The role of religious coping in predicting the quality of life dimensions in women with breast cancer

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Introduction: Quality of life is an important issue in chronic diseases, especially in cancer. Considering the religion in quality of life is important. Therefore, this study aimed to determine the role of religious coping in predicting the quality of life dimensions in patients with breast cancer.

Methods: The study was a descriptive-correlation. The study population was the patients with breast cancer referred to the referral medical center of Kerman city in 2015. The sample included 121 patients who were selected by available sampling method. The variables were measured using the religious coping questionnaire and the quality of life questionnaire for breast cancer patients. Data were analyzed using Pearson correlation coefficient and Step-Wise Regression Test.

Results: The results showed that there was a positive and significant relationship between functional dimension with religious activities, benevolent assessment, and active religious activities. The symptoms dimension had an inverse and significant relationship with religious activities. There was also a positive and significant relationship between the general health dimension with religious activities, benevolent assessments and active religious activities. The regression analysis indicated that benevolent assessment was a predictor for functional dimension (Beta=0.26). Religious activities were an inverse predictor for symptoms dimension (Beta= -0.18), and active religious activities were a predictor for general health quality of life (Beta=0.31).

Conclusion: The dimensions of positive religious coping including religious activities, benevolent assessment, active religious activities can improve the quality of life of patients with breast cancer in functional, symptoms and general health dimension.

Keywords: religion, quality of life, breast cancer
Introduction
Cancer is one of the major health problems in the world, and many people die annually from various type of cancer (1). Nowadays, 10 million new cases of cancer are detected every year around the world, without the use of effective prevention programs reaches 20 million cases in 2020 (2). In 2012, 33,200 deaths from cancer were estimated in the United States (3). Among all types of cancer, breast cancer is the second most common cancer in the world and in women (4). According to the United States Department of Health and Human report, over 1.6 million new cases of breast cancer are detected among the women every year (5). In Iran, 76% of cancers in women are breast cancer (6). Although nowadays the diagnosis of cancer is not death sentence, it has been shown that such a diagnosis causes deep emotional and psychological problems in the patient and his or her family (7). It also affects the quality of life dimensions including physical, mental, and social welfare (8). Diagnosis and treatment of breast cancer is an experience with stress and anxiety. Women with cancer are treated with some therapy methods like chemotherapy and surgery and encountered with unpleasant side effects. High-stress levels have a negative effect on self-belief of women, affecting their family performance, marital role, and quality of life (9).
Chemotherapy is an important therapeutic method in cancer patients, but has several side effects and can have a major impact on the quality of life of patients (10). One of the most common psychological responses in these people after hearing about breast cancer is depression with an average prevalence of 5% (11). Mental distress, such as meaninglessness and frustration in advanced diseases, is highly common and related to the low quality of life (12). When confronted with the diagnosis of cancer, various strategies are used to cope with it. The strategy used has an important consequence for predicting the quality of life of patients (4). Religion and religious activities are an important and common strategy in coping with chronic diseases reported by cancer patients (13). As reported, 85% of women with breast cancer are using religion to cope with cancer (14). In addition, research has shown that faith plays an important role in improving the quality of life of cancer patients in the primary and advanced stages of the disease [15], and religious beliefs lead to peace of mind and create a sense of control over situations (16). Religion makes the patient hope for a better life by creating a positive attitude toward the world. This increases the tolerance and acceptance of unchangeable situations that are of particular importance in hard to treat diseases (17).
For thousands of years, religious traditions have prescribed religious coping as a method of coping with the main stressors of life (18) and defined religious coping using cognitive and behavioral techniques based on religion and spirituality in the face of stressful events (13). A positive religious coping is a strategy that has a useful effect, such as solving the problems of the individual in co-operation with God and seeking help. The negative religious coping is the belief in God punishing (19). Positive religious coping represents a secure relationship with God, which leads to a positive psychological adjustment in the face of stressful situations and improvement of the quality of life. Negative religious coping represents tension, contention, and struggle with God, which leads to increased psychopathology and quality of life (20). The effect of religious coping on the quality of life in cancer patients has attracted much attention. The results reported improvement in the quality of life in religious people who used religion to cope with their illness (21). Therefore, religion and the use of religious coping are considered as a significant and effective factor in the quality of life for many patients who deal with a life-threatening illness such as cancer (22).

The present research attempts to answer the question: which of the dimensions of religious coping predict the quality of life dimensions in women with breast cancer?

Methods
The method of this research was descriptive-correlation. The study population was the patients with breast cancer referred to a referral medical center in Kerman during the period from February to March 2015. The selected medical center included a clinic and a chemotherapy center that was selected for sample collection. One hundred thirty patients with breast cancer were selected by convenient sampling method. The criteria for entering the study included all female patients with breast cancer diagnosed by a specialist physician; at least 6 to 12 months from diagnosis to treatment; treated with appropriate treatments (chemotherapy, radiotherapy, surgery, etc.) and complete satisfaction to participate in the research. After explaining how to complete the questionnaires, expressing the research goals and ensuring the confidentiality of their information, they completed the religious coping and quality of life questionnaires individually. Finally, 121 questionnaires were extracted and 9 questionnaires were eliminated due to incomplete
responses. The data was analyzed by Pearson correlation coefficient and Step-Wise regression procedure of SPSS software (Version 19). Regarding the significance level of data was more than 0.05 in the Kolmogorov – Smirnov test, the data was a normal distribution.

Pearson correlation coefficient and Step-Wise regression were used to analyze the data. Since the scores of all three dimensions of life quality in the regression test were higher than 1.5, this test was used.

Demographic data including age, sex, education, marital status and duration of illness were collected by a demographic check list and the religious coping by a questionnaire. Data was collected by Iranian religious coping questionnaire (Aflaksie and Colman, 2011) and quality of life questionnaire for cancer patients1 (1993). The Iranian religious coping questionnaire was prepared by Aflaksie and Colman (2011) and has 22 items that are comparable to the religious coping questionnaire of Pargament. Positive and negative religious coping methods were evaluated in the form of five subscales including religious activities (6 items), benevolent assessment (6 items), active religious coping (3 items), negative feeling towards God (4 items), and passive religious coping (3 items). In the present study, the 5-point Likert-type scale was used that the range of responses varied from none (score zero) to very high (score four). The reliability of this measure was 13% for religious activity, 73% for benevolent assessment, 73% for negative feelings towards God, 72% for passive coping, and 73% for active coping by Cronbach's alpha (23). Askari reported that the Cronbach's Alpha of this questionnaire was 87% for religious activity, 83% for benevolent assessment, 58% for negative feelings towards God, 62% for passive religious coping, and 67% for active religious coping. Cronbach's alpha for this questionnaire was 86% in the religious activity dimension, 60% in negative feelings towards God dimension, 66% in passive religious coping dimension, 78% in benevolent assessment dimension, and 80% in active religious coping dimension. In addition, Cronbach's alpha coefficient of this questionnaire was 85%.

A quality of life questionnaire for cancer patients belonging to the European Organization for Research and Treatment of Cancer (1993) was used to assess the quality of life. This questionnaire is multidimensional and consists of 30 items measuring quality of life in 5 functional scales (physical function, role-playing, emotion, cognitive, and social), 9 symptoms scales (fatigue, pain, nausea and vomiting, asthma, diarrhea, constipation, sleep disturbances, loss of appetite, and economic problems caused by the disease and the treatment), and a general health domain of life quality. The score of each scale is set to range from zero to one hundred. In functional domains and general health domain of life quality, a higher score indicates a better status of performance or quality of life, while in the domain of symptoms, a higher score indicates the more symptoms and problems (25). Safae et al showed that the third edition of the Persian version of this questionnaire is a reliable and valid tool for assessing the life quality of cancer patients and can be used in clinical and epidemiological studies of cancer (25). In addition, Cronbach's alpha coefficient in the present study was 91% for functional dimension, 88% for symptoms dimension, and 77% for general health dimension. The Cronbach's alpha coefficient for this questionnaire was 94%.

**Results**

The results of the present study showed that the majority of patients were married (91), with an average age of 24-87 years and the highest frequency was in the age group of 40 to 55 years (43). In addition, regarding education level 24 patients had a university education, 11Women illiterate and the highest frequency was the degree of diploma 29 patients.

Furthermore, the results of the present study showed that the functional dimension of quality of life had a higher mean compared to the symptom and general health dimensions the mean score of the negative and positive religious coping was higher than the mean of the questionnaire in all dimensions (Table 1).

The results of Pearson correlation in examining the relationship between quality of life dimensions and religious coping dimensions showed that there was a positive and significant relationship (p<0.001) between the functional dimension with religious activities (r=23%), benevolent assessment (r=26%) and active religious activities (r=25%). The Symptons dimension had an inverse and significant relationship (p<0.005) with religious activities (r=-18%). There was a positive and significant relationship between the general health dimension and religious activities (r=19%) at 95% confidence level. In addition, there was a positive and significant relationship (p<0.001) between the general health dimension and benevolent assessments (r=29%) and active religious

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1 EORTC QLQ-C30 version 3.0
activities (r=31%) at 95% confidence level (Table 2).

Table 1: Mean and standard deviation of variables of religious coping dimensions and dimensions of life quality in women with breast cancer

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Mean of questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional dimension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious activities</td>
<td>19.95</td>
<td>4.27</td>
<td>12</td>
</tr>
<tr>
<td>Benevolent assessment</td>
<td>18.82</td>
<td>4.24</td>
<td>12</td>
</tr>
<tr>
<td>Active religious activities</td>
<td>9.75</td>
<td>2.39</td>
<td>6</td>
</tr>
<tr>
<td><strong>Symptoms dimension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling negative towards God</td>
<td>13.44</td>
<td>2.96</td>
<td>8</td>
</tr>
<tr>
<td>Passive religious activities</td>
<td>8.01</td>
<td>3.37</td>
<td>6</td>
</tr>
<tr>
<td><strong>General health dimension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28.02</td>
<td>9.59</td>
<td>48.29</td>
</tr>
<tr>
<td></td>
<td>13.24</td>
<td>8.06</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>9.12</td>
<td>2.89</td>
<td>40.15</td>
</tr>
</tbody>
</table>

Table 2: Correlation results between quality of life dimensions and religious coping dimensions in patients with breast cancer

<table>
<thead>
<tr>
<th>Variables</th>
<th>Religious activities</th>
<th>Negative feeling towards God</th>
<th>Benevolent assessment</th>
<th>Passive religious activities</th>
<th>Active religious activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional dimension</strong></td>
<td>23%**</td>
<td>0.04</td>
<td>26%**</td>
<td>0.06</td>
<td>25%**</td>
</tr>
<tr>
<td><strong>Symptom dimension</strong></td>
<td>-18%*</td>
<td>-0.05</td>
<td>-12%</td>
<td>-0.08</td>
<td>-13%</td>
</tr>
<tr>
<td><strong>General health dimension</strong></td>
<td>19%*</td>
<td>0.006</td>
<td>29%**</td>
<td>0.01</td>
<td>31%**</td>
</tr>
</tbody>
</table>

Table 3: Step-Wise regression results to predict functional dimension of life quality in women with breast cancer

<table>
<thead>
<tr>
<th>Functional dimension</th>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2 Square</th>
<th>R Square Change</th>
<th>SE</th>
<th>Beta</th>
<th>**</th>
<th>t</th>
<th>F(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolent assessment</td>
<td>0.26</td>
<td>0.07</td>
<td>0.06</td>
<td>0.07</td>
<td>0.20</td>
<td>0.26</td>
<td>**</td>
<td>3.01</td>
<td>9.09 **(1,119)</td>
</tr>
</tbody>
</table>

Table 4: Step-Wise regression results to predict symptoms dimension of life quality in women with breast cancer

<table>
<thead>
<tr>
<th>Functional dimension</th>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2 Square</th>
<th>R Square Change</th>
<th>SE</th>
<th>Beta</th>
<th>**</th>
<th>t</th>
<th>F(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolent assessment</td>
<td>0.26</td>
<td>0.07</td>
<td>0.06</td>
<td>0.07</td>
<td>0.20</td>
<td>0.26</td>
<td>**</td>
<td>3.01</td>
<td>9.09 **(1,119)</td>
</tr>
</tbody>
</table>
Table 5: Step-Wise regression results to predict general health dimension of life quality in women with breast cancer

<table>
<thead>
<tr>
<th>General health dimension</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>R² Square Change</th>
<th>SE</th>
<th>Beta</th>
<th>T</th>
<th>F(df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious activities</td>
<td>0.31</td>
<td>0.09</td>
<td>0.08</td>
<td>0.09</td>
<td>0.10</td>
<td>0.31</td>
<td>3.55</td>
<td>12.65</td>
</tr>
</tbody>
</table>

Also, the results of Step-Wise regression to predict the dimensions of life quality showed that in the first step, a benevolent assessment (0.06) predicted the functional dimension of life quality. Therefore, benevolent assessment has a positive and significant relationship with functional dimension (p<0.001, Beta=0.26) (Table 3). In terms of life quality symptoms, in the first step, religious activities predicted symptoms dimension (0.02). Therefore, religious activities have an inverse and significant relationship with the dimension of symptoms (p<0.05, Beta=-0.18) (Table 4). Also, in the general health dimension of life quality, in the first step, active religious activities predicted general health (0.08). Therefore, active religious activities have a positive and significant relationship with general health dimension (p<0.001, Beta=0.31) (Table 5).

Discussion
The results of present study showed that positive religious coping could significantly improve the life quality of breast cancer patients. The results of this study were consistent with the results of the following studies:

Saffari et al. (2012) reported that religion in the presence of demographic factors and a functional score of patient significantly predicted the life quality of patients. In other words, people with a high degree of religion also had a higher quality of life (16). Shoa Kazemi (2009), in his study aimed at investigating the relationship between religious coping and mental health in patients with MS, reported that there was a correlation between high religious beliefs and mental health of patients. So that patients with high religious tendencies had higher and better mental health (26). Baljani et al. (2011) reported that spiritual wellbeing and hope had a positive and significant relationship with a functional score of life quality of life and spiritual well-being, hope, and religious activities had a positive and significant relationship with the general life quality (27). Abarghouyi et al. (2017), in their research aimed to determine the relationship between religious coping strategies and meaningful happiness in life in blind people, reported that religion, spirituality, and the use of religious guidelines among blind people helped them to more logically deal with unpleasant challenges and incidents (28).

Therefore, it is possible that religious beliefs and activities and belief in a benevolent God helped the patient to feel calm and secure with the thought of connecting to a supernatural power and effective knowing it in their lives. On the other hand, the practice of religious beliefs involving a more security sense and hope sense for the future, can make personal relationships more effective and reduce the tendency of a person to anxiety and depression. This improves and progresses the life quality of the patients. Also, the results showed that the active process of communicating with God is more beneficial than surrender and passive behavior. In other words, people who at the same time as trying to control their illness, consider prayer, and reading sacred texts as a tool to gain control of God, have better adaptation to their illness and experience a better quality of life. Because positive religious coping involves the sincerity, trust, and positive impression of God, which helps to understand the concept of life and more favorable quality of life.

In order to improve the life quality of patients with hard to treat illnesses such as cancer, it is suggested that medical and...
psychological services in hospitals and other medical centers, taking into account the religious beliefs of patients, providing educational brochures, and focusing on reinforcement of religious coping strategy.

**Conclusion**

The results of this study in addition to supporting the research hypothesis showed that breast cancer patients are able to experience the quality of life after cancer experience. Religion is able to develop a positive attitude toward control of the situation in a person as a powerful and effective coping strategy, thereby it can help to better adapt to the stressful situation and provide satisfaction in the life of the patient. Therefore, in order to improve life quality of patients, it is recommended that coping skills were trained by focusing on reinforcement of positive religious coping strategies. Especially considering the cultural and religious conditions governing the Iran country that religion is an inevitable part of people life, and religious beliefs and rites are an important dimension in most aspects of people life and are among the most effective psychological support.

The study also had limitations including the lack of cooperation of some patients due to their special status and inappropriate physical and mental conditions.

**Acknowledgment**

The authors wish to thank all the patients who participated in the study. This study was the result of a Master's Degree thesis in General Psychology which was approved in December 1985 and 15758 Code of Ethics by the Educational Council of the Psychology Department of Sistan and Baluchestan University and received financial support from the University of Sistan and Baluchestan.

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