



Spiritual Coping and Quality of Life in Infertile Couples: Evidence from a Fertility Center in Lahore, Pakistan

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This study aims to investigate the association between spiritual coping and quality of life in infertile couples. The researchers used a cross-sectional survey research design for carrying out this study. Data was collected from 58 infertile couples visiting Lahore Institute of Fertility and Endocrinology (LIFE), Hameed Latif Hospital for infertility diagnosis or treatment. A self-structured questionnaire was used to collect data about socio-demographics, spiritual coping and quality of life. The researchers used SPSS IBM Version 21.0 to analyze quantitative data. The results showed a significant relationship between spiritual coping and quality of life in infertile couples. It was furthermore found that spiritual coping and quality of life in infertile couples varied across their gender, age, education, area of residence, family system and income level. On the basis of these findings, the researchers suggest that infertility counselling should be imparted at fertility centers involving spiritual coping that may help infertile couples in improving their quality of life, especially during the treatment process.



Introduction

Infertile couples confront various challenges of psychological, emotional, social, marital and economic nature that tend to reduce their quality of life (Pinar & Zeyneloglu, 2012). Correspondingly, infertility induces stress, sense of loss and low self-esteem among the infertile couples while giving rise to disturbed relationships with their spouse, in-laws, relatives and friends. In this regard, academics, e.g. Onat and Beji (2012), found a lower level of quality of life among infertile couples compared with their fertile counterparts. Similarly, Casu et al. (2018) stressed that infertility adversely impacts quality of life among infertile couples. It is furthermore found that infertility tends to have more devastating effects on the life of infertile females than infertile males (Pinar & Zeyneloglu, 2012). Along with other factors, socio-demographic variables of age, education, occupation, income, type of family i.e. extended or nuclear and the residential area also shape the quality of life among infertile couples. For example, a study conducted on Iranian infertile couples revealed that higher level of education had a positive association with the quality of life for both the husband and the wife (Maroufizadeh, Ghaheri, Amini & Samini, 2017).

Scholarly studies furthermore suggest that infertile couples use different coping strategies to overcome the negative effects of infertility on quality of life. Coping strategies adopted by the infertile couples include both passive and active strategies. Active coping strategies involve the functional roles of infertile couples in dealing with their infertility i.e. seeking medical or herbal treatment for childlessness. On the other hand, infertile couples, either wife or husband, also adopt passive coping strategies i.e. fate acceptance, blaming others etc. (Sormunen et al., 2018). Regardless of cultural variations, infertile couples use spiritual coping, both religious and non-religious, to deal with infertility-related stress in the developing and the developed countries (Koenig et al., 2012). Latifnejad Roudsari, Allan and Smith (2014) found how spiritual coping positively impacted the quality of life among infertile couples. This positive association between spiritual coping and quality of life is attributed to the fact that spiritual beliefs and values give meanings to one's life besides creating a sense of connectedness with self, God and environment.

Spirituality is considered a meaning-based coping strategy that tends to insert positive re-conceptualization of the human sufferings. It includes revised goals in life where a spiritual individual learns to develop a positive perception of stressful events. Spirituality provides inner strength to adjust to chronic illness and enhances the patient's quality of life (Czekierda et al., 2017). Correspondingly, academics suggest how spirituality has been used as a protective shield by the infertile couples to deal with stress of infertility. It is found that spirituality is positively associated with life satisfaction and negatively associated with infertility-related anxiety. Similarly, higher level of spirituality among infertile couples has been positively correlated with their emotional adjustment to infertility-related treatment (Beygi et al., 2021; Czekierda et al., 2017; Domar et al., 2005).



Academics highlight that spirituality provides hope and relief from infertility-induced stress and disappointment among the infertile couples and thus improves their mental health and well-being (Czekierda et al., 2017). Spirituality increases the social involvement of infertile couples that tends to minimize their social isolation. Furthermore, through meditative practices, spirituality enhances the capability of infertile couples to have positive approach towards life. The ability to attach positive meanings to stressful events improves overall quality of life among the infertile couples (Beygi et al., 2021).

Pakistan is among developing countries that witnessed a higher rate of infertility in recent years. The current rate of infertility in Pakistan is found to be 22%, with 4% primary and 18% secondary infertility (Nazar et al., 2023). While infertility and the experiences of infertile couples have received extensive scholarly attention, impacts of spiritual coping on quality of life among infertile couples has not been studied adequately, especially in the religious context of Pakistan. In order to address this, the researchers, in the present study, investigated the relationship between spiritual coping and quality of life in infertile couples. It is furthermore hypothesized that the relationship between spiritual coping and quality of life varies across demographic variables associated with infertile couples such as their gender, age, education, family system, area of residence and family income. In the present study, the researchers assumed a positive relationship between spiritual coping and quality of life in infertile couples.

Literature Review

Infertility is a stressful experience that shapes the quality of life among couples intending to conceive. Involuntary childlessness negatively impacts the social, cultural, psychological, marital and economic dimensions of their life (Beygi et al., 2021). For example, it might increase dissatisfaction in their marital relation and social links with family, in-laws, relatives and friends. It can also give rise to a sense of non-relevance and exclusion from the mainstream social life and thus negatively affecting the quality of life among infertile couples. However, the scholarly studies show how the spiritual coping positively shapes quality of life in infertile couples including social adjustment, meaning-making and different other aspects of their life (Chachamovich et al., 2010; Mousavi et al., 2013; Royani et al., 2019).

Aliakbari Dehkordi et al. (2019) examined the relationship between spiritual coping and quality of life among infertile couples and found a positive association. The authors suggested how the spiritual coping provides a sense of meaning that helps the couples to cope with uncertainty and stress associated with infertility. Various other researches also highlight the benefits of spirituality in promoting psychological well-being and coping with anxiety (Jim et al., 2015; Puchalski et al., 2009). In this regard, Latifnejad Roudsari et al. (2014) found that spiritual coping was associated with better emotional well-being and social functioning among the infertile couples. These findings are particularly relevant as infertility can lead to social isolation and decreased emotional



well-being. The use of spiritual coping strategies can therefore be an important tool for infertile couples to improve their social support and emotional health. Other academics also suggest that the couples turn towards spiritual coping strategies to manage the infertility-induced stress and increase their marital satisfaction. A study by Berger (2019) explored the role of spiritual coping in the well-being of infertile couples and found that couples who used spiritual coping strategies reported higher level of marital satisfaction and lower level of anxiety.

Academic studies show that both husband and wife, as an infertile couple, use spiritual coping strategies to deal with the stress of infertility (Karaca & Unsal, 2015). However, there were some gender differences in the types of spiritual coping strategies used by them. Wives reported using more positive spiritual coping strategies such as finding meaning and purpose in life and seeking social support, compared with their husband, who reported using negative spiritual coping strategies such as feeling angry with God and questioning the meaning of life (Daugherty, Mischel & Novak, 2018). A study by Moazedi et al. (2018) found that women in infertile couples were more likely to use religious coping strategies than men. Women tend to use religious coping to manage the emotional distress associated with infertility, while men used more problem-focused coping strategies. On the other hand, Casu (2018) found no significant differences in the use of spiritual coping strategies across husbands and wives in infertile couples. Both husbands and wives reported using spiritual coping strategies to manage the stress of infertility, including seeking spiritual support, praying and using religious rituals.

The scholarship on infertility reveals that spiritual coping strategies are effective tool in helping the couples manage their stress associated with infertility treatment. Spiritual beliefs and practices can provide a sense of purpose in life, which can help couples find greater resilience and hope during the infertility treatment process (Curlin et al., 2007; Walsh et al., 2011). Therefore, clinicians and researchers alike should continue to explore the potential benefits of spiritual coping in the context of infertility treatment and try developing interventions that incorporate these strategies to help couples cope more effectively with the emotional and psychological challenges of infertility.

Research Methodology

The researchers employed quantitative approach to achieve the objectives of the study. A cross-sectional survey research design was used to collect the data from couples visiting LIFE for infertility diagnosis or treatment.

Sampling technique

The researchers used purposive sampling technique (Thomas, 2022) to select the respondents. A total of 116 respondents, including 58 male and female respondents each, were selected. The researchers purposively selected the couples diagnosed with infertility, who did not adopt a child, and had been facing infertility for at least two years. The respondents were



approached during their infertility diagnosis or treatment at LIFE, which is one of the oldest fertility centers in Pakistan, located in provincial capital of Punjab. It provides reliable medical services for In Vitro Fertilization (IVF) and Assisted Reproductive Technology (ART). Both, the research site i.e. LIFE and the respondents, for the present study were selected using purposive sampling technique.

Tool for data collection

The researchers used a self-structured survey questionnaire including three sections to collect data from the infertile couples. The first section of the questionnaire included demographic variables i.e. gender (male, female), age (30 years and below, 31 to 40 years, more than 40 years), age at marriage (30 years and below, 31 to 40 years, more than 40 years), education (matriculation and below, intermediate, BA, MA/MSc or above), area of residence (rural, urban), family system (nuclear and joint).

In the second section, the quality of life was measured using FertiQOL scale, a 26 items standard tool addressing four dimensions of quality of life i.e. mind-body, emotional, social and marital quality of life. FertiQOL measures infertile couples' quality of life (Dourou et al., 2023) using a five-point Likert scale ranging from strongly agree (4) to strongly disagree (0). However, negative statements of the scale were reverse-coded at the time of analysis. On the other hand, the spiritual coping among infertile couples was measured using spiritual coping strategies measure of 20 items (Karaca et al., 2018) that ranges from never (0) to always (3). Spiritual Coping Scale includes two dimensions of religious and non-religious spiritual coping. Cronbach alpha values of the FertiQOL scale are .80 and the spiritual coping strategies measure is .83, which indicates acceptable values of reliability of both the scales.

Data analysis

For analyzing the data, the researchers used SPSS IBM Version 21.0. First, the researchers conducted a univariate descriptive analysis of the demographic variables of the respondents. In the second stage of data analysis, the researchers applied an independent sample t-test and one-way ANOVA to measure the difference between spiritual coping and quality of life among infertile couples. In addition, simple linear regression analysis was run to estimate the relationship between independent variable i.e. spiritual coping and dependent variable i.e. quality of life.

Results

Most of the respondents were 31-40 years of age i.e. 50.9%. In addition, the majority of respondents reported that they were married at 30 years or below. However, about 28.4% of the respondents mentioned their education as MA/MSc or above, 24.1% reported BA, 28.4% were intermediate, and 19% informed that they were matriculation or below. On the other hand, the participation of rural and urban respondents was almost equal. However, most respondents lived in a nuclear family system i.e. 58%, while 42% lived in a joint family system.

**Table No 1: Demographic characteristics of the respondents**

Variables	Frequencies	Percentages
Age		
30 years or below	20	17.5
31-40 year	58	50.9
Above 40 years	36	31.6
Age at marriage		
30 years and below	49	42.2
31-40 years	46	39.7
Above 40 years	21	18.1
Education		
Matric or below	22	19.0
Intermediate	33	28.4
BA	28	24.1
MA/MSc and above	33	28.4
Residence		
Rural	59	50.4
Urban	57	49.1
Family system		
Nuclear	65	58.0
Joint	47	42.0
Family income		
50,000 and less	51	44.0
50,001-100,000	32	27.6
More than 100,000	33	28.4

Most respondents reported their family income as 50,000 and less, 27.6% claimed 50,000 - 100,000, and 28.4% mentioned their family income as more than 100,000 in Pakistani currency (Table 1). Table 2 shows the results of the independent sample t-test to calculate differences in the values of spiritual coping among infertile couples and quality of their life across gender, area of residence and family system. The results indicated a significant mean difference in spiritual coping and quality of life across infertile men and women respondents at 99% confidence interval (CI). However, the spiritual coping and quality of life were higher among infertile men than their female counterparts.

Moreover, the level of spiritual coping was higher among urban respondents (65.89) compared with rural respondents (62.83). This difference in spiritual coping across rural and urban respondents is also significant at 99% CI. Similarly, the urban respondents reported a higher quality of life (95.49) compared with their rural counterparts (92.91), which was significantly different across rural and urban respondents at 99% CI. Finally, the independent sample t-test indicated a non-significant difference in the values of spiritual coping across the respondents living in nuclear and joint family system.

**Table No 2: Demographic Information**

Variables	Spiritual coping	Quality of life
Gender		
Male	66.55	96.87
Female	62.12	91.48
t-value	4.76	5.92
Sig.	.000	.000
Residence		
Rural	62.83	92.91
Urban	65.89	95.49
t-value	-3.137	-2.542
Sig.	.002	.012
Family system		
Nuclear	64.33	92.64
Joint	64.04	95.93
t-value	.280	-3.192
Sig.	.785	.002

However, the respondents living in the joint family system indicated better quality of life (95.93) than those living in the nuclear family system (92.64). Furthermore, the quality of life was also significantly different at 99% CI across the respondents living in nuclear family and joint family system.

Table No 3: Difference of spiritual coping across age, age at marriage, education and family income

Variables	Spirituality	F	Sig
Age			
30 years or below	66.75		
31-40 year	64.98	5.934	.004
Above 40 years	62.05		
Age at marriage			
30 years and below	65.01		
31-40 years	63.39	1.204	.304
Above 40 years	64.61		
Education			
Matric or below	64.36		
Intermediate	63.39		
BA	64.07	1.834	.478
MA/MSc and above	65.48		
Family income			
50,000 and less	62.96		
50,001-100,000	64.78	3.457	.035
More than 100,000	66.03		



Table 3 shows the results of one-way ANOVA to estimate the differences in values of spiritual coping across age, age at marriage, education and family income. The results indicated significant differences in the importance of spiritual coping at 99% CI across the categories of age, i.e. 30 years and below (66.75), 31 - 40 years (64.98), and above 40 years (62.05). It means that the level of spiritual coping is the highest among 30 years and less than 30 years old respondents compared to other age groups. In addition, the results also indicated a significant difference in spirituality at 95% confidence interval (sig., .035) across the categories of family income, i.e., 50,000 and less (62.96), 50,001 - 100,000 (64.78) and more than 100,000 (66.03). However, one-way ANOVA results indicated non-significant differences in the values of spiritual coping across infertile couples' age at marriage and also their education.

Table No 4: Difference in quality of life across age, age at marriage, education and family income

Variables	Quality of life	F	Sig
Age			
30 years or below	100.75		
31-40 year	94.10	35.05	.000
Above 40 years	90.41		
Age at marriage			
30 years and below	98.48		
31-40 years	92.28	57.30	.000
Above 40 years	88.28		
Education			
Matric or below	90.36		
Intermediate	91.03		
BA	95.14	25.64	.000
MA/MSc and above	99.06		
Family income			
50,000 and less	89.94		
50,001-100,000	95.12	70.80	.000
More than 100,000	99.81		

Table 4 presents the results of one way-ANOVA to estimate differences in quality of life across age, age at marriage, education, and family income of the respondents. The results indicated a significant difference in the quality of life at 99% CI across the categories of respondents' age, i.e. 30 years and below (100.75), 31 - 40 years (94.10), and more than 40 years (90.41). In addition, the quality of life was significantly different at 99% CI across age categories at marriage, where the highest quality of life was measured among 30 years old or fewer respondents (98.48). On the other hand, quality of life was found to be highest among the respondents who reported their education MA/MSc and above (99.06) and the lowest among the respondents who reported their education as matriculation and below (90.36). The results also indicated a significant difference in the value of quality of life across education categories. Similarly, the quality of life was found to



be significantly different at 99% CI across the categories of family income, i.e. 50,000 and less (89.94), 50,001 - 100,000 (95.12) and more than 100,000 (99.81).

Table No 5: The relationship between spiritual coping and quality of life

Linear regression	Overall sample	Male	Female
R	.256	.167	.227
R-square	.065	.028	.052
F	7.971*	1.611	3.053
Unstandardized Coefficient B	.262	.226	.181
Sig.	.006	.210	.086

Dependent variable: Quality of life

*: Significant at 0.01 level

Table 5 presents the results of a simple linear regression analysis to measure the relationship between spiritual coping and quality of life in infertile couples. The results indicated a positive but weak correlation between spiritual coping and quality of life (r , .256), and only 6.5% of the variance in quality of life is explained by spiritual coping among infertile couples. Moreover, one unit increase in spiritual coping is expected to increase .262 units in the quality of life among infertile couples, i.e. male and female partners. On the contrary, the correlation between spiritual coping and quality of life across the male and the female sample is positive but weak and non-significant. In addition, the values of unstandardized coefficient beta are also non-significant at 95% CI.

Discussion

Spiritual coping and quality of life in infertile couples vary across their gender, age, area of residence and family income. The study validates the findings of the researches conducted in multiple contexts other than Pakistan. For example, Casu et al. (2018) claimed that spiritual coping, infertility-related stress and quality of life varied across the male and the female infertile respondents. Similarly, various other studies (e.g. Latifnejad Roudsari, Allan and Smith, 2014; Karaca and Unsal, 2015) found that infertile men tend to use more spiritual coping strategies than infertile women to deal with their infertility. The present study compiled similar findings and thus replicated the claims of the previous studies that spiritual coping among infertile men and women varies, where men are found to be more spiritual than their woman spouse.

This research strengthens the claim that spiritual coping varies across different age groups of the infertile respondents (Ghazeeri et al., 2012; Mokhtari, Torabi & Pirhadi, 2022; Pasha et al., 2017; Smith et al., 2009). For example, the level of spiritual coping was found to be higher among the younger infertile respondents compared with their older counterparts. Perhaps, the chances to conceive and overcome infertility are higher at a younger age; arguably the infertile couples immediately start spiritual coping at a younger age in the religious context of Pakistan. On the other hand, the present study introduced a new insight into the previous body of literature by



highlighting a difference in the level of spiritual coping in accordance with the area of residence of the infertile couples. The study claimed that the urban infertile couples are found to be more spiritual than their rural counterparts. However, the study replicated the findings of the previous studies about a difference in spiritual coping across different economic classes of infertile couples (Hynie & Burns, 2006; Inhorn, et al., 2009; Nahar & Richters, 2011; Romeiro et al., 2017). As mentioned earlier, none of the previous studies conducted in Pakistan have investigated the difference in spiritual coping among infertile couples across their demographic characteristics. Therefore, the present study contributes to provide new insights into the body of literature on infertility studies, especially in the religious context of Pakistan.

There is difference in the quality of life among infertile couples across their demographic characteristics i.e. gender (Nahar & Richters, 2011; Casu et al., 2018), age (Greil, McQuillan & Slauson-Blevins, 2011; Keramat et al., 2013), age at marriage (Lau et al., 2018; Khayata et al., 2003; Namdar et al., 2017), education (Drosdzol & Skrzypulec, 2008; Jahromi et al., 2018; Keramat et al., 2013), area of residence (Amiri et al., 2017; Namdar et al., 2017; Wdowiak et al., 2021), family system (Hassan et al., 2020; Khayata et al., 2003) and family income (Lau et al., 2018; Steuber & High, 2015). Nevertheless, the literature about the quality of life among infertile couples in Pakistani context is rare. Addressing this gap, the present study contributes towards the body of scholarship by providing empirical evidence on quality of life among infertile couples across their demographic characteristics.

Furthermore, a positive relationship between spiritual coping among infertile couples and quality of their life is found. These findings are supported by previous studies, both empirically and theoretically (Beygi et al., 2021; Keramat et al., 2013; Moazedi et al., 2018; Casu et al., 2018). This suggests the relevance of spiritual coping strategies among infertile couples to deal with their infertility in religious context of Pakistani society.

Conclusion

In conclusion, there is a relationship between spiritual coping and quality of life in infertile couples. The results furthermore indicated that spiritual coping and quality of life in infertile couples vary across their demographics such as gender, age, education, area of residence, family system and income level. The statistics suggest that Pakistan is among developing countries with a higher rate of infertility, especially in the recent years. It is furthermore established how the experiences of infertility pose various challenges of psychological, social, marital and economic nature that tend to reduce the quality of life among infertile couples. On the basis of these findings, it is therefore recommended that infertility counselling should be imparted at fertility centers involving spiritual coping strategies that is likely to help infertile couples to improve the quality of their life, especially during the treatment process.



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