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Research Article

Hardiness, Death Anxiety, and Coping Strategies in Women with Breast Cancer and Cardiovascular Disease

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Abstract

Objective: Psychological hardiness, death anxiety, and coping strategies may differ between the two groups of patients with cardiovascular disease and breast cancer.

Method: This study employs a descriptive, causal-comparative design. Subjects of this study included two groups of women with breast cancer and cardiovascular disease: 60 patients (30 cardiovascular and 30 breast cancer). Ahvaz Psychological Hardiness Scale, Collet-Lester Fear of Death Scale, and Lazarus Coping Strategies Questionnaire were used to assess the study's three variables.

Results: MANOVA results showed a significant difference in psychological hardiness and death anxiety between the two patient groups. Women with cardiovascular disease had higher hardness (F=4/84, P=0.3) and lower death anxiety (F=4/71, P=0.3) than women with breast cancer. Women with breast cancer used emotion-focused strategies more than those with cardiovascular disease, while women with cardiovascular disease used problem-focused coping strategies (F=4/42, P=0.4).

Conclusion: The type of chronic disease can affect the role of positive psychological factors in chronic diseases. Women with breast cancer have more stress and anxiety about death. They use ineffective strategies to cope with the stress.

Keywords: Hardiness, Death Anxiety, Coping Strategies, breast cancer, health psychology

How to Cite

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Extended Abstract

Background and Objective

Breast cancer is the most common and deadliest cancer in women worldwide (Plaza et al., 2021). It is third in Iran (Heydari et al., 2014). A cancer diagnosis causes anger, rage, and depression. It can also lead to loneliness, emptiness, and jealousy (Nasri et al., 2020; Khosravi et al., 2014). Another disease that is very sensitive to psychological states is cardiovascular disease. Stress is linked to high rates of cancer and heart attacks in chronic diseases. Research has linked hardiness to physical and mental diseases. Many studies have investigated hardiness in breast cancer patients (Albakova et al., 2018). Others have studied it in patients with cardiovascular and vascular issues (Najmeh, 2016). However, until now, no research has compared the hardiness of patients with these two chronic diseases. Cardiovascular diseases and breast cancer are the top two killers worldwide (Kochanek et al., 2016). Thus, another common feature in all these diseases is having death anxiety. Research by Shahan et al (2018) supports this. Cardiovascular attack patients fear death more than breast cancer patients (Roest et al., 2010). Patients with low activity and high coping modes (resignation, confrontation) had high death anxiety. Therefore, in their research, coping strategies had an effective role in death anxiety. Therefore, anxiety is often linked to coping strategies (Wittkowski et al., 2016). Stress-coping strategies are an individual's efforts to regulate their excessive emotions. These efforts can be behavioral or cognitive (Abedini et al., 2021). A problem-oriented style reduces cardiovascular disease. However, they found no link between emotion-oriented styles. People with cardiovascular diseases use emotion-oriented styles more than healthy people. However, no research has compared coping styles in cardiovascular and breast cancer patients. Therefore, the central question of the current research is how the differences in hardiness, death anxiety, and coping strategies affect patients with cardiovascular disease and breast cancer.

Material and Method

The current research is a causal-comparative study as a type of descriptive study. The statistical population of two groups (cancer and cardiovascular groups), includes 60 patients (30= cardiovascular and 30 cancer women) selected from the statistical population all women between 20-40 years old, who were admitted to the breast cancer institute and angiography departments of Imam Khomeini Hospital in Tehran during the three months of fall (Mehr, Aban, Azar) in 2022 and were diagnosed less than two months ago. The instruments used were the Ahvaz Psychological Hardiness Scale (1998), the Collett-Lester Fear of Death Scale (2014), and the Lazarus Coping Strategies Questionnaire.

Results

The results of MANOVA showed, there was a significant difference between the two groups of women. They had breast cancer and cardiovascular disease (Wilkes' lambda = 0.67, p = 0.000, and f (3, 5) = 66.4). The results of the t-test show that women with breast cancer have more death anxiety. They also use emotion-focused coping more than those with cardiovascular disease do. Women with cardiovascular disease are more resilient. They use a problem-focused coping style more than women with breast cancer do. This finding is 95% confident at a 0.05 significance level.

Discussion

Patients with advanced cancer must be optimistic. It can help them avoid a fear of death (Fischer, Cripe, & Rand, 2018). In Iran, patients often reach the advanced stage of cancer as soon as doctors diagnose them. As a result, death confronts patients and their families almost immediately. In this study, women with breast cancer used more

emotion-focused coping. Some women with breast cancer struggle with stress. They use emotion-focused coping methods. Women with breast cancer suffer from many negative emotions. These include confusion, bitterness, denial, depression, and hopelessness. Cancer patients face many challenges and goals. These can be medical, physical, emotional, interpersonal, and spiritual (Salmanian & Marashian, 2021). This study found that women with heart disease had more hardiness. They also used more problem-focused strategies. People with hardiness use problem-solving to cope with issues.

Conclusion

Breast cancer treatment can cause stress, anxiety, and depression. It is more stressful than cardiovascular disease. The treatments, including breast removal, chemo, and radiation, affect daily life. They disrupt work, sex, family life, social interactions, and leisure activities. It undergoes more sudden and extensive changes compared to heart disease. Cardiovascular disease changes a person›s lifestyle less than heart disease. So, it needs less readjustment. Researchers expect that breast cancer will hurt women more than heart disease.

Introduction

Breast cancer is the most common and deadliest cancer in women worldwide (Plaza et al., 2021). After heart disease, breast cancer is the second leading cause of death in America. It is third in Iran (Heydari et al., 2014). In Asian countries like Iran, breast cancer rates are rising (Hosseinzadeh et al., 2014). Currently, cancer is the third leading cause of death in Iran, and about 300,000 people die from cancer every year in Iran. (Azarkolah et al., 2019). It is the second most common cause of cancer-induced mortalities in Iranian women (Karimi et al., 2014). A cancer diagnosis causes a far worse, unbelievable experience than other diseases. It disrupts patients' work, social status, and family life (Dianatinasab et al., 2018). Any change in human life causes stress. A disease diagnosis can cause anger, rage, and depression. It can also lead to loneliness, emptiness, and jealousy (Nasri et al., 2020; Khosravi et al., 2014). Another disease that is very sensitive to psychological states is cardiovascular disease. This disease kills more people than any other disease in the Western world. In the U.S., over half of those over 45 die from heart or circulatory diseases (Ghasemipour & Ghorbani, 2019). The most common cause of death in the world is expected to be the leading cause of death by 2020 (Monirpoor & Khoosfi, 2018). The WHO reports that 41.3% of deaths in Iran in 2005 were due to coronary artery disease. By 2030, this is expected to rise to 44.8% (Nourisaeed et al., 2015). Anxiety, depression, social distress, conflict, and hostility can harm the heart. They can cause artery constriction, increased resistance, and irregular heartbeats. These issues can lead to heart failure (Chida & Steptoe, 2009). Stress is linked to high rates of cancer and heart attacks in chronic diseases. Some evidence suggests that stress may cause and worsen cancer and other chronic diseases (Peterson & Seligmann, 1984). Research has linked the variable of hardiness to physical and mental health issues. Many studies have shown this. Psychological hardiness is a personality trait. It builds resistance to stress. It also helps with ongoing self-reflection. It involves believing in commitment, control, and challenge (Moradi & Shaker, 2015). People use it to manage stress. They view it as an opportunity for growth, rather than a disabling experience (Sandvik, Duhan, and Sandvik, 2015). Kobasa defined hardiness as a mix of beliefs about oneself and the world. It comes from a combined effort of commitment, control, and challenge (Kobasa & Maddi, 1982). Numerous studies demonstrate that hardiness enhances physical health. It helps

people by reducing the harmful effects of stress (Maddi & Kubasa, 1994). Many studies have investigated hardiness in breast cancer patients (Albakova et al., 2018; Taheri et al., 2014; Bahrami et al., 2017; Taimory et al., 2015). Others have studied it in patients with cardiovascular and vascular issues (Shahandeh & Agha Yousefi, 2011; Najmeh, 2016; Tajikzadeh, Sadeghi, & Rais Karimian, 2015). However, until now, no research has compared the hardiness of patients with these two chronic diseases.

Cardiovascular diseases and breast cancer are the top two killers worldwide (Kochanek et al., 2016). Thus, another common feature in all these diseases is having death anxiety. It affects both the overuse and neglect of healthful behaviors (Firston & Catlett, 2009). Individuals react differently when faced with the possibility of death. They may boost health behaviors but also adopt harmful ones (Bozo, Tunca, & Simşek, 2009). Some patients feel hopeless and afraid. Others see death as a natural part of life. Soleimani et al. (2016) found that death anxiety affects cancer patients' mental health. Mahdavi et al. (2019) found it might cause physical symptoms during medical or surgical interventions.

Trauma, such as a heart attack, triggers intense death anxiety. It overshadows the worry that builds with breast cancer's slow advance. Research by Shahan et al. (2018) supports this. Cardiovascular attack patients fear death more than breast cancer patients (Roest et al., 2010). In research, Hong et al. (2022) found high levels of death anxiety in advanced cancer patients. Generally, patients with adult children, high self-esteem, and resilience had low death anxiety. Patients with low activity and high coping modes (resignation, confrontation) had high death anxiety. Therefore, in their research, coping strategies had an effective role in death anxiety.

Death is ambiguous, uncontrollable, and unchangeable. Therefore, anxiety is often linked to coping strategies (Wittkowski et al., 2016). Stress-coping strategies are an individual's efforts to regulate their excessive emotions. These efforts can be behavioral or cognitive (Abedini et al., 2021). Lazarus and Folkman (1985) identified two stress-coping methods: 1) problem-focused coping, which involves actions to change threatening conditions, and 2) emotion-focused coping, which involves thoughts or activities to control unwanted emotions associated with stress. Such styles affect how we judge events. They also set the coping needed. Patients with advanced cancer and their families face much stress. They use various methods to cope. People respond to challenges in distinct ways, adapting with personalized strategies tailored to their individual needs.

Studies show that women with breast cancer who have a 'fighting spirit' survive better than those who are compliant or feel helpless (Elsheshtawy et al., 2014; Distelhorst et al., 2015). that of anger, frustration, and a high quality of life, lowers survival rates (Simonelli, Siegel, & Duffy, 2017). In breast cancer patients, denial of the diagnosis predicts longer life (Zhu et al., 2023). Kodeboina et al. (2023) and Omran et al. (2017) found tissue supporting a link. A problem-oriented style reduces cardiovascular disease. However, they found no link between emotion-oriented styles. People with cardiovascular diseases use emotion-oriented styles more than healthy people. However, no research has compared coping styles in cardiovascular and breast cancer patients. Chronic diseases are common now. In health psychology, particularly in positive psychology, researchers aim to determine whether key health concepts can prevent and treat heart disease and breast cancer. Coping styles, hardiness, and death anxiety may hold answers in health psychology. They could solve many problems related to chronic diseases. Therefore, the central question of the current research is how the difference in hardiness, death anxiety, and coping strategies in patients with cardiovascular disease

and breast cancer patients, and the hypothesis is that there is a difference between psychological hardiness, death anxiety, and coping strategies in women with breast cancer and women with cardiovascular disease.

Method

The current research is a causal-comparative study, a type of descriptive research. The statistical population of two groups (cancer and cardiovascular groups) includes all women between 20 and 40 years old, who were admitted to the breast cancer institute and angiography departments of Imam Khomeini Hospital in Tehran during the three months of fall (Mehr, Aban, Azar) in 2022 and were diagnosed less than two months ago. The selection of the research sample was also conducted voluntarily among individuals from the statistical community who were willing to cooperate. According to this, two sample groups, including 60 patients (30 with cardiovascular disease and 30 with cancer), were selected from the statistical population. The entry criteria include a history of breast cancer and cardiovascular disease, sex (women), age (20- 40), educational level (at least elementary), and living area (Tehran). The exit criteria include having another physical illness, a history of receiving other medical interventions during the last year, disability to answer the questionnaires because of severe physical or mental disorders.

The necessary coordination was achieved with the authorities of the Breast Cancer Institute department and the angiography department of Imam Khomeini Hospital in Tehran, to conduct the research (which is a suitable center for collecting samples due to its geographical location, range, and the number of clients and providing specialized services for women). Then, the researcher (psychology graduate student), with the idea of the study, the sample characteristics, and how to conduct the research, distributed questionnaires in sample groups. Due to arrangements with the health and treatment center authorities, after preparing the questionnaires, the required numbers were given to the presenters, and they attended the clinic during working hours. She gave the questionnaires to the women who met the inclusion criteria and retrieved them after they had provided the necessary information and given them sufficient time to complete them. A total of 78 questionnaires were collected during the study. Questionnaires were reviewed, and several cases were rejected due to certain defects. Finally, 60 questionnaire packages were prepared for data entry and data analysis. The participants were asked to answer the questionnaires unassisted. Before implementing the questionnaire, the research's objectives and conditions were presented to each respondent, and Informed consent was obtained from the participants. After gaining cooperation, Questionnaires were to be completed without a time limit. At the disposal of the sample group was the time to obtain informed consent from the subjects at every stage of the study. They could withdraw from the research, keep confidential information (privacy and confidentiality), and respect and avoid Discrimination between the subjects. It was one of the ethical considerations of the research. The following Instruments have been used:

Ahvaz Psychological Hardiness Scale (1998): The Ahvaz Psychological Hardiness Scale was created by Kiamarthi et al Kiamarthi et al. (1998) created the Ahvaz Psychological Hardiness Scale. This questionnaire has 20 questions. Cronbach's alpha coefficient was used to measure the internal consistency of "The Ahvaz Hardiness Scale," and based on the results, the alpha coefficients for the entire sample, male subjects, and female subjects were 0.76, 0.76, and 0.74, respectively. To measure the reliability of the "Ahvaz hardiness scale", this test was presented again after 6 weeks to 119 students (53 boys and 66 girls). The correlation coefficients between the subjects' scores on two occasions, i.e., pre-test and re-test for all subjects, are r =

0.84; for male subjects, r = 0.84; and for female subjects, r = 0.85, which are satisfactory. For the validity of "The Ahvaz Hardiness Scale", this scale was administered simultaneously to groups of students along with four questionnaires: Maslow's self-actualization scale, a construct validity scale of hardiness, the Ahvaz Depression Scale, and an anxiety questionnaire. Correlation coefficients between the total scores of subjects on the hardiness and anxiety scales for the entire sample, female subjects, and male subjects, respectively, are 0.55, 0.70, and 0.44. These coefficients show a significant negative correlation between hardiness and anxiety. The correlation between the two scales of hardiness and depression in Ahvaz was also significant at the 0.001 level. According to the significant and satisfactory coefficients obtained in Kiamarthi et al.'s (2007) research, the Ahvaz Hardiness Scale has good reliability and validity.

Collett-Lester Fear of Death Scale (2014)*:* This 37-statement test, based on a 34-statement version, measures death anxiety. Kalt-Lester Death Anxiety Scale, revised. It is a self-test. It measures anxiety and depression linked to death. This scale contains 11 items, of which nine are minor scales. These nine scales are self-explanatory—the death of oneself, the death of others, and the death of others. There are eight sub-items based on Likert ranking criteria on all scales. The subscale times range from 8 to 90 minutes. The total score is 11 to 390 points (Nadri & Esmaili, 2004).) Also in Iran, Nadri and Easmaili (2004) used it, and Cronbach's alpha was reported to be 0.84. In his current research. In Mehdifar et al.'s (2014) study, the reliability coefficients of the questionnaire were as follows: death anxiety, 0.87; the fear of dying's consequences, 0.82; the fear of death by others, 0.73; the fear of mental torment after death, 0.67; and the fear of sudden death, 0.13. In this research, a Cronbach's alpha coefficient of 0.89 was obtained.

Lazarus Coping Strategies Questionnaire (1980)*:* It is a 66-item test. In 1984, Lazarus and Fleckman created a list of coping strategies based on it. It evaluates the thoughts and actions people use in response to stressful conditions. This test has eight subscales: 1. Confrontation, 2. Distancing, 3. Self-Control, 4. Seeking Social Support, 5. accepting responsibility, 6. escape-avoidance, 7. planned problem-solving, and 8. positive reappraisal. This test has 16 deviant statements. The other 50 assess the person's coping methods. This questionnaire has two clusters of coping strategies: a. They are problem-oriented and emotion-oriented. Problem-oriented strategies, b. Emotion-oriented strategies. Researchers standardized this test on a sample of 750 middle-aged couples. The subscales' Cronbach's alpha coefficients are confrontation = 0.70, distancing = 0.61, self-control = 0.70, seeking social support = 0.76, acceptance of responsibility = 0.66, avoidance = 0.72, planned problem solving = 0.67, and positive reappraisal = 0.79. These values state the test's good reliability. The test has high convergent validity. Additionally, PCA and varimax rotation revealed that the coping methods scale comprises 10 factors. Their factor loadings are above 0.3.

Results

In terms of gender distribution, 4 of the patients (6.7 percent) were between 20 and 25 years old, 15 people (25 percent) were between 26 and 30 years old, 14 people (23.3 percent) were between 31 and 35 years old, and 27 people (45 percent) were between 36 and 40 years old. In terms of the marriage status of sample groups, 18 people (30%) were single, 28 people (46.7%) were married, eight people (13.3%) were divorced, and six people (10%) were widows. In terms of educational level, 27 people (45%) held bachelor's degrees,

19 people (31.7%) had diplomas and advanced degrees, 12 people (20%) had associate's degrees, and two people (3.3%) held master's degrees or higher.

Table 1 shows that in women with cardiovascular disease, hardiness and problem-focused coping are higher than in women with breast cancer. However, in women with breast cancer, death anxiety and emotion-focused coping are higher than in those with cardiovascular disease.

Table 1: Descriptive index of hardiness, death anxiety, and coping strategies of two groups of women

	Breast cancer			Cardiovascular disease		
Variables	Mean	S	S2	Mean	S	S2
Hardiness	24/93	7/20	51/84	28/96	7/19	51/69
Death anxiety	41/5	12/43	154/50	34/83	10/90	118/81
Emotion-focused coping	33/63	13/87	192/37	27/36	6/03	36/36
Problem-focused coping	28	14/26	02/34	35/37	14/22	202/20

To test the study's central hypothesis, we used a multivariate analysis of variance. Women with breast cancer and those with cardiovascular disease differ in psychological hardiness, death anxiety, and coping strategies. The results of this analysis are presented in Table 2. The assumption of homogeneity of the variance-covariance matrices was tested. The test was not significant. The P value was high for hardiness, coping strategies, and death anxiety (0.05). Thus, the data assumes homogeneity. The variance-covariance matrices have not been questioned. Levin's test for equal variances was significant for all four variables. Therefore, there is no reason to suspect heterogeneity of the variances. Thus, we can use a multivariate analysis of variance.

Table 2: Levine's test of homogeneity of error variances

Variable	F	df2	df1	P
Hardiness	0.06	58	1	0.94
Death anxiety	0.22	58	1	0.63
Emotion-focused coping	0.01	58	1	0.91
Problem-focused coping	0.01	58	1	0.05

Table 3: multivariate analysis of variance of the coping strategies, hardiness, and death anxiety

Multivariate index	value	F	df	Error df	p
Pillai effect	0.32	4/66	4	55	0.002
Wilks Lambda	0.67	4/66	4	55	0.002
Hotelling's effect	0.47	4/66	4	55	0.002
Roy's Largest Root	0.47	4/66	4	55	0.002

Table 3 shows that Wickels' lambda value and its p-value are both less than 0.05. Thus, we conclude that there is a difference between the groups. See Table 4 for a detailed comparison of the two groups. It has the variance analysis results.

Table 4: Multivariate variance analysis to compare coping styles, psychological hardiness, and death anxiety in two groups of patients (df=1)

Source	SS	Df	MS	F	Sig
Between-group problem	897/06	1	897/06	4/42	0.04*
Between-group emotion	589/06	1	598/06	51/5	0.02*
Between-group hardiness	244/01	1	244/01	4/84	0.03*
Between-group death anxiety	666/66	1	666/66	4/71	0.03*
Error problem	1176/86	58	202/86		
Error emotion	6633/93	58	114/37		
Error hardiness	3004/83	58	137/61		
Error death anxiety	7981/66	58	51/80		
Total problem	73597	60			
Total emotion	63038	60			
Total hardiness	46827	60			
Total death anxiety	96050	60			

P<0/05 *

Table 4 presents the results of a one-way between-groups MANOVA. It tested for differences in hardiness, coping styles, and death anxiety between two patient groups: breast cancer patients and those with cardiovascular disease. There was a significant difference between the two groups of women. They had breast cancer and cardiovascular disease (Wilkes' lambda = 0.67, p = 0.000, and f (3, 5) = 66.4).

I used an independent t-test to compare the psychological hardiness, coping styles, and death anxiety in women with breast cancer and those with cardiovascular disease. The results of the t-test are shown in Table 5.

Table 5: Independent t-test for comparison of hardiness, death anxiety, and coping strategies between women with cardiovascular disease and breast cancer

	Breast cancer						
Variables	Mean	S	Mean	S	df	t	Sig
Hardiness	24/93	7/20	28/96	7/19	58	2/17	0/03*
Death anxiety	41/5	12/43	34/83	10/90	58	2/20	0/03*
Emotion-focused coping	33/63	13/87	27/36	6/03	58	2/26	0/03*
Problem-focused coping	28	14/26	35/37	14/22	58	2/10	0/04*

P<0/05 *

Table 5 shows that women with breast cancer have more death anxiety. They also use emotion-focused coping more than those with cardiovascular disease do. Women with cardiovascular disease are more resilient. They use a problem-focused coping style more than women with breast cancer do. This finding is 95% confident at a 0.05 significance level.

Discussion and Conclusion

The present study is one of the few studies that examines the status of hardiness in Iranian women with breast cancer and investigates its relationship with optimism. Women with cardiovascular disease have more hardiness and problem-focused coping styles than women with cancer. In other words, the cancer group had less hardiness, a problem-focused strategy, and more death anxiety and emotion-focused coping strategy than Women with cardiovascular disease did.

Of the lower amount of hardiness characteristics in the cancer women group compared to the cardiovascular women group, this finding is consistent with Albakova et al. (2020), Taheri et al. (2014), Bahrami, Mohammadi Rizi, and Mohammadi Rizi (2017), Taimuri, Khakpour, and Momeni (2015), and inconsistent with Shahandeh and AghaYousefi (2011), Najmeh (2016), and Tajikzadeh, Sadeghi, and Rais Karimian (2015). An explanation of this result could be that Most people who get cancer experience a period of psychological stress. Some patients experience more severe psychological problems that reduce the quality of life and performance (Pedram et al., 2011). Cancer endangers various aspects of mental health, and due

to the disturbance in the mental image of the person of his own body, it increases the mental tension and challenges the mental health of the person; these cases can also affect the psychological well-being of these people (Abedini et al., 2021). This situation can threaten the self-image, self-esteem, loss of feeling of freedom, physical comfort, denial, anger, depression, uncertainty, and loneliness, followed by a decrease in psychological well-being, consequences of cancer disease (Lee et al., 2006). Disappointment can harm patients' physical and mental health. It can also affect recovery. Surgery to treat cancer often leaves the body disfigured (Sarafino, 2012). However, cardiovascular disease does not change the lifestyle and appearance of women. Breast cancer treatment can cause stress, anxiety, and depression. It is more stressful than cardiovascular disease. The treatments, including breast removal, chemo, and radiation, affect daily life. They disrupt work, sex, family life, social interactions, and leisure activities. It undergoes more sudden and extensive changes compared to heart disease. Cardiovascular disease changes a person's lifestyle less than heart disease. So, it needs less readjustment. Researchers expect that breast cancer will hurt women more than heart disease. They will struggle more to stay strong. Cancer causes more stress and negative feelings, like anxiety and depression (Khanlarzadeh, Asgari, & Amini, 2015; Rahimian Boogar, 2013; DiMatteo, 2004; Levy, 2008).

Women with breast cancer fear death more than those with heart disease. This finding supports earlier research (Max Field et al., 2014; Soleimani et al., 2016; Shahan et al., 2018; Vehling et al., 2017; Nazari et al., 2021; Fischer et al., 2018; Kyota & Kanda, 2019; Hong et al., 2022). It contradicts the results presented by Roest et al. (2010). This result is due to breast cancer patients' high anxiety about death. Breast cancer is the second deadliest cancer in women, after lung cancer. It causes great stress and is life-threatening. Breast cancer patients exhibit intense responses to ambiguous mortality forecasts. This result is like that of Vehling et al. (2017) and Nazari et al. (2021) among cancer patients. Patients with advanced cancer must be optimistic. It can help them avoid a fear of death (Fischer, Cripe, and Rand, 2018). In Iran, patients often reach the advanced stage of cancer as soon as doctors diagnose them. As a result, death confronts patients and their families almost immediately. The top three items were: 1. "I fear dying a painful death." 2. "I often think about how short life is." 3. "I am not particularly afraid of getting cancer." They showed patients' true feelings. Cancer, its treatments, and its side effects cause patients great pain. Kyota and Kanda (2019) suggested that nurses must understand patients' suffering. It can affect their lives. It could reduce the distress of facing death.

In this study, women with breast cancer used more emotion-focused coping. In return, those with cardiovascular disease used more problem-focused coping. This finding supports earlier research (Salmanian & Marashian, 2021; Merckaert et al., 2023; Shuartz, 2014). But, it contradicts some studies (Islam et al., 2022; Elsheshtawy et al., 2014; Distelhorst et al., 2015). People can use psychological space to assess stressful situations. It helps them choose a good coping strategy. People see depression and anxiety as barriers to rational problem-solving. Cancer patients often have specific diseases, like cancer. These diseases inflict physical suffering and emotional distress. As a result, they fail to use problem-focused coping strategies. These strategies encompass methods for managing stress and addressing its underlying causes. This failure prevents a person from handling unwanted circumstances effectively. Ching et al (2010) stated that all human diseases are related to stress in some ways. These diseases do not include only mental or psychosomatic disorders. It includes all physical diseases, like breast cancer and heart disease.

Life events and their associated changes are among the most significant sources of stress. Some women with breast cancer struggle with stress. They use emotion-focused coping methods. Women with breast cancer suffer from many negative emotions. These include confusion, bitterness, denial, depression, and hopelessness. Cancer patients face many challenges and goals. These can be medical, physical, emotional, interpersonal, and spiritual (Salmanian & Marashian, 2021). In women with breast cancer, a strong link exists. The more they use an emotion-focused strategy, the more helpless they feel. Breast cancer patients are more likely to suppress anger. They employ a suppressive coping style to manage stress (Merckaert et al., 2023). Breast cancer patients talk less about their feelings. A study found four coping strategies in these patients (Waroquier et al., 2022). They were cognitive avoidance, normalization, finding meaning, and living in the present. Cancer patients often ruminate on disasters. They say it causes depression and negative emotions (Garnefski & Kraaij, 2006). However, Islam et al. (2022) found a complex, two-way link between coping strategies and cancer. The coping strategies of cancer patients are not fixed. They change with the disease's progression. As the disease progresses, many patients turn to acceptance and problem-focused coping. Nevertheless, some adopt negative coping, like denial. This study found that women with heart disease had more hardiness. They also used more problem-focused strategies. People with hardiness use problem-solving to cope with issues. This method transforms mental pressure into a safe and manageable experience. So, they have a low level of worry and fear of unfortunate events.

In general, based on the findings of the current research, Women with breast cancer are less healthy than those with heart disease. Group therapy is helpful for breast cancer patients. In particular, health psychologists can provide supportive psychotherapy. It is essential to maintain and improve the quality of life for these patients. We recommend examining the relationship between mental hardiness, social support, and overall well-being. We should also try to boost their mental health to help them recover and adapt to their disease.

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