



## RESEARCH PAPER

# Infertility Stress as a Predictor of Marital Satisfaction in Married Couples with Infertility in Pakistan

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## ABSTRACT

The objective of the current research was to determine the predictive association between infertility stress and marital satisfaction in married couples with infertility in Pakistan. The correlational study was conducted to find if there would be a significant predictive association between infertility-related stress and marital satisfaction in married couples having infertility. The study was conducted in Karachi, Pakistan from September 2023 to December 2023. 40 married couples with age ranged between 20-40 years ( $X=32.3$ ;  $SD=3.12$ ), were selected from the Gynecology and Obstetrics departments of different hospitals and infertility clinics in Karachi, Pakistan by using purposive sampling technique. Brief interviews of the participants were carried out, and Urdu versions of Infertility-Related Stress Scale and Enriched Marital Satisfaction Scale were administered. Descriptive statistics was used for demographic characteristics of the sample, while Regression analysis was used to analyze the link between study variables. Results indicates the statistically significant predictive association between IRS and marital satisfactions in married couples with infertility ( $R^2=.26$ ,  $\beta=-.52$ ,  $P< 0.000$ ). The findings highlights that there exists a notable relationship between IRS and marital satisfaction, which significantly impacts individuals coping with fertility-related difficulties. These findings would help to establish specialized infertility counseling services and to enhance empathetic and impactful care, devise personalized interventions so, couples can better manage infertility-related stress, which in turn may improve marital satisfaction and overall relationship well-being.

**KEYWORDS** Infertility-Related Stress, Marital Satisfaction, Married Couples, Pakistan

## Introduction

Infertility is a medical ailment defined by a person's incapability to conceive a child after 12 months of regular, unguarded sexual contact (Fallahzadeh et al., 2019). This condition is classified as primary or secondary in nature in which the former one has been defined as the inability to achieve a first pregnancy after a year, while the later one means the failure to conceive another child after a successful first pregnancy (Benksim et al., 2018; Naz & Batool, 2017). Globally, infertility impacts around 186 million individuals and 48 million couples (WHO, 2020). In Pakistan, approximately 21.9% of the population experiences infertility, with 3.5% attributed to primary infertility and 18.5% to secondary infertility (Irfan et al., 2015). Many couples struggling with infertility face both physical and emotional challenges; with research indicating that the psychological distress often associated with infertility is more likely a consequence rather than a reason of the condition (American Society for Reproductive Medicine, 2012). Infertility has also been linked to

marital issues and conflicts, carrying significant mental and social implications for those affected.

According to the American Psychological Association, stress is a physiological and psychological response to external or internal demands, encompassing emotional, cognitive, behavioral, and physical symptoms, is supported by research and professional associations. On the other hand, infertility-stress, denotes to the inimitable mental strain and emotional difficulties experienced by a person or couples facing problems conceiving a child. This kind of stress rises from the heightened emotions of childlessness, the social expectations regarding parenthood, and the challenging nature of the treatments of fertility (Boivin et al., 2011). Research proposes that people who are better able to deal with general stressors in life may experience lesser stress level related to stress; however, other aspects also significantly contribute in the rising strength of IRS (Sax et al., 2022). Coping mechanisms such as emotional regulation, social support, and problem-solving play buffering role to the mental effect of IRS. People with healthier coping skills are found more resilient when facing emotional challenges during fertility related treatments and the failures (Boivin, et al., 2011). For instance, individual having effective coping strategies have found to be less effected as well as less likely to go through extended anxiety or depression, as well as when dealing with the frustration related to fertility issue (Cousineau & Domar, 2007).

Family has been described as a unit formed through matrimonial (Ahmadi, 2005) but highlights that compatibility and fulfilment are even more important than the marriage itself. Satisfaction and contentment are used to judge the level of pleasure as well as stability in a relationship (Wiegel et al., 1999). Marital satisfaction becomes particularly significant when challenging factor starts influencing the relationship quality of couples such as infertility (Yaghmayee et al., 2009). Jahanfar and Jamshidi (2000) found that increased stress due to childlessness can lead to disharmony and dissatisfaction among married women. Infertility has been found one of the factors negatively affect marital relationships (Hussein, 2014).

Research reflects that the quality of marital relationships has been found as a key determinant of happiness and well-being, while poor quality is associated with various familial and societal issues (Bradbury et al., 2000). Among couples, infertility can negatively impact erotic functioning (Nelson et al., 2008; Wischmann, 2010) and inadequate relationships between spouses (Monga et al., 2004), often leads to feelings of seclusion due to the perceived stigma of childlessness (Slade et al., 2007). Numerous studies have also found that infertile couples often lead to break-up of matrimonial relationships (Cousineau & Domar, 2007; Smith et al., 2009). Similarly, studies (Jahanfar & Jamshidi, 2000; Ulbrich et al., 1990)) revealed that increased stress of infertility could disrupt marital relations and decrease marital satisfaction (MS) particularly for women.

Numerous studies have explored the impact of infertility stress (IRS) on an individual's psychological well-being; however, fewer studies have investigated its effects on the marital relationship between the couple involved. There is a recognized need to shift focus toward groups like couples and families (Burns & Covington, 2006). Therefore, this study aimed to study the predictive association between IRS and MS among couples facing infertility.

### **Literature Review**

The World Health Organization explains infertility as the inability to conceive after 12 months of trying. Primary infertility, which involves the incapacity to conceive, affects

2 to 5% of couples. In contrast, secondary infertility, referring to the inability to conceive after having a previous child, has a global pervasiveness of 20% (Fathalla, 1992). This form of infertility is often linked to the embracing of the norms of having smaller family, though its effect frequently remains overlooked by the broader populace. As a result, infertile couples represent a largely ignored and silent group worldwide. The prevalence of infertility varies greatly, with less reliable data available (Schmid & Munster, 1995).

### **Infertility-related Stress**

WHO described childlessness as a reproductive health issue characterized by inability to attain pregnancy through regular sexual contact (WHO, 2022). Studies reveals that 60-80 million couples globally suffering from this problem (Bhamani et al., 2020; Tabong & Adongo, 2013) with 1 to 8% primary while 35% secondary infertility (Saif et al., 2021). Correspondingly, 22% prevalence have been found in Pakistani individuals with 4% have been reported as primary infertility (Ahmed et al., 2020). Various factors contribute to the etiology of infertility including factors from male side, from female side, mixed factors, and functional infertility. As proliferation is considered as an important milestone in the life of wedded individuals worldwide and incapacity to achieve the goal is escorted by physical as well as emotional impacts (Gana & Jakubowska, 2016). Thereby, infertility-related stress has been found as an outcome rather a cause of infertility.

The inability to achieve parenthood often represents a critical life event for individuals or couples, leading to significant emotional distress. This life crisis can arise when personal and social aspirations centered on parenthood go unmet. Infertility, which has social, psychological, and cultural implications, can lead to challenges such as feelings of inadequacy, guilt, and social isolation (Berg & Maly, 2017). These factors often exacerbate the emotional burden, particularly when societal and familial expectations place pressure on individuals to conform to traditional life scripts that prioritize parenthood as a marker of success (Schmid & Munster, 1995).

### **Marital Satisfaction**

Marital satisfaction is often defined by the degree of contentment one feels within their relationship (Marcaurette et al., 2003). It is influenced by several factors, including emotional connection, communication, conflict resolution, shared values, and external stressors (Hyun & Shin, 2010). Research indicates that an emotionally supportive environment, where partners can effectively navigate conflicts and foster understanding, plays a crucial role in sustaining marital happiness (Hyun & Shin, 2010). The quality of communication and conflict resolution strategies, such as those suggested by Gottman's Sound Relationship House Theory, are significant contributors to long-term satisfaction. Moreover, societal expectations and external pressures can either positively or negatively affect marital satisfaction, as couples often struggle to balance personal desires with societal norms surrounding marriage and parenthood.

### **Infertility-related Stress and Marital Satisfaction**

Couples with childlessness face numerous individuals as well as social consequences. Among them, family's expectancy to extend the family name knowingly negatively impacts the matrimonial union that reflects in the form of marital discontentment among the individuals having fertility issues. Infertility as a common experience of a couple may support the marital unification; however, it can also bring distrust, discontentment, and reduced interaction between the spouses (Cserepes et al., 2013). It is thought that the trouble associated with childbearing precipitate distress and

disturbs marital fulfillment (Gana & Jakubowska, 2016). Studies found an inverse relationship between infertility-related distress and marital satisfaction among individuals experiencing infertility (Bahrainian et al., 2009).

The current study envisioned to explore the predictive association in IRS and MS in married couples with infertility. This research would help health providers to adapt to more empathetic care, devise specialized interventions and counselling services, so they can better cope with their stress due to infertility and other challenges in life which further lead to satisfaction in their relationships and improve their overall well-being.

H<sub>0</sub>1 There won't be a significant predictive relationship between infertility related stress and marital satisfaction in married couples with infertility.

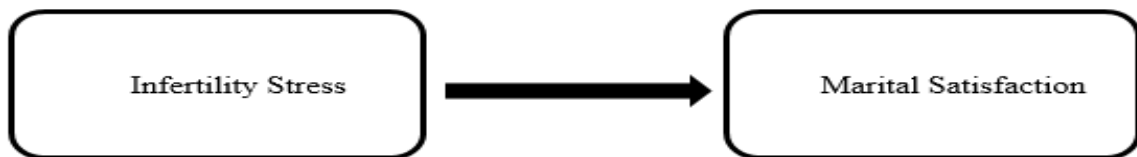


Figure 1: Conceptual Framework of the Study

## Material and Methods

The nature of the study was quantitative, and correlational research method was used.

## Participants

The study was carried out with 40 married couples (40 wives and 40 husbands) who had been married for a minimum of one year, with the ages ranged between 20-40 years (SD= 3.12). The participants were recruited through purposive sampling technique from the infertility clinics, and the department of Obstetrics & Gynecology of several public and private hospitals situated in Karachi. In this study only Pakistani nationals were selected who were diagnosed with primary infertility and have not yet commenced IVF treatment. Additionally, participants possess at least a 10th-grade education, and be living together as a couple, and gave consent to participate voluntarily.

## Research Tools

*The Infertility-related Stress Scale* (IRSS; Casu & Gremegni, 2016) is a self-report questionnaire. It consists of 12-items envisioned to assess the amount of stress due to infertility problem. IRSS has 7-point Likert scale (1= 'not at all' to 7= 'a great deal'), in which higher score indicate high levels of stress.

*Enriched Marital Satisfaction Scale* (EMS; Fowers & Olson, 1993) is a self-report measure. It consists of 15-items, comprising the Idealistic Distortion and Marital Satisfaction scale. EMS has a 5-point Likert scale (1= 'strongly disagree' to 5= 'strongly agree'), and the total score calculated by using the given formula (EMS score = PCT - [(40 x PCT) (ID x .01)]).

## Data Collection

A quantitative method was used for this study, and data was collected by using self-reported measures. Research questionnaires (IRS & MS) were administered

individually in the waiting areas of various hospitals and infertility clinics. Before administration, research participants were informed about the aims and significance of the research, confidentiality, their voluntary participation, and they were assured regarding no harm related to the research. Participants were given informed consent forms for their written consent before filling up the forms.

### Data Analysis

Data was analyzed through descriptive and inferential statistics. To answer the research question, mean and standard deviations, frequency and percentages were reported. To answer the research hypothesis Regression analysis was applied to make inference.

### Results and Discussion

**Table 1**  
**Demographic Characteristics of the Sample**

Variables	F	%
X Age= 32.3 SD = 3.12		
<b>Gender</b>		
Male	40	50
Female	40	50
<b>Education</b>		
Matriculation	11	13.8
Intermediate	22	27.5
Graduation	21	26.3
Masters	19	23.8
PostMasters	7	8.6
<b>Profession</b>		
Public sector	13	16.3
Private sector	37	46.3
Homemaker	25	31.3
Others	5	6.1
<b>Matrimonial Period</b>		
1-5 years	32	40
6-10 years	40	50
11-15 years	8	10

Table 1 presents the demographic information of the participants. X age of the partakers was 32.3 years (SD=3.12). The sample consists of an equal distribution of genders, with 40 husbands and 40 wives i.e., 50% each. Educational attainment shows that 13.8% of participants completed Matriculation, 27.5% reached Intermediate education, 26.3% were Graduated, 23.8% obtained a Master's degree, and 8.6% held Postgraduate qualifications. In terms of occupation, 16.3% were employed in government roles, 46.3% in the private sector, 31.3% were homemakers, and 6.1% fell into other occupational categories. Regarding marital duration, 40% had been married for 1-5 years, 50% for 6-10 years, and 10% for 11-15 years.

**Table 2**  
**Summary of Linear Regression Analysis of Infertility-related Stress as a Predictor of Marital Satisfaction in Couples with Infertility (n=80)**

Regression Weights	$\beta$	$R^2$	$t$	Sig
IRS	-.52	.26	-5.36	.000

Note.  $p < 0.001^*$ ; IRS (Predictor); MS (Dependant Variable)

Table 2 showed the result of simple linear regression as IRS has a statistically significant effect ( $\beta=52$ ,  $t= 5.36$ ,  $P < 0.001$ ) on MS of the couples with infertility. And the

predictor variable IRS has explained 26% of the change in marital satisfaction of the couples with infertility.

### **Conclusion**

The findings of this study have led to several important conclusions, which have been analyzed in the context of previous research to explore the predictive relationship in IRS and matrimonial satisfaction in infertile couples. Infertility is a major issue within our society and culture, particularly for couples who are unable to fulfill their parental roles and face societal challenges. Infertile men and women may experience mental health problems due to a lack of social support and the emotional strain of infertility (Cousineau & Domar, 2007). Previous research on the relationship of IRS and marital-satisfaction has produced the same results (Greil et al., 2010; Tao et al., 2012; Verhaak et al., 2007). Another study found that infertility-related stress led to a decrease in marital communication (Monga et al., 2004). The primary objective of the present study was to further investigate the predictive effects of infertility-related stress on emotional distress and marital satisfaction among a sample of infertile couples.

Findings (Table 2) showed the results of simple linear regression, as IRS has a statistically significant effect ( $\beta=52$ ,  $t= 5.36$ ,  $P< 0.001$ ) on marital satisfaction. Result shows that the greater the stress, the lesser the marital satisfaction would be in study sample. Thus, the hypothesis that there won't be a significant predictive relationship between IRS and MS in married couples with infertility gets rejected.  $R^2$  is .26 thus, for this result, the predictor variable IRS has explained 26% of the change in marital satisfaction in married couples with infertility.

Furthermore, the findings of this study contribute valuable insights into the impact of infertility-related stress on marital satisfaction and emotional well-being in infertile couples. The analysis, grounded in both the study's results and previous research (Cousineau & Domar, 2007; Greil et al., 2010; Monga et al., 2004), highlights that infertility is not just a medical issue but also a significant psychological and social challenge, especially in cultures where parenthood is highly valued. The stress associated with infertility can lead to mental health issues due to societal pressures and limited social support, impacting the emotional well-being of both partners.

The importance of the variables of the study cannot be refuted, but these outcomes have given directions for forthcoming hypothesis testing and interventions (clinical and social). Counseling and support programs intended to cater the needs of the couple having fertility challenges can contribute in reducing the level of distress, enhancing communication, and strengthening the quality of their relationships. Raising societal awareness about infertility and fostering a more supportive environment can alleviate societal pressures that contribute to emotional strain. Additionally, integrating mental health screenings into infertility treatments enables healthcare providers to address emotional distress early on, providing a comprehensive approach that includes both medical and psychological support. These implementations offer a pathway to better mental health and stronger relationships for infertile couples.

### **Recommendations**

The findings of this study have significant implications for the psychological as well as healthcare support of couples with fertility issues. The significant relationship between IRS and MS suggests the need for psychosocial interventions to help reduce stress level and enhance emotional well-being. Healthcare providers should focus on integrating mental

health screenings into fertility treatments to detect and address emotional distress at early stages (Cousineau & Domar, 2007; Sax & Lawson, 2022). Moreover, counseling and support programs tailored to the specific needs of infertile couples can foster better communication and provide coping strategies to manage the emotional challenges of infertility (Boivin et al., 2011).

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