

Psychosocial Problems and Marital Satisfaction in Infertile Individuals: The Buffering Role of Meaning Based Coping

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Abstract

Background: Psychosocial problems, encompassing a range of emotional, cognitive and social challenges, are known to affect infertile individuals' well-being and relationship dynamics. Marital satisfaction, a critical indicator of relationship quality, is often impacted by these psychosocial problems. Coping strategies, particularly how infertile individuals manage and mitigate these challenges, play a crucial role in maintaining marital satisfaction.

Objective: The current study aims to examine the association between psychosocial problems, coping strategies, and marital satisfaction, with the particular focus on how different coping mechanisms influence the marital outcomes of individuals experiencing psychosocial problems.

Method: A cross-sectional correlational research design was used to conduct the research. Total No. of 270 infertile men (66) and women (204) having primary infertility were selected through purposive sampling strategy from different hospitals of Lahore, Pakistan. "Emotional and Social Distress Scale (ESDS), COMPI Coping Strategy Scale (COMPI CSS), and Couples Satisfaction Index (CSI)" were used to collect the data.

Results: The findings indicated a significant adverse relationship between psychosocial problems and marital satisfaction, suggesting that higher level of psychosocial problems are associated with lower level of marital satisfaction. However, the use of meaning based coping buffers the association between psychosocial distress and marital satisfaction.

Conclusion: The study underscores the critical role of meaning based coping strategies in buffering the adverse effects of psychosocial problems on marital satisfaction. These strategies can enhance the marital satisfaction and mitigate adverse impacts of psychosocial problems. The findings have important implications for therapeutic interventions aimed at improving marital quality in the context of psychosocial challenges.

Keywords: Infertility, coping, psychosocial problems, marital satisfaction

Introduction

According to the latest report of World Health Organization (WHO), approximately 17.5% of the worldwide population—approximately 1 in 6 suffer with childlessness. The lifetime prevalence vary in high-income countries (17.8%) and economically developing countries (16.5%). "Infertility is a disease of the male and female reproductive system, defined by the failure to achieve pregnancy after 12 months or more regular unprotected intercourse. It can cause significant distress, stigma and financial problems, affecting people's mental and psychosocial well-being" (WHO, 2023). Unlike secondary infertility where individuals have previously conceived (for instance; still birth, abortion) primary infertility (individuals who never ever conceived) often brings an exceptional psychosocial challenges that extend beyond the physical inability to conceive. This condition substantially affect infertile individuals and leads to profound psychosocial distress impaired coping and marital satisfaction (El-Feshawy et al., 2023; Sharma & Shrivastava, 2022).

The psychosocial problems linked to primary infertility are complex and multifarious. Infertile individuals with childlessness often face distress including depression, stress and anxiety. In addition to that, individuals face deep sense of failure and inadequacy because societal norms and expectations often linked with womanhood to motherhood and manhood to fatherhood (Sousa-Leite et al., 2019). The childlessness exacerbate the feelings of grief, anger, sadness, guilt, sense of loss, not only for the child they are unable to conceive but also for the anticipated life and identity linked with motherhood and fatherhood (Grin et al., 2021; Greil et al., 2011). In comparison of men and women in our culture, women face heightened scrutiny and pressure from the family and society where infertile women blamed for their condition or subjected to insensitive remarks, reminders and exclusion from the activities centered on children and family. Men on the other hand may experience lack of self-worth, diminished confidence and heightened social pressure that compromise sense of masculinity. Effective coping mechanism are crucial in managing the psychological and emotional turmoil associated by primary infertility and to enhance marital satisfaction (Naz & Batool, 2017).

Previously, coping strategies, encompassing both cognitive and behavioral mechanisms, are employed to deal distress and are typically categorized into problem-focused and emotion focused methods. Problem focused coping specifically address the root cause of the distress in an effort to mitigate their impact. For infertility, this might include seeking medical treatment, exploring alternative paths to parenthood. On the other hand the aim of emotion focused coping is to manage the emotional

responses to stress rather than changing the stressor itself (e.g., emotional expression and seeking social support) (Deninotti et al., 2023). Meaning based coping relatively newer concepts involves finding personal significance and growth in the face of infertility, fostering resilience and wellbeing. Researches shows the effectiveness of these strategies varies based on individual differences and contextual factors. Meaning based coping, enhances quality of life resilience and marital satisfaction, while problem-focused coping is beneficial when practical solutions exist. Maladaptive strategies, like avoidance or denial, can worsen emotional distress and negatively impact psychological health (Passet-Wittig & Greil, 2021). Because infertility is viewed as an unpredictable and debilitating stressor, coping with it can be extremely challenging and also creates hindrance in well-being and marital satisfaction on infertile individuals (Naz et al., 2022).

Marital satisfaction is another critical aspect affected by infertility. The inability to conceive can place significant strain on relationships, leading to decreased marital satisfaction and in some cases marital dissolution. Effective communication and mutual support are essential in navigating the challenges posed by infertility. Couples who engage in open and supportive communication are better equipped to handle the distress associated with infertility (Peterson et al., 2007). Conversely, infertile individuals who struggle with communication and lack mutual support are more likely to experience marital dissatisfaction, conflict, social and emotional distress. The overall relationship also affected adversely by the prolonged period of diagnostic assessment and treatment. Researchers examined infertility related dimensions of marital relationship: sexual satisfaction, intimacy, quality of communication and overall dyadic adjustment (Naz et al., 2017).

Theoretical Perspective

A theoretical perspective on stress, appraisal and coping is a valuable framework for understanding how individuals with primary infertility manage psychosocial problems and its impact on marital satisfaction (Schmidt et al., 2005). This perspective emphasizes the cognitive assessment of stress and the coping mechanism is a dynamic process employed to manage with stressors. In primary appraisal infertility can be appraised as a significant threat to personal identity, life goals (such as parenthood), marital stability and social identity. For instance, the stress might be appraised as a major threat if the individual highly values having biological children. Whereas, secondary appraisal involves evaluating the available resources and options to cope with infertility related stress. Individuals assess their emotional, social, financial resources, access to fertility treatment as well as the potential effectiveness of various coping strategies. Therefore, the way infertile individuals cope with infertility can significantly influence their marital satisfaction and overall wellbeing. Effective coping strategies can mitigate the negative effects of psychosocial distress and enhance the quality of the marital quality (Naz & Batool, 2019).

Research on psychosocial problems, coping strategies and marital satisfaction in individuals with primary infertile is pivotal because it addresses significant gaps in understanding the complex emotional and relational challenges faced by these couples. Infertility profoundly affects the mental health of patients and stability of their relation. Understanding how infertile individuals cope with these challenges can provide insights into which strategies are most effective in maintaining marital satisfaction and psychological wellbeing. Further, it will help to develop the targeted interventions and therapeutic approaches for enhancing communication, improving coping strategies and ultimately improving their mental health and relationship quality.

Following are the aims of the current research

- To find out the association between psychosocial problems, infertility specific coping and marital satisfaction in infertile men and women.
- To analyze the mediating relationship of coping between psychosocial problems and marital satisfaction

Method

In current study, a cross-sectional correlational research design was used. A purposive sampling strategy was employed to collect the participants. Two hundred and seventy men (66) and women (204) with primary infertility were the part of the study. Sample was determined by using scientific method of G-Power. The participants ranged in age from 20 to 45 years old ($M = 31.18$, $SD = 6.51$). Data were gathered from a variety of government and private Hospitals from Lahore, Pakistan. The inclusion/exclusion criteria (viz., inclusion criteria= age range between 20 to 45 years, primary infertility, at least 1 year of marriage and exclusion criteria= secondary infertility and any physical or psychological comorbidity) was ensured. Different measures were used to collect the data such as Social and Emotional Distress Scale (Naz et al., 2022). This 34-items scale assesses psychosocial problems unique to infertility within the cultural setting of Pakistan. It has four clearly defined dimensions of emotional and social distress associated with infertility. The Likert scale has five points, ranging from 1 to 5 was used. The results of the CFA model ($\chi^2/df = 1.98$, $CFI = .90$, $GFI = .93$, $RMSEA = .04$, and $TLI = .91$) showed a good fit that was within an acceptable range. The overall scale's Cronbach's alpha was .92.

For infertility specific coping, The COMPI Coping Strategy Scale. was administered. Lazarus and Folkman's transactional model of stress served as the foundation for a 19-items measure that also included items derived from a qualitative study of infertile men and women. The MBC items were the new addition in the scale. Moreover "(i) active-avoidance coping (e.g., avoiding pregnant women or children); (ii) active-confronting coping (e.g., expressing feelings, asking for advice); (iii) passive-avoidance coping (e.g., hoping for a miracle); and (iv) meaning-based coping (e.g., learning positive life lessons, setting other goals for yourself)" were the four factors of the scale. The response range of the scale is 1 (not used) to 4 (used a great deal). Translated Urdu version COMPI Coping Strategy Scale (Naz & Batool, 2019) used after ensuring the construct validity through AMOS-21 to corroborate the model using confirmatory factor analysis. Cronbach's alpha for the scale used in this

investigation is .80. in addition to that, Couples Satisfaction Index-16 items (Funk & Rogge, 2007) were used to measure marital satisfaction. The 16 items that make up the CSI self-report measure have Likert-type response options. The CSI-16 got a Cronbach's alpha of .98 and is reported to have bigger effect sizes and higher levels of power than other measures of marital satisfaction.

The Advanced Studies and Research Board (AS&RB) of Government College University, Lahore, Pakistan approved the study. Approval was obtained from the hospital heads and department in-charge to conduct the study. Written informed consent was taken from the infertile patients. The participants received instructions regarding the instruments and format of their responses. Before any data was collected, the participants were told about goals of the study and their participation rights. Participants were requested to provide impartial and truthful answers to all of the questions pertaining to the scales. In a similar vein, participant privacy and confidentiality were respected. Participants had the right to leave participation without telling the reason. If necessary, participants could also get psychological counselling (such as emotional venting and relaxation techniques).

Result

Table 1 Demographics of the Study (270)

Variables		f	%
Gender	Men	66	24.4
	Women	204	75.6
Age Group (years)	20-24	49	18.1
	25-29	62	23.0
	30-34	76	28.1
	35-39	45	16.7
	40 & above	38	14.1
Duration of infertility	1-3	66	24.4
	4-6	74	27.4
	7-9	62	23.0
	10-12	41	15.2
	13-15	9	3.3
	16 and above	18	6.7
Cause of infertility	Male factor	28	10.4
	Female factor	158	58.5

Table 1 indicates the demographic characteristics of the sample.

Table 2 Reliability Analysis

Scales	k	Mean	SD	α	Range
Emotional and Social Distress Scale	34	119.65	25.68	.94	63-167
COMPI Coping Strategy Scale	19	58.14	11.11	.80	21-69
Couple Satisfactory Index	16	58.15	15.91	.94	14-81

Note: K=number of items, SD standardization, α =alpha reliability

Table 2 shows the details of scales and alpha reliability. All the research scale reliabilities are within the acceptable range.

Table 3 Correlation of the Study Variables

	1	2	3	4	5	6
1 ESDS	1	-.144*	.917**	.278**	.233**	-.235**
2 CSI		1	-.133*	-.140*	-.127*	.243**
3 AACS			1	.292**	.163**	.721**
4 ACCS				1	.125*	.260**
5 PACS					1	.254**
6 MBCS						1

Table 3 indicates that most of the scores of total scales and subscales are correlated significantly with each other except Distress to Couple Satisfaction Index, Active Confronting Coping. Moreover, Identity and wellbeing did not correlated with Active Confronting Coping and feelings of insecurity with couple satisfaction Index.

Mediation Analysis**Table 4: A Mediation Analysis to Examine whether Coping Strategies Mediate the Relationship between Psychosocial Problems and Marital Satisfaction.**

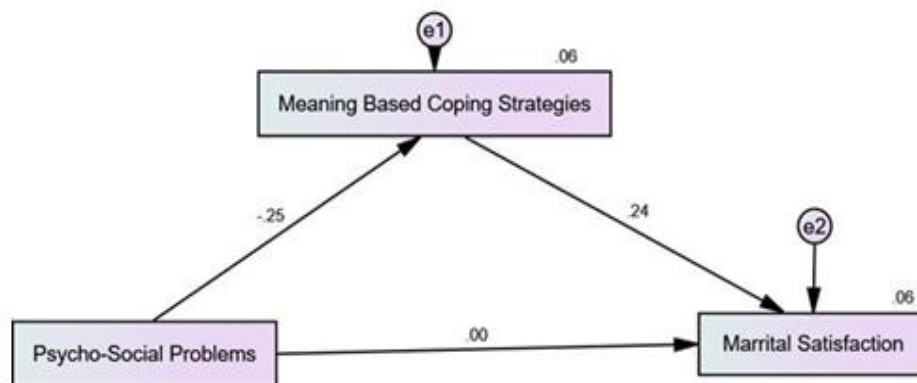
Predictors	Outcome variables	Direct Effect	Indirect Effect	Total Effect
		Effect	Effect	Effect
Psychosocial problems	Meaning based coping	-.247	.000	-.247
Psychosocial problems	Marital satisfaction	-.000	-.061	-.061
Meaning Based coping	Marital Satisfaction	.245	.000	.245

Table 4 explains that psychosocial problems has .061 indirect and 000 direct effect on marital satisfaction that on marital satisfaction that meaning based coping carries to marital satisfaction.

Table 5: Fit Indices of the Final Model

Model	X ² / df	p	CFI	RMSEA	GFI	TLI
Final Model	2.44/1=2.44	.122 n.s	0.96	0.07	0.99	0.92

Table 5 represents that all the values of the fit indexes are within the acceptable range and chi square is non-significant and df value is below 3.

**Figure 1** Depicts Coping Strategies Mediate the Relationship between Psychosocial Problems and Marital Satisfaction.**Discussion**

Primary infertility is a distressing experience for infertile men and women individually, and it can adversely affect their relationship with each other. The current research examined the association of infertility specific psychosocial problems, coping strategies and marital satisfaction.

The results investigated the negative relationship between psychosocial problems and marital satisfaction, suggesting that as the severity of psychosocial problems increases, marital satisfaction tends to decrease. The finding is consistent with existing literature, which posits that stressors such as distress, interpersonal conflict can strain the marital relationship leading to decrease satisfaction (Chernoff et al., 2021). In contrast, the study found a positive correlation between meaning based coping strategies and marital satisfaction. That indicated infertile men and women who employed better coping strategies reported higher marital satisfaction. These findings align with the stress and coping theory, which posits that the way individuals manage stress, can significantly influence their well-being and interpersonal relationship. Effective coping strategy appear to buffer the adverse effects of psychosocial problem, enabling couples to maintain or even enhance their marital satisfaction in the face of challenges (Funk & Rogge, 2007). Moreover, Active avoidance, active confronting and passive avoidance coping strategies are negatively associated with the marital satisfaction, which indicated that these type of coping strategies are not workable to handle the marital related problems and it decreases the marital satisfaction (Liaqat et al., 2023). The study also identified the significant positive relationship between psychosocial problems and maladaptive coping strategies such as active avoidance, active confronting and passive avoidance coping strategies. This indicated that if infertile individuals use maladaptive coping strategies, that may increases the psychosocial problems, which can exacerbate the negative impact on mental health. Conversely, the study found a negative correlation between psychosocial problems and meaning based coping. Infertile individuals experiencing higher levels of psychosocial problems, social isolation, identity related issues were less likely to engage in meaning based coping. This might be because of overwhelming nature of these stressors, which can make it difficult for individuals to find or create meaning in their experiences. Previous researches support this findings, suggesting that high levels of stress can impair cognitive functions related to reflection and meaning-making, thereby reducing the likelihood of employing meaning-based coping (Patel et al., 2023; Schmidt et al., 2015; Smith et al., 2021).

The findings of the study suggested that meaning based coping intervenes the association between psychosocial problems and marital satisfaction. Specifically infertile individuals who experience psychosocial problems but adopt meaning based coping strategies were better equipped to preserve their marital satisfaction. This mediating role underscore the potential for targeted interventions, finding meaning of their life aimed at enhancing coping skills as a means to mitigate the negative impact of psychosocial problems on marriage. The results also consistent with other studies (Hassan et al., 2022; Patel et al., 2024)

Conclusion

In conclusion, the present study highlights the importance of understanding the association between psychosocial problems, coping strategies and marital satisfaction. The negative relationship between psychosocial and marital satisfaction highlights the detrimental effects of unmanaged distress on marital relationship. However, the positive correlation between adaptive coping strategies and marital satisfaction suggests that infertile individuals can mitigate these effects by adopting meaning based coping. This underscore the potential value of interventions aimed at fostering adaptive coping strategies to enhance marital satisfaction, particularly in the face of psychosocial challenges.

Conflict of Interest

There is no conflict of interest at any stage of this article.

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