The Relationship Between Spiritual Health With The Levels of Anxiety And Depression Among Cancer Patients

Mohammad Ali Hossein Tehrani
Babol University of Medical Sciences
Mohammad Hadi Yadollahpour (baghekhial@gmail.com)
Babol University of Medical Sciences
Mohsen Vakili Sadeghi
Babol University of Medical Sciences
Angela Hamidia
Babol University of Medical Sciences

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Abstract

Purpose: Spiritual health is one of the dimensions of health associated with physical, social, and mental health. It can play an essential role in coping with stressful disease-related conditions. The purpose of this study was to evaluate the association between spiritual health and the level of anxiety and depression among cancer patients.

Methods: In this cross-sectional study, 200 cancer patients were referred to a tertiary hospital in Iran. Hospital Anxiety and Depression Scale (HADS) and Spiritual Well Being Scale questionnaires were provided to the patients.

Results: The mean score of spiritual health was 76.61±20.007 in cancer patients, which was considered moderate. The relationship between spiritual health and anxiety and between spiritual health and depression was significant. According to the Pearson correlation coefficient, the relationship between spiritual health and anxiety (r=-0.838) and depression (r=-0.834) was inverse. Furthermore, the relationship between spiritual health and anxiety (P<0.001) (r=-0.832) and depression (P<0.001) (r=-0.842) and the relationship between existential health and anxiety (P<0.001) (r=-0.830) and depression (P<0.001) (r=-0.813) were significant and inverse.

Conclusion: The present study showed that spiritual health positively reduces anxiety and depression in cancer patients, promotes mental health, and accelerates and improves the disease.

1. Introduction

Spiritual health is a concept proposed and developed due to psychologists' widespread attention and interest. Spiritual health is a set of adaptations between mental capacities based on immaterial and transcendent aspects, especially those that depend on personal existence, personal meaning, transcendence, and extended states of spirituality (1, 2). Spiritual health refers to a set of abilities, capacities, and spiritual resources whose use increases the adaptability and, consequently, the mental health of persons (3). This concept has recently led the World Health Organization (WHO) to define humans as having physical, psychosocial, and spiritual characteristics (4). The researchers stress that increasing the meaning and spirituality of life helps overcome inconsistencies and increases life satisfaction (5). Spirituality is often considered a constructive coping strategy in improving individuals' mental health, and psychologists and experts have emphasized its importance in the past few decades. In defining human existence, the dimension of spirituality, which is in the direction of human growth and development, has also been mentioned as the fourth dimension by WHO. Spiritual health is one of the basic concepts regarding how to deal with the problems and stress caused by the disease, and as one of the dimensions of health, it leads to the integration of other dimensions. One of the ways that spirituality can promote people's health is by improving people's self-efficacy. If people are spiritually healthy, their self-efficacy scores would be higher. In terms of behavioral science, self-efficacy is the most critical

condition to perform the behavior in stressful stages and situations of life (6). One way to promote mental health and quality of life is to look at spiritual health. Spiritual health is one of the crucial dimensions of human health that coordinates and integrates the relationship between internal forces and is defined by characteristics such as stability of life, peace, symmetry and harmony, emotions, and having a close relationship with God (7, 8). Spiritual health harmonizes the dimensions of a person's health, which enhances their adaptability and mental function. This dimension of health is made up of two dimensions of spiritual health and existential health. Spiritual health reflects a relationship with God or infinite power, and existential health reflects a person's relationship with himself/herself, others, and the environment, which can be seen as the ability to integrate different dimensions of existence and to have different choices (9). Depression and anxiety are among the factors that harm patients' performance status, quality of life, length of hospital stay, and even the outcome of treatment, and the evaluation and treatment of these two disorders are crucial in these patients. The results have shown that the frequency of anxiety and depression is relatively high in cancer patients, and specialists must pay close attention to the diagnosis and treatment of these comorbid disorders (10). Depression and death anxiety are common problems in cancer patients and can affect the mental health of these patients.

On the other hand, spiritual health is a factor affecting other aspects of health, which researchers have recently considered. The findings showed that when spiritual health increases, death anxiety decreases in cancer patients. It appears that a comprehensive care program that includes spiritual health is effective in reducing the mental problems among these patients (11). Hospitalization continues to cause significant stress and anxiety among the patient's relatives. Having faith in God is one of the most critical factors in calming people and preventing mental illness. Trusting in God reduces the worries of severe illnesses and leads to patience in suffering, accepting the divine will, accepting long-term complications and disabilities, and avoiding the factors that cause and aggravate mental disorders and other consequences. Religious beliefs and seeking God's help may reduce depression and anxiety in patients' families. Strengthening beliefs can effectively reduce the symptoms and consequences of depression such as suicide, addiction, delinquency, personality disorders, and sexual health (12). Death anxiety has a significant negative relationship with secure attachment to God. With increasing secure attachment to God, the level of anxiety about death decreases, and conversely, there is a significant positive relationship between avoidant-ambivalent attachment to God and anxiety of death. Thus, it can be argued that secure attachment to God is effective in controlling psychological problems such as death anxiety and related illnesses (13).

This study compares the relationship between spiritual health and the levels of anxiety and depression in cancer patients. If the positive effect of spiritual health on anxiety and depression in cancer patients is determined, it is possible to reduce the anxiety and depression of these patients by increasing their spiritual health of these patients, and in this way, we can take a practical step in the treatment of these patients.

2. Methods

This cross-sectional study was carried out to achieve the main objective of the project. The practical, non-random sampling method was employed in this study. The sample size was set at 200 samples based on the default value of the minimum correlation coefficient of 0.2, the 95% confidence interval, and the 80% power. The study samples included 200 cancer patients referred to a tertiary hospital in Iran who met the inclusion criteria and were not excluded from the study according to the exclusion criteria and agreed to complete the questionnaires. The criteria for inclusion were all cancer patients referred to the hospital with the necessary reading and writing skills and the physical activity to react. Exclusion criteria consisted of patients with acute physical problems, who could not respond, patients with end-stage disease, and patients with a history of major psychiatric illnesses such as cognitive impairment, mental retardation, and psychosis. Some patients recovered from the disease, but those with a severe complication, died during the research, or dropped out of the study were excluded. The researcher referred to the two departments of chemotherapy and hematology. Then, the researcher spoke to the cancer patients, explained the study to them, and invited them to participate. Then, the inclusion and exclusion criteria were assessed, and if the patient was eligible, the demographic information was entered into the questionnaire and fill out by the researcher. Subsequently, the questionnaires were explained to the patient and given to the patient for completion. The 20-item Spiritual Well Being Scale (SWBS) (Paloutzian & Ellison, 1982) was used to assess spiritual health (14).

In this questionnaire, ten questions measure spiritual health, while the remaining ten questions measure existential health. The spiritual health score is the sum of these two sub-groups, with a range of 20 to 120. The answers to the questions are based on the 6-point Likert scale (strongly disagree, disagree, somewhat disagree, relatively agree, agree, and strongly agree). The “strongly agree” option is assigned a score of six, and the “strongly disagree” option is assigned a score of one. In negative questions, the scoring is backward. Finally, spiritual health is divided into three levels: low (20–40), medium (41–99), and high (100–120). The Hospital Anxiety and Depression Scale (HADS) (1983) questionnaire were used to assess anxiety and depression (15). This questionnaire includes 14 questions, seven of which assess depression, and the other seven assess anxiety. Overall, 21 points are obtained from each of its subscales. Its cut-off points are 0 to 7 for health, eight to ten for mild anxiety or depression, and 11 to 21 for severe anxiety or depression for both subscales. The questionnaire was standardized and validated by Kaviani and his staff for use in the clinic population (16). Finally, the researcher collected the questionnaires, and the statistical analysis was carried out by IBM SPSS version 25.0 (IBM. Corp., Armonk, NY, USA). Also, statistics for the test variables are displayed along with Pearson correlation coefficient, t-test, and ANOVA.

3. Results

The mean score of spiritual health was 76.61 ± 20.007 in patients (Table 1), which according to the classification of scores (low level [20–40], medium level [41–99], and high level [100–120]), the spiritual health score was medium in patients in this study. Also, the mean religious health score was 39.27 ± 10.381, and existential health was 37.35 ± 9.782, indicating that the mean religious health score was higher among patients.

Table 1
Levels of spiritual health

	Levels of spiritual health			*Mean ± SD*
	Level	Number	Percentage	
Spiritual health	Low (20–40)	3	1.5%	76.61 ± 20.007
	Medium (41–99)	162	81%	
	High (100–120)	35	17.5%	

According to Tables 2 and 3, the mean scores of spiritual health, religious health, and existential health were all higher in healthy people in terms of depression and anxiety and considering that the P-value is less than 0.05, these differences are significant. Considering the Pearson correlation coefficient in the relationship between spiritual health (r=-0.838), spiritual health (r=-0.832) and existential health (r=-0.830) and anxiety and the relationship between spiritual health (r=-0.834), spiritual health (r=-0.842) and existential health (r=-0.138) and depression, these difference are inversely related. In other words, as spiritual health, religious health, or existential health improves, the levels of anxiety and depression decrease, and as spiritual health, religious health, or existential health deteriorate, the levels of anxiety and depression increase.

Table 2
Relationship between spiritual health and anxiety

Variable	**Anxiety**			**P-value**	**r**
Variable	**Healthy**	**Intermediate**	**Suspected disorder**		
	Mean ± SD	***Mean ± SD***	***Mean ± SD***		
Spiritual health	105.8 ± 13.71	78.84 ± 12	63.45 ± 8.97	< 0.001	-0.838
Religious health	54.3 ± 7.23	40.4 ± 6.28	32.49 ± 4.78	< 0.001	-0.832
Existential health	51.5 ± 6.69	38.44 ± 6.03	30.96 ± 4.52	< 0.001	-0.830

Table 3
Relationship between spiritual health and depression

Variable	**Depression**			**P-value**	**r**
Variable	**Healthy**	**Intermediate**	**Suspected disorder**		
	Mean ± SD	***Mean ± SD***	***Mean ± SD***		
Spiritual health	105.82 ± 14.55	75.39 ± 10.15	62.31 ± 9.24	< 0.001	-0.834
Religious health	54.53 ± 7.33	38.71 ± 5.12	31.72 ± 4.72	< 0.001	-0.842
Existential health	51.29 ± 7.48	36.68 ± 5.32	30.59 ± 4.79	< 0.001	-0.813

4. Discussion

In the current study, based on the classification of spiritual health scores, the mean spiritual health score was 76.61 ± 20.007 in patients. Thus, the spiritual health score of the patients in this study was at a moderate level. In this study, the relationship between spiritual health, religious health, and existential health and anxiety (Pearson correlation coefficient of -0.838, -0.832, and − 0.830, respectively) and also between spiritual health, religious health, and existential health and depression (Pearson correlation coefficient of -0.834, -0.842 and − 0.813, respectively) were significant and inverse.

In the study of Hedayatizadeh Omran et al., which was conducted to determine the relationship between spirituality and death anxiety in cancer patients undergoing chemotherapy, a significant inverse relationship was found between spirituality and death anxiety (17). In the study of Hedayati et al., which was conducted to investigate the relationship between spiritual health and anxiety in the elderly hospitalized in the intensive care unit, a significant inverse relationship was found between spiritual health and its dimensions and anxiety (18). The study of Yadollahpour et al. has shown that spiritual teachings have lowered levels of depression and improved the quality of life of married women (19). Furthermore, the study from Hassanzade et al. showed that spiritual intelligence has a significant impact on positive thinking (20). In the study of Rahimi et al., along with the increase in levels of religious belief in any stratum without the intervention of other factors, a more favorable type of attitude is obtained (21). In the study of Sadeghifar et al., which was performed to predict the levels of depression, anxiety, and stress in hemodialysis patients based on spiritual components, a significant inverse relationship was found between spiritual health and its dimensions and anxiety and depression (22). In the study of Madadi Ardekani et al., which was conducted to determine the relationship between death anxiety and general health and the spiritual health of cancer patients, a significant inverse relationship was found between spiritual health and its dimensions and anxiety (23). In the study of Khademvatani et al., the relationship between spiritual health and its dimensions and anxiety and depression was significant and inverse (24). According to this study, consistent with other studies, the relationship between spiritual health and its dimensions and anxiety and depression was inverse and significant. The data collected through research can be significantly used for planning, awareness, prevention, and necessary treatment measures for patients and health care providers.

5. Conclusions

The present study showed that spiritual health plays a positive role in reducing anxiety and depression in cancer patients, promotes mental health, and subsequently accelerates treatment and recovery. Accordingly, the officials of educational and medical centers are suggested to help reduce the damages and improve the treatment of cancer patients by increasing spiritual health in the community and performing group therapy with the help of psychiatrists to promote spiritual health in the treatment of cancer patients.

Declarations

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- **Conflict of interest**
  All authors declare that they have no conflicts of interest.
- **Availability of data and material**
  The data that support the findings of this study are available from the corresponding author upon reasonable request.
- **Code availability**
  Not applicable
- **Authors' contributions**
  Mohammad Ali Hossein Tehrani: Investigation, Writing – Original draft**, Mohammad Hadi Yadollahpour:** Conception, Investigation, Supervision**, Mohsen Vakili Sadeghi:** Conception, Writing – original draft**, Angela Hamidia:** Investigation, Writing - Review & Editing
- **Ethics approval**
  The ethics committee of the Babol University of Medical Sciences approved this study (IR.MUBABOL.HRI.REC.1398.236).
- **Consent to participate**
  Informed consent form was obtained from all study participants prior to their enrollement.
- **Consent for publication**
  Not applicable

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