

Silent Scars: The Psychological toll of infertility on women of reproductive age

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ABSTRACT

Background: Infertility is a life-changing condition that goes beyond physical incapacity to conceive and usually leaves a tremendous emotional burden on women. In cultures where motherhood is directly associated with social identity and marital stability, infertile women can be subjected to chronic psychological trauma, social stigma and isolation. Irrespective of this, the psychological aspects of infertility are under-researched in standard clinical practice.

Objective: To assess the frequency of psychological distress and to identify associated social and clinical factors among infertile women of reproductive age.

Methodology: The study was a descriptive cross-sectional study that was conducted between January 2023 and January 2024 in District Women Hospital MTI Dera Ismail Khan and Liaquat Memorial Hospital Kohat. The sample was recruited using consecutive sampling of 81 women aged 18-45 years with clinical diagnosis of infertility. The psychological condition was assessed through proven screening instruments of depression, anxiety, perceived stress, sleep disturbance, and self-esteem. Data analysis was through descriptive and inferential statistics.

Results: Depressive symptoms of moderate to severe severity were noted in 50.6, anxiety in 56.8, and high perceived stress in 60.5 of the participants. Fifty-four point three percent of the women had reported sleep disturbance, and 46.9 percent exhibited low self-esteem. Women who had not conceived in more than five years as well as those who had social stigma and domestic conflict and poor social support had a greater psychological morbidity.

Conclusion: Infertility is associated with a substantial psychological burden that intensifies with prolonged disease duration and unfavorable social environments. Routine mental health screening should be incorporated into infertility care services....

Keywords: Infertility, psychological distress, depression, anxiety, women's health, social stigma..

1. INTRODUCTION

Infertility is considered a significant reproductive health issue that afflicts millions of couples across the globe. Even though improvements in diagnostic and treatment options have increased the likelihood of conception, there is always the question of the emotional aspect of infertility. The inability to conceive can go hand in hand with disappointment, uncertainty and fear, which can prolong in years among many women [1-3].

The emotional impacts of infertility can especially be enforced in South Asian societies whose culture values maternity. Women are subject to blame, withdrawal or strain in a marriage even in cases where there may be medical assessment that the underlying cause is male or combinations of both. These social stigmas can lead to some lifetime psychological pain and low quality of life [4-6].

Research studies conducted in the past have always reported a higher occurrence of anxiety and depressive symptoms among infertile women than fertile women. Nevertheless, there are limited studies in the literature that examine the relationship between clinical time, social pressures, and mental health among the local population, especially in resource-intensive environments [7-9].

The psychological aspects of infertility must be learnt in order to be able to develop a holistic approach to care that would encompass physical and emotional aspects. This research was thus conducted to evaluate the psychological effect of infertility in women of reproductive age and to investigate related social and clinical aspects in a local hospital-based population.

METHODOLOGY

This study was conducted as a descriptive analytical cross-sectional research to explore the psychological impacts of infertility among the reproductively-aged women. It was conducted in a period of twelve months between January 2023 and January 2024 in two hospitals District Women Hospital MTI Dera Ismail Khan and Liaquat Memorial Hospital Kohat. These hospitals are large referral hospitals to the local urban and rural areas, and hence they are appropriate in the selection of a varied sample to study.

Females aged between 18 and 45 years presenting at the gynecology outpatient departments with a clinical diagnosis of infertility were eligible to be included. Infertility was determined as the failure to conceive after a period of at least twelve months of regular marital intercourse without protection. The cases of both primary and secondary infertility were used. Women who had previously been diagnosed with psychiatric disease, were taking psychotropic drugs at the time or were known to have chronic medical conditions that may have affected psychological health were not included to reduce the effect of confounding factors.

The sample size of 81 was recruited through non-probability consecutive sampling method. All the participants signed informed written consent after being told the objective of the study. The information collected was restricted to the research team and confidentiality was promoted by giving coded identifiers. A structured proforma was used to capture demographic data which consisted of age, education, occupation, residence, family structure, marital duration and choice of clinical characteristics based on infertility.

The psychological status was measured with the help of standardized and validated measures. Depressive symptoms were measured by asking the Patient Health Questionnaire-9, anxiety was measured using the Generalized Anxiety Disorder-7 scale, and perceived stress levels were measured using the Perceived Stress Scale. The Insomnia severity index was used to screen the sleep quality and the Rosenberg self esteem scale was used to measure self esteem. Each of the instruments was given in a language that the participants understood and support was also given where necessary to ensure that they understood and gave the correct responses.

The analysis and data input was done with the Statistical Package of Social Sciences (SPSS) version 26. Demographic, clinical and psychological variables were summarized using descriptive statistics. Categorical data were entered into frequencies and percentages whereas continuous variables were entered into means and standard deviations. The chi-square test was used to investigate associations between psychological morbidity and the chosen infertility related and social variables. A p-value of lower than 0.05 was acknowledged as statistically significant.

Results

The sample consisted of 81 women of reproductive age who have come with issues of infertility, which is a wide demographic and social spectrum. The highest percentage of the respondents fell in their early thirties and most of them were living in urban environments and were under joint family set ups. The general education was moderate to high and, a significant portion of women were not formally employed, which was based on the existing sociocultural trends.

Table 1: Demographic Characteristics of Participants (n = 81)

Variable	Frequency (n)	Percentage (%)
Age group (years)		
18–24	10	12.3
25–29	21	25.9
30–34	24	29.6
35–39	18	22.2
≥40	8	9.9
Residence		
Urban	48	59.3
Rural	33	40.7
Education level		
No formal education	17	21.0
Secondary	29	35.8
Graduate or above	35	43.2
Employment status		
Housewife	57	70.4
Employed	24	29.6
Family system		
Nuclear	34	42.0
Joint	47	58.0

Primary infertility prevailed over secondary infertility, and significant percentage of women had a history of infertility over five years. Several etiological patterns were noted such as female, male, combined and unexplained etiological patterns, and the multifactoriality of infertility was noted. Almost half of the interviewees had experienced several unsuccessful treatment courses which revealed their long term emotional and financial burden.

Table 2: Clinical Profile of Infertility

Variable	n (%)
Primary infertility	52 (64.2)
Secondary infertility	29 (35.8)
Duration >5 years	31 (38.3)
Female factor identified	27 (33.3)
Male factor identified	18 (22.2)
Combined factors	16 (19.8)
Unexplained infertility	20 (24.7)
History of miscarriage	23 (28.4)
≥2 failed treatment cycles	34 (42.0)

Over fifty percent of the women were showing some clinically meaningful levels of anxiety and perceived stress, and one-

half were doing well in moderate to severe depressive levels. Sleep disturbance and lowered self esteem was also commonly reported indicating a broad upset of emotional well-being. Though uncommon, a worrying proportion of participants were experiencing suicidal ideology.

Table 3: Psychological Morbidity Among Infertile Women

Variable	Present n (%)
Moderate–severe depression	41 (50.6)
Moderate–severe anxiety	46 (56.8)
High perceived stress	49 (60.5)
Low self-esteem	38 (46.9)
Sleep disturbance	44 (54.3)
Suicidal ideation	11 (13.6)

Women having an increased length of infertility were significantly characterized by the rates of the depression, anxiety, stress and sleep disturbance. These variations were not statistically insignificant and it shows that there is a definite correlation between a long time of infertility and an increasing psychological state. The results are focused on the cumulative emotional load of time.

Table 4: Association Between Duration of Infertility and Psychological Morbidity

Psychological Outcome	<5 years n (%)	≥5 years n (%)	p-value
Depression	15 (29.4)	26 (83.9)	<0.001
Anxiety	19 (37.3)	27 (87.1)	<0.001
High stress	22 (43.1)	27 (87.1)	0.002
Sleep disturbance	18 (35.3)	26 (83.9)	<0.001

The negative social environments were closely associated with psychological morbidity. Women who reported greater social stigmatization, domestic conflict, or those who reported low social support had a high likelihood of experiencing depressive symptoms. These correlations emphasize the importance of a social context in determining mental health outcomes of infertile women.

Table 5: Social Stressors and Depression

Social Factor	Depression Present n (%)	p-value
High social stigma (n=44)	33 (75.0)	<0.001
Domestic conflict (n=29)	23 (79.3)	0.001
Poor social support (n=26)	21 (80.8)	<0.001

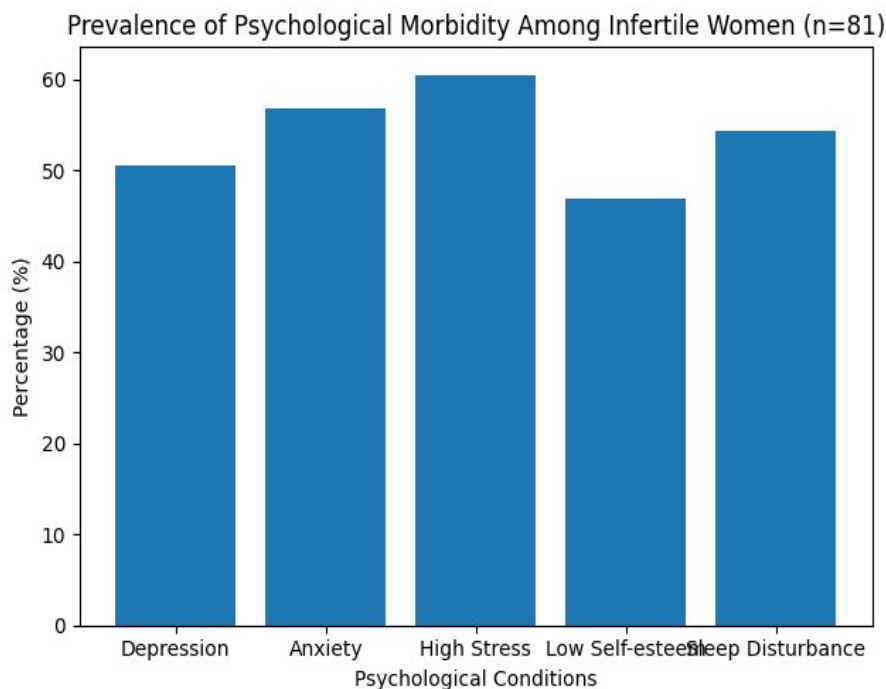


Figure 1: Prevalence of psychological morbidity among infertile women of reproductive age (n = 81).

DISCUSSION

The research presents the significant psychological pressure that women under the infertility experience undergo in our community. Over fifty percent of the respondents had clinically significant anxiety, stress, and sleep disturbances symptoms, and almost half of the respondents had moderate to severe symptoms of depressive symptoms. Such results support the fact that infertility is not only a biological disorder but is a long-term emotional process, which has a strong impact on mental health. These prevalence trends have also been found in other regional and international studies, which have indicated that anxiety and depressive symptoms among infertile women are always higher in comparison to their fertile counterparts, which implies the existence of angering emotional impacts of infertility which are not only extensive but also chronic. [10-12].

The most significant findings in the current research were the strong correlation between longer infertility times and deteriorating mental conditions. Women with more than five years of struggle to conceive had significantly higher depression and anxiety and sleep disturbance levels than those with a shorter infertility period. This tendency is consistent with previous research that proved that emotional resilience is slowly torn by unsuccessful treatment attempts and a sense of uncertainty. The general feeling of loss, the fear of having no children forever and the social doubt could lead to the continuing emotional depletion and the sense of hopelessness over time [13-15].

Social setting also proved to be a major determinant of psychological health. Women with elevated perceived stigma, domestic conflict, and social support inadequacy had a considerable probability of depressive symptoms. The social value of motherhood in most South Asian societies is strongly related to the ability to have children and infertility could result in either implicit or explicit blame, isolation, and family tension. These social forces may further exacerbate emotional distress over and above the effects of infertility as a phenomenon which highlights the importance of taking into consideration family and community factors when considering the mental health requirements of infertile women [16-18].

The observations also underline the significance of psychological screening as a part of standard infertility treatment. Although emotional distress is found very frequently, it is frequently under-identified in gynecology clinics [19, 20]. Anxiety, depression, and stress can be identified early and can be counseled and supported in time, which may enhance the emotional state and adherence to treatment. Treating the psychosocial aspects of infertility can consequently improve the overall patient care and quality of life.

CONCLUSION

Infertility exerts a substantial psychological toll on women of reproductive age, with high levels of depression, anxiety, stress, and sleep disturbance observed in this study. Prolonged infertility and adverse social environments significantly worsen emotional outcomes. Incorporating mental health assessment and counseling into routine infertility services is essential to provide holistic, patient-centered care and to reduce the silent emotional burden carried by affected women.

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