Original Article

Investigation of the SWB and its relation with demographic parameters in patients with breast cancer referred to an oncology hospital affiliated to the Isfahan university of medical sciences

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ABSTRACT

Background: Spiritual well-being is well-recognized as a factor that affects cancer patients' quality of life, quality of care, and satisfaction. There is evidence that supports the fact that patients' spiritual needs are associated with better quality of care, higher hospice utilization, and less aggressive care at the end of life. However, few studies have examined the Spiritual well-being (SWB) in cancer patients. Less is known about spirituality; furthermore, no published research about SWB and its relationship with demographic parameters in breast cancer patients exists; this made us carry out this project. **Materials and Methods:** This cross-sectional study was a descriptive – analytical one, conducted on 297 breast cancer patients, with a simple sampling methodology. The data collection instrument included a questionnaire containing two parts (demographic information and standard SWB Scale questionnaire). The data were analyzed with 95% confidence by $SPSS_{18}$, using descriptive and analytic statistics. **Results:** According to the results of the present study, SWB of most of the study subjects (52.52%) was at a moderate level. Results showed that the average score for religious aspect of spiritual well-being (RWB) was 51.38 ± 8.17 for 60, average score for the existential aspect of spiritual well-being (EWB) was 42.47 ± 10.21 for 60, and the total score of SWB was 93.69 ± 10.04 for 120. Based on the study findings, there was a statistically significant correlation between the SWB and age ($P = 0.03$, $r = 0.59$), educational level ($P = 0.04$, $r = -0.58$), and marital status ($P = 0.001$), of breast cancer patients. **Conclusion:** According to the results of the present study, the SWB of most study subjects was at a moderate level. Furthermore, according to the results there was a correlation between some important demographic parameters in women with breast cancer and SWB. Hence, it is necessary for the treatment team to assess and improve the SWB of patients; meanwhile the role of nurses is highlighted. In fact, the nurse is the first person who can recognize the spiritual needs of a patient and even his/her family, and can be effective in meeting the spiritual needs and improving their SWB. Therefore, it is strongly recommended that in patients with cancer, a holistic care plan, based on spiritual care, development, and education of patients be applied, as it is considered to improve their SWB.

Key words: Demographic parameters, neoplasm, nurse, spirituality

Access this article online

Quick Response Code:

Website:
www.jehp.net

DOI:
10.4103/2277-9531.115844

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This article may be cited as: Musarezaie A, Naji-Esfahani H, ghasemi TM, Karimian J, Ebrahimi A. Investigation of the SWB and its relation with demographic parameters in patients with breast cancer referred to an oncology hospital affiliated to the Isfahan university of medical sciences. J Edu Health Promot 2013;2:42.

INTRODUCTION

At present, the modern world is involved with serious diseases such as cancer. Breast cancer is the most common cancer in women worldwide and is one of the major public health problems.[1,2] Its incidence is increasing, especially in developing countries. Even as this disease is a very important challenge to the health system,[1] it includes one-third of all the cancers in women. Its prevalence in various countries is different, and is between 8 and 23 in every 100 women.[2] In Europe, breast cancer incidence has increased from 76 per 100,000 inhabitants in 1995 to 88 per 100,000 inhabitants in 2008.[3] This increasing trend of cancer in recent decades and its adverse effects on the physical, emotional, spiritual, social, and economic aspects, causes not only people, but also many experts to, more than ever, pay attention to this disease; and this has also caused them to introduce breast cancer as a major health problem of the century.[4]

Annually, approximately one million women with breast cancer are identified in the world.[5] The latest reports from the Iranian Cancer Society show that 25% of all the cancers in Iranian women is breast cancer,[6] whereas, the prevalence rate of breast cancer in Europe and the US has been estimated to be 8 to 10%.[7] Furthermore, compared with other developed countries, Iranian women suffer from breast cancer a decade earlier.[8,9] Breast cancer, is the most common and most deadly of all diseases,[1] and emotionally and mentally is the most influencing disease among women. Most of these patients would experience more severe mental problems such as anxiety or depression, which can reduce their quality of life (QofL) and their daily activities.[10] Hence, the treatment of breast cancer, in addition to medications, must be accompanied by mental and spiritual support.

On account of the life-threatening nature of breast cancer, the diagnosis and treatment of breast cancer may cause clinically significant psychological problems, which increase the spiritual needs of patients to insist and adjust with the disease. In fact in an attempt to minimize problems and enhance their QofL as well as cope with the disease, many women with breast cancer turn to religion to fulfill their spiritual needs.[11-13]

Spirituality represents a holistic human characteristic that is important in human health and well-being. The need for nurses and other healthcare professionals to attend to the spirituality of their patients has been addressed by many authors (Burkhardt, 1993; Carson, 1996, Chiu, 2000). Yet, there is no agreement on an established definition of spirituality, which could guide the research and clinical practice of Oncology. The term 'spiritual' has multiple meanings and applications, and too often the spiritual and religious dimensions are conflated, engendering the risk of superficial or doctrinaire approaches to spirituality.[14]

The notion of spirituality, while grasped by each one of us in daily life, is extremely difficult to define because its many dimensions are intangible — even more so when a person is confronted with a life-threatening illness.[15] However, cancer patients often raise questions of a spiritual nature with their oncology providers, who need to be prepared to respond to their patients, even when they do not wish to act as spiritual advisors. They do not expect spiritual answers or solutions from oncologists or other team members, but they wish to feel comfortable enough to raise spiritual issues and not be met with fear, judgmental attitudes, or dismissive comments.[14]

In any way, spirituality can be defined as a, 'way individuals seek and express meaning and purpose, and the way they experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred."[16] Through spirituality, we connect with something located both within and beyond us — we create a bridge between us and the surrounding universe.[15,17,18] Spirituality is connecting with our higher selves and with God and the Universal Spirit, the Creator, the Life Force, or whatever name you desire to give to that Divine energy.[14] Spiritual is an intense experience of harmony, the sense that the organism is functioning with the greatest possible perfection. To have a spiritual experience is to hold sustained feelings conducted in a tempo of peace and harmony.[14]

Spiritual well-being has become increasingly important as patients approach the end of their life.[19] SWB is well-recognized as a factor that affects the patients' quality of life, quality of care, and satisfaction.[20-24] There is evidence that supports the fact that the patients' spiritual needs are associated with a better quality of care, higher hospice utilization, and less aggressive care at the end of life.[24]

Spiritual well-being can be an important resource for individuals and the families of individuals struggling with serious or chronic illnesses. Frequently, when individuals are faced with adversities, including serious and life-threatening conditions (such as breast cancer), they turn toward a higher power or religion as a way of coping.[25]

There is an increasing interest in the role and importance of spirituality in the context of health, illness, and healthcare practice.[26] Empirical studies have shown that SWB is associated with various health measures. For example, Ellison and Smith (1991) found that individuals scoring high in spiritual well-being also tended to score high on the psychological and relational scales. Hammermeister *et al.* (2005), reviewed a vast range of literature and concluded that spiritual well-being had a positive influence on most aspects of health. In recent times, Mohan, Sehgal, and Tripathi (2007), found significant positive correlations between the measures of spiritual well-being and psychological well-being, among samples of adolescents.[27]

Spiritual well-being is a common method by which people cope with stressful life events, such as the diagnosis and treatment of a life-limiting illness.[28,29] Approximately 84% of Americans report an affiliation with spirituality, and 82% report spirituality as at least somewhat or very important in their lives.[30] In two recent, large-scale studies of cancer survivors, 62% reported

being 'very' or 'moderately' religious,[31] 69% reported having prayed for their own health,[32] and 65% reported being 'very' or 'moderately' spiritual.[31] Two studies, on a smaller scale, with more homogenous cancer patient populations (i.e., malignant melanoma only, breast cancer only) suggest that nearly 85 to 90% of the patients report that they are spiritual or that spirituality is important in their lives.[33,34] Despite the fact that religiosity and spirituality have been described as the most commonly used 'complementary therapies' by individuals with cancer,[31] no published research has examined SWB and its relationship with health outcomes in women with breast cancer.

According to the importance of SWB in patients, although most physicians and nurses agree about questioning their patients, who are approaching death, on spiritual and religious beliefs and practices, unfortunately only few raise spiritual or religious issues in their clinical practice.[35-37] Less is known about spirituality (a cognitive schema that organizes one's approach to coping with difficult life circumstances);[29] furthermore, no published research about SWB in breast cancer patients has caused us to carry out this project. The purpose of the present study is to investigate SWB and its relation with the demographic parameters in women with breast cancer, referred to the Oncology Hospital, affiliated to the Isfahan University of Medical Sciences.

MATERIALS AND METHODS

This was a cross-sectional, correlation, descriptive – analytical study. Two hundred and ninety-seven patients with breast cancer were enrolled in the study during six months, through the convenient sampling method. The inclusion criteria were age over 18, definitive confirmation of the cancer diagnosis by a specialist, passing at least a year from disease, and no known mental problems or being treated with psychotropic drugs. Any unwanted factor that caused lack of ability to respond to questions in the questionnaire physically or mentally and also those suffering from secondary breast cancer were the exclusion criteria.

In order to collect data, a two-part questionnaire was used; the first part was related to demographic characteristics and variables (age, time passed from diagnosis, marital status, educational level, employment status, and the number of chemotherapy sessions) and the second part was the Ellison – Paloutzian Questionnaire related to the spiritual well-being.

The Spiritual Well-Being Scale (Paloutzian and Ellison, 1982; Ellison, 1983; Reviewed by Boivin, Kirkby, Underwood, and Silva, 1999), a 20-item, self-assessment instrument, consists of two subscales, one that represents the vertical religious well-being (RWB) dimension and the other that represents the horizontal existential well-being (EWB) dimension.

Each subscale contains 10 items. All of the RWB items contain the word 'God' which was replaced by 'Allah' in the present study. The EWB items contain no specific religious language, instead it asks things such as life purpose, satisfaction, and relations with the people and situations around us. However, the reason for replacing the word 'God' with 'Allah' is due to the difference in the interpretation of the word 'God' in the Christian perspective that includes the doctrine of trinity, which is unacceptable in Muslim tradition. As Murken and Shah (2002) affirm, any dialogical development of a Muslim psychology of religion needs to take the western social scientific approaches to religion seriously, which may be insensitive to or inappropriate for exploring the Islamic religiosity. In their studies, Ghorbani, Watson, and Khan (2007) employed Allport and Ross's Religious Orientation Scale, but replaced the word church with the word mosque.[38]

Each item is rated on a six-point Likert-type scale, with answer options ranging from 'strongly disagree' (1) to 'strongly agree' (6). Examples of items are 'I believe that Allah loves me and cares about me' and 'I feel that life is a positive experience'. The RWB subscale had an alpha reliability of 0.77, and the EWB subscale had an alpha reliability of 0.78. Also this standard questionnaire was applied in Iran by Seyed Fatemi *et al.*, with alpha reliability of 0.82.[39]

Based on the scores obtained, the SWB scale has been divided into three levels: Low (20-40), Moderate (41-99), and High (100-120).[38] The scale is easily understood, requires 10 to15 minutes to complete, and has clear scoring guidelines. It is non-sectarian and can be used in a variety of religious, health, and research contexts. The SWB scale has been used in over 300 research endeavors, and has consistently demonstrated its validity and reliability in measuring the spiritual health (Ellison and Smith, 1991).[38,40]

The study was carried out in the Oncology Health Centers, Sayyed-Al-Shohada. Considering the ethical considerations and obtaining consent of the patients, the researchers began to complete the questionnaires. Literate patients completed the questionnaires by themselves and for the rest it was completed using the interview method. The data were analyzed after collection and coding through Software SPSS version 18, as also the descriptive (frequency distribution, mean, standard deviation) and analytical statistics (ANOVA test, Independent T-test, and Pearson and Spearman correlation coefficient), with 95% Confidence Interval.

RESULTS

According to the results of the present study, the mean age of the study subjects was 47.6 ± 10.89 years. Most of the subjects (75.80 %) were married and 37.03 % were under high school graduates, while only 10.74 % had a university academic degree. Moreover, in terms of employment, most of the subjects were housekeepers (83.50 %). According to the obtained data, 28.25 % of the patients had a family history of breast cancer. The duration of the disease for most of the patients (46.12 %) was between one and five years. Other demographic information is illustrated in Table 1.

According to the results of the present study, the SWB of most of the study subjects (52.52%) was at a moderate level (41-99) and in 37.03% it was at a high (good) level (100-120) [Table 2].

Results showed that an average score for the religious aspect of spiritual well-being (RWB) was 51.38 ± 8.17 for 60, the average score for the existential aspect of spiritual well-being (EWB) was 42.47 ± 10.21 for 60, and the total score of spiritual well-being (SWB) was 93.69 ± 10.04 for 120. Given these results, the average score of RWB was more than the average score of EWB.

Table 1: Demographic characteristics of the study subjects with breast cancer

Variable	Groups	Frequency (number)	% age
Sex	Male	295	99.3
	Female	2	0.7
Age	20-30	22	7.40
	31-40	59	19.86
	41-50	94	31.64
	51-60	85	28.61
	61-70	30	10.10
	>70	7	2.35
Marital status	Single	25	8.41
	Married	226	76.09
	Divorced	19	6.39
	Widowed	27	9.09
Educational level	Illiterate	89	29.96
	Under high school	110	37.03
	High school graduate	66	22.22
	Academic	32	10.74
Employment status	Employee	34	11.44
	Worker	3	1.01
	Self-employed	2	0.67
	Retired	10	3.36
	Housekeeper	248	83.50
Income level	Poor	97	32.65
	Average	178	59.93
	Good	22	7.40
Time passed from diagnosis	1 year<	87	29.29
	1-5 years	137	46.12
	6-10 years	56	18.85
	>11 years	17	5.72
Kind of treatment	Chemotherapy	229	77.10
	Radiotherapy	53	17.84
	Surgery	5.05	25.75
Support of family members	Good	125	42.08
	Moderate	139	46.80
	Poor	33	11.11

Table 2: Frequency distribution and percentage of SWB level in the study subjects with breast cancer

SWB Level	Frequency	% age
Poor (20-40)	131	10.43
Moderate (41-99)	156	52.52
Good (100-120)	110	37.03
Total (20-120)	297	100

According to the findings of the present study, the Pearson Correlation coefficient showed that there was a significant correlation between age and SWB. (P = 0.03, r = 0.59). It meant that older patients had a higher SWB score average. Even if the mean and SD of the SWB scores related to the female patients was more than the male ones, the independent *t*-test showed there was no significant correlation between gender and SWB. (P = 0.07, r = 0.19).

The Spearman test revealed a statistically significant correlation between SWB and the educational level (P = 0.04, r = −0.58). Based on the results of the present study, there was no significant correlation between SWB and support of family members (P = 0. 09, r = 0.59). Also there was no significant correlation between SWB and the time passed from diagnosis (P = 0. 89, r = 0.29).

Table 3 illustrates the correlation between SWB and other demographic variables and disease characteristics, such as, marital status, employment status, income level, as well as, social responsibility, with the applied independent *t*-test and Analysis of variance (ANOVA) test. As illustrated in Table 3, except marital status, in which the results indicate a statistically significant relationship with SWB, there is no significant correlation between SWB and these demographic variables or disease characteristics.

DISCUSSION

According to the results, the mean age of the study subjects was 47.6 ± 10.89 years. In the study by McCoubrie and Davis, the mean age of the patients was 68 years (age range of 29-93 years) and in the study of Romero *et al.*, in the US, it was 52 years.[41,42] As it can be seen, the age of the participants in the present study is almost a decade earlier than in the other studies. The study of Pedram *et al.* also indicated that breast cancer in Iranian women appeared a decade earlier than their peers in developed countries.[10]

According to the results of the present study, the SWB of most of the study subjects was at a moderate level. Our study results were also in accordance with McCoubrie and Davies' study; in their study also, the SWB of most of the study subjects was at a moderate level.[42] Moreover, the results of the Nelson study showed that the SWB of cancer patients was at a moderate level.[43]

However, the study results of Rezaie *et al.* showed that the SWB of 54% of the study subjects was at a high level.[13] Furthermore, the study results of Leung *et al.* indicated that the SWB of cancer patients who were in the end-of-life period

Table 3: Correlation between SWB and demographic characteristics of the study subjects with breast cancer

Variable	Category	SWB mean score ±SD	Statistical indicators
Marital status	Single	92.67±10.09	df=124
	Married	91.66±9.08	t=−54
	Divorced	94.68±11.54	*P*=0.001
	Widowed	93.89±10.84	
Employment status	Employee	93.29±10.12	df=145
	Self-employed	91.89±9.04	t=0.89
	Retired	94.75±11.53	*P*=0.59
	Housekeeper	93.09±11.08	
Income level	Poor	94.04±10.65	df=6
	Average	92.64±9.83	F=1.54
	Good	93.11±10.09	*P*=0.14
Social responsibility	Low	93.29±10.05	df = 4
	Moderate	92.66±10.01	F = 1.89
	Good	93.98±10.14	*P* = 0.65

*This article was derived from a research project

was at a high level.[44] One of the probable reasons for these controversies was difference in the assessment tool of SWB and a considerable difference in the sample size between the studies. In addition, a probable difference between the diet (type and amount of drug), the different treatment received, kind of cancer, and time passed from diagnosis can be considered as the reasons for this conflict.

One of the other findings of the present study was that the average score of RWB was more than the average score of EWB. The probable reason for this to happen was related to the cultural religious situation of the Iranian people, where usually, in stressful events and crises, people turned more toward religion.

Findings in the field of the relation between demographic parameters and characteristic disease were varied. According to the findings of the present study, there was a significant correlation between age and SWB. The older patients had a higher SWB score average. In supporting the findings of the present study, the study of Rezaie *et al.* showed that there was a significant correlation between ages and SWB, as cancer patients with more age, had better SWB scores.[13] Also, this result was in accordance with Rowe and Allen's study result.[45] However, the study results of Fernsler *et al.* showed that there was no significant correlation between SWB and age in colorectal cancer patients.[46]

The other result of this study was that there was a statistically significant correlation between marital status and the SWB average scores in patients; as widowed and divorced women had more SWB than others. This finding was consistent with the Rezaie study result.[13] In fact, it could be justified that individuals who were not satisfied in their marriage experienced more health problems, however, this effect was dependent on the age and gender of the individuals. In fact, in unhappy marriages, they lose the enormous supportive source, that is, family, which is extremely stressful; and this followed by cancer causes them to turn more toward spirituality, to cope with this difficult situation. However, the study results of Riley *et al.* show that married patients had better SWB than single ones, which it is not consistent with present study.[47]

One of the other findings of the present study was the significant correlation between the educational level and SWB of patients with breast cancer. Thus, increased rate of educational level in the study subjects was associated with a decline in the mean score of SWB. This finding was in accordance with Rezaie study,[13] but was not consistent with the Highfield research results.[48]

As illustrated, there was no significant correlation between SWB and sex, employment status, income level, or social responsibility in breast cancer patients. This finding was in accordance with the other studies.[42,49] Moreover, the results of another study showed that there was no significant correlation between these parameters and the cancer patients' SWB.[43,50]

As it can be seen, the findings about correlation between SWB with cancer patients' demographic parameters are so different in the research done. The probable reasons in this conflict are a difference in the assessment tool of SWB, considerable difference in the sample size between studies, and difference between cancer types. However, what appears in this issue needs further clarification, through more comprehensive studies.

CONCLUSION

Given the results of the present study there was a correlation between some important demographic parameters in women with breast cancer and SWB. Optimum SWB could also serve multiple functions in the long-term adjustment to cancer, such as, maintaining self-esteem, giving emotional comfort and hope, and providing a sense of meaning and purpose. Furthermore, being diagnosed with a potentially life-threatening illness may prompt a re-evaluation of one's spiritual belief, in cancer patients.[26,51,52]

According to the results of the present study, the SWB of most of the study subjects was at a moderate level. Furthermore, women are an important part of the family and community; therefore, improving the SWB of women with cancer to a high level, can not only improve their survival, but can also increase the quality of life and help to have a more cohesive family structure. Hence, it is necessary for the treatment team to assess and improve the SWB of patients, meanwhile the role of nurses is highlighted.[53] As nurses — as a member of medical team — have an important role in the diagnosis, treatment, and care of patients with cancer, and as they spend more time with patients than other members of the medical team, probably they are the first persons who can recognize the spiritual needs of the patient and even his/her family. They can be effective in meeting the spiritual needs and improving their SWB. So, it is strongly recommended that in patients with cancer, applying a holistic care plan based on spiritual care development and education of patients be considered, to improve their SWB.

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Source of Support: This article was derived from a research project (No. 290301) supported by Isfahan University of Medical Sciences, Isfahan, Iran., **Conflict of Interest:** None declared