



# Examining the Relationship Between Spiritual Coping and Spiritual Wellbeing in Patients with Beta-Thalassemia Major

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## Abstract

**Background:** Thalassemia is one of the most prevalent genetic disorders with numerous physical and psychological side effects. Spiritual wellbeing and spiritual coping are important resources for dealing with the complications of chronic diseases.

**Objectives:** The present study aimed at investigating the relationship between spiritual coping and spiritual wellbeing in patients with beta-thalassemia major in Zahedan in 2016.

**Methods:** This descriptive-correlational study was conducted on 150  $\beta$ -thalassemia major patients who referred to the Special Diseases Clinic of Ali Asghar Hospital of Zahedan in 2016. A convenience sampling was employed, and data collection tools included a clinical and demographic questionnaire and the Spiritual Coping and Wellbeing Questionnaire. The data were then analyzed by SPSS21 using statistical tests including Pearson's correlation coefficient, independent *t* test, and one-way variance analysis.

**Results:** There was a positive significant relationship between the mean score of spiritual wellbeing ( $81.05 \pm 30.79$ ) and the mean score of spiritual coping ( $40.47 \pm 11.81$ ) in  $\beta$ -thalassemia major patients ( $P = 0.001$ ).

**Conclusions:** The improvement of spiritual coping entails boosting spiritual wellbeing. Given the positive impact of spiritual wellbeing on coping with symptoms in patients with chronic diseases, it is possible to promote the quality of life of these patients by enhancing their spiritual coping.

**Keywords:** Spiritual Wellbeing, Spiritual Coping, Thalassemia

## 1. Background

Thalassemia is the most prevalent genetic disorder in the world with no definitive cure that is transmitted from parents to their children (1). In beta-thalassemia, the deficiency of beta protein secretion in hemoglobin causes severe and life-threatening anemia, and the patient's life is dependent on regular blood transfusion and constant medical care (2, 3).

Every year, 70000 children are born with different types of thalassemia across the globe. This condition affects 5% of the world population, more than 50% of whom suffering from beta-thalassemia major (4). Thalassemia is the most common genetic disorder in Iran, as well. About three million Iranians carry thalassemia genes, and about 26000 people suffer from thalassemia major (5). In terms of the number of patients proportional to the country's entire population, Iran holds the first rank among the countries of the world (6). The highest incidence of thalassemia patients in different cities of Iran is 10%, which occurs in Mazandaran, Gilan, Khuzestan, Fars, Bushehr, Hormozgan,

Sistan and Baluchistan, and Kerman (7). Unfortunately, Sistan and Baluchistan, with almost 2050 beta-thalassemia major patients, holds the highest ratio of patients with  $\beta$ -thalassemia major to the provincial population in Iran (8).

Throughout their lives, patients with  $\beta$ -thalassemia major struggle with much anxiety, caused by factors such as recurrent blood sampling for various tests, frequent blood transfusion, and subcutaneous injections. As a result, they frequently visit healthcare centers (9). Such intense anxiety disturbs patients' physical and mental status that, in turn, leads to spiritual crisis, mental health disorders, sorrow, anguish, and finally lack of motivation to receive treatment (10). According to the WHO, health, as a human right, is a state that consists of many aspects, including physical health, as well as the absence of mental and spiritual disease or infirmity. In conclusion, it can be observed that thalassemia, as a condition that affects patients' psychological and spiritual wellbeing, has a great negative impact on health status (11).

Spiritual wellbeing is a fundamental aspect of human

health. It develops a coherent and integrated correlation between the internal forces; furthermore, it is manifested in properties such as stability in life, peace, coordination and harmony, a sense of intimacy to one's self, God, as well as the society and environment; ultimately, it has a great impact on improving health status (12) since it enhances physical and mental wellbeing, as well as the patient's ability to cope with the symptoms of the disease (13).

Spiritual wellbeing consists of two aspects: existential and religious. Religious wellbeing is applied to the satisfaction that drives from connection to a greater power, and existential wellbeing is attributed to the effort to understand the purpose and meaning of life (14).

Various studies have established that spirituality and spiritual wellbeing can have a great impact on reducing the symptoms of psychological or physical illnesses through enhancing patients' mental and physical wellbeing, bringing patients' status closer to health factors, and improving the quality of life in patients with chronic diseases (15-17). In research on diabetic patients, Kiani and Nikbakht concluded that stronger religious beliefs lead to a reduction in patients' depression (18). In their study on hemodialysis patients, Dehbashi et al. also verified that spiritual wellbeing improves these patients' hopefulness (19).

In order to reduce or cope with the problems caused by chronic illnesses such as thalassemia, various methods and approaches must be put into practice. Coping strategies are considered an important resource for dealing with chronic conditions. These strategies are subconscious procedures that an individual deploys in confronting tensions of everyday life (20).

For most patients, spirituality and religion serve as factors in their search for meaning, purpose, and an ethical frame in relation to one's self and others. They also define one's ultimate goal in life and they could be used as a coping strategy when struggling with illnesses (21).

Spiritual coping is a term applied to the quest for meaning in life through spiritual approaches based on religious beliefs and insights (22). Accordingly, people assuredly resort to God, as an ever-abiding power, especially when faced hardship, sickness, and various unfortunate events (23).

In fact, this strategy acts as a shield against stress factors of life; thus, the individual experiences a moderated stress and anxiety level and will most probably attain an enhanced quality of life, as well as psychological wellbeing (24).

Askari and Nikmanesh observed that the enhancement of spiritual coping could improve the life quality of patients with multiple sclerosis (25). In accordance with this finding, Reynolds et al. have also found that using spiritual

coping strategies in patients with chronic diseases such as cystic fibrosis and diabetes leads to a reduction in depression symptoms and behavioral problems in these patients (26).

Spiritual care is a fundamental part of nursing care, and it often predicts how individuals will respond to their illness and its consequences (27). Even though there is substantial evidence regarding the efficiency and positive impact of spirituality on the coping process in patients with chronic diseases, spiritual and religious issues are hardly regarded as part of conventional care programs (28).

Culture and ethnic differences are influential factors on patients' beliefs and mental wellbeing (29). As reported by previous studies, spiritual coping and spiritual wellbeing can have a positive effect on raising the quality of life in patients with chronic diseases. However, no research has been so far conducted on spiritual coping in patients with thalassemia in Iran.

## 2. Objectives

Due to the high incidence of this condition in the country, especially in Sistan and Baluchistan province, the present study examined the relationship between spiritual coping and spiritual wellbeing in patients with the  $\beta$ -thalassemia major in Zahedan.

## 3. Methods

The present descriptive-correlational study was registered under the ethical code IR.ZAUMS.REC.1397.083 after being approved by the Research Committee of Zahedan University of Medical Sciences. The subjects included 150 patients with the beta-thalassemia major who referred to one of the special diseases clinics in Zahedan (2016). The participants were chosen through convenience sampling. The most important inclusion criteria were submitting an informed consent form to participate in research, >18 years of age, regular referral to the health center to receive blood transfusions in order for the subjects to be accessible, literacy and the ability to communicate in order to complete the questionnaires, and having no debilitating conditions. On the other hand, the most important exclusion criterion was not completing the questionnaires as required.

The sample size was determined in accordance with data obtained by Asayesh et al. (30), the lowest correlation coefficient expected between spiritual wellbeing and religious coping strategies variables, and the sample size formula mentioned below. Thus, the total number of 137 people was chosen. In order to improve the statistical power of research, the sample size was increased to the total number of 150.

$$r = 0.28$$

$$\alpha = 0.05 \rightarrow z_{1-\frac{\alpha}{2}} = 1.96$$

$$\beta = 0.1 \rightarrow z_{1-\beta} = 1.28$$

$$c = 0.5 \times \ln \left[ \frac{1+r}{1-r} \right] = 0.5 \times \ln \left[ \frac{1+0.28}{1-0.28} \right] = 0.28$$

$$n = \left[ \frac{z_{1-\frac{\alpha}{2}} + z_{1-\beta}}{c} \right]^2 + 3 = \left[ \frac{1.96 + 1.28}{0.28} \right]^2 + 3 = 137$$

The data collection tool in the present study included personal and clinical data forms, the Spiritual Well-Being Scale (SWBS) developed by Ellison and Paloutzian (1982), and the Spiritual Coping Questionnaire. Using the personal and clinical data forms, information including age, gender, history of mental illness, history of religious activities, and patient's level of education were acquired.

SWBS includes 20 questions, 10 of which concern religious wellbeing and the other 10 evaluate existential wellbeing. The responses are scored according to a six-point scale, ranging from 'I totally disagree' to 'I totally agree'. Answers to negative questions, however, are scored in a reverse manner. Since there was no scale for the questions related to religious and existential subscales, they were assessed according to the obtained score. The higher the score was, the better the religious and existential wellbeing was considered to be. The score of spiritual wellbeing was the sum of these two subscales, ranging from 20 to 120. This score was divided into three categories: low (20 to 40), moderate (41 to 99), and high (100 to 120). Rezaei et al. assessed the validity of SWB and reported its acceptable content validity; besides, Cronbach's alpha coefficient measured its reliability at 0.79 (31).

The Spiritual Coping Questionnaire consists of 20 questions. Nine of the questions address an individual's view towards religion and his/her belief in God, and the remaining 11 questions evaluate coping strategies in relation to one's self, others, and the surrounding environment. The patients' response to any of these questions is scored based on a four-point scale, ranging from 0 ("I have never used before") to 3 ("I often use"). The instrument's validity and reliability were assessed by Saffari et al. and the results suggested its optimal validity; its reliability was also estimated at 0.87 using Cronbach's alpha coefficient (32).

The self-report questionnaires were filled out by the patients and later gathered by the research team. All data were analyzed by SPSS 21 using Pearson's correlation coefficient, independent *t* test, and one-way variance analysis.

#### 4. Results

The findings showed that out of 150 patients who participated in research, 81 (54%) were unemployed, 52 (34.66%) had an elementary-school education, 85 (56.6%) were male, 118 (78.66%) were single, and 68 (45.33%) mentioned that they took part in religious activities to a moderate degree. The mean age of the subjects was  $22.4 \pm 4.2$  years.

The mean scores of spiritual wellbeing and spiritual coping are given in Table 1. According to the Pearson's correlation coefficient test, there was a positive significant relationship between spiritual coping and spiritual wellbeing ( $P = 0.001$ ) and its dimensions including existential ( $P = 0.001$ ) and religious ( $P = 0.001$ ) wellbeing (Table 1).

According to the results of independent *t* test and one-way variance analysis, there was no significant relationship between spiritual coping and spiritual wellbeing of patients with  $\beta$ -thalassemia major and their demographic information ( $P < 0.05$ )

#### 5. Discussion

The results of the present study indicated that most participants had a moderate or high degree of spiritual wellbeing. Accordingly, Zeighami and Tajvidi (33) and Mohammadi et al. (34) concluded that most patients attained moderate scores of spiritual wellbeing. The aforementioned studies are the only surveys that have reported the level of spiritual wellbeing in patients with thalassemia in Iran.

Many studies in Iran have generally assessed spiritual wellbeing in patients with chronic diseases, including thalassemia. In this context, many authors have reported high levels of spiritual wellbeing in patients. One can refer to the studies by Asayesh et al. (30) and Hojjati et al. (35) in patients under hemodialysis, Johnson et al. (36) in patients with chronic diseases, and Rezaei et al. (10) in patients receiving chemotherapy (10). Some researchers, however, have also verified that their subjects attained a moderate level of spiritual wellbeing. Examples include the studies by Jahani et al. (37) in patients with coronary artery diseases, Baljani et al. (38) and Moghimian and Salmani (39) in cancer patients, Dehbashi et al. (19) in hemodialysis patients, and Adegbola (40) in patients with sickle cell anemia.

All the studies mentioned above reported that patients at a moderate or high level of spiritual wellbeing, which is consistent with the results obtained by the present study. Since all these authors addressed patients with chronic diseases, it appears that patients suffering from such conditions have gradually acquired methods to live better, have

**Table 1.** The Mean Scores of Spiritual Wellbeing and Spiritual Coping in Patients with  $\beta$ -Thalassemia Major and the Relationship Between the Two Variables

Dimensions	Mean $\pm$ SD	P Value <sup>a</sup>
<b>Spiritual wellbeing</b>		
Existential wellbeing	39.44 $\pm$ 16.06	0.001
Religious wellbeing	41.61 $\pm$ 15.52	0.001
Total score of spiritual wellbeing	81.05 $\pm$ 30.79	0.001
<b>Spiritual coping</b>		
Coping strategies in relation to one's self, others, and the surrounding environment	22.88 $\pm$ 6.65	0.001
Individual's perspective on religion and belief in God	17.59 $\pm$ 5.75	0.001
Total score of spiritual coping	40.47 $\pm$ 11.81	0.001

<sup>a</sup> Pearson's coefficient test.

better control over stress and anxiety, improve their health status, and raise their quality of life. This, in turn, verifies that patients with chronic illnesses, depending on the nature of the disease, choose various approaches to adapt to the symptoms of their conditions. One of these approaches is concentrating on the spiritual aspects of human existence.

The results of the present study established that the patients achieved an above-average level of spiritual coping. To elaborate on this finding, the efficacy of spiritual coping in adapting to the complications caused by the disease and the stressful consequences of the condition must be taken into account. Patients with thalassemia enhance their spiritual coping strategies thanks to the numerous problems brought about by their condition, and they, thus, get along with their hard circumstances and improve their health status.

The findings of the current study concerning the relationship between spiritual coping and spiritual wellbeing in the patients demonstrated that an increase in the degree of patients' spiritual coping results in the rise of their spiritual wellbeing, as well.

Similarly, in their study on patients with multiple sclerosis, Askari and Nikmanesh found a positive significant relationship between spiritual coping and patients' psychological wellbeing (25).

It appears that in relation to chronic illnesses, spiritual coping can provide patients with a strategy to adapt to the symptoms of their conditions, deal with the problems, and thus enhance their quality of life.

Studies by Vallurupalli et al. (41) and Mesquita et al. (42) in patients with advanced cancer under radiotherapy treatment demonstrated that spiritual coping has a positive effect on the patients' life quality. In addition, research evidence suggests that spiritual wellbeing bears a great impact on diminishing depression, reducing stress and anxiety level (43), improving health status (44), increasing

hope (39, 45), and enhancing the quality of life (37) in patients with chronic conditions. Concerning the significant effect of spiritual coping on enhancing spiritual wellbeing, as attested by the findings of the present study, it could be concluded that through enhancing spiritual wellbeing, spiritual coping can indirectly help to improve patients' quality of life.

Individuals with elevated inner spirituality and self-control define the preservation of human dignity as their highest purpose and as a means of closeness to God; therefore, by relying on strategies to cope with difficult living conditions through spirituality, they maintain their health status, as well as those around them (46).

In general, spiritual coping is invaluable as a way of meeting one's spiritual needs, which constitute an essential component of private life. Furthermore, this strategy brings about positive outcomes such as inner peace and self-awareness. Thus, thalassemia patients as many others who suffer from similar chronic illnesses appear to use spiritual coping to better confront different problems and promote their spiritual wellbeing and mental health and consequently, their quality of life.

One of the limitations of the present study was the existence of two religious denominations (Shiite and Sunni) among the residents of Sistan and Baluchistan province, especially in its capital, Zahedan. It is possible the particular sect of patients could have influenced their spiritual wellbeing as well as spiritual coping - a possibility that was not examined in this survey.

### 5.1. Conclusions

This study established that spiritual coping has a positive impact on spiritual wellbeing in patients with thalassemia. Due to the importance of spiritual wellbeing in harmonizing other dimensions of health and in achieving a more efficient adaptation with one's conditions, health care providers such as nurses who spend more time with

thalassemia patients are recommended to pay more attention to this aspect of wellbeing and see into implementing measures in order to enhance spiritual coping of their patients. It is highly suggested that future studies address religious coping along with spiritual coping in patients with thalassemia, especially in those regions of Iran where different religious denominations coexist, and evaluate the efficiency of religious coping in spiritual wellbeing and life quality of these patients. It is also promising that future researchers make an effort to extensively identify the impact of other factors on spiritual wellbeing in patients with thalassemia so as to take effective measures to enhance the quality of life of such patients.

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### Footnotes

**Authors' Contribution:** Reza Nikbakht: Study design, study implementation and manuscript drafting; Sakine Miri: Study design and study supervision; Narjes Khatoon Sadeghi: Manuscript drafting and scientific editing; Farnaz Jahantigh: Manuscript drafting and scientific editing.

**Conflict of Interests:** No conflict of interests was reported for this study.

**Ethical Considerations:** The present descriptive-correlational study was registered under the ethical code IR.ZAUMS.REC.1397.083 after being approved by the Research Committee of Zahedan University of Medical Sciences.

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