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Research Article

The Relationship Between Spiritual Well-Being and Life Satisfaction in Females With Infertility

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Abstract

Background: Infertility is a multi-aspect problem; it can cause major disturbances with emotional, social and psychological consequences including loss of life satisfaction. Spirituality is considered as an important source for individuals to adapt with stressful life events.
Objectives: The current study aimed to determine the relationship between spiritual well-being and life satisfaction in females with infertility.
Methods: After explaining the study goals to the subjects and attaining their written consents, the present cross-sectional correlational study was conducted on 190 females with infertility referred to Isfahan fertility and infertility center, Isfahan, Iran. The subjects were selected through a convenience random sampling method in three months by the satisfaction with life scale (SWLS) and spiritual well-being scale (SWBS) through face to face interview in 2013. Data were collected and then analyzed by SPSS ver. 17. Descriptive statistical methods (frequency distribution, mean, variance and standard deviation tables) and analytical statistical methods (Pearson correlation test, Spearman correlation coefficients, one-way ANOVA and T-test) were used.
Results: The results of the study indicated a direct relationship between the scores of life satisfaction and religious dimension of spiritual well-being ($r = 0.375$, $P < 0.001$), as well as the score of existential dimension of spiritual well-being ($r = 0.732$, $P < 0.001$), and the overall score of spiritual well-being ($r = 0.643$, $P < 0.001$). The score of existential dimension had a closer relationship with that of life satisfaction, compared to the score of religious dimension and the overall score of spiritual well-being.
Conclusions: The present study showed that people with higher spiritual well-being had a higher life satisfaction. Since infertility has numerous social and psychological complications and consequences, which can lead to lower life satisfaction, the medical staff can increase spiritual well-being and life satisfaction in females with infertility problems by taking proper measures and actions.

Keywords: Females With Infertility, Spiritual Well-Being, Life Satisfaction, Iran

1. Background

Life satisfaction is a subjective concept, exclusive to every human being. It refers to individuals' assessment of their lives (1). This concept is a general assessment of life and a process based on individual judgment; that is, individuals' measurements of their quality of life based on their personal criteria (2). Various factors can affect individuals' life satisfaction such as wealth and housing, security and friendship, hope, harshness, religious beliefs, family relationships and management, progress and status, social and educational relationships, self-confidence and self-esteem, environmental supports and resources, jobs and food, physical and mental health and personality characteristics as well as demographic factors including gender, age group, marriage, socioeconomic status, culture and risk involvement (3).

Involving religion in making decisions and choices affects the level of life satisfaction (4). Berman et al. (5), in a study on patients undergoing dialysis, reported a strong relationship between the religious beliefs and life satisfaction.

Faith and religious beliefs soothe human beings, guarantee the individuals' security, fill moral, emotional and spiritual gaps in the individuals and society, and establish

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a strong base for human beings against the life difficulties and deprivations. Religious faith enhances life satisfaction in individuals (6).

Spiritual well-being can be defined as a sense of connection with others to have a meaningful and purposeful life, and to believe in and have relationship with the Almighty. Spiritual well-being consists of two dimensions; first, the religious dimension, which refers to the relationship with God, and second, the existential well-being, which refers to individuals' feelings, what they do, why they do it and to where they belong (7).

The link between religion and mental health is clear and obvious. People with strong religious and spiritual attitudes and beliefs, in other words, the ones who enjoy a desirable spiritual well-being or participate in religious communities report higher levels of life satisfaction. It seems that after a spiritual and emotional trauma, religious people adapt themselves to the situation better than non-religious people, and they are more hopeful for improvement (8).

Asarrodi, Golafshan and Akaberi et al. (9) conducted a study entitled "The relationship between spiritual well-being and life satisfaction in the nursing staff of Hasheminejad Hospital in Mashhad, Iran". The results of their study showed that the individuals with a higher spiritual well-being reported a higher level of life satisfaction.

Meanwhile, females as the basis and pillar of the family play a significant role in perceiving the quality of life in the family. Most females describe motherhood as the most important role in their lives. As a result, infertility, even if temporary, can be considered as a barrier to achieve a very valuable goal (10).

Infertility is a multi-aspect problem and causes numerous losses to a female. Therefore, females with infertility need comprehensive and holistic attention and care. Comprehensive care is not only in terms of an individual's psychological, social and cultural needs, but considers religious and spiritual needs as well. Females with infertility may use their religious beliefs to cope with the crisis and find meanings and hopes in their pains and sufferings (11).

A couple is clinically considered infertile, when pregnancy is not achieved during a year of intercourse without contraception (12).

In the study entitled "Infertility and life satisfaction in females", McQuillan et al. (10) stated that females with a history of infertility reported a lower level of life satisfaction, compared to the ones without it.

Domar et al. (13) showed a significant relationship between the symptoms of depression and stress in females undergoing infertility treatment and their spiritual well-being; the higher level of spiritual well-being was associated with lower level of stress and fewer symptoms of depression.

2. Objectives

Since an important part of family-centered nursing cares is helping people achieve a desirable level of health, and with regard to the importance of physical and spiritual well-being in females with infertility and its effects on families and society, and lack of studies indicating the relationship between these two variables in the females with infertility, the current study aimed to determine the relationship between spiritual well-being and life satisfaction in females with infertility.

3. Methods

This study has been approved by the ethical committee of Isfahan University of Medical Sciences. The current cross-sectional co-relational study was conducted on 190 females with infertility referred to Isfahan fertility and infertility center, Isfahan, Iran, in 2013; the subjects were selected through a simple sampling method in three months. Sample size was calculated by considering r = 0.2, a test power of 80%, and a confidence coefficient of 95%, as well as the sample size determination Formula 1:

$$N = \frac{(Z1 + Z2)\,2\,(1 - r^2)}{r^2} + 2 \quad (1)$$

Z1 is a confidence coefficient of 95%; that is 1.96.

Z2 is a test power factor of 80 %; that is 0.84.

The current study included females aged 20 - 45 years, diagnosed with primary infertility who were the only wives of their husbands and Shiites and not taking sedative or psychotropic drugs. After explaining the study goals to the potential subjects and taking the written consents from the qualified individuals, demographic characteristics and necessary information were gathered through filling out the satisfaction with life scale (SWLS) and spiritual well-being scale (SWBS) through face to face interviews conducted by an interviewer.

The spiritual well-being scale (SWBS), designed by Paloutzian and Ellison, is one of the standard tools used in the Iranian studies including the study by Allah-Bakhshian Farsani. After translation, the questionnaire was validated through content validation, and its reliability was approved by Cronbach's alpha coefficient of 0.82 (14). The scale consists of 20 statements with responses based on a 6-point Likert's scale (from strongly disagree to strongly agree). This scale is divided into two parts: religious well-being and existential well-being, each of which contains 10 statements scored 10 - 60. The statements with odd numbers evaluate religious well-being and the ones with even

numbers evaluate existential well-being. The total score of spiritual well-being is obtained through summing up these two subgroups, which ranges 20 - 120. In the statements with positive verbs, "strongly disagree" responses are scored 6 and "strongly agree" responses are scored 1 (15). Higher scores indicate higher spiritual well-being.

To assess life satisfaction, SWLS was used. Several authors adopted the original 48-item scale to reflect life satisfaction and well-being. These items were generated based on the theoretical principle that life satisfaction represents a judgment, made by the respondent regarding his or her life in comparison to standards. An initial factor analysis indicated that the items formed three factors: life satisfaction per se, positive effects and negative effects. Ten items had loading on the life satisfaction factor of 0.60 or above. This group of 10 items was further reduced to 5, to eliminate redundancies of wording and with minimal cost in terms of alpha reliability. Further information on the original development and validation of the SWLS is provided by Diener et al. (16), the introductory report of the SWLS. This instrument was designed theoretically to measure the global judgment of life satisfaction. Responses to the questions have seven options based on a Likert's scale, from "strongly agree" to "strongly disagree". The "strongly agree" option is scored 7 and the "strongly disagree" option is scored 1, and the scores range from 5 to 35; higher scores indicate higher life satisfaction (9). In the Persian version, the reliability and validity of SWLS were confirmed by a Cronbach's alpha of 0.83 and concurrent and construct validities respectively (17).

Data were analyzed by SPSS ver. 17. Also descriptive statistical methods (frequency distribution, mean, variance and standard deviation tables) and analytical statistical methods (Pearson correlation test, Spearman correlation coefficients, one-way ANOVA and T-test) were adopted.

4. Results

One hundred and ninety females with primary infertility participated in the present study; the mean age was 28.4 $\pm$ 4.4 years, the mean duration of marriage was 6.4 $\pm$ 4.5 years, mean duration of infertility was 5.2 $\pm$ 4.6 years and the mean duration of treatment was 2.4 $\pm$ 2.5 years. The majority of the studied subjects were Iranian (61.6%), housewives (84.7%) with the average socioeconomic status (69.5%). The educational level of the majority of individuals was high school diploma (46.3%) and the most common cause of infertility, in comparison with other causes, was the female factor (38.9%) (Table 1). The mean overall scores of spiritual well-being, religious and existential dimensions and life satisfaction are shown in Table 2. The results of the statistical analysis between demographic variables and spiritual well-being showed that spiritual health was not significantly associated with race (P = 0.27), cause of infertility (P = 0.15), education (P = 0.35), age (P = 0.95), duration of marriage (P = 0.1), duration of infertility (P = 0.18) and duration of treatment (P = 0.87), and it has only a significant association with employment; it means that the spiritual health of the employed people was higher than that of housewives. Evaluating the relationship between demographics and life satisfaction, analysis of variance showed that life satisfaction was not significantly associated with race (P = 0.74), occupation (P = 0.15), education (P = 0.35), age (P = 0.18), duration of marriage (P = 0.12), duration of infertility (P = 0.10) and duration of treatment (P = 0.23). However the mean life satisfaction score in the cause of infertility was not the same in the four groups. The Fisher's least significant difference (LSD) test also showed that the mean life satisfaction score in females with common causes of infertility was significantly less than those of the other groups (Table 3). Pearson correlation coefficient showed a direct relationship between the score of life satisfaction and that of the religious dimension of spiritual well-being (r = 0.375 and P < 0.001), the score of the existential dimension of spiritual well-being (r = 0.732 and P < 0.001) and the overall score of spiritual well-being (r = 0.643 and P < 0.001). The score of existential dimension had a closer relationship with the score of life satisfaction, compared to the score of religious dimension and the overall score of spiritual well-being (Table 4).

5. Discussion

According to the present study, there was a significant positive relationship between spiritual well-being and its dimensions (existential and religious) and life satisfaction in females with infertility. The mean score of the existential dimension of spiritual well-being was more significantly associated with that of the quality of life, compared to the mean score of the religious dimension and the mean overall score of spiritual well-being. It should be mentioned that authors did not find any studies on the relationship between these two variables in females with infertility.

The results of the present study suggested a statistically significant relationship between spiritual well-being and life satisfaction; the individuals with higher spiritual well-being reported a higher life satisfaction. In general, spiritual well-being is a unique force, which coordinates the physical, mental and social dimensions, and is essential for human adaptability. When the human spirituality is compromised, an individual may experience spiritual disorders such as the feelings of loneliness, depression and loss of meaning in life. Religious and spiritual resources of individuals are associated with the level life

Table 1. Demographic and Clinical Characteristics of Females With Infertility

Variable	No. (%) or Mean ± SD
Race	
Turk	16 (8.4)
Arab	5 (2.6)
Fars	117 (61.6)
Kurd	3 (1.6)
Lur	41 (21.6)
Bakhtiari	8 (4.2)
Occupation	
Housewife	161 (84.7)
Employed	29 (15.3)
Cause of infertility	
Female	74 (38.9)
Male	71 (37.4)
Both male and female	19 (10)
Unknown	26 (13.7)
Education	
Under high school diploma	41 (21.6)
High school diploma	88 (46.3)
University graduated	61 (32.1)
Age	28.4 ± 4.4
Duration of marriage	6.4 ± 4.5
Duration of infertility	5.2 ± 4.6
Duration of treatment	2.4 ± 2.5

Table 2. Overall Scores and Evaluated Variables

Score Variable	Mean ± SD
The religious dimension	52.8 ± 7.9
The existential dimension	44.8 ± 8.9
Total spiritual well-being	97.7 ± 14.8
Life satisfaction	23.5 ± 6.8

satisfaction, better adaptability, and decrease in pain and anxiety. Therefore, the supports received from religious or spiritual resources and being connected to a higher source of power are useful and can improve the quality of life (18).

In the study by Asaroudi on nursing staff and the study by Jafari on patients with cancer, there was a significant relationship between the existential and religious dimensions and the overall dimension of spiritual well-being and life satisfaction (7, 9). Kalantar et al. (19), found a significant relationship between spiritual well-being and life satisfaction in girls. These results were in line with those of the present study.

McQuillan et al. (10) stated that individuals who experienced infertility had a lower life satisfaction, compared to those who did not. For better explanation it can be stated that infertility has numerous social and psychological complications and consequences, which lead to lower life satisfaction.

Domar et al. (13) stated that people with infertility problem had a lower level of spiritual well-being than

Table 3. Descriptive Statistics of Spiritual Well-Being and Life Satisfaction Based on Demographic Variables

Variable	Spiritual Well-Being		Life Satisfaction	
	Mean ± SD	P Value	Mean ± SD	P Value
Race		0.27		0.74
Turk	102 ± 13		23.2 ± 6.6	
Arab	98.2 ± 16.7		23.6 ± 7	
Fars	101 ± 13.2		24 ± 6.2	
Kurd	97.8 ± 14.3		23.8 ± 6.4	
Lur	99 ± 15.6		24.1 ± 6.8	
Bakhtiari	96.7 ± 15		23.5 ± 6.3	
Occupation		0.04		0.15
Housewife	96.9 ± 15		23.3 ± 6.7	
Employed	102 ± 12.7		24.7 ± 6.6	
Cause of infertility		0.15		0.02
Female	98.2 ± 16.7		24 ± 6.5	
Male	97.5 ± 13		23.1 ± 7.1	
Both female and male	92.1 ± 17		19.9 ± 8	
Unknown	100.5 ± 11.2		25.4 ± 5.1	
Education		0.35		0.35
Under diploma	97.7 ± 15.1		24.4 ± 6.6	
High school diploma	101.45 ± 12.8		23.9 ± 6.8	
	98.5 ± 16		24.1 ± 6.2	

Table 4. Pearson Correlation Coefficients Between Total Score and Dimensions of Spiritual Well-Being With Life Satisfaction

Variable	Religious Dimension		Existential Dimension		Total Spiritual Well-Being	
	r	P Value	r	P Value	R	P Value
Life satisfaction	0.375	< 0.001	0.732	< 0.001	0.643	< 0.001

those without it. Therefore, it can be mentioned that females with infertility experience more stress and have less hope, compared to healthy people which can affect their lives.

The results of the present study showed that the mean score of the religious dimension of spiritual well-being was higher than that of the existential dimension of spiritual well-being. The results of the present study were in line with those of Rezaee et al. and Jahani et al. (20, 21) on the patients with cancer and coronary artery disease. However, their results differ from those by Allah-Bakhshian and Davison on patients with multiple sclerosis (MS) and chronic renal failure (14, 22).The differences can be due to cultural and religious conditions of Iranian people. These conditions cause people to adhere more to religion to adapt to critical situations (14).

According to the findings of the present study, the mean score of the existential dimension of spiritual well-being is more significantly associated with that of the quality of life, compared to the mean score of the religious dimension and the mean overall score of spiritual well-being. The findings of the studies by Asaroudi on nursing staff are consistent with this finding (9). According to the results of the current study, the score of the existential dimension of spiritual well-being was more significantly associated with that of the religious dimension; therefore, it can be stated that presumably, patients with chronic diseases experience stressful psychological and social changes, such as existential struggles related to the meaning and purpose and the suffer resulting from the disease, which often challenge the meaning and purpose in their lives (23).

The findings of the current study showed a significant positive relationship between spiritual well-being and its dimensions (existential and religious), and life satisfaction in females with infertility. Since infertility is associated with numerous social and psychological complications and consequences, which lead to lower life satisfaction, and with regard to the cultural and religious conditions of Iranian people, it is suggested to prepare the necessary instructions in nationwide health planning and recommendations to increase the religious propaganda, and thus, improve the experiences resulting from spiritual well-being. It is also recommended that spiritual and religious consultations be considered for such people as a therapeutic process. Their spiritual needs should be identified to take the right actions to solve them. Among the limitations of the study, which reduced the generalizability of the results, the size of the study population in one city and performing it on the patients with primary infertility can be noted. It is also suggested to conduct further studies with larger sample sizes in different cities with different cultures on the patients with secondary infertility.

Footnotes

Authors' Contribution: Shahram Etemadifar: study concept and design, and supervision; Atefe Omrani: critical revision of the manuscript for important intellectual content; Akram Ziraki: collection of data; Razie Sadat Hosseiny: analysis and interpretation of data, drafting of the manuscript; Masoome Alijanpoor: administrative, technical and material supports.

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