Multidisciplinary Cancer Investigation **Original Article**

October 2017, Volume 1, Issue 4

Breast Cancer Coping Strategies after Diagnosis: A Six-month Follow-up

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DOI: 10.21859/mci-01042

Submitted: 1 September 2017

Revised: 21 September 2017

Accepted: 25 September 2017

ePublished: 1 October 2017

Keywords:
Spirituality
Breast Neoplasms
Iran

Abstract

Introduction: Breast cancer is a tragic experience that accompanies stressful situations for patients. Adjustment with breast cancer has a significant effect on decreasing stress and increasing the patients› quality of life.

Methods: In a prospective cross-sectional study, breast cancer patients› experiences were evaluated at Breast Cancer Research Center (BCRC), Motamed Cancer Institut (MCI), Tehran, Iran. To evaluate coping strategies in breast cancer patients, a modified Ways of Coping-cancer Version (WOC-CA) questionnaire was used. A written informed consent was obtained from the patients.

Results: From a total of 187 breast cancer patients participated in this study, 177 cases followed up for 6 months later. The mean age of the patients was 47.3 ± 9.6 years. Eighty-seven percent of the patients were married, 91% of the subjects had middle and high education and most of them (83%) were housewife. Seven coping strategies were used by the patients after diagnosis and 6 months later. The most commonly used coping strategies after diagnosis included «seeking for social support», «spirituality», and «positive cognitive restructuring» and the least used coping strategy was «detachment». The most frequently used strategies 6 months after the diagnosis were «seeking for social support», «spirituality», «positive cognitive restructuring», and «making changes» and the least commonly used ones included «wishful thinking», and «keeping feelings to self-coping strategies».

Conclusions: It seems that clinicians should provide enough information about the treatment and survival before the surgery. The patients› concerns about the way of adjustment with the disease, especially religious thinking and advices about the way of coping with breast cancer should be considered.

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INTRODUCTION

Among all types of cancers, breast cancer is the most common cancer among women in all over the world [1]. According to the latest report by the Cancer Control Office in Iran, breast cancer age-specific incidence rates per10,000 population [2]. The highest rate of breast cancer is in the United States of America, Australia, New Zealand, South America, Eastern and Western Europe, and the incidence is rising rapidly in many developing countries [3]. According to the data from 2009 to 2013 in the United States, the number of new cases of female breast cancer was 125 per 100,000 women per year [4]. Psychosocial distress has been identified as an important issue for patients with cancer. In fact, it is estimated that one-third of patients with cancer will experience significant emotional and psychological distress during their cancer experience [5]; about 30% of them had degrees of anxiety and depression during the first year of their diagnosis, which is 3-4 times more than the general population [6]. The breast cancer illness trajectory has several challenges for women: adjusting to bad news; decision making for treatment; worry about the side-effects of treatment; thinking about disease-free survival or recurrence; and finally acceptance of death. The loss part of one or both breasts may evoke feelings of mutilation and altered body image, diminished self-worth, loss of a sense of femininity, decrease in sexual attractiveness and function, anxiety, depression, hopelessness, guilt, shame, and fear of recurrence, abandonment and/or death. The

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[DOR: 20.1001.1.24764922.2017.1.4.5.7]

[DOI: 10.21859/mci-01042]

removal of a breast should be understood as an amputation of a body part, a part that symbolizes sexuality, femininity, gender and maternal issues [3]. Through the breast cancer diagnosis most patients have fear with negative emotions. In addition, stress and some difficulties about the cancer stigma products may lead the patients to use different types of coping strategies. Lazarus and Folkman define coping as a dynamic process involving cognitive and behavioral efforts to enable people to live with internal or external demands brought about by disease [7]. Previous cross sectional findings [8-12] suggest that women with breast cancer who use strategies such as positive cognitive restructuring (also known as positive reappraisal), acceptance, emotional processing, or emotional expression have better quality of life than those who use more passive coping strategies such as avoidance or minimizing importance of their cancer.

The meta-analysis in 2014 [13] indicated that in several circumstances, coping effectiveness was dependent on cancer stage, treatment, disease duration, and type of coping measure. Use of coping targeting adjustment and avoiding use of disengagement forms of coping were related to better psychological well-being and physical health. A longitudinal study that followed women for up to 5 years found that variability in coping strategies was observed at times of greatest stress (treatment, recurrence, and terminal phase of cancer) and suggested that change in coping strategies may be linked more to "illness stages" than to any specific length of time since diagnosis [14]. The use of coping strategies was associated with adjustment with the disease and increasing quality of life of the patients after breast cancer diagnosis [15-18]. The role of religion and spirituality in coping with illness has received relatively little attention as a specific area of study. By and large, studies examining religious coping in medically ill patients have found that between 34% and 86% have reported using their religious/spiritual cognitions and activities in coping with their illness [19, 20]. In Iran, several qualitative studies have been conducted on the experiences of patients with breast cancer. In general, these studies have highlighted that the most important coping methods are religious beliefs, thinking and acceptance of the illness [3, 21]. At different stages, women need different interventions. For example, those who are newly diagnosed with cancer may benefit more from interventions that last about 6 to 10 weeks. In addition, patients with more survival can benefit more from monthly and patient-centered interventions [22-24]. Therefore, it seems necessary to have coping behaviors presented in order to provide patient with qualified medical assistance. In psycho-oncological research, these investigations have helped shift the focus from patients' dispositional religiousness to their specific responses to illness. However, only few items or a single scale were used and predominantly positive aspects of religious coping were measured [25]. This study aimed to examine coping strategies among women with breast cancer at first diagnosis and 6 months after the diagnosis (treatment) and to explore the potential moderating influences of situational factors (cancer stage, current treatments, time since diagnosis) on the disease.

METHODS

This longitudinal study was conducted on 187 patients with cancer at the Cancer Quality of Life Department, Breast Cancer Research Center, Motamed Cancer Institute (ACECR), Tehran, Iran. In this study, the patients with breast cancer were interviewed by trained interviewers at baseline via a structured questionnaire. Then, approximately 6 months after the initial diagnosis of the breast cancer, 177 cases completed the follow-up questionnaire. The follow-up interview was conducted using a coping questionnaire, which assessed information similar to that obtained at baseline. The structured questionnaire was designed according to the previous studies' questionnaires that determined coping strategies in breast cancer patients [26-29]. The content validity was confirmed using two methods (qualitative and quantitative). In the qualitative phase, an expert panel consisting of two psychiatrist experts, six health science professionals, one epidemiologist expert and an expert on social medicine assessed the content validity. Experts evaluated grammar, wording, item allocation and scaling of the questionnaire. In the quantitative phase, two indicators were calculated: the content validity index (CVI) and the content validity ratio (CVR). Internal consistency reliability was 0.79 as measured by Cronbach's alpha 0.75.

This questionnaire consists of 21 items making up the seven factors: "seeking and using social support", "keeping feelings to self", "positive cognitive restructuring", "wishful thinking", "making changes", "spirituality", and "detachment". In this study, breast cancer patients were asked about which coping strategies they used to cope with their situation. At baseline, they were asked to respond for the time since their breast cancer diagnosis; at both follow-up time points, they were asked to respond for the past 6 months. The response format was based on a 5-point Likert scale where 1 = not at all, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often.

The data collected from the patients were analyzed using descriptive and analytical statistics by the SPSS version 20. To compare different coping strategies, the mean scores of the factors were compared. We examined the relationship between demographic factors and coping strategies, using the chi-square test and P value < 0.05 was significant. Then, coping strategies were compared using paired-samples t-test and one-way ANOVA.

RESULTS

A total of 177 participants were completed questionnaires in two steps after breast cancer diagnosis and 6 months after diagnosis.

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Participant's socio-demographic characteristics, disease, tumor, and treatment characteristics are presented in table 1. The women's age ranged from 26 to 83 years with a mean of 47.32 ± 9.6 years. Eighty-seven percent of the subjects were married, 83% were housewife and 91% were educated. Results showed that 48 women were in stage I, 87 patients were in stage II, and 52 cases were in stage III of the breast cancer diagnosis. Also, mastectomy had been performed in 82% of the subjects and 101 women had a breast-conserving surgery (Table 1).

Patients used several coping strategies. There was a significant difference in the mean scores of coping strategies after the diagnosis and 6 months later (46.37 ± 11.42, and 51.48 ± 9.80, respectively; P < 0.0001) (Table 2).

The mean scores of the most commonly used coping strategies including seeking social support, spirituality and positive cognitive restructuring immediately after diagnosis were 57.4 ± 20, 83.3 ± 23, and 59 ± 23, respectively. .While detachment was the least commonly used coping strategy with the mean score of 45 ± 26. The mean scores of the most frequently used strategies including seeking for social support, spirituality, positive cognitive restructuring, and making changes 6 months after the diagnosis were 65 ± 18, 87.5 ± 18, 70.5 ± 21, and 64.4 ± 23, respectively. While the least commonly used strategies were wishful thinking and keeping feelings to self-coping strategies with the mean scores of 27.6 ± 25 and 45 ± 23, respectively. Results after a 6-month follow-up showed that strategies such as spirituality (P < 0.04), seeking social support, positive cognitive restructuring, detachment and making changes were used significantly more than at the time of diagnosis (P < 0.0001) and the coping strategy of keeping feeling was used less than at the time of diagnosis (P < 0.003). The spirituality was the most common coping strategy used after the diagnosis and 6 months later (T = 83.33, and T = 87.57, respectively) (P < 0.04). The results of the present study showed no significant difference between the coping strategies and demographic factors. The participants were asked open-ended questions and the results showed that women with further stress used coping strategies most frequently.

DISCUSSION

The aim of this longitudinal study was to examine coping strategies among women with breast cancer before and after treatment. In this study we found that the most commonly used coping strategies immediately after diagnosis and 6 month later were seeking social support, spirituality and positive cognitive restructuring, only the making changes coping strategies after treatment was greater. Detachment was the least commonly used coping strategy after diagnosis. While the least commonly used coping strategies 6 months after diagnosis were wishful thinking and keep feelings. Our results indicated that patients after breast cancer diagnosis used several coping strategies in agreement with the Lazarus and Folkman's model [29], which showed that breast cancer patients used various coping strategies after diagnosis in response to stress. Previous studies have demonstrated that some common coping strategies used by

Table1: Demographic Characteristics (n=177)

Baseline Characteristics	No. (%)
Occupation	
House wife	156 (83)
Employee	31 (17)
Education	
Illiterate	16 (9)
High school	77 (41)
Diploma	63 (34)
Collegiate	31 (16)
Marital status	
Single	25 (13)
Married	162 (87)
Stage	
I	26 (48)
II	46 (87)
III	52 (28)
Type of surgery	
Mastectomy	82 (45)
Conserving surgery	101 (55)

Table 2: Comparison of Coping Strategies before and after the Treatment

	Before treatment	After treatment	P value
	Mean(SD)	Mean(SD)	
Total coping	46.37(11)	51.48(9)	0.0001
Seeking/Social support	57.40(20)	65.08(18)	0.0001
Keeping feeling	54.38(26)	47.10(23)	0.003
Positive cognitive reconstraction	59.09(23)	70.48(21)	0.0001
Spirituality	83.33(53)	87.57(18)	0.041
Detachment	45.13(20/53)	58.65(22/94)	0.0001
Making changes	48.25(26)	64.39(23)	0.0001
Wishful thinking	48.38(29)	27.68(25)	0.0001

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[DOI: 10.21859/mci-01042]

breast cancer patients were positive cognitive restructuring, wishful thinking, emotional expression, disease acceptance, increased religious practice, family and seeking social support [29-31] Our results seem to be consistent with those of other studies, which found coping strategies changed over time [24, 31, 32]. Another important finding was that wishful thinking was the least commonly used strategy 6 months after the diagnosis. These results are in agreement with those observed in earlier studies [8]. While, a recent study showed that wish and avoidance thinking was mostly used (69.0%) in Gaza patients with cancer to deal with stressful situations [33]. The most important aspects of coping with breast cancer in Iranian women at both steps were spiritual coping strategy. In religious communities, it seems that the coping strategy of spirituality may help decrease stress in cancer patients and facilitate social support. Thus, health care providers who work with women diagnosed with breast cancer in these communities should be aware of the culturally dependent roles that religion and spirituality play in coping with cancer [30]. Some of patients believed in their disease as a spiritual fate, a test bestowed on them by God. As they believed all power rested with God, they surrendered themselves to their fate [34]. Religious faith and practice were the most frequent coping responses among women with cancer who "trusted God" about the course of their illness became stronger believers in an after-life concept and were less afraid of death [35]. Other studies were showed that spirituality was not separate from religion [30, 35]. Spiritual coping strategy is defined as a process that people utilize to find meaning in stressful circumstances [35] and relieve it. Six months after diagnosis the Keep feelings strategy was less used than other strategies for coping with cancer. These results are consistent with other studies that showed keeping feelings to oneself was the least used coping strategy and its use remained consistently low over time. On the contrary, the coping strategy of wishful thinking at first time was used more than the second time. These findings seem to be consistent with those of other researches [8, 31]. These results were also supported findings from studies that the seeking social support, positive cognitive restructuring, making changes and detachment were main coping strategies, which had been used more than other strategies after diagnosis and 6 months later. Some of the studies classified social support as 'a problem-focused coping strategy', or 'emotion-focused coping strategy [5, 31, 36-38]. However, seeking social support is one of the main coping strategies used after diagnosis for information seeking and 6 months later for family and social support.

Positive cognitive restructuring is one of the most commonly used coping strategies in breast cancer patients after as a fighter in the battle for win. But after 6 months they used this strategy as a lifetime adaptive strategy. However, if persons employed positive reappraisal in one encounter, they were also likely to employ it in other encounters [29]. Chen and et al. demonstrated that acceptance is one of the most common types of coping reactions and it can prospectively predict lower distress. Most of the participants progressed from one stage of acceptance to the next as the treatment stage changed [39]. The making changes coping strategy after spirituality and positive cognitive restructuring were used more than other coping strategies after 6 months. In some patients, using the coping strategy of making changes is impossible after breast cancer diagnosis, but 6 months later they can easily use this strategy. Other studies have shown similar results [31, 40].

To examine whether the demographic factors might have influenced coping, we compared mean coping scores for each coping strategy after diagnosis and 6 months later. No significant association was found between the coping strategies and demographic characteristics. This study had several limitations. First, the studied participants were middle educated women. Second, we fulfill this study in a special breast clinic and we had naturally limited access to patients. The major strength of this study was the use of follow-up data to examine relationships between coping strategies. We know that this finding is suggestive and not definitive. Examining the relationship between coping strategies after 6 months or more is difficult and this is an important issue for future research.

ACKNOWLEDGEMENTS

The current study did not receive any financial support.

CONFLICT OF INTEREST

The authors declared that they have no conflict of interest.

ETHICS APPROVAL

This study approved by the ethics committee of the Breast Cancer Research Center of ACECR with the code IR.ACECR.IBCRC.REC.1395.15.

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