Study Of Coping Styles and Self-efficacy In Women With Breast Cancer For Women in the General

ABSTRACT

Background and Objective: The purpose of this study was to compare the relationship between coping styles and self-efficacy in women with breast cancer and normal women.

Materials and Methods: The present study was a descriptive-analytic study. In 2014, referring to the specialized radiotherapy and rehabilitation clinics of Reza (AS) and the control variables of 50 women with breast cancer and 50 healthy women, through available sampling In this study, demographic characteristics were used along with informed consent form, Lazarus and Falkman coping styles questionnaire, and Sherer and Maddox general self-efficacy questionnaire were used to collect data. Pearson correlation and Independent t-test were used to determine the hypotheses to determine the difference between the two groups. Data were analyzed using SPSS 16 software.

Results: The results of the analysis showed that there is a significant difference between coping styles and its components and self-efficacy among patients with breast cancer and normal people. In women with breast cancer and normal women in problem-oriented style, with self-efficacy There is a meaningful and direct relationship between emotion-centered styles and self-efficacy ($p < 0.01$).

Conclusion: Overall, the findings show that there is a significant difference between coping styles and self-efficacy in cancer patients and normal people, and higher scores in problem-oriented styles are associated with better self-efficacy and better self-efficacy leads to health promotion behaviors Gets.

Paper Type: Research Article

Keywords: coping styles, self-efficacy, breast cancer.

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Introduction

The importance of women's status in society and their role in the comprehensive development of countries is not unknown to anyone, and knowledge of their health status and factors affecting them can be the basis for appropriate planning and policy making to correct their status (1). Among women, breast cancer is the most prevalent and deadly and emotionally and psychologically influential among other cancers (2). This type of cancer rarely affects men, and if it can be treated in the case of timely diagnosis, the most important risk factor for breast cancer is the patient's female gender (3). Breast cancer has been rarely diagnosed during pregnancy and its incidence is 1 in 300 pregnancies (4). According to the American Cancer Society (2010), breast cancer is one of three types of cancer which has an economic impact of 88 billion $ (5). According to the Iranian Cancer Institute, breast cancer accounts for 25% of all cancers (6). According to the Centers for Disease Management of the Health Department of the Ministry of Health and Medical Education (2003), 7000 Iranian women are infected each year by this cancer and the second leading cause of death among women is breast cancer (7). Breast cancer accounts for 06% of the total share of life lost (3). The survival rate of breast cancer patients has increased by nearly 15% over the past 5 years and now reaches 90% (8). Survivors of breast cancer make up the largest group of cancer patients (22%) and, these patients need members of the health care team to help them face many evolving challenges in order to live with dignity and respect (9). Complications of this disease include lymphatic edema, weakness, pain and numbness, restriction in motion, shoulder joint, heavy hand sensation, and psychosocial disorders (10) and, in chemotherapy causes problems such as lowering immunity to infection, wounds to the mouth, hair loss, nausea and vomiting and damage to internal organs (11-13) and, people face feeling trained food disgusting (14) and face these challenges in a variety of ways. Coping styles are a set of behavioral and cognitive responses with the aim of minimizing the pressures of stressful situations (15). Lazaros and Falkman (1984b) describe coping styles as problem-focused and emotion-focused styles: A) Problem-focused style: A skill that focuses on the problem or situation itself and can concentrate the external environment. B) Emotional-focused Style: Focused on controlling emotional distress and it deals with emotions that are related to the situation, not the control of the situation itself, and it is believed that when one assesses chronic illness as a threatening phenomenon, his or her coping efforts begin (16). Lazarus and Falkman (1987) believe that self-efficacy perception is a powerful personal source for coping stress (17). On the other hand, the benefit of self-efficacy in dealing with cancer has been widely demonstrated in research (18, 19). According to Bandura's (2001), self-efficacy is a constructive ability by which human cognitive, social, emotional, and behavioral skills are effectively organized to accomplish different goals. In his view, people's past knowledge, skills and achievements are not good predictors of future performance, rather, people's beliefs about their abilities affect their performance and, there is a clear difference between having different skills and being able to combine them in the appropriate methods to perform tasks in different conditions (20). According to Bandura (2000), people's judgments about their own abilities (self-efficacy) are subordinate to physical states, which in turn are influenced by one's emotional states and overall quality of life in all its dimensions (21). Negative emotions such as

fear, anxiety, tension, depression cause people to underestimate their abilities in performing tasks, which is in fact a concept of low self-efficacy and vice versa, low self-efficacy also causes mental states such as fatigue, anger, pain and suffering. Nervous pressure can trigger cancer but is not the cause (22). In this regard, people's responses to stress and negative emotions and, the coping strategies they choose to face them may make people susceptible to disease (including cancer) (23). Numerous studies have shown that negative emotions and stressful events make a person susceptible to cancer by weakening the immune system (24-28).

Self-efficacy has been considered as a key mental resource to help people cope with physical disease. A number of studies indicate that self-efficacy plays an important role in predicting social and functional psychosocial outcomes among people with disabilities. These studies have shown that individuals with a high level of self-efficacy perform better at their ability to cope with stressors and exhibit fewer mental disorders)29, 30(. Self-efficacy is effective in one's emotions and actions as if one believes that one can do something, it more likely to succeed)31(. Research has shown that self-efficacy is an important predictor of people's decision-making about health behaviors and can enable one to adopt health-promoting behaviors and quit harmful behaviors)32(Thus, it can be said that self-efficacy is a behavioral understanding that increases the likelihood of adherence to a work plan and health-promoting behaviors)33(. Important aspects of the disease include self-efficacy, a sense of control and involvement in treatment, and active participation of individuals in medical practice which are associated with a number of favorable outcomes, including higher satisfaction, increased adherence to treatment, and positive treatment outcomes)34(. Nezo et al. (1999) reported that cancer patients who were less able to solve the problem effectively exhibited higher levels of depressive and anxiety symptoms as well as cancer-related problems. In addition, problem solving inability also predicted emotional distress in a sample of breast cancer survivors who underwent surgery between 1 and 13.3 years ago. Thus, according to research, positive attitudes toward coping with mental stress are negatively correlated with emotional distress in adult cancer patients)35(. Some findings have shown that problem-focused coping in controllable situations reduces disease symptoms while emotion-focused coping in uncontrolled situations reduces disease symptoms)36(. Emotion-focused strategies are more commonly used in people with cancer than problem-focused strategies)37-39(. The findings of one study showed that Asian American women with breast cancer believed that their illness was God-given and religious aspects of their relief from illness were more important than receiving health care)40(. Sometimes women view breast cancer diagnosis positively, and this helps them re-evaluate their lives and set new priorities, though it is often stressful and challenging for women to recognize it)41(. The purpose of this study is to determine the difference and relationship between coping styles and self-efficacy in normal women and women with breast cancer.

Methods

The research method of the present study is descriptive-analytical. Available sampling was used in this study. The samples was selected first by referring to Imam Reza Oncology Specialist Clinic and, considering the limited number of people willing to cooperate and considering the controlling variables including 1. Being married, 2. No menopause, 3. Having unilateral mastectomy

in female patients, 4. Patients not undergoing chemotherapy, 5. Lack of pregnancy, 50 patients with breast cancer and 50 healthy subjects were considered as the research sample. The research samples consisted of 100 individuals.

Research tools:

Informed consent form: This form was about the consent of the individuals to participate in the research and the description of the research objectives provided to them to complete before and after the research.

Demographic Characteristics: A part of the information was obtained through demographic characteristics including age, gender, education level, mastectomy (breast implant).

Lazarus and Falkman Coping Styles Questionnaire: This questionnaire was developed based on the Lazarus and Falkman Coping Strategies Inventory in 1985. This questionnaire has 66 questions. In Lazarus's coping strategies, the highest score is 100, and it has 8 sub-test. Individuals respond to each item on a four-point Likert scale that illustrates the frequency of each strategy as follows: Zero indicates "not used", one represents " very little used ", two represents "somewhat used", and three denotes "heavily used": and measures the sub-scales according to the these questions: confrontive coping: 7 and 6, 17, 28, 34, 46, distancing: 12, 13, 15, 21, 41, 44, self-control: 10, 14, 35, 43, 54, 62, 63, seeking social support: 8, 18, 22, 31, 42, 45, accepting responsibility: 9, 25, 29, 51, escape-avoidance: 11, 16, 33, 40, 47, 50, 58, 59, planful problem solving 1, 26, 39, 48, 49, 52, positive reappraisal: 20, 23, 30, 36, 38, 56, 60. The individual score on each scale is calculated from the sum of his or her scores on the questions assigned to that scale. The problem-focused part has 4 characteristics: seeking social support, accepting responsibility, planful problem-solving, and positive reappraisal and the emotion-focued part also includes 4 features of confrontation, distancing, self-control, and escape-avoidance. The reliability of the questionnaire was appropriately diagnosed by testing the internal consistency of the coping measures obtained by the Cronbach's alpha coefficient)42(. Lazarus quoted Arji (2008) reported internal consistency of a = 79% to 66% for each of the coping methods. Cronbach's alpha is 72% for focused coping with emotion and 79% for focused coping with problem)43(. In domestic studies, the reliability of the questionnaire was confirmed and its reliability varied from 0.72 to 0.87 with Cronbach's alpha method)44(.

General Self-efficacy Questionnaire: This questionnaire was designed by Sherer and Maddox (1982) to evaluate general self-efficacy with 17 items. This scale measures the general aspect of people's general self-efficacy. This questionnaire is scored on a 5-point Likert scale. Items 1, 3, 8, 9, 13, 15 are scored on a Likert scale, with scores ranging from 5 to 1, with the remaining items 2 , 4, 5, 6, 7, 10, 11, 12, 14, 16, 17 scores from 1 to 5. Thus, the highest self-efficacy score in this scale is 85 and the lowest score is 17, and the self-efficacy scores is calculated from the sum of scores. Scherer and Maddox (1982) cited the validity calculated from Cronbach's alpha for general self-efficacy at 0.76)45(. The validity of the questionnaire has also been confirmed in the domestic studies and its reliability of 80% has been reported by researchers such as Barati Bakhtiari in 1997 with Cronbach's alpha)46(. Kerameti and Shahraray reported 85% reliability coefficient using Cronbach's alpha in 2001)47(. In this study, descriptive statistical indicators (statistics) of percentage, frequency, mean and standard deviation were used to summarize sparse information. Then, Pearson correlation and independent t-test were used for statistical analysis. Data were analyzed by SPSS 16 software.

Findings: The majority of people with cancer has high school education. The results of Chi-square test also showed that there is no significant difference between two groups of people with cancer and normal people in terms of education level ($p = 0.05$, $\chi 2 = 0.04$). In other words, there was no significant difference between the number of people in each study group in the experimental and control groups. Among those with cancer, 70 percent have been housewives and 30 percent are employed. But among ordinary people, 60 percent are housewives and 40 percent are employed. The results of Chi-square test also showed that there was no significant difference between the two groups of people with cancer and the normal people in terms of employment status ($\chi 2 = 1.09$), in other words, the number of employed and housewives did not differ significantly between the two groups. According to Table 1, mean and standard deviation of coping styles have been shown in two groups of breast cancer patients and normal subjects. As observed, reappraisal had the highest mean value of 14.82 among women with breast cancer and 16.64 among healthy people and the distancing has the lowest mean value of 6.66 among those with breast cancer and 8.22 in the healthy women. Also, in the comparison of the mean and standard deviation of self-efficacy in the two groups of breast cancer patients and the normal subjects, the mean self-efficacy in the normal subjects is 37.92 and higher than those of breast cancer patients at 33.50 (Table 2). In the present study of coping styles, given the absolute value of the calculated t values and degrees of freedom [98], the t values obtained are greater than the t-value of the table (1.96), also considering the significant levels obtained (all less than 0.05) therefore, with a 95% confidence level, there is a significant difference between the coping styles and its components between breast cancer patients and normal subjects. Also, the mean of problem-focused coping styles among normal women of 47.60 is significantly higher than that of women with breast cancer (41.88) (Table 1). In the self-efficacy variable, given the calculated t value of 2.17 and the 98 degrees of freedom, the value of t obtained is greater than the value of table t (1.96), also according to the obtained significance level (which is less than 0.05), with 95% confidence, it can be concluded that there is a significant difference between self-efficacy among the breast cancer patients and normal subjects (Table 2). According to Pearson's correlation coefficient between coping styles and self-efficacy in normal women, the results showed that problem-focused style, seeking social support, accepting responsibility, planful problem-solving, and positive reappraisal have a significant and direct relationship with self-efficacy in normal women and, emotion-focused styles, confrontive coping, distancing, self-control, and escape-avoidance have a significant and inverse relationship with self-efficacy (Table 3). And there is a significant and direct relationship between coping styles and self-efficacy in women with breast cancer and, there is a significant and direct relationship between problem-focused style, seeking social support, accepting responsibility, planful problem-solving, and positive reappraisal with self-efficacy in women with breast cancer and, there is a significant and inverse relationship between self-efficacy with emotion-focused styles, confrontive coping, distancing, self-control, and escape-avoidance (Table 3).

Conclusion

Findings of the present study showed that there was a significant difference between coping styles and its components in women with breast cancer compared to normal women and, the

Table 1. Mean and standard deviation of coping styles and its components in two groups of women with breast cancer and normal women.

Indicator		Number	Mean	t-value	Significance level
Problem-focused style	breast cancer women	50	.10.56±44.88	2.73	0.007
	normal women	50	36.10±47.60		
Seeking social support	breast cancer women	50	2.49±10.04	2.39-	0.019
	normal women	50	2.09±11.14		
accepting responsibility	breast cancer women	50	2.33±6.16	3.01	0.003
	normal women	50	2.34±7.54		
planful problem-solving	breast cancer women	50	2.73±10.86	2.66-	0.009
	normal women	50	2.59±12.28		
positive reappraisal	breast cancer women	50	3.57±14.82	2.47	0.015
	normal women	50	3.79±16.64		
Emotion-focused	breast cancer women	50	11.72±37.04	2.52	0.013
	normal women	50	11.20±42.82		
confrontation	breast cancer women	50	3.31±9.06	2.28-	0.025
	normal women	50	3.52±10.62		
distancing	breast cancer women	50	2.71±6.66	2.94	0.004
	normal women	50	2.58±8.22		
Self-control	breast cancer women	50	304±10.62	2.08	0.040
	normal women	50	2.59±11.80		
Escape-avoidance	breast cancer women	50	3.31±10.70	2.32	0.022
	normal women	50	3.05±12.18		

Table 2. Mean and standard deviation of self-efficacy in two groups of women with breast cancer and normal women

Indicator		Number	Mean	t-value	Significance level
Self-efficacy	breast cancer women	50	9.76±33.50	2.17	0.033
	normal women	50	10.63±37.92		

Table 3. Correlation between coping styles and self-efficacy in normal women and women with breast cancer

Areas	subjects	Self-efficacy
Problem-focused style	breast cancer women	0.918
	normal women	0.942
Seeking social support	breast cancer women	0.908
	normal women	0.940
Accepting responsibility	breast cancer women	0.894
	normal women	0.912
Planful problem solving	breast cancer women	0.901
	normal women	0.921
Positive reappraisal	breast cancer women	0.838
	normal women	0.853
Emotion-focused style	breast cancer women	0.757
	normal women	0.891-
confrontation	breast cancer women	0.810
	normal women	0.963
distancing	breast cancer women	0.563-
	normal women	0.737
Self-control	breast cancer women	0.744
	normal women	0.835-
Escape-avoidance	breast cancer women	0.734
	normal women	0.816

** All correlations are significant at 0.01 level.

mean coping styles among normal women were significantly higher than those with breast cancer. In this regard, Hamzeh, Birami and Hashemi Nosratabadi (48) and Ahadi, Mehriar, Nafisi, Nikoufar and Jahjanian (49) stated in their research on cancer patients that, considering the importance of cancer as one of the leading causes of mortality in the world and the effect of various factors including psychological factors on its incidence, this study compared some of these factors including coping styles in healthy and cancer women. The results also showed that there was a significant difference between the two groups in terms of coping styles. Hayati and Mahmoodi (2008) in their study showed that most breast cancer patients use strategies such as religious strategy, positive attitude and hope and optimism, acceptance of the truth of the disease, trying to cure the disease, internal control, positive revision, worry, seeking social support and deliberate forgetfulness. Most of the applied coping styles by Iranian women were positive, and religious belief was used as an important individual resource for accommodation with the disease in these women [44]. In this regard, and in line with the results of this study, it was found that most people with breast cancer use a positive reappraisal strategy and, they are less likely to use strategies such as denial and withdrawal behaviors. Fortinash and Holliday's 2004 study also showed that internal control, humor, supportive systems and religion are sources of coping with stress, and these factors are associated with coping styles in people with

breast cancer (50). In 2002, Luikin and Compass also showed that cancer patients use more problem-focused coping styles in their later disease stages and after surgery. But people who are in the early months of the disease use an emotion-focused style (51). Therefore, according to the results mentioned, it is important to study coping styles in cancer because it plays an important role in dealing with people with the stresses caused by the disease.

The results of this study also indicate that there is a significant difference between self-efficacy among the breast cancer patients and normal subjects and the mean self-efficacy among normal women was significantly higher than women with breast cancer. Ranjbar Noshahri, Mohaddessi, Asadi Majreh, Hashemi, (2013) in their study, in line with the above study showed that the mean scores of self-efficacy in the normal group were higher than those of the breast cancer group. The results showed that the self-efficacy as a psychological variable has an important role in physical and mental health of people with breast cancer (52). Shoa'e Kazemi (53) and Pajers and Aachson (54) also compared the efficacy of healthy and breast cancer female subjects in a study. The results also showed that women with cancer had lower self-efficacy compared to healthy women, which is consistent with the results of the present study.

The findings of this study showed that there is a significant relationship between coping styles and self-efficacy in normal women. The results showed that the problem-focused style, seeking social support, accepting responsibility, planful problem-solving, and positive reappraisal has a significant and direct relationship with self-efficacy in normal women and, emotion-focused styles, confrontation, distancing, self-accepting and escape-avoidant have significant and inverse relationships with self-efficacy and, there is a significant relationship between coping styles and self-efficacy in women with breast cancer. The results of the above assumptions showed that problem-focused style, seeking social support, accepting responsibility, planful problem solving and positive reappraisal have a significant and direct relationship with self-efficacy in women with breast cancer and emotion-focused, confrontation, distancing, self-accepting and escape-avoidant styles have significant inverse relationship with self-efficacy. In this regard, no research was found on exactly the sample of women with breast cancer, but the research of Rezapour Mirsaleh, Abdi, Rahgardar and Reihani (55) on the sample of students showed that the positive reappraisal coping style hve significant relationship with self-efficacy, which is somewhat consistent with the results of the above study.

According to the results of this study, raising problem-focused coping styles and self-efficacy is recommended, which is recommended by health authorities to provide strategies to improve self-efficacy and change coping styles among women with breast cancer. Health authorities are suggested to work cooperate with counselors and psychologists to develop self-efficacy workshops that can have a positive impact on the coping styles of cancer patients. Self-efficacy training increases self-efficacy therefore, it is suggested to train self-efficacy in future research and examining it in its changes in coping styles of newly diagnosed breast cancer patients undergoing treatment and patients undergoing treatment and regular women, and to provide a comparative study between groups. It is suggested to investigate the effect of training problem solving methods on coping styles, self-efficacy in normal women and women with breast cancer in another study. High self-efficacy empowers women in breast self-examination and a study aimed at breast self- examination in women with self-efficacy

training and women who have not had self-efficacy training is recommended. Considering the difficulty and inaccessibility of cancer patients, it is recommended to fill in forms for patient satisfaction in medical centers so that the researcher can have easier access to the sample while the research is in progress and that more people can have a chance to benefit from research.

One of the limitations of this study is the inability to randomly select samples and not to generalize the results of this study to other communities, because this study was conducted in Mashhad and the results of this study are only generalizable to this community.

Conclusion: Problem-based coping styles are associated with high self-efficacy, and emotion-focused coping styles have inverse relationship with self-efficacy. On the one hand, high self-efficacy and problem-focused coping styles cause health-promoting behaviors and adherence to treatment.

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