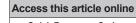
# **Original Article**





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# Investigating the relationship between religious orientation and spiritual intelligence with general health dimensions in women with breast cancer

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# Abstract:

BACKGROUND: Breast cancer is the most common type of cancer and the second leading cause of death among women. Religion and spiritual behaviors are effective strategies for maintaining human health. The aim of this study was to determine the relationship between religious orientation and spiritual intelligence with general health dimensions in women with breast cancer.

MATERIALS AND METHODS: The present study is a correlational study that was performed on 50 women with breast cancer referred to medical centers affiliated to Isfahan University of Medical Sciences in 2020. Data were collected through questionnaires of religious orientation, spiritual intelligence, and general health. Data were analyzed by Spearman and regression tests.

**RESULTS:** The results showed that religious orientation had a significant positive relationship with the overall score of general health, but the components of religious orientation had a significant negative relationship with the number of components of public health (p < 0.05). Spiritual intelligence also had a significant positive relationship with general health. However, the number of components of spiritual intelligence has a significant negative relationship with the number of components of general health (p < 0.05).

CONCLUSION: Considering the relationship between religious orientation and spiritual intelligence with public health and considering educational programs based on spiritual intelligence and religious orientation in this group of people can be an important step in promoting their general health.

#### **Keywords:**

Breast cancer, general health, religious orientation, spiritual intelligence, women

# Introduction

reast cancer is the most common cancer Damong women. According to the World Health Organization, one in eight women gets breast cancer. Breast cancer is the second most common cause of cancer death.<sup>[1]</sup> This disease changes the course of a person's life and causes him/her many problems in all physical, mental, social, economic, and family dimensions. Depression, frustration,

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anger, and sometimes suicidal ideation are common in these patients.<sup>[2]</sup> Because of the threatening nature of cancer, the diagnosis of this disease causes the spiritual needs of patients to increase dramatically. These needs create many semantic crises in the individual. A person's self-confidence and religious faith are compromised, inter-personal relationships are disrupted because of uncertainty about the future, and previous adjustment mechanisms seem inadequate.<sup>[3]</sup> Hospitalization may also lead to feelings of loneliness and a spiritual crisis.

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Today, many physicians recognize faith and spirituality as an important source of physical health and well-being and consider them necessary to pay attention to spiritual issues in the healing process. Religion and spirituality introduce a set through which man can understand the meaning and concept of his life.<sup>[4]</sup> Spirituality is a protective factor against a range of negative health consequences. Spiritual intelligence is a very important feature in the fight against chronic diseases such as cancer. Spiritual intelligence represents a set of abilities and capacities of spiritual resources that can be used to increase a person's adaptability.<sup>[3,4]</sup> In one study, the results showed that there is a significant relationship between religious orientation and spiritual intelligence with health.<sup>[5]</sup> Also, the results of another study showed that inner religious orientation, optimism, and spiritual intelligence have a positive and significant relationship with spiritual health.<sup>[6-10]</sup> Cancer as a negative stressor has a serious impact on the physical and mental health of patients. Religion and spiritual resources are a major factor in the lives of many people, and the degree of religiosity and commitment to religious teachings can be considered as one of the factors affecting his health. Therefore, the present study was conducted to determine the relationship between religious orientation and spiritual intelligence with general health dimensions in women with breast cancer.

# **Materials and Method**

#### Study design and setting

The present study is a correlational study. This study was performed by non-random sampling and available (easy) type on 50 women with breast cancer referred to medical centers affiliated to Isfahan University of Medical Sciences (Seyed Al-Shohada Medical Center, gynecological wards and gynecological clinics of Al-Zahra and Shahid Beheshti Hospitals) in 2020.

#### Study participants and sampling

The sample size was calculated based on studies with 10% sample loss of 50 people.<sup>[7]</sup> Inclusion criteria were women of Iranian nationality, Muslim, having the physical and mental desire and ability to participate in the study, those having written consent to participate in the study, those with no cancer and other chronic diseases, those with no history of known mental disorders, and those with breast cancer without metastasis (being in grade 1 disease) with a duration of 12–24 months. Exclusion criteria included incomplete completion of questionnaires and unwillingness to continue answering questions.

# Data collection tool and technique

In this study, a questionnaire was used to collect data. The questionnaires used included a demographic/fertility

questionnaire; a religious orientation questionnaire; and emotional intelligence, spiritual intelligence, and general health questionnaires.

The general health questionnaire consisted of 28 questions and four sub-scales. Questions 1-7 = physical, questions 8-14 = anxiety and insomnia, questions 15-21 = social dysfunction, and questions 22-28 = depression. Answers based on Likert are scored with no or least (score 0), mild (score 1), moderate (score 2), and severe (score 3). The overall score is from 0 to 84. The reliability of the questionnaire in the study of Moradi Joo *et al.*, 2018 was confirmed by the Cronbach's alpha reliability coefficient with 90%.<sup>[3]</sup>

The Allport Religious Orientation Questionnaire consists of 21 questions (questions 1–12 external religious orientation, questions 13–21 internal religious orientation) that are scored on a 4-point Likert scale (strongly agree = 1, approximately agree = 2, approximately disagree = 3, strongly disagree = 4). In Janbozorgi's study, its internal consistency using a Cronbach's alpha of 0.71 and the reliability of the re-test was confirmed with 0.74.<sup>[8]</sup>

The King Spiritual Intelligence Questionnaire has 24 questions that are scored on a Likert scale (strongly disagree = 5, disagree = 4, somewhat agree = 3, agree = 2, strongly agree = 1). The overall score is between 0 and 96. This questionnaire has four sub-scales of existential critical thinking, production of personal meaning, transcendent awareness, and development of state of consciousness. The validity and reliability of the questionnaire have been confirmed by Khodabakhshi (2013).<sup>[9]</sup>

After approving the plan and obtaining permission from the ethics committee of Isfahan University of Medical Sciences, the researcher presented a letter of introduction to the relevant medical centers. After explaining the objectives of the research, permission was obtained from the director of the centers. Then, by visiting these centers on consecutive days, the selected units that met the inclusion criteria were selected through easy sampling. They were then contacted with all the information so that they could coordinate to complete the questionnaires whenever they wished. For illiterate or illiterate women, the researcher completed the questionnaires with the patient. Finally, the collected information was coded and analyzed by SPSS software version 22 and statistical analysis (Spearman).

# **Ethical consideration**

This study was performed after approval in the ethics committee of Isfahan University of Medical Sciences (with the code IR.MUI.RESEARCH.REC.1399.110). Written informed consent was obtained from all participants in the study.

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#### **Results**

Data analysis was performed on 50 women with breast cancer. Based on the findings of this study, the mean age of participants was 75.6+18.56 years. A total of 39 participants were housewives. Most participants (33 = 66%) had diploma and under-graduate education. The mean general scores of general health were 63.19 ± 2.36, that of religious orientation was 84.10 ± 14.50, and that of spiritual intelligence was 09.14 ± 91.62.

The results of data analysis showed that internal religious orientation has a significant negative relationship with all components of public health. External religious orientation also had a significant negative relationship with the general health depression dimension. The overall score of religious orientation had a significant negative relationship with the components of anxiety and insomnia and social dysfunction. In addition, internal religious orientation had a significant positive relationship with the overall score of religious orientation internal religious orientation and the overall score of religious orientation had a significant positive relationship with the overall score of general health (p < 0.05) [Table 1].

# Discussion

The results of data analysis showed that internal religious orientation has a significant negative relationship with all components of public health. External religious orientation had a significant negative relationship with the dimension of depression and the overall score of religious orientation with the components of anxiety and insomnia and social dysfunction. In addition, internal religious orientation and the overall score of religious orientation had a significant positive relationship with the overall score of general health. In fact, spirituality can play an important role in adapting to the stressful conditions of patients with chronic diseases. Spiritual care changes patients' attitudes toward their illness in a positive way, and through this, spirituality leaves its supportive and soothing effect on the patient and as a result increases people's health.<sup>[3]</sup> In this regard, the results of Koenig's study showed that there is a significant negative relationship between religiosity and anxiety.<sup>[10]</sup> The results of O'Conner's study also showed that there is a significant negative relationship between religious orientation and physical problems.<sup>[11]</sup> However, the results of the study of Maltby, Koenig, and Neelman showed that religious beliefs reduce depression.<sup>[10,12,13]</sup> Alves and Thoresen's study showed that there is a significant negative relationship between religious orientation and physical problems.<sup>[14,15]</sup> A study by Solati et al.<sup>[16]</sup> (2011) showed that only religion with an internal dimension improves mental health. The results of the study of Jan Bozorgi (2007) showed that internalized religion plays a key role for mental health. Attention to inner religion in preventive and therapeutic interventions can be considered an effective factor in mental health.<sup>[8]</sup> The study of Mohammadi *et al.*<sup>[17]</sup> (2015) showed that nurses with internal religious orientation have better mental health. The study of Nozari et al.<sup>[18]</sup> (2010) showed that there is a positive relationship between internal religious orientation and mental health and also external religious orientation has a negative relationship with mental health in students. A study by Maleki et al.<sup>[19]</sup> (2013) showed that internal religious orientation is a predictor of public health.<sup>[19]</sup> According to the results of studies, the higher and stronger the dimensions of spiritual health and spirituality in patients, the less psychological damage they have and as a result the greater their sense of health and recovery.

The results showed that the components of spiritual intelligence, personal meaning production with the components of anxiety and insomnia, social dysfunction, physical dysfunction, and depression of general health had a significant negative relationship. The component of transcendent awareness had a significant negative relationship with the components of social dysfunction and depression. The development of alertness also had a significant negative relationship with all components of general health. The overall score of spiritual intelligence

Table 1: The relationship between religious orientation and spiritual intelligence with the general health of women with breast cancer

Variable	Physical		Anxiety and insomnia		Social dysfunction		Depression		Overall health score	
	r	Р	r	Р	r	Р	r	Р	r	Р
Religious orientation										
External religious orientation	0/617	-0/046	0/302	-0/071	0/058	-0/205	0/034	-0/068	0/054	-0/304
Internal religious orientation	0/001	-0/043	0/001	-0/432	0/001	-0/323	0/001	-0/521	0/001	0/742
Overall score	0/514	-0/082	0/025	-0/348	0/001	-0/352	0/051	-0/401	0/001	0/333
Spiritual Intelligence										
Existential critical thinking	0/972	-0/002	0/919	0/024	0/294	-0/109	0/448	-0/098	0/229	-0/131
Generate personal meaning	0/315	-0/103	0/001	-0/336	0/021	-0/240	0/025	-0/224	0/001	0/384
Almighty awareness	0/716	-0/037	0/442	-0/082	0/048	-0/300	0/044	-0/078	0/164	-0/196
Develop a state of consciousness	0/001	1	0/001	-0/534	0/001	-0/545	0/001	-0/341	0/001	0/687
Overall score	0/416	-0/072	0/022	-0/288	0/004	-0/282	0/046	-0/300	0/001	0/355

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had a significant negative relationship with the components of anxiety and insomnia, social dysfunction, and depression. The components of personal meaning production, development of consciousness, and the overall score of spiritual intelligence had a significant positive relationship with general health. In this regard, the study of Rostami et al.[20] (2014) showed that there is a positive and significant relationship between spiritual intelligence and general health as two basic variables in life. The study of Khodabakhshi et al.<sup>[21]</sup> (2014) showed that spiritual intelligence has a positive effect on mental health. People with spiritual lives are psychologically healthier people. Elmer, McDonald, and Friedman (2003) showed that spirituality is associated with lower morbidity and longevity.<sup>[22]</sup> Yousefi's study (2001) showed that there is a significant negative relationship between the severity of anxiety and religious attitude.<sup>[23]</sup> Moallemy's study (2010) showed that spiritual intelligence is effective on students' mental health.[24] The results of the study of Tajedini et al.<sup>[25]</sup> (2017) showed that spiritual intelligence can predict mental health. According to the results of studies, spiritual intelligence causes the use of spiritual information in solving problems and issues that occur and thus leads to adaptation.

# **Limitations and Suggestions**

One of the limitations of this study is the cross-sectional study and conducting a study on a small group of women with breast cancer. For this purpose, it is recommended that the study be performed on a large group of this community as well as at different times of treatment. It should also be compared with a group of women who do not have breast cancer.

Conclusion: Spiritual intelligence and religious orientation are related to the general health of women with breast cancer. To this end, considering educational programs based on spiritual intelligence and religious orientation in this group of people can be an important step in promoting their general health.

#### Acknowledgements

The study is the result of a research project approved by the Vice Chancellor for Research of Isfahan University of Medical Sciences with the ethics code IR.MUI. RESEARCH.REC.1399.110. Thanks to Isfahan University of Medical Sciences and all participants in the research.

#### **Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/ have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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### **Conflicts of interest**

There are no conflicts of interest.

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