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Evaluation of Quality of Life Prediction based on Spiritual Well-Being with the Role of Self-Compassion Modifier in Patients with Cancer in Isfahan Province, Iran

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Quantitative Study

Abstract

Background: Cancer is one of the most important health problems in this century. Harmful effects of this disease on all physical, emotional, spiritual, social, and economic dimensions of human beings are among the factors that have attracted the attention of experts. This study aimed to investigate the quality of life based on spiritual well-being with the moderating role of self-compassion in patients with cancer in Isfahan Province, Iran.

Methods: The research design was descriptive correlational. The study population included all patients with cancer in Isfahan Province in 2021, of which 100 were selected conveniently. To measure the variables, Raes et al. Self-Compassion Scale Short-Form, Ware et al. quality of life scale, and Dehshiri et al. Spiritual Well-Being Scale were used. Data were analyzed using path analysis with SPSS and AMOS software.

Results: Based on the analysis of the findings, it was found that there was a positive and significant correlation between self-sufficiency ($r = 0.37$) and spiritual well-being ($r = 0.39$) with quality of life ($P < 0.01$). Moreover, self-care and spiritual well-being were significant predictors of quality of life ($P < 0.01$). The predicted quality of life of participants was +0.052 (self-compassion) 0.216 + 15.295 + 0.295. The quality of life of participants increased by 0.216 for each self-compassion score and 0.052 for each spiritual well-being score.

Conclusion: It is suggested that counselors and psychologists improve the quality of life of patients with cancer by using measures for self-sufficiency and increasing spiritual well-being.

Keywords: Quality of life; Self-compassion; Neoplasms

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Introduction

Cancer is one of the most important health problems of this century. The harmful effects of this disease on all physical, emotional, spiritual, social, and economic aspects of human beings are those that have attracted the attention of experts (Deka, Mamdi, Manna, & Trivedi, 2016). Cancer is the second leading cause of death worldwide and clearly, a major public health issue growing (Zhang et al., 2020). In 2020, 89500 new cancer cases and 9270 cancer deaths were added to the overall statistics provided by the American Cancer Society (Miller, Fidler-Benaoudia, Keegan, Hipp, Jemal, & Siegel, 2020). The pain and suffering caused by the disease cause many problems in people's lives and this leads to the quality of life of patients with cancer (Yoon et al., 2016).

Cancer is a chronic disease that severely affects the process of quality of life, psychosocial function, and economic progress of individuals (Bahreinian, Radmehr, Mohammadi, Bavadi, & Mousavi, 2017). There are several studies on cancer and quality of life. A study conducted by Zhang et al. (2020) concluded that accepting a healthy lifestyle significantly reduced the risk of cancer and mortality; therdfore, a healthy quality of life should be prioritized for cancer prevention. The importance and measurement of quality of life are such that some consider improving the quality of life as the most important goal of treatment (Mojtabaie & Golsefidi, 2014). Since the development and advancement of cancer diagnosis and treatment technologies have increased the life expectancy of this group of patients, one of the most important aspects of caring for patients with cancer is improving their quality of life (Hamzehlouiyan, Besharat, Rahiminezhad, Zamanian, & Farahani, 2019). Quality of life is a feeling of well-being, and satisfaction and dissatisfaction are caused by different aspects of life that are important to the individual (Mojahed, Bazi, Azadi Ahmadabadi, Abbasi Mendi, & Shahraki, 2018). It is also one of the most fundamental concepts in positive psychology (King et al., 2018). Quality of life is usually a health indicator that can help assess the effects of diseases and health-related risk factors and can help provide valuable insight into the effects of treatment on a person's well-being (Lee & Salman, 2018). Nowadays, attention has been paid to capacities that play a great role in the quality of life (Purkayastha, Venkateswaran, Nayar, & Unnikrishnan, 2017).

Health status is one of the most important and effective dimensions in the quality of life of people, especially patients with cancer. As defined by the World Health Organization (WHO), health has physical, mental, social, and spiritual dimensions. The spiritual aspect of health requires very serious attention (Seraji, Shojaezade, & Rakhshani, 2016). Spiritual well-being is the connection with others, having meaning and purpose in life, and having belief and relationship with a transcendent power (Varzdar, Ranjbaripour, & Rezabakhsh, 2019). Various researchers such as Bai et al. (2015), Ting et al. (2019), Canada et al. (2019), Canada, Posamai, and Mead showed the relationship between different aspects of spirituality with quality of life and mental health in patients with cancer. Varzdar et al. (2019) concluded in their research that increasing spiritual well-being and communication skills increased life satisfaction. Besides, Zare et al. (2019) concluded that there was a significant positive relationship between spiritual well-being, mental health, and quality of life in patients with cancer.

Another component that affects people's quality of life is self-compassion. According to Neff (2011) definition of self-compassion, it means experiencing the suffering and understanding the suffering of others in a way that makes their

sufferings more tolerable; in addition, a person who is rightly and sufficiently kind to himself will have more mental health and well-being. This means that in difficult and stressful situations of living with gentleness and calmness, the person encourages himself to change his life and corrects his harmful and undesirable behavior patterns. Self-compassion can act as an emotional regulation strategy and therefore, shows strong connections to people's mental health (Diedrich, Grant, Hofmann, Hiller, & Berking, 2014). In a study conducted by Klein et al. (2020), it was concluded that there was a significant positive relationship between self-compassion, hope, and quality of life in patients with bleeding disorders. Moreover, Robinson et al. (2018) showed that the more self-compassion, the less parental stress and potentially contribute to the quality of life.

In general, considering the many findings of the present study variables and the complex and multilateral interactional effects that these variables leave on the quality of life, as well as the adverse conditions and numerous problems caused by cancer that affect the quality of life and performance of individuals (Robinson, Hastings, Weiss, Pagavathsing & Lunsky, 2018) and further treatment of cancers, have side effects that short-term and long-term quality of life of patients. Severely endangers (Karami, Falahatpisheh, Jahani Hashemi, & Beyraghdar, 2010). Awareness of quality of life can improve the individual status of patients with cancer (Bottomley, 2002). Therefore, the present study aimed to predict the quality of life based on spiritual well-being with the moderating role of self-compassion in patients with cancer in Isfahan Province, Iran.

Methods

This research was a descriptive correlational study. The statistical population included all patients with cancer in Isfahan Province in 2021. The total sample selected in this study included 100 people. This study was concurrent with the pandemic period of the coronavirus disease 2019 (COVID-19), and everyone in the community was able to stop the chain of infection and observe the hygienic principles of in-home quarantine; therefore, the researcher was unable to sample in person, and virtually called for people to voluntarily participate in this study. The instruments of use in this study were online questionnaires and all items of questionnaires were sent online to volunteers who easily responded to the questionnaires. The ethical considerations of the present study were as follows: all subjects received written information about the research and participated in the research if they wished. They were assured that all information was confidential and would be used for research matters. To respect privacy, the participants' names and surnames were not registered.

Short form of the Self-Compassion Scale: A 12-item Self-Compassion Scale (short-form) includes three two-faced factors of self-kindness versus self-judgment, a sense of human commonality versus isolation, and consciousness versus increasing cloning. Respondents must respond to scale expressions in the 5-point Likert scale (1 = almost never, 5 = almost always). The validity of this scale has been confirmed by Raes et al. (2011) (α = 0.86). Ghorbani et al. study (2012) reported internal consistency on a scale of 0.84. The reliability of this questionnaire in the present study was 0.73 by Cronbach's alpha method.

The Short-Form Health Survey (SF-36): This questionnaire consists of 12 questions with sub-domains of general health, physical pain, physical function, physical role, emotional role, social functioning, energy and vitality, and mental health, which is

derived from the combination of the first 4 sub-domains of that composite scale of physical health and the combination of 4 sub-domains of the second, the combined mental health scale. To score questions, this tool is used for both yes and no answers or a 3 to 6-point Likert scale with scores of at least 1 to a maximum of 6, which requires changing scores from 12 to 48 for each participant. Ware et al. (1996) reported the reliability of this instrument by test-test method for two composite scales of physical health and mental health, as well as total scale as 0.89, 0.76, and 0.90, respectively, and construct validity, comparing it with the short form of 36 questions as 0.95, 0.96, 0.98, respectively. Moreover, internal reports stated that the reliability of this instrument based on Cronbach's alpha in a combined scale of physical health and mental health was 0.73 and 0.73, respectively, and its validity was reported by examining the ability to differentiate between cognitive groups, good and based on the correlation between this field finder and desirable individual materials (Montazeri, Goshtasebi, Vahdaninia, & Gandek, 2005). The reliability of this questionnaire in the present study was 0.79 by Cronbach's alpha method.

Spiritual Well-being Questionnaire: This questionnaire was created by Dehshiri et al. (2013) based on the proposed model of the National Interfaith Association (1975) among students of Tehran universities, Iran, which includes 40 questions with a Likert scale of 5 points from "completely agree" to "completely disagree". The questionnaire has four subscales: orthyat with God, self-relationship, relationship with nature, and relationship with others. Each subscale has 10 questions. By implementing the questionnaire, a score of 4 subscales is obtained and with the total score of 40 questions, the total score of spiritual well-being is obtained. The scoring of questions is from 1 to 5; thus, the opposite option is scored 1 and "completely agree" is scored 5. Cronbach's alpha coefficient was 0.94 and the alpha coefficient of the subscales was 0.91, 0.92, 0.93, and 0.85, respectively. Besides, the reliability coefficient of the questionnaire was 0.86 and that of its subscales was 0.80, 0.81, 0.89, and 0.81, respectively. A positive and significant correlation between the scores of the questionnaire and the scores of the Spiritual Well-Being Scale, life satisfaction scale, and temple religiosity test indicated the convergent validity of the questionnaire. In addition, the negative and significant correlation between the scores of the questionnaire and the scores on mental disorders indicated the divergent validity of the questionnaire. The reliability of this questionnaire in the present study was 0.83 by Cronbach's alpha method.

The significance level in this study was considered 0.05. The above analyses were performed using SPSS software (version 22, IBM Corporation, Armonk, NY, USA) and AMOS (version 22) software. The significance level of the tests in this study was considered 0.05.

Results

The mean and standard deviation (SD) of age of the participants in this study was 45.59 ± 9.13 years. Descriptive characteristics of research variables are presented in table 1.

Table 1. Descriptive findings related to research variables

Variables	Mean ± SD	Minimum	Maximum
Quality of life	31.08 ± 6.04	23	61
Self-compassion	37.45 ± 7.32	24	50
Spiritual well-being	147.85 ± 34.21	80	204

SD: Standard deviation

Table 2. Correlation matrix between research variables

Variables	Quality of life	Self-compassion	Spiritual well-being
Quality of life	1	0.377*	0.397*
Self-compassion	-	1	0.392*
Spiritual well-being	-	-	1

*P < 0.01

As can be seen in table 1, the mean and SD of quality of life was 31.08 ± 6.04, self-compassion was 37.45 ± 7.32, and spiritual well-being was 147.85 ± 34.21, respectively.

As can be seen in table 2, there was a positive and significant correlation between self-compassion (r = 0.377, P < 0.01) and spiritual well-being (r = 0.397, P < 0.01) with quality of life.

As can be seen in table 3, a multiple linear regression was performed to predict the quality of life based on self-compassion and spiritual well-being. A significant regression equation (P < 0.01, F = 13.319) with r^2 = 0.215 was obtained. Self-compassion and spiritual well-being were significant predictors of quality of life. The predicted quality of life of participants was +0.052 (self-compassion) 0.216 + 15.295 + 0.295. The quality of life of participants increased by 0.216 for each self-compassion score and 0.052 for each spiritual well-being score.

Discussion

This study aimed to investigate the role of self-compassion adjustment in the relationship between spiritual well-being and quality of life. The results showed that spiritual well-being was significantly able to predict the quality of life. This finding is in line with the results of Milan et al. (2018), Shahbazirad et al. (2015), Zamani et al. (2015), and Mehrabi et al. (2014). Spiritual well-being can create a positive attitude to life through hope and meaning in people's lives and encourages them to endure problems and consequently, leads to further resilience. Having such an attitude, in turn, can increase their quality of life. Spiritual well-being leads to more adaptation to critical situations and this also increases the quality of life among people (Shahbazirad, Momeni, & Mirderikvand, 2015). Spirituality can make people more adaptable to the challenges that occur in life. People who have better spiritual well-being, through meaningfulness of life's adversity and interpretation as challenges for further growth, are less likely to have internal conflicts, aimlessness, emptiness, dissatisfaction, and despair in the face of crises and tolerate deprivations and adversity more.

Further, it was found that self-compassion had a positive and significant relationship with quality of life. This finding is in line with the results of Rezaei et al. (2020), Sheykhan et al. (2019), Sasani et al. (2020), and Khoshnoudfar et al. (2018) researches. It seems that self-compassion acts as a bumper against the effects of negative events. Self-compassion can create a healthy attitude toward self, away from judgment and criticism. Self-compassion moderates negative emotions and helps to change people by creating care, new attention to oneself, and providing compassionate internal processes (Sheykhan, Ghadampour, & Aghabozorgi, 2019).

Table 3. The results of multiple linear regression analysis predicting quality of life based on self-compassion and spiritual well-being

Variables	Statistics						
	R	R^2	F	B	β	T	P-value
Constant	0.46	0.21	13.31	15.29	-	4.86	0.001
Self-compassion				0.21	0.26	2.68	0.009
Spiritual well-being				0.05	0.29	3.00	0.003

Self-compassion can empower the person in their mental dimensions, stopping the old patterns of destructive behaviors such as self-criticism and perfectionism, and starting new behaviors opposed to them. Besides, they have introduced self-compassion as a tripartite tool that includes differences in how to treat oneself kindly or defame (self-compassion versus self-criticism), second, differences in the assessment of hardships, so that they are regarded as part of human nature or as a source of isolation, or infer an identification with individual problems (Khoshnoudfar, Omidvar, & Tahmasebi, 2018). People who have a high self-compassion, since they judge themselves with less difficulty, accept negative events in life more easily and self-assessment and reaction. Their actions are more accurate and more based on their actual performance, because self-judgment in these people neither tends toward an exaggerated self-criticism nor towards an exaggerated self-benefit.

In addition, the results of this study showed that self-compassion significantly mediated the relationship between spiritual well-being and quality of life. In other words, the results showed that in people who had more compassion for themselves, spiritual well-being had a greater impact on quality of life. One of the effects of self-compassion, which can be considered as overlapping with spiritual well-being, is the lack of self-criticism and the permissibleness of human error. In spiritual well-being, individuals interpret painful events in a way that is not exclusive to the individual and is a common human experience that can occur to anyone and also interpret them as events to test one's patience, with more resilience and creativity to provide more diverse solutions. In addition, people who benefit from more self-compassion can do better than others while maintaining their spiritual beliefs to promote calmness and feelings of self-efficacy. Consequently, not only their perceived stress and distress levels against traumatic events decrease, but also they are able to maintain more satisfaction and quality of life under normal living conditions.

Finally, while appreciating the participants, the limitations faced in the present study should be considered in generalizing the results. According to the research being at the time of the widespread COVID-19 and the virtual implementation of research questionnaires, there was no supervision on how to answer the questions and on the level of perception of respondents and their response situation and conditions. It is suggested that in future research, if possible in person or using individual voice or video calls, each questionnaire should be completed individually under the supervision of the researcher.

Conclusion

It is suggested that counselors and psychologists improve the quality of life of patients with cancer by using measures for self-sufficiency and increasing spiritual well-being.

Conflict of Interests

Authors have no conflict of interests.

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