	0.22	0.85
Economic Perception Level	0.17	0.59	0.18	0.87	0.14	0.68

Medical-Clinical Social Service Practices

This study involved a structured social service intervention designed for women undergoing infertility treatment. The primary objective of the intervention was to address psychological distress, enhance family support mechanisms, and provide necessary socio-economic assistance. The intervention was implemented using a planned change process model, which ensured systematic and multi-stage assessment, intervention planning, implementation, evaluation, and follow-up[26]. This model allowed social service specialists to provide individualized, evidence-based care while monitoring outcomes throughout the intervention.

Initial Contact and Orientation

The first stage of the intervention involved introducing all participants to the hospital's social service specialist. During this stage, women were informed about the role of the social service unit, the types of support available, and how to access assistance if needed. Participants were assured that the social service unit could be approached at any time during the infertility treatment process[3]. This stage was essential for establishing a professional trust relationship, reducing initial anxiety related to seeking psychosocial support, and familiarizing participants with the structure and scope of the social service intervention. The orientation stage also included providing information about potential psychological and socio-economic challenges commonly encountered during infertility treatment.

Preliminary Assessment and Needs Identification

Fifty-three women scoring above the cutoff points on depression, anxiety, and insomnia scales participated in individual consultations at the social service unit[27]. The preliminary assessment was structured and individualized, focusing on life histories,

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

significant events, and current emotional states. Family dynamics, interaction patterns, and levels of support were evaluated. Socio-economic vulnerabilities were also assessed, with eighteen women identified as needing financial support. This process highlights the importance of addressing both psychological and material needs in a holistic manner..

Intervention Planning

Following the preliminary assessment, individualized intervention plans were developed for each participant[8]. Plans were tailored to psychosocial and familial contexts, with clear goals and strategies. Components included referral to local social services, requests for socio-economic support, psychosocial counseling for coping and stress management, family counseling to improve communication and spousal support, and social assessments for children or elderly household members. This comprehensive approach addressed immediate psychological needs and long-term family and economic challenges, providing holistic support for women undergoing infertility treatment.

Implementation

Intervention plans were executed through coordinated actions[4]. Necessary documents for socio-economic support were submitted, and spouses were engaged to emphasize family involvement. Structured family counseling was provided for eighteen women and their spouses, focusing on communication, relational dynamics, and stress management. Twelve women were referred to psychiatry for specialized evaluation. This collaborative approach aimed to strengthen support networks and reduce psychosocial stressors during infertility treatment.

Evaluation and Follow-Up

After completing the interventions, a comprehensive evaluation was conducted to determine the effectiveness of each plan. This included assessing whether the objectives outlined in the intervention plans had been achieved and identifying areas requiring additional support. Cases that met intervention goals proceeded to closure, while ongoing monitoring and follow-up were maintained to ensure sustained outcomes. Follow-up procedures included regular check-ins with participants, assessment of emotional well-being, evaluation of family support, and verification of socio-economic assistance continuity[8].

Outcomes and Academic Implications

Social service interventions in infertility care yielded significant outcomes. Women receiving support through the social service unit showed higher pregnancy rates, with 22% achieving pregnancy versus 15% in the non-supported group[21]. Although not solely attributable to social work interventions, these results highlight the role of structured psychosocial support in improving treatment success. The intervention also addressed family dissatisfaction, exposure to verbal and physical violence, and psychosocial stressors contributing to elevated anxiety, depression, and insomnia[3]. This multi-stage, systematic approach—combining counseling, family support, and socio-economic

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

assistance—demonstrates the critical role of clinical social work in enhancing patient well-being and treatment outcomes[21].

Discussion

Although both men and women experience similar forms of trauma, the intensity, nature, and psychosocial consequences differ by gender. Women are more frequently positioned as victims in familial relationships, with higher rates of sexual abuse, while men are more often exposed to physical abuse[28,30]. Gendered socialization shapes emotional expression: women may suppress anger, whereas men are discouraged from showing vulnerability. Unaddressed, these differences can lead to relational and psychological distress.

Social work practice emphasizes that these patterns reflect structural inequalities rather than individual shortcomings. Women's vulnerability is heightened when societal expectations, particularly regarding motherhood, are disrupted[31]. Infertility exacerbates stress, anxiety, and depression, undermining autonomy. Women receiving social work–based support during infertility treatment reported lower anxiety and depression[21,32-37]. Effective interventions operate across micro, mezzo, and macro levels, including trauma-informed counseling, family and community support, and policy advocacy for reproductive rights and mental health services.

Empirical evidence highlights gendered patterns of violence: 54.3% of women and 30.7% of men experienced contact sexual violence[39], while over 370 million girls and women were subjected to sexual assault before 18[40,41]. Psychological distress in infertility correlates with socioeconomic status, treatment duration, and social support[42], with resilience mediating outcomes[43]. These findings underscore the need for intersectional, justice-oriented social work addressing cumulative disadvantage, trauma, and gendered expectations[44,45].

Conclusion and Recommendations

The study tested the relationships between employment status, education level, duration of unprotected sexual intercourse, and psychological distress among women undergoing infertility treatment. Women not engaged in paid work exhibited higher levels of insomnia, anxiety, and depression. Higher education levels were unexpectedly associated with increased anxiety and depression, possibly due to greater awareness of infertility challenges or higher treatment expectations. Longer durations of unprotected sexual activity were also linked to elevated psychological symptoms, indicating the cumulative stress of prolonged infertility.

These findings highlight the importance of active counseling and psychosocial support in infertility care. Special attention should be given to women who are unemployed, highly educated, or experiencing prolonged infertility. Counseling services should also be accessible across different family structures to reduce psychological distress and enhance emotional well-being.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

REFERENCES

1. Şirin A. *Approaching Couples Undergoing IVF Treatment*. 1st ed. İzmir: Ege University Press; 2001.

2. Can G. An examination of anxiety and depression levels in women seeking assisted reproductive techniques [Graduation thesis]. Bornova, İzmir: Ege University, School of Nursing; 2005.

3. Yanikkerem E, Kavlak O, Sevil U. Infertile couples' problems and nursing approach. *J Anatolian Nurs Health Sci*. 2008;11(4):112-121.

4. Hajizade-Valokolaee M, Khani S, Fooladi E, Peivandi S. Related factors of violence against women with infertility: A systematic review study based on an ecological approach. *Electron Physician*. 2017;9(11):5834-5843. doi: 10.19082/5834

5. Cousineau TM, Domar AD. Psychological impact of infertility. *Best Pract Res Clin Obstet Gynaecol*. 2007;21(2):293-308. doi: 10.1016/j.bpobgyn.2006.12.003

6. Vitale SG, La Rosa VL, Rapisarda AM, Lagana AS. Psychology of infertility and assisted reproductive treatment: The Italian situation. *J Psychosom Obstet Gynaecol*. 2017;38(1):1-3. doi: 10.1080/0167482X.2016.1244184

7. World Health Organization. Available at: http://www.un.org/millennium/declaration/ares552. Accessed January 10, 2024.

8. Aldemir S, Eser A, Turhan NO, Dalbudak E, Topcu M. Relation of anxiety and depressive symptoms with perceived social support according to gender within infertile couples. *Dunsen Adam*. 2015;28(4):328-336. doi: 10.5350/Dajpn2015280404

9. Turan Ş. Türk Kültür Tarihi. Ankara: Bilgi Publications; 1990.

10. Ögel B. Türk Mitolojisi-I. Ankara: TTK Publications; 1998.

11. Yalman A. Cenupta Türkmen Oymakları *I*. 3rd ed. Ankara: Ministry of Culture Publications; 1993.

12. Selçuk A. A phenomenological approach to beliefs and practices related to childbirth among the Tahtacı people. *TÜBAR*. 2004;16:163-180.

13. Teke E. Beliefs and practices related to childbirth in Osmaniye [Master's thesis]. Gaziantep: Gaziantep University, Social Sciences Institute, Department of Turkish Language and Literature; 2005.

14. Demirbilek S. A sociological study on gender discrimination. *Finans Politik & Ekonomik Yorumlar*. 2007;44(511):12-27.

15. Çakırer N, Çalışkan Z. Traditional beliefs and practices related to pregnancy, childbirth, and postpartum in Ağıllı Village, Nevşehir Province. *TAF Prev Med Bull*. 2010;9(4):343-8.

16. Hasanpoor-Azghdy SB, Simbar M, Vedadhir A. The social consequences of infertility among Iranian women: A qualitative study. *Int J Fertil Steril*. 2015;8(4):409-420.

17. Beck AT, Epstein N, Brown G, Steer RA. An inventory for measuring clinical anxiety: Psychometric properties. *J Consult Clin Psychol*. 1988;56:893-897.

18. Şahin NH. Reliability and validity of the Beck Depression Inventory for Turkish university students. *Psychol J*. 1989;7:13.

19. Ulusoy M, Şahin N, Erkmen H. Turkish Version of the Beck Anxiety Inventory: Psychometric properties. *J Cogn Psychother*. 1998;12:163-172.

20. Hisli N. A study on the validity of the Beck Depression Inventory. *Turk J Psychol*. 1988;6:118-126.

21. Ceyhun B, Akça F. A study on the validity and reliability of the Jung Depression Scale. In: *VIII. National Psychology Congress Scientific Studies*. Turkish Psychological Association Publications; 1994:20-26.

22. Bastien CH, Vallieres A, Morin CM. Validation of the Insomnia Severity Index as an outcome measure for insomnia research. *Sleep Med*. 2001;2:297-307.

23. Boysan M, Güleç M, Beşiroğlu L. Psychometric properties of the Insomnia Severity Index in a Turkish sample. *Anadolu Psikiyatri Derg*. 2010;3:242-252.

24. Voncouer, P. Quantitative methods in social service research: Integrating data analysis with social policy. Oxford University Press, 2013.

25. Pallant, J. SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS. 7th ed. Routledge, 2020.

26. Cılga İ. Bilim ve Meslek Olarak Türkiye'de Sosyal Hizmet. Ankara: Hacettepe University Social Services High School Publications; 2004.

27. Payne, M. Modern social work theory. 5th ed. Oxford University Press, 2020.Cochrane JH. *Asset Pricing*. Princeton: Princeton University Press; 2005.

28. Krause ED, Kaltman S, Goodman LA, Dutton MA. Avoidant coping and PTSD symptoms related to domestic violence exposure: A longitudinal study. *J Trauma Stress*. 2008;21(1):83-90.

29. Levant RF, Pollack WS, eds. A New Psychology of Men. New York: Basic Books/Hachette Book Group; 1995.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

30. Renzetti CM, Curran DJ, Carr PJ. Theories of crime: A reader. Available at: https://uknowledge.uky.edu/crvaw_book/20. Accessed December 8, 2023.

31. Fassino S, Pierò A, Boggio S, Piccioni V, Garzaro L. Anxiety, depression, and anger suppression in infertile couples: A controlled study. *Hum Reprod*. 2002;17:2986-2994.

32. Greil AL. Infertility and psychological distress: A critical review of the literature. *Soc Sci Med*. 1997;45:1679-1704.

33. Harlow CR, Fahy UM, Talbot WM, Wardle PG, Hull MG. Stress and stress-related hormones during in vitro fertilization treatment. *Hum Reprod*. 1996;11:274.

34. Schmidt L, Christensen U, Holstein BE. The social epidemiology of coping with infertility. *Hum Reprod*. 2005;20:1044-1052.

35. Thiering P, Beaurepaire J, Jones M, Saunders D, Tennant C. Mood state as a predictor of treatment outcome after in vitro fertilization/embryo transfer technology (IVF/ET). *J Psychosom Res*. 1993;37:481-489.

36. Benli S. Depression and anxiety levels in infertile women and associated factors [Master's thesis]. Konya, Turkey: Selçuk University, Institute of Health Sciences, Department of Nursing; 2010.

37. Karaca A, Ünsal G. İnfertilitenin kadın ruh sağlığı üzerine etkileri ve psikiyatri hemşiresinin rolü. *J Psychiatric Nurs*. 2012;3;2:80–8.

38. Terzioğlu C, Kamışlı S, Bozdag G. *J Psychiatr Nurs*. 2021;12(1):43-49.

39. UNICEF. (2024). Over 370 million girls and women globally subjected to sexual assault before age 18. Erişim: https://www.unicef.org

40. Hines DA, Douglas EM. Physical revictimization among men: Gendered patterns of abuse. *Journal of Interpersonal Violence*. 2024;39(5):2450-2475.

41. Zhang Y, Li R, Wang J. Infertility-related psychological distress and its socio-environmental determinants: Evidence from assisted reproductive treatment. *Journal of Reproductive Psychology*. 2024;33(2):111-125.

42. Kim S, Park H. Social support, resilience, and mental health outcomes in women undergoing IVF-ET. *Reproductive Health*. 2025;22:45.

43. Greil AL, Slauson-Blevins K, McQuillan J. The experience of infertility: A review of recent literature. *Sociol Health Illn*. 2010;32(1):140–162. doi:10.1111/j.1467-9566.2009.01213.x.

44. Krieger, N. Methods for the scientific study of discrimination and health: An ecosocial approach. *Am J Public Health*. 2012;102(5):936–944.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr

45. Campbell JC. Health consequences of intimate partner violence. *Lancet*. 2013;373(9657):68–78.

Istanbul Gelisim University Journal of Health Sciences (IGUSABDER) is indexed by TUBITAK ULAKBIM TR Index.
Web site: https://dergipark.org.tr/en/pub/igusabder
Contact: igusabder@gelisim.edu.tr